FINAL ENVIRONMENTAL IMPACT REPORT

VOLUME 2

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

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

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

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PROJECT AND CUMULATIVE IMPACTS

CLUSTER 1: FINANCIAL DISTRICT/NORTH BEACH AREA[2]

This section provides a description of the Existing plus Project, 2025 Cumulative, and 2025 Cumulative plus Project transportation conditions within Cluster 1. Only one option is being proposed for each of the near-term improvements within Cluster 1.

A preferred project design has not been developed for Project 1-1. The preferred project design for Project 1-2 is described and analyzed below with no text changes. Project 1-3 is the modified project as described and analyzed in this section.

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. Level of service 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.[3]

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

Project 1-1 would add Class II bicycle lanes in both directions and a two-way center left-turn lane along Broadway between Van Ness Avenue and Webster Street. Project 1-1 would also remove one travel lane each way between Webster Street and Van Ness Avenue, add a two-way center left-turn lane from Franklin Street to approximately 280 feet eastward, and remove approximately 26 on-street parking spaces on the south side of Broadway between Franklin and Polk Streets. The proposal would change the existing westbound tow-away lane (4:00 p.m. to 6:00 p.m.) between Larkin and Van Ness Avenue to a tow-away Must Turn Right lane during the same period.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the PM peak hour period. Only one study intersection is included in Project 1-1 for the PM peak period.

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2 Unless otherwise indicated, all intersection analysis is for PM Peak Hour conditions.

3 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.

Intersection 53: Van Ness Avenue/Broadway

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS D with 42.8 seconds of delay. Due to the narrowing of three travel lanes from 11 to 10 feet and the change in lane configuration, for the westbound approach from two through lanes and a shared through-right turn lane to two through lanes and an exclusive right-turn lane the westbound delay would increase, which in turn would increase the average intersection delay by 0.5 seconds, compared to Existing conditions. Nonetheless, the intersection would operate satisfactorily at LOS D, with 43.3 seconds of average delay under Existing plus Project conditions. Therefore, the Project 1-1 would not cause a significant traffic impact to the Van Ness Avenue/Broadway intersection. Table V.1-3, p. V.A.3-193, summarizes these results.

TABLE V.1-3
CLUSTER 1 – PROJECT 1-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS WEEKDAY PM PEAK HOUR

		Existing		Existing plus Project	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS
53.	Van Ness Avenue/Broadway	42.8	D	43.3	D

Source: Wilbur Smith Associates, October 2008

Notes:

a. Delay in seconds per vehicle.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Van Ness Avenue/Broadway intersection would operate satisfactorily at LOS D, with 45.9 seconds of delay under 2025 Cumulative conditions. Due to the narrowing of three lanes from 11 to 10 feet and the change in lane configuration for the westbound approach, the westbound delay would increase, in turn increasing the average intersection delay by 0.5 seconds to 46.4 seconds per vehicle under 2025 Cumulative plus Project conditions. Therefore Project 1-1 would not cause a significant impact to the Van Ness Avenue/Broadway intersection under 2025 Cumulative plus Project conditions. Table V.1-4, p. V.A.3-194, summarizes these results.

TRANSIT

Muni bus line 30X travels eastbound (inbound) one block between Van Ness Avenue and Polk Street, during the AM peak period, with approximately 12 buses per hour, and travels westbound (outbound) during the PM peak period, with approximately eight buses per hour. There are no bus stops on this segment of Broadway.

**TABLE V.1-4
CLUSTER 1 – PROJECT 1-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR**

		2025 Cumulative		2025 Cumulative plus Project	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS
53.	Van Ness Avenue/Broadway	45.9	D	46.4	D

Source: Wilbur Smith Associates, October 2008.
Notes:
a. Delay in seconds per vehicle.

Existing and Existing plus Project Conditions

Under Existing plus Project conditions, the change of striping of westbound travel lanes between Van Ness Avenue and Polk Street would increase Muni bus delay in the PM peak hour by approximately two seconds per vehicle westbound with no additional delay in the eastbound direction. The headway for Muni bus line 30X in the PM peak period is eight minutes; the total added delay of two seconds resulting from Project 1-1 would be less than the transit delay threshold of six minutes. Therefore, there would be no significant impacts on transit capacity, operation, or travel time, or on the interactions between buses and bicyclists under Existing plus Project conditions for Project 1-1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

Under 2025 Cumulative plus Project conditions, transit delay would be increased in the PM peak hour by approximately one second per vehicle westbound with no change in the eastbound direction. The headway for Muni bus line 30X in the PM peak period is eight minutes; the total added delay of one second resulting from Project 1-1 would be less than the transit delay threshold of six minutes. Therefore, there would be no significant impacts on transit capacity, operation, or travel time, as well as on the interactions between buses and bicyclists with Project 1-1 under 2025 Cumulative plus Project conditions for Project 1-1.

PARKING

There are approximately 190 existing on-street parking spaces on both sides of Broadway between Polk and Webster Streets. Project 1-1 would remove approximately 21 on-street parking spaces on the south side of Broadway between Franklin and Polk Streets. Eight of those parking spaces would be removed between Franklin Street and Van Ness Avenue, and 13 would be removed between Van Ness Avenue and Polk Street. Since existing parking occupancy along Broadway is generally high, the loss of 21 spaces in these two blocks would increase the occupancy rate in the area.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact as under the CEQA but rather a social effect. The loss of parking may cause potential, indirect physical effects, which would include cars circling and looking for a parking space on neighboring streets. The secondary effects of drivers searching for parking is typically offset 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 that may result from a shortfall in parking in the vicinity of Project 1-1 would be minor. The changes in on-street parking also would not cause any secondary physical impacts, such as traffic congestion, air quality impacts, or noise impacts caused by congestion. Therefore, there would be no significant parking impacts with implementation of Project 1-1.

PEDESTRIAN

Pedestrian volumes are generally low during the day except at the school locations during school arrival and dismissal. There would be no changes in sidewalk width or crosswalk layout, and the interactions between pedestrians and bicyclists would not change as a result of Project 1-1. Therefore, there would be no pedestrian impacts caused by Project 1-1.

BICYCLE

The proposed Class II bicycle lane would provide a clear right-of-way for bicyclists, but would be affected by substantial passenger unloading and loading during the school arrival and dismissal periods.

As a result of the removal of eight on-street parking spaces on the south side of Broadway between Franklin Street and Van Ness Avenue in front of Saint Brigid School, the student pick-up and drop-off activities would occur in the proposed bicycle lane and could raise a potential safety concern for bicyclists caused by the change in the bicycling environment, when eastbound bicyclist would be forced to merge with motor vehicles in the eastbound travel lane. Currently, bicyclists ride with general traffic; but with Project 1-1, eastbound bicyclists passing by Saint Brigid School during pick-up/drop-off hours would likely be forced to merge with general traffic to avoid cars stopped in the bicycle lane. Since this would not be substantially different from existing conditions, there would be no significant bicycle impacts due to Project 1-1 at this location.

School children pick-up activities and vehicle queuing occurring on the north side of Broadway between Laguna and Webster Streets near the Hamlin and Convent of the Sacred Heart schools would also take place in the proposed bicycle lane due to the removal of one of the two westbound travel lanes. Westbound bicyclists would be required to pass to the left of vehicles waiting in front of Hamlin School and merge with the general traffic. Furthermore under these conditions, there would also be potential for bicycle/motor vehicle conflicts at the Webster Street intersection where Convent School vehicles would pull over to the passenger zone lane at the curb, cutting across the bicycle lane. However, because this would not be substantially different from existing conditions and westbound bicycle volumes during the peak school arrival and dismissal periods are low, there would be no significant bicycle impacts due to Project 1-1 at this location.

LOADING

The segment of Broadway west of Van Ness Avenue is mostly residential but also includes two schools. Between Van Ness Avenue and Polk Street, there are some commercial uses that rely on on-street parking spaces for loading. After the removal of on-street parking on the south side of Broadway between Polk and Franklin Streets, delivery vehicles would be forced to look for alternative spaces on Polk Street or Van Ness Avenue or, alternatively, to stop and load/unload in the bicycle lane.

The *San Francisco Transportation Code* Section 38N allows vehicles to temporarily block a bicycle lane during weekday midday, but not during the AM (7:00 a.m. to 9:00 a.m.) and PM (4:00 p.m. to 6:00 p.m.) peak periods. Thus, any delivery to be made during the AM and PM peak periods must seek a space one block away or along the perpendicular streets. Parked trucks using the bicycle lane for delivery during weekday midday would temporarily block the proposed bicycle lane and partially encroach onto the eastbound travel lane. Because truck loading demand in general is low in these two blocks and no double parking has been observed,[4] no significant commercial freight loading impacts would be expected from Project 1-1 at this location.

The removal of on-street parking between Franklin Street and Van Ness Avenue would affect school passenger loading in front of Saint Brigid School during school arrival and dismissal times. Double parking would likely occur for passenger loading, causing temporary traffic congestion. Similarly, the removal of one westbound travel lane on the north side of Broadway between Buchanan and Webster streets would affect passenger loading in front of the Hamlin School during school arrival and dismissal times. This would also likely lead to double parking

[4] Field surveys were conducted by CHS Consulting on Tuesday, August 21, 2007 during the midday.

and associated temporary congestion including potential traffic impacts affecting vehicles attempting to reach the Covenant of the Sacred Heart School one block to the west on the north Side of Broadway between Webster and Fillmore. Therefore, Project 1-1 would result in significant impacts to passenger loading under Existing plus Project and 2025 Cumulative plus Project conditions (Significant Impact TR-P1-1a, TR-P1-1b, TR-P1-1c, and TR-P1-1d).

Significant Impact 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 on the south side of Broadway between Franklin Street and Van Ness Avenue for the students of Saint Brigid School under Existing plus Project conditions for the AM peak. Parking removal would not include changes to passenger loading during non-peak periods on weekdays or at any time on weekends.

Significant Impact 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 on the south side of Broadway between Franklin Street and Van Ness Avenue for students of Saint Brigid School under 2025 Cumulative plus Project conditions.

Significant Impact 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.

Significant Impact 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 on the north side of Broadway between Buchanan and Webster Streets for the students of Hamlin School under 2025 Cumulative plus Project conditions.

PROJECT 1-2: BROADWAY TUNNEL SIGNAGE IMPROVEMENTS

Project 1-2 would add a blank-out advance warning sign in for eastbound traffic at Hyde Street that would be activated by a push-button and loop detector located at Larkin Street. Project 1-2 would also add a non-electronic warning sign advising westbound bicyclists use Broadway Street instead of the Broadway Tunnel, mid-block between Mason and Powell Streets. Sharrows would be painted in the tunnel in the eastbound direction and along the Broadway frontage road in the westbound direction.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

Muni bus line 30X travels eastbound (inbound) on Broadway during the AM peak period, with approximately 12 buses per hour, and travels westbound (outbound) during the PM peak period, with approximately eight buses per hour. There are no Muni bus stops in this segment of Broadway. Currently, buses and bicyclists share the road and yield to each other.

The proposed flashing sign would warn drivers, including Muni drivers, and increase their awareness of bicycle travel within the tunnel; these changes would improve the current interactions between buses and bicyclists and would not impact transit capacity, operation, or travel time. Therefore, there would be no significant transit impacts with implementation of Project 1-2

PARKING

There is no parking allowed in the Broadway Tunnel; therefore, there would be no parking impacts resulting from Project 1-2.

PEDESTRIAN

Pedestrians walking in the Broadway Tunnel use the elevated sidewalks which are physically separated from vehicular and bicycle traffic. No changes to the sidewalks are proposed as part of the Project 1-2, therefore, there would be no pedestrian impacts resulting from Project 1-2.

BICYCLE

Bicyclists would benefit from the proposed signage and activation devices because activating the advance flashing warning signs would alert motorists about the presence of bicyclists sharing the road within the tunnel. The installation of sharrow would increase motor vehicle drivers' awareness that bicyclists may be on the road. Therefore, Project 1-2 would not result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

Loading activity is not permitted in the Broadway Tunnel; therefore, there would be no loading impacts as a result of Project 1-2.

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

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

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the PM peak hour period. Four study intersections are included in Project 1-3 for the PM peak period. Tables V.1-5, p. V.A.3-200, and Table V.1-6, p. V.A.3-200 summarize the intersection levels of service and delay results for all the study intersections for both Existing plus Project and 2025 Cumulative plus Project conditions. For the purposes of this Project 1-3 discussion, please refer to Table 1-5 for Existing plus Project results and to Table 1-6 for Cumulative plus Project results.

Tables C&R-2 and C&R-3, p. V.A.3-212a and V.A.3-212b, summarize these results.

TABLE C&R-2
PROJECT 1-3
INTERSECTION LOS AND AVERAGE DELAY - WEEKEND PEAK HOUR

	Existing			Existing plus Project			2025 Cumulative			2025 Cumulative plus Project		
Intersection	**LOS**	**Average Delay**	**V/C**	**LOS**	**Average Delay**	**V/C**	**LOS**	**Average Delay**	**V/C**	**LOS**	**Average Delay**	**V/C**
#45 – Van Ness Avenue/ North Point Streeta	C	18.7	0.71	E	42.2	1.03	D	26.3	0.85	F	75.9	1.21
#46 – Columbus Avenue/ North Point Street	B	16.6	0.50	B	17.6	0.51	B	17.3	0.56	B	18.7	0.58
#47 – The Embarcadero/ North Point Street	C	24.3	0.45	C	25.3	0.57	C	25.1	0.51	C	26.9	0.65
#51 – Polk Street/ North Point Street	B	13.6	0.53	B	15.2	0.53	B	15.4	0.64	B	17.2	0.64

Source: Wilbur Smith Associates, February, 2009.

Note:

a. Intersection 45 is an unsignalized intersection. The LOS definitions for unsignaized intersections differ from those for signalized intersections.

TABLE C&R-3
PROJECT 1-3
INTERSECTION LOS AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES- WEEKEND PEAK HOUR

	2025 Cumulative			2025 Cumulative plus Project			2025 Cumulative plus Project With Mitigation		
Intersection	**LOS**	**Average Delay**	**V/C**	**LOS**	**Average Delay**	**V/C**	**LOS**	**Average Delay**	**V/C**
#45 – Van Ness Avenue/ North Point Streeta	D	26.3	0.85	F	75.9	1.21	C	29.0	0.84

Source: Wilbur Smith Associates, February, 2009.

Note:

a. Intersection 45 is an unsignalized intersection. The LOS definitions for unsignaized intersections differ from those for signalized intersections.

TABLE V.1-5
CLUSTER 1 – PROJECT 1-3 INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing		Existing plus Project	
Intersection		Average Delay[a]	LOS	Average Delay[a]	LOS
45.	Van Ness Avenue/North Point Street	14.4	B	28.4	C
46.	Columbus Avenue/North Point Street	14.7	B	15.6	B
47.	The Embarcadero/North Point Street	26.0	C	27.1	C
51.	Polk Street/North Point Street	16.2	B	17.6	B

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

TABLE V.1-6
CLUSTER 1 – PROJECT 1-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative		2025 Cumulative plus Project	
Intersection		Average Delay[a]	LOS	Average Delay[a]	LOS[b]
45.	Van Ness Avenue/North Point Street	17.6	B	**57.6**	**E**
46.	Columbus Avenue/North Point Street	15.4	B	16.5	B
47.	The Embarcadero/North Point Street	30.1	C	32.4	C
51.	Polk Street/North Point Street	35.7	D	37.0	D

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 45: Van Ness Avenue/North Point Street

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS B with 14.4 seconds of delay. The westbound lane configuration at the intersection of Van Ness Avenue/North Point Street would be modified from an exclusive left-turn lane and a split left-right turn lane to one split left-right turn lane. Due to the removal of the exclusive left-turn lane, the westbound delay under

Existing plus Project conditions would increase, increasing the average intersection delay by 14 seconds, compared to Existing conditions. The intersection would still operate satisfactorily at LOS D, with 28.4 seconds of overall delay under Existing plus Project conditions. Therefore, Project 1-3 would not cause a significant impact to the Van Ness Avenue/North Point Street intersection.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Van Ness Avenue/North Point Street intersection would operate unsatisfactorily at LOS E, with 57.6 seconds of delay under 2025 Cumulative plus Project conditions, compared to LOS B and 17.6 seconds of delay under 2025 Cumulative conditions. Because the westbound critical movements at Van Ness Avenue/North Point Street either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions a significant impact (Significant Impact TR-P1-3a) would occur at the Van Ness Avenue/North Point Street intersection with the implementation of Project 1-3.

Intersection 46: Columbus Avenue/North Point Street

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS B with 14.7 seconds of delay. The westbound lane configuration at the intersection of Columbus Avenue/North Point Street would be modified from a shared through-left turn lane and a shared through-right turn lane to a shared left-through-right turn lane. Due to the reduction of capacity in the westbound approach under Existing plus Project conditions, there would be a slight increase in delay. The average intersection delay would increase by 0.9 seconds, compared to Existing conditions but the intersection would continue to operate satisfactorily at LOS B, with 15.6 seconds of delay under Existing plus Project conditions. Therefore, Project 1-3 would not cause a significant traffic impact to the Columbus Avenue/North Point Street intersection.

2025 Cumulative and 2025 Cumulative plus Project Conditions

Under 2025 Cumulative plus Project conditions, the intersection delay at Columbus Avenue/North Point Street would increase by 1.1 seconds, compared to 2025 Cumulative conditions and would continue to operate satisfactorily at LOS B, with 16.5 seconds of delay under 2025 Cumulative plus Project condition. Therefore, Project 1-3 would not cause a significant impact to the Columbus Avenue/North Point Street intersection.

Intersection 47: The Embarcadero/North Point Street

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 26 seconds of delay. The eastbound lane configuration at the intersection of The Embarcadero/North Point Street would be modified from an exclusive right-turn lane and a shared left-through-right turn lane to one shared left-through-right turn lane. Due to the proposed removal of the exclusive right-turn lane, the eastbound delay would increase under Existing plus Project conditions and the average intersection delay would in turn increase by 1.1 seconds, compared to Existing conditions. The intersection would continue to operate satisfactorily at LOS C, with 27.1 seconds of delay under Existing plus Project conditions. Therefore, Project 1-3 would not cause a significant impact to The Embarcadero/North Point Street intersection.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Embarcadero/North Point Street intersection delay under 2025 Cumulative plus Project conditions would increase by 2.3 seconds compared to 2025 Cumulative conditions. The intersection would continue to operate satisfactorily at LOS C with 32.4 seconds of delay under 2025 Cumulative plus Project conditions. Therefore, Project 1-3 would not cause a significant impact to The Embarcadero/North Point Street intersection.

Intersection 51: Polk Street/North Point Street

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS B with 16.2 seconds of delay. The westbound lane configuration at the intersection of Polk Street/North Point Street would be modified from a shared through-left turn lane and a shared through-right turn lane to a shared left-through-right turn lane. Under Existing plus Project conditions, with the reduction of capacity in the westbound approach, there would be an increase in delay. The overall intersection delay would increase by 1.4 seconds, compared to Existing conditions but the intersection would continue to operate satisfactorily at LOS B, with 17.6 seconds of delay under Existing plus Project conditions as shown in Table V.1-5, p. V.A.3-200. Thus, Project 1-3 would not cause a significant impact to the Polk Street/North Point Street intersection.

2025 Cumulative and 2025 Cumulative plus Project Conditions

Under 2025 Cumulative plus Project conditions, the overall delay at the intersection of Polk Street/North Point Street would increase by 1.3 seconds compared to 2025 Cumulative conditions, and it would continue to operate satisfactorily at LOS D with 37 seconds of delay under 2025 Cumulative plus Project conditions as shown in Table V.1-6, p. V.A.3-200. Thus, Project 1-3 would not cause a significant impact to the Polk Street/North Point Street intersection.

Significant Impact 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, compared to LOS B under 2025 Cumulative conditions.

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.

Project 1-3 includes the lengthening of three existing westbound bus stops on North Point Street: at Polk Street (from 60 feet to 100 feet), at Hyde Street (from 70 feet to 120 feet), and at The Embarcadero (from 75 feet to 80 feet). There would also be extension of three eastbound bus stops on North Point Street: at Hyde Street (from 85 feet to 120 feet), at Jones Street (from 80 feet to 100 feet), and at The Embarcadero (from 75 feet to 100 feet). Currently, because of high transit volumes, when several buses simultaneously arrive at the same bus stop, some are forced to protrude into the travel lane or the intersection due to lack of space. Extending the length of bus zones would allow more buses to be accommodated at the bus stops without obstructing the proposed bicycle lane and thus, minimize the potential conflicts with bicyclists and potentially reduce the dwell time for bus loading. Temporary localized conflicts between transit and double-parked trucks could increase because of the removal of a travel lane. However, the traffic analysis shows that there is adequate roadway capacity to handle these temporary conflicts without a significant impact to transit.

Existing and Existing plus Project Conditions

Under Existing plus Project conditions in the PM peak hour for the full length of Project 1-3, the removal of one travel lane on North Point Street between Van Ness Avenue and The Embarcadero would add approximately 55 seconds of delay per transit vehicle westbound and decrease delay by approximately 2 seconds per vehicle eastbound. For transit vehicles operating along some portion of North Point Street between The Embarcadero and Columbus Avenue, Project 1-3 would add approximately 20 seconds of delay per vehicle westbound with no change in delay eastbound. For transit vehicles operating along some portion of North Point Street between Columbus and Van Ness Avenues, Project 1-3 would add approximately 36 seconds of delay per vehicle westbound with no change in delay eastbound.

Muni. For Muni bus lines 10 and 47 operating along all or a significant portion of Project 1-3, approximately 53 seconds of total delay per vehicle would be added in the PM peak hour. For Muni bus lines 9X and 9BX operating westbound on North Point Street between Kearny and Powell Streets, approximately 20 seconds of total delay per vehicle would be added. For Muni bus lines 20 and 30 operating only between Columbus and Van Ness Avenues, a total of 36 seconds of delay per vehicle would be added. No delay would be added to Muni bus lines 19 and 39 since they travel along North Point Street in the eastbound direction only. The headways for Muni bus lines operating on North Point Street in the PM peak period are greater than six minutes with the exception of Muni bus line 30 which is 4.5 minutes. The total added delay per vehicle for the Muni bus lines discussed above resulting from Project 1-3 would be less than the transit delay threshold of six minutes or the headway of Muni bus line 30.

GGT. For GGT bus lines (2, 4, 8, 18, 24, 26, 27, 38, 44, 54, 56, 58, 60, 72, 73, 74, and 76) operating on North Point Street in the westbound direction, approximately 53 seconds of total delay per vehicle would be added in the PM peak hour. The headways for these GGT bus line are 10 minutes or greater in the PM peak hour; the total added delay per vehicle for the GGT bus lines discussed above resulting from Project 1-3 would be less than the transit delay threshold of six minutes.

Since the total added delay for Muni and GGT bus lines operating on North Point Street in the PM peak hour would be less than the transit delay threshold of six minutes or, in the case of Muni bus line 30, the bus line headway and modifications to the bus stops would not negatively affect transit operations, a significant transit impact would not occur with implementation of Project 1-3 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions

Under 2025 Cumulative plus Project conditions in the PM peak hour for the full length of Project 1-3, the removal of one travel lane on North Point Street between Van Ness Avenue and The Embarcadero would add approximately 106 seconds (1.8 minutes) of delay per transit vehicle westbound and approximately 10 seconds of delay per vehicle eastbound. For transit vehicles operating along some portion of North Point Street between The Embarcadero and Columbus Avenue, Project 1-3 would add approximately 20 seconds of delay per vehicle westbound and 10 seconds of delay per vehicle eastbound. For transit vehicles operating along some portion of North Point Street between Columbus and Van Ness Avenues, Project 1-3 would add approximately 80 seconds (1.3 minutes) of delay per vehicle westbound with no change in delay eastbound.

Muni. For Muni bus lines 10 and 47 operating along all or a significant portion of Project 1-3, approximately 96 seconds (1.6 minutes) of total delay per vehicle would be added in the PM peak hour. For Muni bus lines 9X and 9BX operating westbound on North Point Street between Kearny and Powell Streets, approximately 80 seconds (1.3 minutes) of total delay per vehicle would be added. For Muni bus lines 20 and 30 operating only between Columbus and Van Ness Avenues, a total of 30 seconds of delay per vehicle would be added. No delay would be added to Muni bus lines 19 and 39 since they travel along North Point Street in the eastbound direction only. The headways for Muni bus lines operating on North Point Street in the PM peak period are greater than six minutes with the exception of Muni bus line 30 which is 4.5 minutes. The total added delay per vehicle for the Muni bus lines discussed above resulting from Project 1-3 would be less than the transit delay threshold of six minutes or the headway of Muni bus line 30.

GGT. For GGT bus lines (2, 4, 8, 18, 24, 26, 27, 38, 44, 54, 56, 58, 60, 72, 73, 74, and 76) operating on North Point Street in the westbound direction, approximately 96 seconds (1.6 minutes) of total delay per vehicle would be added in the PM peak hour. The headways for these GGT bus line are 10 minutes or greater in the PM peak hour; the total added delay per vehicle for the GGT bus lines discussed above resulting from Project 1-3 would be less than the transit delay threshold of six minutes.

Since the total added delay for Muni and GGT bus lines operating on North Point Street in the PM peak hour would be less than the transit delay threshold of six minutes or, in the case of Muni bus line 30, the bus line headway and modifications to the bus stops would not negatively affect transit operations, a significant transit impact would not occur with implementation of Project 1-3 under 2025 Cumulative plus Project conditions.

PARKING

There are a total of approximately 252 existing on-street parking spaces on both sides of North Point Street between The Embarcadero and Van Ness Avenue. Due to the extension or removal of bus zones, Modified Project 1-3 would require the removal of approximately eight on-street parking spaces at the following locations of North Point Street: north side, west of Polk Street two spaces; north side east of Hyde Street two spaces; south side east of Hyde Street two spaces; south side west of Jones Street one space; south side west of The Embarcadero one space; for a net loss of eight parking spaces. Parking occupancy in the area is typically moderate to high, but this minor parking change would not substantially increase the occupancy rates in the area. The removal of eight parking spaces on North Point Street may cause some of the vehicles to park on the adjacent streets. However, this amount of parking loss would not be considered a significant impact.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under CEQA, but rather a social effect. The loss of parking may cause potential indirect physical effects, which would include drivers circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers, aware of constrained parking conditions in a given area, shifting travel modes. Hence, any secondary environmental impacts that may result from a shortfall in parking would be minor. Therefore, any net reduction in on-street parking supply would not result in significant parking impacts. Thus, there would be no significant parking impacts with implementation as a result of Modified Project 1-3.

PEDESTRIAN

Pedestrian volumes are generally low to moderate in this corridor except near the Fisherman's Wharf area which experiences heavy pedestrian volumes. There would be no changes in sidewalk width, crosswalk layout or in the interaction between pedestrians and bicyclists as a result of Project 1-3. Therefore, there would be no pedestrian impacts as a result of Project 1-3.

BICYCLE

Current loading activity and double-parking along the mid-section of the North Point Street corridor would continue, and it is possible that double-parking could occur in the proposed Class II bicycle lane, partially blocking the adjacent travel lane. This activity would raise a potential safety concern for bicyclists because of the change in the bicycle environment and bicyclists riding in the bicycle lane would be forced to merge with general traffic to avoid a parked vehicle. In general, loading activity at this location typically takes place during the midday when bicycle volumes are generally low. In addition, the necessity for bicyclists to avoid double parked vehicles either in the bicycle lane or travel occurs under current conditions. Therefore, the interactions between loading vehicles and bicyclists would not change with implementation of Project 1-3; therefore, there would be no significant bicycle impacts. Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. Hence, Project 1-3 would not have a significant impact on cyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

Land uses along this segment of North Point Street vary between sections east and west of Columbus Avenue. East of Columbus Avenue, there are several hotels, the North Point Shopping Center, and active commercial uses in the mid-section. Loading demand in this section of North Point Street is heavier than the west side and occasional double parking has been observed.[5] The east side has mostly residential uses, except the section near Larkin Street where there are small-scale commercial uses. Because there is heavy loading activity and frequent double-parking along the mid-section of this corridor, the removal of one westbound travel lane with Project 1-3 could potentially increase the impact of this double-parking on

[5] Field surveys were conducted by CHS Consulting on Tuesday, August 21, 2007 during the midday.

bicyclists and general traffic because the proposed bicycle lane and/or the single travel lane would be obstructed. Double parking along the single travel lane could potentially result in a safety issue because in order to bypass double-parked trucks, vehicles would have to use the opposing lane which could lead to conflicts with oncoming vehicles. No designated yellow commercial freight loading spaces would be removed as part of Project 1-3. However, as a result of Project 1-3, there may be safety issues resulting from vehicles crossing into the opposing travel lane to navigate around double-parked vehicles. Therefore, there would be a significant loading impact (Significant Impact TR-P1-3b and TR-P1-3c) caused by Project 1-3.

Significant Impact TR-P1-3b:

Due to double-parked vehicles and the removal of general travel lanes, a significant loading impact would occur along North Point Street east of Columbus Avenue as a result of Project 1-3 under Existing plus Project conditions.

Significant Impact TR-P1-3c:

Due to double-parked vehicles and the removal of general travel lanes, a significant loading impact would occur along North Point Street, on the east side of the street, near Larkin Street as a result of Project 1-3 under 2025 Cumulative plus Project conditions.

CLUSTER 1: SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impact 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 4:00 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 on the south side of Broadway between Franklin Street and Van Ness Avenue for the students of Saint Brigid School under Existing plus Project conditions for the AM peak. Parking removal would not include changes to passenger loading during non-peak periods on weekdays or at any time on weekends.

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.

Significant Impact 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 on the south side of Broadway between Franklin Street and Van Ness Avenue for students of Saint Brigid School under 2025 Cumulative plus Project conditions.

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.

Significant Impact 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.

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 a.m. to 8:30 a.m. and from 2:00 p.m. 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.

Significant Impact TR-P1-1d:

Similar to that described above for Significant Impact M-TR-P1-1c, above, Project 1-1 would result in a significant impact to passenger loading on the north side of Broadway between Buchanan and Webster Streets for the students of Hamlin School under 2025 Cumulative plus Project conditions.

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.

Significant Impact 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, compared to LOS B under 2025 Cumulative conditions.

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. The criteria for signal warrants were satisfied.[6] Therefore, signalization of this intersection was proposed as the mitigation measure.

The intersection shall be converted from a three-way stop-controlled (FWSC) intersection to a signalized intersection (with the application of 90 seconds of cycle length) to improve intersection operations. With this improvement, the intersection operation would improve to LOS B, with 19 seconds of delay and a V/C ratio of 0.65. The intersection operations would improve from LOS E to LOS B for 2025 Cumulative plus Project conditions. Minimum green times required for pedestrians to cross the intersection would be maintained to the signal. Hence, this mitigation measure would reduce impacts of Project 1-3 to a less-than-significant level. Table V.1-7, p. V.A.3-210, summarizes the LOS results after this mitigation measure is applied.

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6 Wilbur Smith Associates. 2008. The result may be found in the Appendices for the TIS. A copy of this report may be viewed by appointment at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 as part of Case File 2007.0347E.

TABLE V.1-7
CLUSTER 1 – PROJECT 1-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

	2025 Cumulative plus Project		2025 Cumulative plus Project with Mitigation Measures	
Intersection	**Average Delay[a]**	**LOS[b]**	**Average Delay[a]**	**LOS**
45. Van Ness Avenue/North Point Street	**57.6**	**E**	19	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.

Significant Impact TR-P1-3b:

Due to double-parked vehicles and the removal of general travel lanes, a significant loading impact would occur along North Point Street east of Columbus Avenue as a result of Project 1-3 under Existing plus Project conditions.

M-TR-P1-3b:

No feasible mitigation measures have been identified to mitigate this loading impact. Therefore, a significant loading impact would occur along North Point Street east of Columbus Avenue, with implementation of Project 1-3 under Existing plus Project conditions.

Significant Impact TR-P1-3c:

Due to double-parked vehicles and the removal of general travel lanes, a significant loading impact would occur along North Point Street, east of Columbus Avenue as a result of Project 1-3 under 2025 Cumulative plus Project conditions.

M-TR-P1-3c:

No feasible mitigation measures have been identified to mitigate this loading impact. Therefore, a significant loading impact would occur along North Point Street, east of Columbus Avenue with implementation of Project 1-3 under 2025 Cumulative plus Project conditions.

CLUSTER 2: SOUTH OF MARKET AREA[7]

This section provides a description of the Existing plus Project and 2025 Cumulative and 2025 Cumulative plus Project transportation conditions for the near-term improvements in Cluster 2. Projects 2-3 (partially), 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.

The preferred project design for near-term improvements in Cluster 2 are the following options: Project 2-3 Option 1, Project 2-5 Option 1, Project 2-6 Option 2, Project 2-7 Option 1, Project 2-8 Option 1, Project 2-9 Option 1, Project 2-12 Option 1, and Project 2-13 Option 1. These are described and analyzed below with no text changes. Project 2-1 Modified Option 1, Project 2-2 Modified Option 2, Modified Project 2-4 , Modified Project 2-10, Project 2-11 Modified Option 1, Project 2-14, and Project 2-16 Modified Option 1 are the modified projects as described and analyzed in this section.

Figures showing the turning movement traffic volumes and lane configurations at the study intersections in Cluster 2 for Existing plus Project, 2025 Cumulative, and 2025 Cumulative plus Project conditions may be found within the transportation impact analysis discussion for Cluster 2 within the Transportation Impact Study. Level of service calculation sheets for those intersections and transit delay calculation sheets for affected transit routes may be found in the appendices of the Transportation Impact Study.[8]

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

[7] Unless otherwise indicated, all intersection analysis is for PM Peak Hour conditions.

[8] 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.

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.

Both Options 1 and 2 would add a Class II bicycle lane in both directions between King and Market Streets, except the following three sections where sharrows would be added instead:

- Northbound approach to Market Street,
- The section between Harrison and Bryant Streets in the northbound direction, and
- The southbound approach to King Street

Option 1 would remove one southbound travel lane between Market and Mission Streets, one travel lane in both directions between Mission and Harrison Streets, and one northbound travel lane between Harrison and Townsend Streets. Additional left turn and right pockets would be added at various intersections in both northbound and southbound directions.

Option 2 would remove one southbound travel lane between Market and Mission Streets, one travel lane in both directions between Mission and Harrison Streets, and one southbound travel lane between Harrison and Townsend Streets. Additional left turn and right-turn pockets would be added at various intersections in both northbound and southbound directions.

Option 1 would also remove approximately 97 on-street parking spaces and Option 2 would remove approximately 88 on-street parking spaces between Market and King Streets.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for this project for the PM peak hour at six intersections. The level of service at the six study intersections for Project 2-1 were recalculated and two new study intersections were added to analyze the lane arrangement of Modified Option 1. Tables C&R-9 and C&R-10, p. V.A.3-212a and V.A.3-212b, summarize these results.

Six study intersections are included for the PM Peak Hour for Project 2-1. Table V.2-13, p. V.A.2-c, and Table V.2-14, p. V.A.2-213, summarize these results under Existing plus Project and 2025 Cumulative plus Project conditions respectively.

Table C&R-9
Project 2-1 Intersection Level of Service (LOS) and Average Delay
Existing and Existing plus Project Conditions
Weekday PM Peak Hour

		Existing		Existing plus Project Modified Option 1		Existing plus Project Option 1	
Draft EIR Study Intersection		**Average Delay[a]**	**LOS[b] | V/C[d]**	**Average Delay[a]**	**LOS[b] | V/C[d]**	**Average Delay[a]**	**LOS[b] | V/C[d]**
1.	2nd Street/Bryant Street	**E ; 1.238**	**E ; 1.238**	**62.1**	**E ; 1.238**	**>80**	**F; 1.379**
2.	2nd Street/Harrison Street	**E ; 1.169**	**E ; 1.128**	**79.2**	**E ; 1.128**	**>80**	**F; 1.171**
3.	2nd Street/Folsom Street	D	D	35.8	D	76.5	**E; 1.063**
4.	2nd Street/Howard Street	C	C	34.9	C	22.4	C
5.	2nd Street/Brannan Street	B	B	16.5	B	15	B
6.	2nd Street/Townsend Street [c]	B	B	15.0	B	20	C
63. (additional)	Howard Street/New Montgomery Street [e]	B	B	16.5	B	-	-
64. (additional)	Folsom Street/Hawthorne Street [e]	B	C	16.3	B	**-**	**-**

Notes:
a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions highlighted in bold.
c. LOS and average delay for combined impacts for Projects 2-1 and 2-16.
d. V/C (Volume to Capacity) ratio for intersections operating at LOS E or LOS F.
e. Intersection added for analysis under Modified Option 1.

Table C&R-10
Project 2-1 Intersection Level of Service (LOS) and Average Delay
2025 Cumulative and 2025 Cumulative plus Project Conditions
Weekday PM Peak Hour

Draft EIR Study Intersection		2025 CUMULATIVE		2025 CUMULATIVE plus Project Modified Option 1		2025 CUMULATIVE plus Project Option 1	
		Average Delay[a]	LOS[b] | V/C[d]	Average Delay[a]	LOS[b] | V/C[d]	Average Delay[a]	LOS[b] | V/C[d]
1.	2nd Street/Bryant Street	**>80**	**F ; 1.451**	**>80**	**F ; 1.451**	**>80**	**F; 1.611**
2.	2nd Street/Harrison Street	**>80**	**F ; 1.428**	**>80**	**F ; 1.358**	**>80**	**F; 1.505**
3.	2nd Street/Folsom Street	**>80**	**F ; 1.558**	**>80**	**F ; 1.388**	**>80**	**F; 1.489**
4.	2nd Street/Howard Street	**>80**	**F ; 1.224**	**>80**	**F ; 1.373**	**>80**	**F; 1.450**
5.	2nd Street/Brannan Street	16.1	B	31.7	C	52.4	D
6.	2nd Street/Townsend Street [c]	15.8	B	17.5	B	55.1	**E; 0.849**
63. (additional)	Howard Street/New Montgomery Street [e]	24.7	C	45.1	D	-	-
64. (additional)	Folsom Street /Hawthorne Street [e]	43.2	D	23.3	C	-	-

Notes:
a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions highlighted in bold.
c. LOS and average delay for combined impacts for Projects 2-1 and 2-16.
d. V/C (Volume to Capacity) ratio for intersections operating at LOS E or LOS F.
e. Intersection added for analysis under Modified Option 1.

TABLE V.2-13
CLUSTER 2 – PROJECT 2-1 [c]
INTERSECTION LEVEL OF SERVICE AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing		Existing plus Project			
				Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
1.	2nd Street/Bryant Street	**60.3**	**E**	**>80**	**F**	51.4	D
2.	2nd Street/Harrison Street	**64.9**	**E**	**>80**	**F**	**>80**	**F**
3.	2nd Street/Folsom Street	44.7	D	**76.5**	**E**	**76.5**	**E**
4.	2nd Street/Howard Street	20.1	C	22.4	C	22.4	C
5.	2nd Street/Brannan Street	14.1	B	15	B	17.9	B
6.	2nd Street/Townsend Street [c]	13.8	B	20	C	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.
c. LOS and average delay for combined impacts for Projects 2-1 and 2-16.

TABLE V.2-14
CLUSTER 2 – PROJECT 2-1 [c]
INTERSECTION LEVEL OF SERVICE AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				2025 Cumulative plus Project			
		2025 Cumulative		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
1.	2nd Street/Bryant Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
2.	2nd Street/Harrison Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
3.	2nd Street/Folsom Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
4.	2nd Street/Howard Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
5.	2nd Street/Brannan Street	16.1	B	19.2	B	52.4	D
6.	2nd Street/Townsend Street[c]	15.8	B	**55.1**	**E**	**55.1**	**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.
c. LOS and average delay for impacts of combined Projects 2-1 and 2-16.

Intersection 1: 2nd Street/Bryant Street

- **Modified Option 1**

- **Existing and Existing plus Project Conditions**
  Under Existing conditions for the PM peak hour this intersection operates at LOS E. Under Existing plus Project conditions the 2nd Street/Bryant Street intersection would operate at LOS E. The northbound lane configuration would remain the same as existing conditions, with two northbound through lanes and one tow-away lane that must turn right (to eastbound Bryant Street). The southbound lane configuration would be reduced from two lanes to one lane. Southbound left turns are currently prohibited during the PM peak. Under Modified Option 1 they would be prohibited at all times. Under Existing plus Project conditions analyzed for Option 1 in the Draft EIR, the intersection of 2nd Street/Bryant Street would operate at LOS F. Modified Option 1 would improve the operating conditions for the intersection. However, Significant Impact TR-P2-1a would still occur with the implementation of Project 2-1 Modified Option 1 under Existing plus Project conditions as a result of the intersection operating at LOS E.

- **2025 Cumulative and 2025 Cumulative plus Project Conditions**
  The 2nd Street/Bryant Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions in the PM

peak hour. The 2nd Street/Bryant Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions, which is the same result as analyzed for Option 1 in the Draft EIR. The northbound critical movement at 2nd Street and Bryant Street would deteriorate under Existing plus Project conditions, relative to Existing Conditions. As a consequence, a corresponding LOS deterioration is expected at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative Conditions. Therefore, Significant Impact TR-P2-1b would still occur at the 2nd Street/Bryant Street intersection for the PM peak hour with implementation of Project 2-1 Modified Option 1 under 2025 Cumulative plus Project conditions. The V/C ratio for Option 1 and Modified Option 1 are 1.611 and 1.451 respectively. Therefore, Modified Option 1 would not increase the severity of the significant impact at this intersection.

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions for the PM peak hour this intersection operates at LOS E. However, under Existing plus Project conditions the 2nd Street/Bryant Street intersection would operate unsatisfactorily at LOS F with more than 80 seconds of delay. The northbound lane configuration would be modified from two through lanes and one exclusive right-turn lane to one through lane and one shared through-right lane. Due to this reduction in capacity, there would be an increase in delay along this approach. Because the northbound critical movements at 2nd Street/Bryant Street either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions a significant impact (Significant Impact TR-P2-1a) would occur at the 2nd Street/Bryant Street intersection with the implementation of Project 2-1 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 2nd Street/Bryant Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions under the PM peak hour. The 2nd Street/Bryant Street intersection would operate unsatisfactorily at

LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. The northbound critical movement at 2nd Street and Bryant Street would deteriorate to LOS F under Existing plus Project conditions, relative to Existing Conditions. This is deemed a significant impact. As a consequence, a corresponding LOS deterioration is expected at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P2-1b) would occur at the 2nd Street/Bryant Street intersection for the PM Peak hour with implementation of Project 2-1 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions
Under Existing conditions, for the PM peak hour, this intersection operates at LOS E. However, under Existing plus Project conditions, the study intersection would operate satisfactorily at LOS D, with 51.4 seconds of delay. The northbound lane configuration would be modified from two through lanes and an exclusive right-turn lane to two through lanes and one shared through-right lane. Due to the additional capacity provided in the northbound direction, traffic operations along the northbound critical movement would improve. Therefore LOS at this intersection would also improve. Since the intersection operates at an acceptable level of service under Existing plus Project conditions, no significant impacts would occur at the 2nd Street/Bryant Street intersection with the implementation of Project 2-1 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions
The 2nd Street/Bryant Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions under the PM peak hour. The 2nd Street/Bryant Street intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Due to the additional capacity provided in the northbound direction, traffic operations along the northbound critical movement would improve resulting in an improvement in the LOS at this intersection. Therefore, there would be no significant impacts to the 2nd Street/Bryant Street intersection for the PM peak hour as a result of Project 2-1 Option 2 under 2025 Cumulative plus Project conditions.

Intersection 2: 2nd Street/Harrison Street

- **Modified Option 1**

- **Existing and Existing plus Project Conditions**

Under Existing conditions for the PM peak hour this intersection operates at LOS E. Under Existing plus Project conditions, the 2nd Street/Harrison Street intersection would operate at LOS E. The southbound lane configuration would be modified from one shared through-left and one shared through-right lanes to one through lane and one right turn lane. Southbound left turns would be prohibited at all times. The northbound lane configuration would be the same as existing except that the left lane would be designated a left turn only lane. Sharrows would be placed in the shared through-right lane because this lane serves as the second of two northbound right turn lanes at Harrison Street leading to the I-80/Bay Bridge on-ramp. Therefore it is anticipated that northbound bicyclists will use this lane to bypass the right turn queue during peak hours. Project 2-1 Modified Option 1 preserves existing capacity for the critical northbound right turn approach to the freeway on-ramp at Essex Street. Southbound left turning vehicles would either not turn into 2nd Street, or if using 2nd Street, use alternate routes. For analysis purposes, southbound left turning vehicles going eastbound were assigned to Hawthorne Street via Howard Street. They have been added as eastbound Folsom Street vehicles at 2nd Street. Under Existing plus Project conditions analyzed for Option 1 in the Draft EIR, the intersection of 2nd Street/Harrison Street would operate at LOS F. Modified Option 1 would improve the operating conditions for the intersection. However, Significant Impact TR-P2-1c would still occur at the 2nd Street/Harrison Street intersection with implementation of Project 2-1 Modified Option 1 under Existing plus Project conditions.

- **2025 Cumulative and 2025 Cumulative plus Project Conditions**

  The 2nd Street/Harrison Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. The 2nd Street/Harrison Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions under the PM peak hour, which is the same result as was discussed in the EIR for Project 2-1 Options 1 and 2. Modified Option 1 would preserve capacity for the critical northbound right turn approach to the freeway on-ramp at Essex Street. The northbound critical movement at 2nd Street and Harrison Street would deteriorate under Existing plus Project conditions. As a consequence, a corresponding LOS deterioration is expected at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative Conditions. Although the modified project would improve conditions relative to what was analyzed in the Draft EIR for Option 1, Significant Impact TR-P2-1e would still occur at the 2nd Street/Harrison Street intersection with implementation of Project 2-1 Modified Option 1 under 2025 Cumulative plus Project conditions. The V/C ratio for Option 1 and Modified Option 1 are 1.505 and 1.358 respectively. Therefore, Modified Option 1 would not increase the severity of the significant impact at this intersection.

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS E. However, under Existing plus Project conditions, the 2nd Street/Harrison Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of left lane and one shared through-right lane under Existing conditions to one exclusive left lane, one through lane, and one exclusive right lane under Existing plus Project conditions. The northbound lane configuration would be modified from a shared through-left, shared through-right and an exclusive right-turn lane to an exclusive left-turn, a shared through-right and an exclusive right-turn lane. Due to the modification of lane geometries, there would be an increase in delay along these approaches. Because the northbound critical movements at 2nd Street/Harrison Street would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P2-1c) would occur at the 2nd Street/Harrison Street intersection with the implementation of Project 2-1 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 2nd Street/Harrison Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions under the PM peak hour. The 2nd Street/Harrison Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. The northbound critical movement at 2nd Street and Harrison Street would deteriorate to an LOS F under Existing plus Project conditions relative to Existing Conditions. This is deemed a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P2-1e) would occur at the 2nd Street/Harrison Street intersection for the PM peak hour with implementation of Project 2-1 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS E. However, under Existing plus Project conditions, the 2nd Street/Harrison Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions. The southbound lane configuration would be modified from one shared through-left lane and one shared through-right lane under Existing conditions to one exclusive left lane, one through lane, and one exclusive right lane under Existing plus Project conditions. The northbound lane configuration would be modified from a shared through left, shared through-right and an exclusive right-turn lane to an exclusive left-turn, a shared through-right and an exclusive right-turn lane. Due to the modification of lane geometries, there would be an increase in delay along the southbound approach for Option 2. Because the northbound critical movement at 2nd Street/Harrison Street Because the northbound critical movements at 2nd Street/Harrison Street would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P2-1d) would occur at the 2nd Street/Harrison intersection with the implementation of Project 2-1 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions
The 2nd Street/Harrison Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions under the PM peak hour. The northbound critical movement at 2nd Street and Harrison Street would deteriorate to an Existing plus Project LOS F, relative to Existing Conditions. This is determined to be a significant impact. As a consequence a corresponding LOS deterioration is expected at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P2-1f) would occur at the 2nd Street/Harrison Street intersection for the PM peak hour with implementation of Project 2-1 Option 2 under 2025 Cumulative plus Project conditions.

Intersection 3: 2nd Street/Folsom Street

- **Modified Option 1**

- **Existing and Existing plus Project Conditions**
  Under Existing conditions for the PM peak hour this intersection operates at LOS D with a delay of 44.7 seconds. Under Existing plus Project conditions, the 2nd Street/Folsom Street intersection would continue to operate at LOS D. The southbound lane configuration would be modified from one through lane and one shared through-left turn lane to one through lane. Southbound left turns would be prohibited at all times and the signal timing modified to remove a lagging permissive-protected left turn phase. In addition, the northbound lane would be modified from one through lane and one shared through-right lane to one through lane and one exclusive right-turn lane. Southbound left turning vehicles would either not turn into 2nd Street, or if using 2nd Street, use alternate routes. For analysis purposes, southbound left turning vehicles going eastbound were assigned to Hawthorne Street via Howard Street. They have been added as eastbound Folsom Street vehicles at 2nd Street. Therefore, there would not be a significant traffic impact at the intersection of 2nd and Folsom Streets under Existing plus Project conditions with the implementation of Project 2-1 Modified Option 1. Under Existing plus Project conditions analyzed for Option 1 in the Draft EIR, the intersection of 2nd Street/Folsom Street would operate at LOS E with 76.5 seconds of delay. Modified Option 1 would improve the operating conditions for the intersection relative to what was analyzed for Option 1 and Significant Impact TR-P2-1g would not occur with the modified project.

- **2025 Cumulative and 2025 Cumulative plus Project Conditions**
  The 2nd Street/Folsom Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay, under 2025 Cumulative conditions for the PM peak hour. The 2nd Street/Folsom Street intersection would operate unsatisfactorily at

LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions for the PM peak hour. Left turn volume assignment is as discussed for Existing plus Project Conditions. Therefore, Significant Impact TR-P2-1i would still occur at the 2nd Street/Folsom Street intersection under 2025 Cumulative plus Project conditions with the implementation of Project 2-1 Modified Option 1. The V/C ratio for Option 1 and Modified Option 1 are 1.489 and 1.388 respectively. Therefore, Modified Option 1 would not increase the severity of the significant impact at this intersection.

- **Option 1**

Existing and Existing plus Project Conditions
Under Existing conditions, for the PM peak hour, this intersection operates at LOS D with a delay of 44.7 seconds. However, under Existing plus Project conditions, the 2nd Street/Folsom Street intersection would operate unsatisfactorily at LOS E, with 76.5 seconds of delay. The southbound lane configuration would be modified from one through lane and one shared through-left turn lane to one through lane and one exclusive left-turn lane. In addition, the northbound lane would be modified from one through lane and on shared through-right lane to one shared through-right lane. Due to the modification of lane geometries in the southbound direction and the reduction in capacity in the northbound direction, there would be an increase in delay along both the southbound and northbound approach. Because the southbound and eastbound critical movements at 2nd Street/Folsom Street would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P2-1g) would occur at the 2nd Street/Folsom Street intersection with the implementation of Project 2-1 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions
The 2nd Street/Folsom Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions for the PM peak hour. The southbound and eastbound critical movement at 2nd Street and Folsom Street would deteriorate to an Existing plus Project LOS E, relative to Existing conditions. This is determined to be a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P2-1i) would occur at the 2nd Street/Folsom Street

intersection with implementation of Project 2-1 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS D with a delay of 44.7 seconds. However, under Existing plus Project conditions, the 2nd Street/Folsom Street intersection would operate unsatisfactorily at LOS E, with 76.5 seconds of delay. The southbound lane configuration would be modified from one through lane and one shared through-left turn lane to one through lane and one exclusive left-turn lane. In addition, the northbound lane would be modified from one through lane and one shared through-right lane to one shared through-right lane. Due to the modification of lane geometries in the southbound direction and the reduction in capacity in the northbound direction, there would be an increase in delay along both the southbound and northbound approaches. Because the southbound and eastbound critical movements at 2nd Street/Folsom Street would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P2-1h) would occur at the 2nd Street/Folsom Street intersection with the implementation of Project 2-1 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 2nd Street/Folsom Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions for the PM peak hour. The northbound critical movement at 2nd Street and Harrison Street would deteriorate to an Existing plus Project LOS F relative to Existing conditions. This is deemed a significant impact. As a consequence a corresponding LOS deterioration is expected at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P2-1j) would occur at the 2nd Street/Folsom Street intersection with implementation of Project 2-1 Option 2 under 2025 Cumulative plus Project conditions.

Intersection 4: 2nd Street/Howard Street

- **Modified Option 1**

- **Existing and Existing plus Project Conditions**

Under Existing conditions for the PM peak hour this intersection operates at LOS C with a delay of 20.1 seconds. Under Existing plus Project conditions for the modified project, this intersection would continue to operate satisfactorily at LOS C with 34.9 seconds of delay. Under Existing plus Project conditions analyzed for Option 1 in the Draft EIR, the intersection of 2nd Street/Howard Street would operate at LOS C with 22.4 seconds of delay. The southbound lane configuration would be modified from one through lane and one shared through-right turn lane to one through lane and one exclusive right-turn lane. In addition, the northbound lane configuration would be modified from one through lane and one shared through-left turn lane to one through lane. Northbound left turns would be prohibited at all times. Northbound left turning vehicles would either not turn into 2nd Street, or if using 2nd Street, use alternate routes such as turning left at Harrison Street. For analysis purposes, northbound left turning vehicles were assigned to the northbound through lane at 2nd and Howard Streets. Southbound left turns prohibited at Folsom and Harrison Streets have been reassigned as southbound right turns for southbound 2nd Street at Howard Street. Assigning all left turns to one alternative route is the worst case scenario, as in reality vehicles would disperse using more than one alternate route (see discussion for Howard/New Montgomery and Folsom/Hawthorne). Therefore, there would not be a significant traffic impact at the intersection of 2nd and Howard Streets under the Existing plus Project conditions with the implementation of Project 2-1 Modified Option 1.

- **2025 Cumulative and 2025 Cumulative plus Project Conditions**

  The 2nd Street/Howard Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. The 2nd Street/Howard Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions for the PM peak hour, which is the same result as analyzed in the Draft EIR for Project 2-1 Options 1 and 2. Therefore, Significant Impact TR-P2-1k would still occur at the 2nd Street/Howard Street intersection with implementation of Project 2-1 Modified Option 1. The V/C ratio for Option 1 and Modified Option 1 are 1.450 and 1.373 respectively. Therefore, there would be no increase in the severity of the significant impact as a result of Modified Option 1.

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS C with a delay of 20.1 seconds. Under Existing plus Project conditions, this intersection would continue to operate satisfactorily at LOS C, with 22.4 seconds of delay. The southbound lane configuration would be modified from one through lane and shared through-right turn lane to one through lane and one exclusive right-turn lane. In addition, the northbound lane configuration would be modified from one through lane and one shared through-left turn lane to one through lane and one exclusive left-turn lane. Due to the modification of lane geometries in the southbound and northbound directions, there would be an increase in delay along both approaches under Existing plus Project conditions. The intersection delay would increase by 2.3 seconds compared to Existing conditions. Therefore, a significant impact would not occur at the 2nd Street/Howard intersection with the implementation of Project 2-1 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 2nd Street/Howard Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions for the PM peak hour. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Because the northbound and westbound critical movements at 2nd Street and Howard Street would either deteriorate, or would operate at an unacceptable LOS F with more than 80 seconds of average delay under Year 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P2-1k) would occur at the 2nd Street/Howard Street intersection with the implementation of Project 2-1 Option 1.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS C with a delay of 20.1 seconds. Since the proposed lane configuration under Option 2 is the same as Option 1, the 2nd Street/Howard Street intersection would also operate satisfactorily at LOS C, with 22.4 seconds of delay under Existing plus Project conditions for Option 2. The southbound lane configuration would be modified from one through lane and shared through-right turn lane to one through lane and one exclusive right-turn lane. In addition, the northbound lane configuration would be modified from one through lane and one shared through-left turn lane to one through lane and one exclusive left-turn lane. Due to the modification of lane geometries in the southbound and northbound directions, there would be an increase in delay along both approaches. The intersection delay would increase by 2.3 seconds compared to Existing conditions. Therefore, a significant impact would not occur at the 2nd Street/Howard intersection with the implementation of Project 2-1 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 2nd Street/Howard Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. The northbound and westbound critical movements at 2nd Street and Howard Street would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions. Therefore, a significant impact (Significant Impact TR-P2-1l) would occur at the 2nd Street/Howard Street intersection with the implementation of Project 2-1 Option 2.

Intersection 5: 2nd Street/Brannan Street

- **Modified Option 1**

- **Existing and Existing plus Project Conditions**
  Under Existing conditions this intersection operates at LOS B with a delay of 14.1 seconds. The 2nd Street/Brannan Street intersection would operate satisfactorily at LOS B with 16.5 seconds of delay under Existing plus Project conditions for Modified Option 1. Under Existing plus Project conditions analyzed for Option 1 in the Draft EIR, the intersection of 2nd Street/Brannan Street would operate at LOS B with 15 seconds of delay. The northbound lane configuration would be modified from one shared through-left lane and one shared through-right lane to one shared left-through-right lane. The southbound lane configuration would be modified from one shared through-left lane and one shared through-right lane to one shared through-right lane. Southbound left turns would be prohibited. Southbound left turns have been assigned as through vehicles on 2nd Street at Brannan Street. Therefore, there would not be a significant traffic impact at the intersection of 2nd and Brannan Streets under the Existing plus Project conditions with the implementation of Project 2-1 Modified Option 1.

- **2025 Cumulative and 2025 Cumulative plus Project Conditions**
  The 2nd Street/Brannan Street intersection would operate satisfactorily at LOS B, with 16.1 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate satisfactorily at LOS C. Under 2025 Cumulative plus Project conditions analyzed for Option 1 in the Draft EIR, the intersection of 2nd Street/Brannan Street would operate at LOS D with 52.4 seconds of delay. Modified Option 1 would improve conditions at the 2nd Street/Brannan Street intersection relative to what was analyzed for Option 1. Therefore, there would not be a significant traffic impact at the intersection of 2nd and Brannan Streets under the Cumulative plus Project conditions with the implementation of Project 2-1 Modified Option 1.

- **Option 1**

  Existing and Existing plus Project Conditions
  Under Existing conditions, this intersection operates at LOS B with a delay of 14.1 seconds. The 2nd Street/Brannan Street intersection would operate satisfactorily at LOS B, with 15 seconds of delay under Existing plus Project conditions. The northbound lane configuration would be modified from one shared through-left lane and one shared through-right lane to one shared left-through-right lane. Due to the reduction in capacity, there would be an increase in delay along the northbound approach. The intersection would increase by 0.9 second compared to Existing conditions. Therefore, a significant impact would not occur at the 2nd Street/Brannan Street intersection with the implementation of Project 2-1 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 2nd Street/Brannan Street intersection would operate satisfactorily at LOS B, with 16.1 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate satisfactorily at LOS B, with 19.2 seconds of delay. Therefore, a significant impact would not occur at the Street/Brannan Street intersection with the implementation of Project 2-1 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS B with a delay of 14.1 seconds. The 2nd Street/Brannan Street intersection would operate satisfactorily at LOS B, with 17.9 seconds of delay under Existing plus Project conditions. The southbound lane configuration would be modified from one shared through-left lane and one shared through-right lane to one shared left-through-right lane. Due to the reduction in capacity, there would be an increase in delay along the southbound approach. The intersection delay would increase by 3.8 seconds compared to Existing conditions. Therefore, a significant impact would not occur at the 2nd Street/Brannan Street intersection with the implementation of Project 2-1 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 2nd Street/Brannan Street intersection would operate satisfactorily at LOS B, with 16.1 seconds of average delay under 2025 Cumulative conditions. The 2nd Street/Brannan Street intersection would operate satisfactorily at LOS D, with 52.4 seconds of delay under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at the 2nd Street/Brannan Street intersection with the implementation of Project 2-1 Option 2 under 2025 Cumulative plus Project conditions.

Intersection 6: 2nd Street/Townsend Street (Projects 2-1 and 2-16 Combined)

The 2nd Street/Townsend Street intersection is common to Projects 2-1 and 2-16 within the Cluster 2 area. For Project 2-1, the lane configuration at the intersection remains the same as under Existing (No Project) conditions for both Option 1 and Option 2. However, Project 2-16 reduces the capacity in the eastbound direction on Townsend Street for this intersection. Under Project 2-16, both Options 1 and 2 would modify the eastbound shared through-left and shared through-right lane to a single shared through-left-right turn lane. The analysis below reflects the combined impact of implementing Projects 2-1 and 2-16 at this intersection. The impacts resulting from the implementation of individual Project 2-1 follow the discussion of the combined impacts. Table V.2-15, p. V.A.3- 220, and Table V.2-16, p. V.A.3-221, summarize these results.

- **Modified Option 1**

Existing and Existing plus Project Conditions for Projects 2-1 and 2-16 combined

Under Existing conditions for the PM peak hour this intersection operates at LOS B with 13.8 seconds of delay. The 2nd Street/Townsend Street intersection would operate satisfactorily at LOS B under Existing plus Project conditions. Intersection configuration would be one southbound left turn lane, one southbound shared through-right turn lane, one northbound shared through-right-left turn lane, one westbound shared through-right-left turn lane, one eastbound left turn lane, and one eastbound shared through-right lane. Under Existing plus Project conditions analyzed for Option 1 for the combined projects in the Draft EIR, the intersection of 2nd Street/Townsend Street would operate at LOS C with 20 seconds of delay. Modified Option 1 would improve conditions at the 2nd Street/Townsend Street intersection relative to the conditions analyzed for Option 1 in the Draft EIR. Therefore, there would not be a significant traffic impact at the intersection of 2nd and Townsend Streets under the Existing plus Project conditions with the combined implementation of Project 2-1 Modified Option 1 and Project 2-16 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

Under 2025 Cumulative conditions for the PM peak hour this intersection operates at LOS B with 15.8 seconds of delay. The 2nd Street/Townsend Street intersection would continue to operate satisfactorily at LOS B under 2025 Cumulative plus Project conditions. Under 2025 Cumulative plus Project conditions analyzed for Option 1 of the combined projects in the Draft EIR, the intersection of 2nd Street/Townsend Street would operate at LOS E with 55.1 seconds of delay. Modified Option 1 would improve conditions at the 2nd Street/Townsend Street intersection relative to conditions analyzed for Option 1 in the Draft EIR. Therefore, there would not be a significant traffic impact at the intersection of 2nd and Townsend Streets under the 2025 Cumulative plus Project conditions with the implementation of combined Project 2-1 Modified Option 1 and Project 2-16 Option 1.

The intersections of Howard Street/New Montgomery Street and Folsom Street/ Hawthorne Street were added for analysis for Project 2-1 Modified Option 1. Existing conditions were obtained from the traffic counts provided in the Final Transportation Report, February 2009, 222 Second Street Project (Case No. 2006.1106[9]). Traffic impact analysis for Project 2-1 Modified Option 1 includes intersection LOS analysis for Howard Street/New Montgomery Street and Folsom Street/Hawthorne Street under existing 2007 and 2025 Cumulative scenarios.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 2-1 and 2-16 combined
Under Existing conditions, for the PM peak hour, this intersection operates at LOS B with 13.8 seconds of delay. The 2nd Street/Townsend Street intersection would operate satisfactorily at LOS C, with 20 seconds of delay under Existing plus Project conditions. The eastbound lane configuration would be modified from one shared through-left lane and one shared through-right lane to one shared left-through-right lane. Due to the reduction in capacity, there would be an increase in delay along the eastbound

TABLE V.2-15
CLUSTER 2
COMPARISON OF LEVEL OF SERVICE AND AVERAGE DELAY FOR 2ND STREET/TOWNSEND STREET EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1				Existing plus Project Option 2			
Existing		Project 2-1		Combined Projects 2-1 and 2-16		Project 2-1		Combined Projects 2-1 and 2-16	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
13.8	B	13.8	B	20	C	13.8	B	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.

9 This report is available for public review by appointment at the Planning Department, 1650 Mission Street, Suite 400, San Francisco as part of Case File Case No. 2006.1106E.

TABLE V.2-16
CLUSTER 2 – PROJECTS 2-1 AND 2-16
COMPARISON OF LEVEL OF SERVICE AND AVERAGE DELAY FOR 2ND STREET/TOWNSEND STREET 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

2025 Cumulative		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
		Project 2-1		Combined Projects 2-1 and 2-16		Project 2-1		Combined Projects 2-1 and 2-16	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
15.8	B	15.8	B	**55.1**	**E**	15.8	B	**55.1**	**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.

approach. The intersection delay would increase by 6.2 seconds, compared to Existing conditions. Therefore, a significant impact would not occur at the 2nd Street/Townsend Street intersection with the implementation of combined Project 2-1 and Project 2-16 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-1 and 2-16 combined

The 2nd Street/Townsend Street intersection would operate satisfactorily at LOS B, with 15.8 seconds of average delay under 2025 Cumulative conditions for the PM peak hour. The 2nd Street/Townsend Street intersection would operate unsatisfactorily at LOS E, with 55.1 seconds of delay under 2025 Cumulative plus Project conditions. Because the southbound and eastbound critical movements at 2nd Street/Townsend Street would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P2-1m) would occur at the 2nd Street/Townsend Street intersection with the implementation of combined Project 2-1 and 2-16 Option 1. Table V.2-16, p. V.A.3-221, shows a comparison between LOS and average delay for this intersection under 2025 Cumulative and 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 2-1 and 2-16 combined

Under Existing conditions, for the PM peak hour, this intersection operates at LOS B with 13.8 seconds of delay. Since the proposed lane configuration under Option 2 is the same as Option 1, the 2nd Street/Townsend Street intersection would also operate satisfactorily at LOS C, with 20 seconds of delay under Existing plus Project conditions for Option 2. The eastbound lane configuration would be modified from one shared through-left lane and one shared through-right lane to one shared left-through-right lane. Due to the reduction in capacity, there would be an increase in delay along the eastbound approach. The intersection would increase by 6.2 seconds, compared to Existing conditions. Therefore, a significant impact would not occur at this intersection with the implementation of Option 2 of Project 2-1 and Project 2-16 combined. Table V.2-13, p. V.A.3-c, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-1 and 2-16 combined

The 2nd Street/Townsend Street intersection would operate satisfactorily at LOS B, with 15.8 seconds of average delay under 2025 Cumulative conditions for the PM peak hour. Since the proposed lane configuration under Option 2 is the same as Option 1, the 2nd Street/Townsend Street intersection would operate unsatisfactorily at LOS E, with 55.1 seconds of delay under 2025 Cumulative plus Project conditions for Option 2. Because the southbound and eastbound critical movements at 2nd Street/Townsend Street would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P2-1n) would occur at the 2nd Street/Townsend Street intersection with the implementation of Option 2 of Project 2-1 and 2-16 combined. Table V.2-14, p. V.A.3-213, summarizes these results. Table V.2-14 shows a comparison between LOS and average delay for this intersection under 2025 Cumulative and 2025 Cumulative plus Project conditions.

Intersection 6: 2nd Street/Townsend Street (Project 2-1)

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS B with 13.8 seconds of delay. The 2nd Street/Townsend Street intersection would operate satisfactorily at LOS C, with 20 seconds of delay under Existing plus Project conditions. No lane configuration changes are proposed under Project 2-1 for this intersection. Hence, there would be no change to the LOS or delay. Therefore, a significant impact would not occur at the 2nd Street/Townsend Street intersection with the implementation of Project 2-1 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

Under 2025 Cumulative conditions, for the PM peak hour, this intersection operates at LOS B with 15.8 seconds of delay. The 2nd Street/Townsend Street intersection would continue to operate satisfactorily at LOS B, with 15.8 seconds of delay under 2025 Cumulative plus Project conditions. No lane configuration changes are proposed under Project 2-1 for this intersection. Hence, there would be no change to the LOS or delay. Therefore, a significant impact would not occur at the 2nd Street/Townsend Street intersection with the implementation of Project 2-1 Option 1 under 2025 Cumulative and 2025 Cumulative plus Project conditions. Table V.2-14, p. V.A.3-213, shows a comparison between LOS and average delay for the 2nd Street/Townsend Street intersection under 2025 Cumulative and 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS B with 13.8 seconds of delay. The 2nd Street/Townsend Street intersection would operate satisfactorily at LOS C with 20 seconds of delay under Existing plus Project conditions. No lane configuration changes are proposed under Project 2-1 for this intersection. Hence, there would be no change to the LOS or delay. Therefore, a significant impact would not occur at the 2nd Street/Townsend Street intersection with the implementation of Project 2-1 Option 2. Table V.2-13, p. V.A.3-c, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

Under 2025 Cumulative conditions for the PM peak hour this intersection operates at LOS B with 15.8 seconds of delay. The 2nd Street/Townsend Street intersection would continue to operate satisfactorily at LOS B with 15.8 seconds of delay under 2025 Cumulative plus Project conditions. No lane configuration changes are proposed under Project 2-1 Option 2 for this intersection. Hence, there would be no change to the LOS or delay. Therefore, a significant impact would not occur at the 2nd Street/Townsend Street intersection with the implementation of Project 2-1 Option 2. Table V.2-14, p. V.A.3-213, shows a comparison between LOS and average delay for this intersection under 2025 Cumulative and 2025 Cumulative plus Project conditions.

Intersection 63: Howard Street and New Montgomery Street

- **Modified Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions for the PM peak hour the intersection of Howard Street/New Montgomery Street operates with LOS B with an average delay of 14.8. Under Existing plus Project conditions the intersection would continue to operate at LOS B with average delay of 16.5 seconds. The intersection configuration would remain unchanged. Therefore, there would not be a significant traffic impact under Existing plus Project conditions for Project 2-1 Modified Option 1.

Under 2025 Cumulative conditions for the PM peak hour the intersection of Howard Street/New Montgomery Street operates with LOS C with an average delay of 24.7 seconds. Under 2025 Cumulative plus Project conditions the intersection would continue to operate at LOS D with average delay of 45.1 seconds. Therefore, there would not be a significant traffic impact under 2025 Cumulative plus Project conditions at this intersection with the implementation of Project 2-1 Modified Option 1.

Intersection 64: Hawthorne and Folsom Streets

- **Modified Option 1**

Existing and Existing plus Project Conditions
Under Existing conditions for the PM peak hour the intersection of Folsom Street/Hawthorne Street operates with LOS C with an average delay of 24.2. Under Existing plus Project conditions this intersection would operate at LOS B with an average delay of 16.3 seconds. The modified project design includes a lane configuration for southbound Hawthorne Street which would be modified from a shared through-right-left lane to one through and one exclusive left-turn lane. This would be accomplished by removing four parking spaces on the west side of Hawthorne Street north of Folsom Street. Therefore, there would not be a significant traffic impact under Existing plus Project conditions at this intersection with the implementation of Project 2-1 Modified Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions
Under 2025 Cumulative conditions, for the PM peak hour, the intersection of Folsom Street/Hawthorne Street operates with LOS D with an average delay of 43.2. Under 2025 Cumulative plus Project conditions the intersection would operate at LOS C with an average delay of 23.3 seconds. Therefore, there would not be a significant traffic impact under 2025 Cumulative plus Project conditions at this intersection with the implementation of Project 2-1 Modified Option 1.

Significant Impact 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.

Significant Impact 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.

Significant Impact 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.

Significant Impact TR-P2-1e:

The intersection of 2nd Street/Harrison Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1.

Significant Impact 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.

Significant Impact 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.

Significant Impact 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.

Significant Impact 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.

Significant Impact 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.

Significant Impact 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.

Significant Impact 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.

Significant Impact 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.

Significant Impact TR-P2-1m (Projects 2-1 and 2-16 combined):

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.

Significant Impact TR-P2-1n (Projects 2-1 and 2-16 combined):

The intersection of 2nd Street/Townsend Street would operate at LOS E under 2025 Cumulative plus Project conditions for Option 2 of the combined Projects 2-1 and 2-16.

TRANSIT

A Muni bus zone on the east side of 2nd Street just south of Folsom Street for the 10-Townsend route would be removed under Modified Option 1 in order to provide a northbound right turn pocket. This bus zone could be relocated to just south of the proposed right turn pocket by removing four metered parking spaces. This bus zone relocation would not increase delay for these buses compared to the analysis presented in the Draft EIR. Because 10-Townsend buses turn right from northbound 2nd Street onto eastbound Folsom Street, moving the bus stop further south would allow buses to start their right turns farther away from the curb than under the existing condition. On the other hand, a bus stop location 100 feet south of Folsom may be somewhat less convenient for some passengers boarding or alighting at this stop. However, this impact would not constitute a significant physical environmental impact. Therefore, there would not be a significant impact on transit as a result of implementing Project 2-1 Modified Option 1. As with Option 1, the following transit impacts would still occur on Muni bus route 10 with Modified Option 1: Significant Impact 2-1o on Muni bus line 10 would still occur with Projects 2-1 and 2-16 combined under the Existing plus Project conditions; Significant Impact 2-1q would still occur on Muni bus line 10 with Projects 2-1 and 2-16 combined under the 2025 Cumulative plus Project plus conditions; Significant Impact 2-1s to Muni bus line 10 would still occur under the 2025 Cumulative plus Project conditions; and Significant Impact 2-1u on Muni bus line 10 would still occur under the 2025 Cumulative plus Project conditions.

Muni bus lines 9, 10, 71, and 108 run southbound along 2nd Street between Market and Mission Streets, with approximately 24 buses per hour during the AM and PM peak periods. Muni bus lines 10 and 108 also run in both directions along 2nd Street between Howard and Townsend Streets, with approximately 10 buses per hour southbound and six buses northbound during the AM and PM peak periods. The frequency for Muni bus lines 10 and 108 total 10 buses per hour each way, namely, 6 buses for Muni bus line 10 southbound and 4 buses for bus line 108 southbound, and 6 buses for Muni bus line 10 northbound and 4 buses for Muni bus line 108 northbound.

Current Muni bus volumes along 2nd Street between Market and Mission Streets are moderate and bicycle volumes on this block are generally low to moderate. There is one bus stop in this block located on the west side of 2nd Street between Market and Stevenson Streets. There is very little interaction between buses and bicyclists at this stop. Bus volumes between Howard and Townsend Streets are light (four buses per hour each way) and bicycle volumes are light to moderate. Therefore, there is very little interaction between buses and bicyclists at the present time.

The existing northbound bus stop on the far side of Harrison Street would be reduced to a 7-foot wide bus stop adjacent to a 10-foot wide travel lane. Because one travel lane would be removed, all northbound traffic would be forced onto a single lane. When a bus is in the bus stop, the bus may encroach into the adjacent travel lane, possibly blocking northbound traffic going through this intersection. However, because transit activity is low at this approach, with approximately six northbound buses per hour during the AM and PM peak periods, this situation would not occur frequently and would not be considered a significant transit impact.

Project 2-1 shares a common intersection (Intersection 6: 2nd Street/Townsend Street) with Project 2-16: Townsend Street Bicycle Lanes, 8th Street to The Embarcadero. The transit delay analysis below (Projects 2-1 and 2-16 combined) reflects the combined impact of Projects 2-1 and 2-16 modifications to the 2nd Street/Townsend Street intersection on transit delay. The impacts resulting from the implementation of individual Project 2-1 without Project 2-16 modifications to the 2nd Street/Townsend Street intersection follow.

There would be no travel time delays resulting from implementation of either Option 1 or Option 2 of the combined Projects 2-1 and 2-16 for Muni bus lines 9, 10, and 71 between Market and Mission Streets because these three bus lines travel in the southbound direction only on this block; there are no substantial geometric changes at the Mission Street intersection. Muni bus lines 10 and 108 between Howard and Townsend Streets would be affected by the combined Projects 2-1 and 2-16; these impacts are discussed below.

- **Option 1**

  Existing and Existing plus Project Conditions for Projects 2-1 and 2-16 combined
  For Existing conditions for implementation of combined Projects 2-1 and 2-16, Option 1 would add approximately 160 seconds (2.7 minutes) of delay southbound and approximately 703 seconds of delay (11.7 minutes) northbound to Muni bus line 10 in the PM peak period. Approximately 160 seconds (2.7 minutes) of delay would be added to Muni bus line 108 southbound in the PM peak period. The headways for Muni bus lines 10 and 108 in the PM peak period are 10 and 15 minutes, respectively. For Muni bus line 10, the total added delay of approximately 863 seconds (14.4 minutes) would be greater than the transit delay threshold of six minutes. For Muni bus line 108, the total added delay of 160 seconds (2.7 minutes) would be less than the transit delay threshold of six minutes. Therefore, a significant transit impact (Significant Impact TR-P2-1o) would occur on Muni bus line 10 with the implementation of combined Projects 2-1 and 2-16 Option 1 under Existing plus Project conditions. Muni bus line 108 would not be significantly impacted.

  Existing and Existing plus Project Conditions for Project 2-1
  For Existing conditions individual Project 2-1 Option 1 would add approximately 160 seconds (2.7 minutes) of delay southbound and approximately 685 seconds of delay (11.4 minutes) northbound to Muni bus line 10 in the PM peak period. Approximately 160 seconds (2.7 minutes) of delay would be added to Muni bus line 108 southbound in the PM peak period. The headways for Muni bus lines 10 and 108 in the PM peak period are 10 and 15 minutes, respectively. For Muni bus line 10, the total added delay of approximately 845 seconds (14.1 minutes) would be greater than the transit delay threshold of six minutes. For Muni bus line 108, the total added delay of 160 seconds (2.7 minutes) would be less than the transit delay threshold of six minutes. Therefore, a significant transit impact (Significant Impact TR-P2-1s) would occur on Muni bus line 10 with the implementation of Project 2-1 Option 1 under Existing plus Project conditions. Muni bus line 108 would not be significantly impacted by Project 2-1 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-1 and 2-16 combined

For 2025 Cumulative plus Project conditions the implementation of combined Projects 2-1 and 2-16 Option 1 would reduce delay by approximately 216 seconds (3.6 minutes) southbound because of proposed changes to the intersection configuration at the 2nd Street/Harrison Street intersection. However, approximately 888 seconds (14.7 minutes) of delay would be added to northbound Muni bus line 10. Option 1 would reduce delay on Muni bus line 108 southbound by approximately 216 seconds (3.6 minutes). The headways for Muni bus lines 10 and 108 in the PM peak period are 10 and 15 minutes, respectively. For Muni bus line 10, the total added delay of approximately 672 seconds (11.2 minutes) would be greater than the transit delay threshold of six minutes. For Muni bus line 108, total delay would be reduced. Therefore, a significant transit impact (Significant Impact TR-P2-1q) would occur on Muni bus line 10 with the implementation of combined Projects 2-1 and 2-16 Option 1 under 2025 Cumulative plus Project conditions. Muni bus line 108 would not be significantly impacted.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-1

For 2025 Cumulative plus Project conditions for individual Project 2-1 Option 1 would reduce southbound delay by approximately 216 seconds (3.6 minutes) because of proposed changes to the intersection configuration at the 2nd Street/Harrison Street intersection. However, approximately 666 seconds (11.1 minutes) of delay would be added to northbound Muni bus line 10. Option 1 would reduce southbound delay on Muni bus line 108 by approximately 216 seconds (3.6 minutes). The headways for Muni bus lines 10 and 108 in the PM peak period are 10 and 15 minutes, respectively. For Muni bus line 10, the total added delay of 450 seconds (7.5 minutes) would be greater than the transit delay threshold of six minutes. For Muni bus line 108, total delay would be reduced. Therefore, a significant transit impact (Significant Impact TR-P2-1u) would occur on Muni bus line 10 with the implementation of Project 2-1 Option 1 under 2025 Cumulative plus Project conditions. Muni bus line 108 would not be significantly impacted.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 2-1 and 2-16 combined

For Existing plus project conditions for combined Projects 2-1 and 2-16 Option 2 would add approximately 192 seconds (3.2 minutes) of delay southbound and approximately 332 seconds (5.5 minutes) of delay northbound to Muni bus line 10 in the PM peak period. Approximately 176 seconds (2.9 minutes) of delay would be added to Muni bus line 108 southbound. The headways for Muni bus lines 10 and 108 in the PM peak period are 10 and 15 minutes, respectively. For Muni bus line 10, the total added delay of approximately 524 seconds (8.7 minutes) would be greater than the transit delay threshold of six minutes. For Muni bus line 108, the total added delay of 176 seconds (2.9 minutes) would be less than the transit delay threshold of six minutes. Therefore, a significant transit impact (Significant Impact TR-P2-1p) would occur on Muni bus line 10 with the implementation of combined Projects 2-1 and 2-16 Option 2 under Existing plus Project conditions. Muni bus line 108 would not be significantly impacted by the implementation of Project 2-1 Option 2.

Existing and Existing plus Project Conditions for Project 2-1

For Existing plus project conditions implementation of Project 2-1 Option 2 would add approximately 192 seconds (3.2 minutes) of delay southbound and approximately 314 seconds (5.2 minutes) of delay northbound to Muni bus line 10 in the PM peak period. Approximately 175 seconds (2.9 minutes) of delay would be added to Muni bus line 108 southbound. The headways for Muni bus lines 10 and 108 in the PM peak period are 10 and 15 minutes, respectively. For Muni bus line 10, the total added delay of approximately 506 seconds (8.4 minutes) would be greater than the transit delay threshold of six minutes. For Muni bus line 108, the total added delay of 175 seconds (2.9 minutes) would be less than the transit delay threshold of six minutes. Therefore, a significant transit impact (Significant Impact TR-P2-1t) would occur on Muni bus line 10 with the implementation of Project 2-1 Option 2 under Existing plus Project conditions. Muni bus line 108 would not be significantly impacted.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-1 and 2-16 combined

For 2025 Cumulative plus Project conditions for implementation of combined Projects 2-1 and 2-16 Option 2 would add approximately 192 seconds (3.2 minutes) of delay southbound and approximately 665 seconds (11.0 minutes) of delay northbound to Muni bus line 10. Approximately 192 seconds (3.2 minutes) of delay would be added to Muni bus line 108 southbound. The headways for Muni bus lines 10 and 108 in the PM peak period are 10 and 15 minutes, respectively. For Muni bus line 10, the total added delay of 857 seconds (14.2 minutes) would be greater than the transit delay threshold of six minutes. For Muni bus line 108, the total added delay of 192 seconds (3.2 minutes) would be less than the transit delay threshold of six minutes. Therefore, a significant transit impact (Significant Impact TR-P2-1r) would occur on Muni bus line 10 with the implementation of individual Project 2-1 Option 2 under 2025 Cumulative plus Project conditions. Muni bus line 108 would not be significantly impacted.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-1

For 2025 Cumulative plus Project conditions for Project 2-1 Option 2 would add approximately 192 seconds (3.2 minutes) of delay southbound and approximately 665 seconds (11.0 minutes) of delay northbound to Muni bus line 10. Approximately 192 seconds (3.2 minutes) of delay would be added to Muni bus line 108 southbound. The headways for Muni bus lines 10 and 108 in the PM peak period are 10 and 15 minutes, respectively. For Muni bus line 10, the total added delay of 857 seconds (14.2 minutes) would be greater than the transit delay threshold of six minutes. For Muni bus line 108, the total added delay of 192 seconds (3.2 minutes) would be less than the transit delay threshold of six minutes. Therefore, a significant transit impact (Significant Impact TR-P2-1v) would occur on Muni bus line 10 with the implementation of Project 2.-1 Option 2 under 2025 Cumulative plus Project conditions. Muni bus line 108 would not be significantly impacted.

Significant Impact 2-1o (Projects 2-1 and 2-16 combined):

Muni bus line 10 would experience significant delays as a result of implementation of the combined Projects 2-1 and 2-16 Option 1 under Existing plus Project conditions.

Significant Impact 2-1p (Projects 2-1 and 2-16 combined):

Muni bus line 10 would experience significant delays as a result of Option 2 of the combined Projects 2-1 and 2-16 under Existing plus Project conditions.

Significant Impact 2-1q (Projects 2-1 and 2-16 combined):

Muni bus line 10 would experience significant delays as a result of implementation of Option 1 of the combined Projects 2-1 and 2-16 under 2025 Cumulative plus Project conditions.

Significant Impact 2-1r (Projects 2-1 and 2-16 combined):

Muni bus line 10 would experience significant delays as a result of implementation of Option 2 of the combined Projects 2-1 and 2-16 under 2025 Cumulative plus Project conditions.

Significant Impact 2-1s:

A significant transit impact to Muni bus line 10 would occur as a result of individual Project 2-1 with Option 1 under Existing plus Project conditions.

Significant Impact 2-1t:

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.

Significant Impact 2-1u:

A significant transit impact would occur to Muni bus line 10 as a result of individual Project 2-1 with Option 1 under 2025 Cumulative plus Project conditions.

Significant Impact 2-1v:

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.

PARKING

There are a total of approximately 245 existing on-street parking spaces on both sides of 2nd Street between King and Market Streets. The overall existing midday parking occupancy rate is approximately 70 percent.[10] Option 1 would remove approximately 97 parking spaces and Option 2 would remove approximately 88 on-street parking spaces between Market and Brannan Streets. This change would potentially increase the midday occupancy rate along 2nd Street to over 100 percent.

Modified Option 1 would remove parking at the following locations to provide right-turn pockets: 100' on the west side of 2nd Street north of Mission Street; 100' on the east side of 2nd Street south of Mission Street; 100' on the west side of 2nd Street, north of Howard Street; 100' on the east side of 2nd Street, south of Folsom Street; and 100' on the west side of 2nd Street north of Harrison Street. These parking removals result in a net loss of 14 metered parking spaces, two yellow (commercial) metered spaces, two passenger loading zones (total of 63') and one Muni bus zone on 2nd Street. On Hawthorne Street, three metered parking spaces and two yellow (commercial) metered spaces would be removed. The number of parking spaces removed by Modified Option 1 is substantially lower than the 97 spaces that would be removed under Option 1 and 88 spaces removed by Option 2. However, this change would potentially increase the midday occupancy rate along 2nd Street to over 100 percent.

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.

In San Francisco, 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, however, address the secondary physical impacts that could be triggered by a social impact (CEQA Guidelines § 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

[10] Based on field surveys conducted by CHS Consulting during the midday on Wednesday, November 28, 2007 and Wednesday, December 5, 2007.

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."

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 offset 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. Therefore, neither Project 2.1 Modified Option1, nor Option 1, or Option 2 of Project 2-1 would result in a significant parking impact. Impacts on loading resulting from this parking removal are discussed below in the Loading section.

PEDESTRIAN

There would be no changes in sidewalk width or crosswalk layout, and the interactions between pedestrians and bicyclists would not change as a result of Project 2-1. Therefore, there would be no pedestrian impacts with implementation of either Option 1 or Option 2 of Project 2-1.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. The installation of sharrows would increase the motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone'.[11] As discussed below under Loading, bicyclists would be required to use the general travel lane to pass vehicles double-parked for passenger loading in front of the Marriott Courtyard Hotel on the east side of 2nd Street between Clementina and Folsom Streets. This would not differ from existing conditions. Therefore, neither Option 1 nor Option 2 of Project 2-1 would have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

With both Option 1 and Option 2, removal of the on-street parking lane in front of the Marriott Courtyard Hotel on the east side of 2nd Street between Clementina and Folsom Streets could result in a potential impact because it would cause the elimination of the passenger

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[11] In February 2004, Alta Planning + Design completed a study, *San Francisco's Shared Lane Pavement Markings: Improving Bicycle Safety*, on shared lane markings for Class III bikeways in San Francisco. In this study, a key conclusion was that the pavement markings (also known as sharrow markings) increased the awareness of the bicyclists' and motorists' position on the road. Bicyclists tended to ride further from parked cars, and motorists tended to pass bicyclists at a greater distance from the pavement marking. The report's recommendation was to use the sharrow markings on appropriate shared lanes but not as a substitution for bicycle lanes where feasible.

loading/unloading (white) zone in front of the hotel. Although an off-street porte cochere is available at this location, hotel guests and taxis typically use the white zone for loading/unloading. Without available passenger loading/unloading in front of this hotel, hotel taxis and patrons may park in the proposed bicycle lane or travel lane, especially during the peak hotel check-in and check-out times. While bicycles can use the general travel lane to pass the vehicle double-parking in the bicycle lane, the safety benefits of the bicycle lane in this area would be negated during peak loading periods for the hotel. Vehicles parked at the curb in the bicycle lane or travel lane would not impact transit because there are no northbound transit lines in this segment of 2nd Street, but they would potentially interfere with bicycle movement and other vehicular traffic. Therefore, a significant passenger loading impact (Significant Impacts TR-P2-1w, TR-P2-1x, TR-P2-1y, and TR-P2-1z) would occur on the east side of 2nd Street between Clementina Street and Folsom Street with implementation of Project 2-1 with Option 1 or Option 2 under Existing plus Project and 2025 Cumulative plus Project conditions.

There are approximately 40 existing on-street yellow commercial freight loading spaces along 2nd Street between Market and Bryant Streets. In addition, several large size office buildings have off-street loading spaces to accommodate the loading demand; observations noted occasional double-parking by delivery vehicles along 2nd Street. Both options would remove approximately three to five loading spaces per block in the northbound direction between Market and Harrison Streets. Because there are smaller scale office and retail uses along these blocks relying on on-street yellow commercial freight loading spaces for loading, delivery trucks may be forced to double-park in the travel lane or the bicycle lane to make deliveries. Therefore, a significant commercial freight loading impact (Significant Impacts TR-P2-1aa, TR-P2-1bb, TR-P2-1cc, and TR-P2-1dd) would occur on 2nd Street between Market Street and Bryant Street with implementation of Project 2-1 with either Option 1 or Option 2 under Existing plus Project and 2025 Cumulative plus Project.

● As discussed on pages V.A.3-231 and 232 of the Draft EIR, the removal of passenger loading zones and commercial freight loading zones within the 2nd Street corridor as a result of the implementation of either Option 1 or Option 2 of Project 2-1 could result in potentially significant loading impacts for passenger and commercial freight loading (Passenger loading: Significant Impacts TR-P2-1w, TR-P2-1x, TR-P2-1y and TR-P2 -1z and Commercial freight loading: TR-P2-1aa, TR-P2-1bb, TR-P2-1cc and TR-P2-1dd). As described in the project description and below, the project design for Modified Option 1 would not result in significant passenger loading impacts. However, as discussed in this section Modified Option 1 could potentially alleviate the identified significant commercial loading impacts. However, based upon a conservative analysis, these significant impacts to commercial freight loading would remain within the 2nd Street corridor.

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. A 42-foot long passenger loading zone on the east side of 2nd Street, south of Mission Street to the adjacent space occupied by three metered parking spaces. This loading zone is located in front of 101 2nd Street, an office building on the southeast corner of 2nd and Mission Streets. The passenger loading zone is located near the entrance to the office building, about 60 feet south of Mission Street. Modified Option 1 would also include 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 to relocate the 21-foot long passenger loading zone on the west side of 2nd Street north of Howard Street. This part-time passenger loading zone serves a restaurant located on the northwest corner of 2nd and Howard Streets. The passenger loading zone is effective between 11 AM – 3 PM Monday through Friday and 5 PM – 11 PM Monday through Saturday. Passenger loading in the project area would be accommodated. As discussed above, Modified Project 2-1 would not result in a potentially significant passenger loading impact along the indicated segments of the 2nd Street.

Modified Option 1 would not remove the existing passenger loading zone in front of the Marriott Courtyard Hotel located on the east side of 2nd Street north of Folsom Street, which is considered a significant passenger loading impact in the Draft EIR (Significant Impacts TR-P2-1w and TR-P2-1y). Therefore, there would be no significant passenger loading impacts as a result of Project 2-1 Modified Option 1.

Draft EIR Options 1 and 2 analyzed the removal of approximately 3 to 5 yellow commercial freight loading spaces per block in the northbound direction between Market and Harrison Streets, and these removals are considered significant impacts in the Draft EIR (TR-P2-1aa and TR-P2-1cc). Modified Option 1 would remove only two yellow commercial freight loading zones on this segment of 2nd Street. Modified Option 1 would also remove two yellow commercial freight loading spaces on the west side of Hawthorne Street north of Folsom Street to create a left turn pocket. The removal of these commercial freight loading zones and spaces could result in a potential impact along the indicated segments of the 2nd Street corridor and along Hawthorne Street north of Folsom Street. Therefore, the significant commercial freight loading impacts as a result of Modified Project 2-1 would remain.

While the SFMTA staff have identified potential measures to alleviate commercial freight loading conditions within the 2nd Street Corridor, as a result of Modified Project 2-1 there could still be similar significant commercial freight loading impacts in this area as identified in the EIR for the options related to this project. Improvement measures that could ameliorate loading conditions include the following: converting metered parking spaces immediately adjacent to the aforementioned two commercial freight loading zones on 2nd Street to yellow commercial freight loading zones; and, converting two metered parking spaces immediately adjacent to the aforementioned commercial freight loading spaces on Hawthorne Street to yellow commercial freight loading spaces. These improvement measures (I-P2-1a and I-P2-1b) may be considered by SFMTA to improve freight loading conditions in this area. Nonetheless, Significant Impacts TR-P2-1aa and TR-P2-1cc remain with implementation of Project 2-1 Modified Option 1.

Significant Impact 2-1w:

A significant impact on passenger loading would occur on the east side of 2nd Street between Clementina Street and Folsom Street as a result of Project 2-1 Option 1 under Existing plus Project conditions.

Significant Impact 2-1x:

A significant impact on passenger loading would occur along 2nd Street between Clementina Street and Folsom Street as a result of Project 2-1 with Option 2 under Existing plus Project conditions.

Significant Impact 2-1y:

A significant impact on passenger loading would occur along 2nd Street between Clementina and Folsom Street as a result of Project 2-1 with Option 1 under 2025 Cumulative plus Project conditions.

Significant Impact 2-1z:

A significant impact on passenger loading would occur along 2nd Street between Clementina and Folsom Street as a result of Project 2-1 with Option 2 under 2025 Cumulative plus Project conditions.

Significant Impact 2-1aa:

A significant impact on commercial freight loading would occur along 2nd Street between Market Street and Bryant Street as a result of Project 2-1 with Option 1 under Existing plus Project conditions.

Significant Impact 2-1bb:

A significant impact on commercial freight loading would occur along 2nd Street between Market Street/Bryant Street as a result of Project 2-1 with Option 2 under Existing plus Project conditions.

Significant Impact 2-1cc:

A significant impact on commercial freight loading would occur along 2nd Street between Market Street and Bryant Street as a result of Project 2-1 with Option 1 under 2025 Cumulative plus Project conditions.

Significant Impact 2-1dd:

A significant impact on commercial freight loading would occur along 2nd Street between Market Street and Bryant Street as a result of Project 2-1 with Option 2 under 2025 Cumulative plus Project conditions.

● *Improvement Measure I-P2-1a:*

To improve freight loading conditions in the 2nd Street corridor, metered parking spaces on Mission Street east of 2nd Street would be converted to yellow commercial freight loading zones.

Improvement Measure I-P2-1b:

To improve freight loading conditions in the 2nd Street corridor, metered parking spaces on Mission Street east of 2nd Street would be converted to yellow commercial freight loading zones.

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

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.

There are two options for this segment of 5th Street:

Option 1 would add a Class II bicycle lane in both directions between Mission and Townsend Streets, except in both directions between Howard and Tehama Streets and between Market and

Mission Streets where sharrows would be added. This option would also remove one northbound travel lane between Harrison and Howard Streets and between Townsend and Bryant Streets; instead, turn pockets would be added at the approach to several intersections to accommodate turning movement. Approximately 40 on-street parking spaces would be lost (13 on the east side and 27 on the west side) along 5th Street.

Option 2 would add Class II bicycle lanes in both directions between Market and Townsend Streets except in the following segments: both directions between Market and Mission Streets, both directions between Folsom Street, and approximately 100 feet northerly and northbound between Harrison Street and approximately 100 feet northerly. Sharrows would be added along these segments. This option would also remove one northbound travel lane between Townsend and Brannan Streets, one southbound travel lane between Natoma Street and Folsom Street, and one southbound travel lane between Harrison Street and Bryant Street. Instead, turn pockets would be added at the approach to several intersections to accommodate turning movement. Approximately 71 on-street parking spaces would be lost (three on the east side and 68 on the west side) along 5th Street.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour.

Nine study intersections are included for the PM Peak Hour for Project 2-2. Table V.2-17, p.V.A.3-235, and Table V.2-18, p. V.A.3-235, summarize these results for Existing plus Project conditions.

The Draft EIR analyzed nine study intersections for Project 2-2. The revised project would modify two of the study intersections from what was analyzed as Draft EIR design Option 2. The lane configuration of Modified Option 2 at the intersection of 5th Street/Bryant Streets is the same as Draft EIR Option 1. The lane configuration of Modified Option 2 at 5th Street/Brannan Street differs from Draft EIR Option 2 in that a dedicated southbound left turn lane would be provided. For the southbound approach in Modified Option 2 there is one left turn lane, one through lane, and one right turn lane. These changes were made to the traffic model, and the traffic model was reanalyzed. Table C&R-11, below, and Table C&R-12, p. V.A.3-234b, summarize these results.

Table C&R-11
Project 2-2 Intersection Level of Service (LOS) and Average Delay
Existing and Existing Plus Project Conditions
Weekday PM Peak Hour

		Existing		Existing plus Project Modified Option 2		
	Draft EIR Study Intersection	**Average Delay[a]**	**LOS[b] ; V/C[c]**	**Average Delay[a]**	**LOS[b] ; V/C[c]**	**SAME AS**
7.	5th Street/Bryant Street	**75.8**	**E ; 0.958**	**>80**	**F ; 1.286**	Draft EIR Option 1
8.	5th Street/Harrison Street	52.5	D	52.5	D	Draft EIR Option 2
9.	5th Street/Brannan Street	55.3	E ; 1.109	47	D	Modified [d]
10.	5th Street/Mission Street	45.8	D	45.8	D	Draft EIR Option 2
11.	5th Street/Market Street	15.4	B	15.4	B	Draft EIR Option 2
12.	5th Street/Howard Street	24.3	C	29	C	Draft EIR Option 2
13.	5th Street/Folsom Street	16.8	B	17.5	B	Draft EIR Option 2
17.	6th Street /Brannan Street	**>80**	**F ; 1.263**	**>80**	**F ; 1.263**	Draft EIR Option 2
18.	4th Street/Harrison Street	**63.2**	**E ; 1.087**	**63.2**	**E ; 1.087**	Draft EIR Option 2

Notes:
a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions highlighted in bold.
c. V/C (Volume to Capacity) ratio for intersections operating at LOS E or LOS F.
d. Result under Modified Option 2

Table C&R-12
Project 2-2 Intersection Level of Service (LOS) and Average Delay
2025 Cumulative and 2025 Cumulative plus Project Conditions
Weekday PM Peak Hour

		2025 Cumulative		2025 Cumulative plus Project Modified Option 2		
Draft EIR Study Intersection		Average Delay[a]	LOS[b] ; V/C[c]	Average Delay[a]	LOS[b] ; V/C[c]	SAME AS
7.	5th Street/Bryant Street	**>80**	**F ; 1.054**	**>80**	**F ; 1.381**	Draft EIR Option 1
8.	5th Street/Harrison Street	**72.7**	**E ; 0.982**	**72.7**	**E ; 0.982**	Draft EIR Option 2
9.	5th Street/Brannan Street	**>80**	**F ; 1.165**	**>80**	**F ; 1.096**	Modified [d]
10.	5th Street/Mission Street	**>80**	**F ; 1.046**	**>80**	**F ; 1.046**	Draft EIR Option 2
11.	5th Street/Market Street	50	D	50	D	Draft EIR Option 2
12.	5th Street/Howard Street	**77.1**	**E ; 1.179**	**>80**	**F ; 1.358**	Draft EIR Option 2
13.	5th Street/Folsom Street	32.2	C	32.8	C	Draft EIR Option 2
17.	6th Street /Brannan Street	**>80**	**F ; 1.418**	**>80**	**F ; 1.418**	Draft EIR Option 2
18.	4th Street/Harrison Street	**67.4**	**E ; 1.037**	**67.4**	**E ; 1.037**	Draft EIR Option 2

1. *Notes:*
2. a. Delay in seconds per vehicle.
3. b. Intersections operating at LOS E or LOS F conditions highlighted in bold.
4. c. V/C (Volume to Capacity) ratio for intersections operating at LOS E or LOS F.
5. d. Result under Modified Option 2
6.

Intersection 7: 5th Street/Bryant Street

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS E. The 5th Street/Bryant Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions. The southbound lane configuration would be modified from one through lane, one shared through-left turn lane, and one exclusive left-turn lane to one through lane and two exclusive left-turn lanes. In addition, the northbound lane configuration would be modified from one through lane, one shared through-right lane, and one exclusive right-turn lane to one

TABLE V.2-17
CLUSTER 2 – PROJECT 2-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY –EXISTING AND EXISTING PLUS PROJECT CONDITIONS – WEEKDAY PM PEAK HOUR

				Existing plus Project			
		Existing		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
7.	5th Street/Bryant Street	**75.8**	**E**	**>80**	**F**	>80	**F**
8.	5th Street/Harrison Street	52.5	D	40.3	D	52.5	D
9.	5th Street/Brannan Street	**55.3**	**E**	47.2	D	48	D
10.	5th Street/Mission Street	45.8	D	45.8	D	45.8	D
11.	5th Street/Market Street	15.4	B	15.4	B	15.4	B
12.	5th Street/Howard Street	24.3	C	21.5	C	29	C
13.	5th Street/Folsom Street	16.8	B	19.7	B	17.5	B
17.	6th Street /Brannan Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
18.	4th Street/Harrison Street	**63.2**	**E**	**63.2**	**E**	**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 highlighted in bold.

TABLE V.2-18
CLUSTER 2 – PROJECT 2-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				2025 Cumulative plus Project			
		2025 Cumulative		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
7.	5th Street/Bryant Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
8.	5th Street/Harrison Street	**72.7**	**E**	**60.4**	**E**	**72.7**	**E**
9.	5th Street/Brannan Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
10.	5th Street/Mission Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
11.	5th Street/Market Street	50	D	50	D	50	D
12.	5th Street/Howard Street	**77.1**	**E**	50.7	D	**>80**	**F**
13.	5th Street/Folsom Street	32.2	C	37	D	32.8	C
17.	6th Street /Brannan Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
18.	4th Street/Harrison Street	**67.4**	**E**	**67.4**	**E**	**67.4**	**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.

through lane and one exclusive right-turn lane. Due to the lane configuration modification in the southbound and eastbound approaches, there would be an increase in delay at this intersection. Because the eastbound critical movement at 5th Street/Bryant Street either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P2-2a) would occur at the 5th Street/Bryant Street intersection with the implementation of Project 2-2 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 5th Street/Bryant Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions for the PM peak hour. The 5th Street/Bryant Street intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Deterioration of the eastbound and southbound critical movement at 5th Street and Bryant Street for Existing plus Project to LOS F relative to Existing Conditions, is determined a significant impact. 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 (Significant Impact TR-P2-2c) occur at 5th Street/Bryant Street intersection with implementation of Project 2-2 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS E. The 5th Street/Bryant Street intersection would also operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions. The southbound lane configuration would be modified from one through lane, one shared through-left turn lane, and one exclusive left-turn lane to one through lane and one exclusive left-turn lane. In addition, the northbound lane configuration would be modified from one through lane, one shared through-right lane, and one exclusive right-turn lane to two through lanes and one exclusive right-turn lane. Due to the reduction in capacity in the northbound, southbound and eastbound approaches, there would be an increase in delay for this intersection. Because the northbound, southbound and eastbound critical movements at 5th Street/Bryant Street either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P2-2b) would occur at 5th Street/Bryant Street intersection with the implementation of Project 2-2 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 5th Street/Bryant Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions for the PM peak hour. The 5th Street/Bryant Street intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Deterioration of the northbound, southbound, and eastbound critical movements at 5th Street and Bryant Street for Existing plus Project to LOS F relative to Existing Conditions, is determined a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P2-2d) would occur at 5th Street/Bryant Street intersection with implementation of Project 2-2 Option 2 under 2025 Cumulative plus Project conditions.

- **Modified Option 2**

Existing plus Project Conditions
The intersection of 5th and Bryant Streets would operate at LOS F under Existing plus Project for Modified Option 2. This result is similar to that of Option 2, which also has LOS F for Existing plus Project. Therefore, Significant Impact TR-P2-2b would still occur under Modified Option 2.

2025 Cumulative plus Project Conditions
The intersection of Fifth and Bryant would operate unsatisfactorily at LOS F under 2025 Cumulative and Cumulative plus Project conditions. Therefore, Significant Impact TR-P2-2d would still occur under Modified Option 2.

Intersection 8: 5th Street/Harrison Street

- **Option 1**

Existing and Existing plus Project Conditions
Under Existing conditions, for the PM peak hour, this intersection operates at LOS D with 52.5 seconds of delay. The 5th Street/Harrison Street intersection would operate satisfactorily at LOS D, with 40.3 seconds of delay under Existing plus Project conditions. The northbound lane configuration would be modified from one through lane and one shared through-left lane to one through lane and one exclusive left-turn lane. In addition, the southbound lane configuration would be modified from one through lane and one shared through-right lane to two through lanes and one exclusive right turn lane. Due to the lane configuration modifications to the northbound approach and southbound approach, there is a decrease in delay at this intersection under Existing plus Project conditions. However, the LOS does not change and the intersection continues to operate at LOS D under Existing plus Project conditions. Therefore, a significant impact would not occur at 5th Street/Bryant Street intersection with the implementation of Project 2-2 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 5th Street/Harrison Street intersection would operate unsatisfactorily at LOS E, with more than 55 seconds of average delay under 2025 Cumulative conditions for the PM peak hour. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS E. Since the southbound critical movement improves relative to 2025 Cumulative conditions, a significant impact would not occur at the 5th Street/Harrison Street intersection with the implementation of Project 2-2 Option 1 for 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS D with 52.5 seconds of delay. The 5th Street/Harrison Street intersection would continue to operate satisfactorily at LOS D, with 52.5 seconds of delay under Existing plus Project conditions, as no lane configuration adjustments occur under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay for this intersection. Therefore, a significant impact would not occur at the 5th Street/Harrison Street intersection with the implementation of Project 2-2 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 5th Street/Harrison Street intersection would operate unsatisfactorily at LOS E, with more than 55 seconds of average delay under 2025 Cumulative conditions for the PM peak hour. The 5th Street/Harrison Street intersection would operate unsatisfactorily at LOS E, with more than 55 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Therefore, a significant impact would not occur at the 5th Street/Harrison Street intersection with the implementation of Project 2-2 Option 2 under 2025 Cumulative plus Project conditions.

Intersection 9: 5th Street/Brannan Street

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS E with 55.3 seconds of delay. The 5th Street/Brannan Street intersection would operate satisfactorily at LOS D, with 47.2 seconds of delay under Existing plus Project conditions. The northbound lane configuration would be modified from one shared through-left turn lane and one shared through-right turn lane to one exclusive left-turn lane and one shared through-right turn lane. In addition, the southbound lane configuration would be modified from one shared through-left turn lane and one shared through-right turn lane to one shared through-left turn lane, one through lane, and one exclusive right-turn lane. Due to the lane configuration modifications to the northbound approach and southbound approach, there is a decrease in delay at this intersection. The intersection delay decreases by 8.1 seconds, compared to Existing conditions. However, the southbound critical movement improves and does not deteriorate under Existing plus Project conditions. Therefore, a significant impact would not occur at the 5th Street/Brannan Street intersection with the implementation of Project 2-2 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 5th Street/Brannan Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions for the PM peak hour. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Since there would be no change to the LOS and the southbound critical movements under 2025 Cumulative plus Project conditions improve relative to 2025 Cumulative conditions, a significant impact would not occur at the 5th Street/Brannan Street intersection with the implementation of Project 2-2 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS E with 55.3 seconds of delay. The 5th Street/Brannan Street intersection would also operate satisfactorily at LOS D, with 48 seconds of delay under Existing plus Project conditions. The northbound lane configuration would be modified from one shared through-left turn lane and one shared through-right turn lane to one exclusive left-turn lane and one shared through-right turn lane. In addition, the southbound lane configuration would be modified from one shared through-left turn lane and one shared through-right turn lane to one shared through-left lane and one exclusive right-turn lane. Due to the lane configuration modifications to the northbound approach and southbound approach, there is a decrease in delay at this intersection. The intersection delay decreases by 7.3 seconds compared to Existing conditions. However, the southbound critical movement improves and does not deteriorate under Existing plus Project conditions. Therefore, a significant impact would not occur at the 5th Street/Brannan Street intersection with the implementation of Project 2-2 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 5th Street/Brannan Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions for the PM peak hour. The V/C ratio would increase by 53 percent (from 1.17 to 1.68), compared to 2025 Cumulative conditions. Because the northbound, southbound and eastbound critical movements at 5th Street/Brannan Street would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P2-2f) would occur at the 5th Street/Brannan Street intersection with implementation of Project 2-2 Option 2 under 2025 Cumulative plus Project conditions.

- **Modified Option 2**

Existing plus Project Conditions

The intersection of 5th and Brannan Streets would operate at LOS D under Existing plus Project for Modified Option 2. This represents an improvement to the Existing Condition which is LOS E. This result is similar to that of Option 2, which also has LOS D for Existing plus Project. Therefore, there would be no significant traffic impact at the intersection of 5th and Brannan Streets for the Existing plus Project conditions with the implementation of Project 2-2 Modified Option 2.

2025 Cumulative plus Project Conditions

The intersection of 5th and Brannan Streets would operate unsatisfactorily at LOS F under 2025 Cumulative and 2025 Cumulative plus Project conditions. This is the same result as for Option 2 analyzed in the Draft EIR. Modified Option 2 would still result in a significant impact to the intersection of 5th and Brannan Streets under 2025 Cumulative plus Project conditions with the implementation of Project 2-2 Modified Option 2. Therefore, significant Impact TR-P2-2f would still occur under Project 2-2 Modified Option 2.

Intersection 10: 5th Street/Mission Street

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS D with 45.8 seconds of delay. The 5th Street/Mission Street intersection would continue to operate satisfactorily at LOS D, with 45.8 seconds of delay under Existing plus Project conditions. This is due to the fact that there are no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, a significant impact would not occur at the 5th Street/Mission Street intersection with the implementation of Project 2-2 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions
The 5th Street/Mission Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. The intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions, and there will therefore be no change in LOS or delay for this intersection. Therefore, a significant impact would not occur at the 5th Street/Mission Street intersection with the implementation of Project 2-2 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions
Under Existing conditions, this intersection operates at LOS D with 45.8 seconds of delay. The 5th Street/Mission Street intersection would also operate satisfactorily at LOS D, with 45.8 seconds of delay under Existing plus Project conditions. There are no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection compared to Existing conditions. Therefore, a significant impact would not occur at the 5th Street/Mission Street intersection with the implementation of Project 2-2 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions
The 5th Street/Mission Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. The intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus, a significant impact would not occur at the 5th Street/Mission Street intersection with the implementation of Project 2-2 Option 2 under 2025 Cumulative plus Project conditions.

Intersection 11: 5th Street/Market Street

- **Option 1**

Existing and Existing plus Project Conditions
Under Existing conditions, this intersection operates at LOS B with 15.4 seconds of delay. The 5th Street/Market Street intersection would operate satisfactorily at LOS B, with 15.4 seconds of delay under Existing plus Project conditions. There are no lane

configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, a significant impact would not occur at 5th Street/Market Street intersection with the implementation of Project 2-2 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 5th Street/Market Street intersection would operate satisfactorily at LOS D, with 50 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate satisfactorily at LOS D, with 50 seconds of delay. There are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to 2025 Cumulative conditions. Therefore, a significant impact would not occur at 5th Street/Market Street intersection with the implementation of Project 2-2 Option 1.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS B with 15.4 seconds of delay. The study intersection would also operate satisfactorily at LOS B, with 15.4 seconds of delay under Existing plus Project conditions. There are no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, a significant impact would not occur at 5th Street/Market Street intersection with the implementation of Project 2-2 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 5th Street/Market Street intersection would operate satisfactorily at LOS D, with 50 seconds of delay under 2025 Cumulative plus Project conditions. There are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to 2025 Cumulative conditions. Therefore, a significant impact would not occur at 5th Street/Market Street intersection with the implementation of Project 2-2 Option 2.

Intersection 12: 5th Street/Howard Street

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS C with 24.3 seconds of delay. The 5th Street/Howard Street intersection would operate satisfactorily at LOS C, with 21.5 seconds of delay under Existing plus Project conditions. The northbound lane configuration would be modified from one through lane and one shared through-left turn lane to one through lane and one exclusive left-turn lane. In addition, the southbound lane configuration would be modified from one through lane and one shared through-right lane to two through lanes and one exclusive right-turn lane. Due to the lane configuration modifications to the northbound approach and southbound approach, there is a decrease in delay at this intersection. The intersection delay decreases by 2.8 seconds, compared to Existing conditions. Furthermore, the LOS does not change under Existing plus Project conditions. Therefore, a significant impact would not occur at 5th Street/Howard Street intersection with the implementation of Project 2-2 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 5th Street/Howard Street intersection would operate unsatisfactorily at LOS E, with 77.1 seconds of average delay under 2025 Cumulative conditions for the PM peak hour. Under 2025 Cumulative plus Project conditions, this intersection would operate satisfactorily at LOS D, with 50.7 seconds of delay under 2025 Cumulative plus Project conditions. Since the northbound critical movement improves, relative to 2025 Cumulative conditions, a significant impact would not occur at the 5th Street/Howard Street intersection with the implementation of Project 2-2 Option 1.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS C with 24.3 seconds of delay. The 5th Street/Howard Street intersection would also operate satisfactorily at LOS C, with 29 seconds of delay under Existing plus Project conditions. The southbound lane configuration would be modified from one through lane and one shared through-right turn lane to one through lane and one exclusive right-turn lane. Due to the lane configuration modifications to the southbound approach, there would be an increase in delay at this intersection. The intersection would increase by 4.7 seconds, compared to Existing conditions. However, the LOS does not change under Existing plus Project conditions. Therefore, a significant impact would not occur at 5th Street/Howard Street intersection with the implementation of Project 2-2 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 5th Street/Howard Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions for the PM peak hour. Because the northbound and westbound critical movements at 5th Street/Howard Street would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P2-2e) would occur at 5th Street/Howard Street intersection with the implementation of Project 2-2 Option 2 under 2025 Cumulative plus Project conditions.

Intersection 13: 5th Street/Folsom Street

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS B with 16.8 seconds of delay. The 5th Street/Folsom Street intersection would operate satisfactorily at LOS B, with 19.7 seconds of delay under Existing plus Project conditions. The northbound lane configuration would be modified from one through lane and one shared through-right turn lane to one through lane and one exclusive right-turn lane. Due to the modification of lane configuration in the northbound direction, there would be an increase in delay at this intersection. The intersection would increase by 2.9 seconds (from 16.8 to 19.7 seconds) compared to Existing conditions. However, the LOS does not change under Existing plus Project conditions. Therefore, a significant impact would not occur at 5th Street/Folsom Street intersection with the implementation of Project 2-2 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 5th Street/Folsom Street intersection would operate satisfactorily at LOS C, with 32.2 seconds of average delay under 2025 Cumulative conditions. The 5th Street/Folsom Street intersection would operate satisfactorily at LOS D, with 37 seconds of delay under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at 5th Street/Folsom Street intersection with the implementation of Project 2-2 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS B with 16.8 seconds of delay. The study intersection would operate satisfactorily at LOS B, with 17.5 seconds of delay under Existing plus Project conditions. The southbound lane configuration would be modified from one through lane and one shared through-left turn lane to one through lane and one exclusive left-turn lane. Due to the lane configuration modification to the southbound approach, there would be an increase in delay at this intersection. The intersection would increase by 0.7 seconds compared to Existing conditions. However, the intersection continues to operate at LOS B under Existing plus Project conditions. Therefore, a significant impact would not occur at 5th Street/Folsom Street intersection with the implementation of Project 2-2 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 5th Street/Folsom Street intersection would operate satisfactorily at LOS C, with 32.8 seconds of delay under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at 5th Street/Folsom Street intersection with the implementation of Project 2-2 Option 2 under 2025 Cumulative plus Project conditions.

- **Modified Option 2**

Existing plus Project Conditions

The intersection of 5th and Folsom Streets would operate at LOS D under Existing plus Project for Modified Option 2. This represents a deterioration to the Existing Condition at the intersection which is LOS B. This result differs from that for Option 2 in the Draft EIR, which has LOS B for Existing plus Project conditions. However, this LOS deterioration does not reach a level of significant impact. Therefore, there would be no significant traffic impact at the intersection of 5th and Folsom Streets for the Existing plus Project conditions with the implementation of Project 2-2 Modified Option 2.

2025 Cumulative plus Project Conditions

The intersection of 5th and Folsom Streets would operate at LOS C under 2025 Cumulative plus Project for Modified Option 2. This is the same result for Draft EIR Option 2. Thus, Modified Option 2 would not have a significant impact on this intersection under the Existing plus Project conditions. Hence, Modified Option 2 would not contribute to a significant impact under the 2025 Cumulative plus Project conditions. Therefore, there would be no significant traffic impact to the intersection of 5th and Folsom Streets under 2025 Cumulative plus Project conditions with the implementation of Project 2-2 Modified Option 2.

As shown in Tables C&R-10, p. C&R-212b, and C&R-11, p. C&R-234a, all other intersections would operate at the same LOS for either Option 1 or Option 2 in the Draft EIR analysis. Therefore, there would be no additional significant traffic impact at the remaining intersections shown in Tables C&R-10 and C&R-11 under Modified Option 2.

Intersection 17: 6th Street/Brannan Street

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates unsatisfactorily at LOS F with more than 80 seconds of average delay. The 6th Street/Brannan Street intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions. There are no lane configuration adjustments to the study intersection under Existing plus Project conditions for Option 1. Hence, there would be no change in LOS or delay for this intersection compared to Existing conditions. Therefore, a significant impact would not occur at the 6th Street/Brannan Street intersection with the implementation of Project 2-2 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 6th Street/Brannan Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions. Hence, there would be no change in LOS or delay for this intersection compared to Existing conditions. Therefore, a significant impact would not occur at the 6th Street/Brannan Street intersection with the implementation of Project 2-2 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates unsatisfactorily at LOS F with more than 80 seconds of average delay. The 6th Street/Brannan Street intersection would also operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions. There are no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Because of the current lane configuration and operations, the study intersection would continue operating at LOS F, with more than 80 seconds of delay. Thus, a significant impact would not occur at the 6th Street/Brannan Street intersection with the implementation of Project 2-2 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 6th Street/Brannan Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions. Hence, there would be no change in LOS or delay for this intersection. Therefore, a significant impact would not occur at the 6th

Street/Brannan Street intersection with the implementation of Project 2-2 Option 2 under 2025 Cumulative plus Project conditions.

Intersection 18: 4th Street/Harrison Street

- **Option 1**

Existing and Existing plus Project Conditions
Under Existing conditions, for the PM peak hour, this intersection operates at LOS E with 63.2 seconds of delay. The 4th Street/Harrison Street intersection would continue to operate unsatisfactorily at LOS E, with 63.2 seconds of delay under Existing plus Project conditions. There are no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, a significant impact would not occur at the 4th Street/Harrison Street intersection with the implementation of Project 2-2 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions
The 4th Street/Harrison Street intersection would operate unsatisfactorily at LOS E, with 67.4 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS E, with 67.4 seconds of delay. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at the 4th Street/Harrison Street intersection with the implementation of Project 2-2 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions
Under Existing conditions, for the PM peak hour, this intersection operates at LOS E with 63.2 seconds of delay. The 4th Street/Harrison Street intersection would also operate unsatisfactorily at LOS E, with more than 63.2 seconds of delay under Existing plus Project conditions. There are no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Because there would be no change to the current lane configuration and operations, the study intersection would continue operating at LOS E, with 63.2 seconds of delay. Therefore, a significant impact would not occur at the 4th Street/Harrison Street intersection with the implementation of Project 2-2 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions
The 4th Street/Harrison Street intersection would operate unsatisfactorily at LOS E, with 67.4 seconds of delay under 2025 Cumulative plus Project conditions. However, there

are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection, as shown on Table V.2-18, p. V.A.3-235. Thus a significant impact would not occur at the 4th Street/Harrison Street intersection with the implementation of Project 2-2 Option 2 under 2025 Cumulative plus Project conditions.

Significant Impact 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.

Significant Impact TR-P2-2b:

The intersection of 5th Street/Bryant Street would operate at LOS F under Existing plus Project conditions for Project 2-2 Option 2.

Significant Impact 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.

Significant Impact 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.

Significant Impact TR-P2-2e:

The intersection of 5th Street/Howard Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 2.

Significant Impact 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.

TRANSIT

Muni bus lines 26, 27, and 47 run on portions of 5th Street. Muni bus line 26 runs southbound only between Mission and Howard Streets. Muni bus line 27 runs in both directions between Market and Harrison Streets (southbound) and Market and Bryant Streets (northbound). Muni bus line 47 runs northbound only between Townsend and Harrison Streets. 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. Between Mission and

Harrison Streets, Muni bus line 27 runs approximately five northbound and southbound buses per hour during the AM and PM peak periods. Between Harrison and Bryant Streets, Muni bus lines 27 and 47 run approximately thirteen northbound buses and five southbound buses per hour during the AM and PM peak periods.

There are both far side and near side bus stops along this section of 5th Street and most buses have been observed[12] to pull into the bus stop zone. Bicycle volumes along 5th Street are high near Market Street but low along the rest of the corridor. Therefore, there is very little interaction between buses and bicyclists at the present time.

- **Option 1**

  Existing and Existing plus Project Conditions

  With implementation of Project 2-2 Option 1, the reduction from two northbound travel lanes to one travel lane, between Tehama and Harrison Streets, would require buses and other vehicles to travel in the same lane, and buses would have to merge into traffic when exiting the bus stops. The northbound bus stop on the far side of Harrison Street is seven feet wide, which is insufficient to accommodate buses at the curb without protruding into the proposed bicycle lane. However, the 12-foot wide travel lane and the six-foot wide bicycle lane would accommodate bicyclists passing buses to the left at the bus stop to avoid conflicts or minimize impacts on transit operation and travel time.

  For Existing conditions, Option 1 would not impact travel time for Muni bus line 26. For Muni bus line 27, Option 1 would add approximately 206 seconds (3.4 minutes) of delay per vehicle northbound, but would reduce delay on this line by approximately 47 seconds of delay per vehicle southbound. For Muni bus line 47, Option 1 would add approximately 7 seconds of delay per vehicle northbound. The headways for Muni bus lines 26, 27 and 47 in the PM peak period are 20, 12, and 7.5 minutes, respectively. Travel time for Muni bus line 26 would not change with implementation of Project 2-2 Option 1. For Muni bus line 27, the total added delay of 159 seconds (2.6 minutes) would be less than the transit delay threshold of 6 minutes. For Muni bus line 47, the total added delay of 7 seconds would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with the implementation of Project 2-2 Option 1 under Existing plus Project conditions.

  2025 Cumulative and 2025 Cumulative plus Project Conditions

  For Cumulative plus Project conditions, Option 1 would not impact travel time for Muni bus line 26. For Muni bus line 27, Option 1 would add approximately 65 seconds of delay per vehicle northbound, but would reduce delay on this line by approximately 54 seconds of delay per vehicle in the southbound direction. For Muni bus line 47, Option 1

[12] Field surveys were conducted by CHS Consulting on Wednesday, August 29, 2007 during the midday.

would add approximately 201 seconds (3.4 minutes) of delay per vehicle northbound. The headways for Muni bus lines 26, 27 and 47 in the PM peak period are 20, 12 and 7.5 minutes, respectively. Travel time for Muni bus line 26 would not change with implementation of Project 2-2 Option 1. For Muni bus line 27, the total added delay of 11 seconds would be less than the transit delay threshold of six minutes. For Muni bus line 47, the total added delay of 201 seconds (3.4 minutes) would be less than the transit delay threshold of six minutes. Therefore, a significant transit impact would not occur with the implementation of Project 2-2 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Option 2 would not impact travel time for Muni bus line 26. For Muni bus line 27, Option 2 would add approximately 159 seconds (2.6 minutes) of delay per vehicle northbound and 15 seconds of delay southbound. For Muni bus line 47, Option 2 would reduce delay by approximately 5 seconds per vehicle northbound. The headways for Muni bus lines 26, 27 and 47 in the PM peak period are 20, 12, and 7.5 minutes, respectively. Travel time for Muni bus line 26 would not change with implementation of Project 2-2 Option 2. For Muni bus line 27, the total added delay of 174 seconds (2.9 minutes) would be less than the transit delay threshold of 6 minutes. For Muni bus line 47, total delay would be reduced by 6 seconds. Therefore, a significant transit impact would not occur with the implementation of Project 2-2 Option 2 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions

For 2025 Cumulative plus Project conditions, Option 2 would also not impact travel time for Muni bus line 26. For Muni bus line 27, Option 2 would not impact vehicle travel northbound but would add approximately 31 seconds of delay southbound. For Muni bus line 47, Option 2 would reduce delay by approximately 15 seconds per vehicle northbound. The headways for Muni bus lines 26, 27 and 47 in the PM peak period are 20, 12 and 7.5 minutes, respectively. Travel time for Muni bus line 26 would not change with implementation of Project 2-2 Option 2. For Muni bus line 27, the total added delay of 31 seconds would be less than the transit delay threshold of six minutes. For Muni bus line 47, the total delay would be reduced by 15 seconds. Therefore, a significant transit impact would not occur with the implementation of Project 2-2 Option 2 under 2025 Cumulative plus Project conditions.

PARKING

There are a total of about 200 existing on-street parking spaces on both sides of 5th Street between Market and Townsend Streets. The existing midday parking occupancy rate is approximately 70 percent.[13] Option 1 would remove about 40 on-street parking spaces, thereby increasing the midday occupancy rate to approximately 90 percent. Option 2 would remove about 70 on-street parking spaces thereby increasing the midday occupancy rate to approximately 100 percent. With either Option 1 or Option 2, existing demand would be accommodated. Therefore, there would be no significant parking impacts with implementation of Project 2-2 with either Option 1 or Option 2.

This project would remove a total of 20 parking spaces between Market and Townsend Streets. This would be a net reduction of 20 parking spaces from what was analyzed in the Draft EIR. The existing northbound curb traffic lane on 5th Street between Howard and Mission Streets is used as a queuing lane for traffic waiting to enter the Fifth and Mission Parking Garage. This queuing usually occurs when the garage is full during major events at nearby Moscone Center, on heavy shopping days, or when the processing rate at the main entrance/exit on Mission Street is slow. With the replacement of the curb traffic lane with a bicycle lane, that queuing would occur in the curb bicycle lane. However, because the curb bicycle lane is proposed to be six feet wide and the adjacent northbound traffic lane is proposed to be 11 feet wide, one lane of slow moving traffic would still be able to proceed around traffic that is queued along the curb within that 17 foot wide area. Bicyclists would need to use the general traffic lane during these periods.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact as under the CEQA but rather a social effect. The loss of parking may cause potential, indirect physical effects, which would include cars circling and looking for a parking space on neighboring streets. The secondary effects of drivers searching for parking is typically offset 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 that may result from a shortfall in parking in the vicinity of Project 2-2 would be minor. The changes in on-street parking also would not cause any secondary physical impacts, such as traffic congestion, air quality impacts, or noise impacts caused by congestion. Therefore, there would be no significant parking impacts with implementation of Project 2-2 Modified Option 2.

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[13] Field surveys were conducted by CHS Consulting during the midday on Wednesday, November 28, 2007 and Wednesday, December 5, 2007.

PEDESTRIAN

There would be no changes in sidewalk width, crosswalk layout, or crossing distance; the interactions between pedestrians and bicyclists would not change as a result of Project 2-2. Therefore, there would be no significant pedestrian impacts with either Option 1 or Option 2 of Project 2-2.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. The installation of sharrows would increase the motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone'. Therefore, neither Option 1 nor Option 2 of Project 2-2 would have a significant impact on cyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

There are several on-street yellow commercial freight loading spaces along most sections of 5th Street, and there are some off-street loading spaces for the existing buildings. Loading demand is generally low, and there were no double-parked vehicles observed[14] in the field in this segment of 5th Street.

- **Option 1**
  With Option 1, there would be no loss of on-street yellow commercial freight loading spaces under Option 1. Therefore, there would be no loading impacts with implementation of Project 2-2 Option 1.

[14] Field surveys were conducted by CHS Consulting on Wednesday, August 29, 2007 during the midday.

- **Option 2**

  Option 2 would remove approximately 10 on-street yellow commercial freight loading spaces: five spaces on the west side of 5th Street between Mission and Natoma Streets and five spaces on the west side of 5th Street between Folsom and Harrison Streets in front of a gas station, a convenience store, and a low-density residential building. Southbound traffic and bicycle volumes along 5th Street are moderate during the PM peak hour and light to moderate during the weekday midday. Truck double parking for loading/unloading in the southbound curbside lane adjacent to the bike lane along 5th Street is not desirable, but would be permitted in the travel lane. Future plans for the Mint Building, located on the west side of 5th Street between Jessie and Mission Streets, call for extensive restoration for a museum, new location for the San Francisco Visitors Center, shops and restaurants. This complex would face Jessie Street which has been converted to a pedestrian mall for the one block between 5th and Mint Streets. Currently, a bus stop fronts the Mint Building on 5th Street. With Option 2 this would not change. Passenger loading for the new Mint Building complex could not occur at this location with or without Option 2 but could possibly be accommodated on Mint Street at the back of the Mint Building. Therefore, there would be no significant loading impacts with implementation of Project 2-2 Option 2.

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

Option 1 of Project 2-3 was 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.

Prior to Project 2-3, this segment of 14th Street had two eastbound lanes, one westbound lane, and on-street parking on both sides. Implementation of Project 2-3 Option 1 added a Class II bicycle lane along 14th Street between Market and Dolores Streets, and changed traffic circulation from two-way to one-way eastbound and minor modifications to the existing median island at the intersection of 14th Street and Market Street. Further modifications to this median island that are 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. Lane configurations with Option 1 include two eastbound lanes, one eastbound six-foot bicycle lane, and on-street parking on both sides.

Option 2 would restore the traffic circulation to two-way, add an eastbound Class II bicycle lane, and remove an eastbound travel lane between Market and Dolores Streets.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the AM and PM peak hour.

One study intersection is included for the AM peak hour for Project 2-3. Table V.2-19, p. V.A.3-251, and Table V.2-20, on p. V.A.3-252, summarize the results for Existing plus Project and Cumulative plus Project AM Peak Hour. Table V.2-21, p. V.A.3-**Error! Bookmark not defined.**, and Table V.2-22, p. V.A.3-253, summarize the results for Existing plus Project and Cumulative plus Project PM Peak Hour.

Intersection 52: Church Street/Market Street/14th Street

The Church Street/Market Street/14th Street intersection is common to Projects 2-3 and 2-11 within the Cluster 2 area. For Project 2-11, the lane configuration at the intersection would remain the same as under Existing (No Project) conditions for either Option 1 or Option 2. Therefore the impact of the combined Projects 2-3 and 2-11 would be the same as those for Project 2-3 Option 1 or Option 2. The lane configuration for Option 2 under Project 2-11 remains the same as Existing conditions. Therefore, the analysis below reflects the impacts of both projects.

TABLE V.2-19
CLUSTER 2 – COMBINED PROJECTS 2-3 AND PROJECT 2-11
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

	Existing		Existing plus Project			
			Option 1 Combined 2-3 and 2-11		Option 2 Combined 2-3 and 2-11	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
52. Church Street/Market Street/ 14th Street	**>80**	**F**	**>80**	**F**	**>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.

TABLE V.2-20
CLUSTER 2 – COMBINED PROJECTS 2-3 AND 2-11
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

			2025 Cumulative plus Project			
	2025 Cumulative		Option 1 Combined 2-3 and 2-11		Option 2 Combined 2-3 and 2-11	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
52. Church Street/Market Street/ 14th Street	**>80**	**F**	**>80**	**F**	**>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.

REVISED TABLE V.2-21
CLUSTER 2 – PROJECTS 2-3 AND 2-11
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR CHURCH STREET/MARKET STREET/14TH STREET - EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1				Existing plus Project Option 2			
Existing		Project 2-3		Combined Projects 2-3 and 2-11		Project 2-3		Combined Projects 2-3 and 2-11	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
52.2	D	52.2	D	52.2	D	52.2	D	52.2	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.

TABLE V.2-22
CLUSTER 2 – PROJECTS 2-3 AND 2-11
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR CHURCH STREET/MARKET STREET/14TH STREET 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
2025 Cumulative		Project 2-3		Combined 2-3 and 2-11		Project 2-3		Combined 2-3 and 2-11	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	**>80**	**F**	**>80**	**F**	**>80**	**F**	**>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.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 2-3 and 2-11 combined – AM Analysis

Under Existing conditions, for the AM peak hour, this intersection operates at LOS F with a delay of more than 80 seconds. The Church Street/Market Street/14th Street intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions for the AM peak hour for combined Projects 2-3 and Modified 2-11. The proposed projects would not change the lane configurations at the southbound or westbound approaches to this intersection. Therefore, a significant impact would not occur at the Church Street/Market Street/14th Street intersection for the AM peak hour with the implementation of Option 1 of Project 2-3 and Modified Option 1 of Project 2-11 combined.

Since the impacts of combined Projects 2-3 and 2-11 Option 1 would not result in a significant traffic impact the Church Street/Market Street/14th Street intersection for the AM peak hour, there would be no significant traffic impact from individual Project 2-3 Option 1 under Existing plus Project conditions.

Existing and Existing plus Project Conditions for Projects 2-3 and 2-11 combined – PM Analysis

Under Existing conditions for the PM peak hour this intersection operates at LOS D with 52.2 seconds of delay. Under the Existing plus Project conditions for combined Projects 2-3 and 2-11 Modified Option 1, the intersection would also operate at LOS D average delay of 52.2 seconds. Therefore, a significant traffic impact would not occur at the Church Street/Market Street/14th Street intersection for the PM peak hour with the implementation of Projects 2-3 Option 1 and 2-11 Modified Option 1 combined. Table V.2-21, p.V.A.3-252, summarizes these results.

Existing and Existing plus Project Conditions for Project 2-3 alone – PM Analysis

Under Existing conditions for Project 2-3 Option 1 alone, for the PM peak hour, this intersection operates at LOS D with 52.2 seconds of delay. The Church Street/Market Street/14th Street intersection would continue to operate satisfactorily at LOS D, with 52.2 seconds of delay under Existing plus Project conditions for the PM peak hour. The westbound right-turn lane along 14th Street would be removed under Existing plus Project conditions. No other lane configuration changes are proposed as part of Project 2-3 at this intersection. However, there would be no change to the delay or LOS at this intersection due to this lane modification. Hence, a significant impact would not occur at the Church Street/Market Street/14th Street intersection with the implementation of Project 2-3 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-3 and 2-11 combined – AM Analysis

The Church Street/Market Street/14th Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative conditions for the AM peak hour. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Since there is no change in LOS and because the configuration of the south and westbound approach lanes to the intersection would not be changed a significant impact would not occur at the Church Street/Market Street/14th Street intersection with the implementation of combined Project 2-3 Option 1 and 2-11 Modified Option 1 .

Since the impacts of combined Projects 2-3 and 2-11 Option 1 would not result in a significant traffic impact the Church Street/Market Street/14th Street intersection for the AM peak hour, there would be no significant traffic impact from individual Project 2-3 Option 1 under 2025 Cumulative plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-3 and 2-11 combined – PM Analysis

The Church Street/Market Street/14th Street intersection would operate unsatisfactorily at LOS F in the PM peak hour, with more than 80 seconds of average delay under 2025 Cumulative conditions. The Church Street/Market Street/14th Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions for combined Projects 2-3 Option 1 and 2-11 Modified Option 1.

There would be no change to the delay or LOS at this intersection due to Projects 2-3 Option 1 and 2-11 Modified Option 1 combined as the configuration of the south and westbound approach lanes would not change as a result of the proposed projects. However for the purpose of this analysis, the EIR will take the more conservative approach and retain the LOS F as significant and unavoidable.

Therefore, a significant impact (Significant Impact TR-P2-3b) would occur at the Church Street/Market Street/14th Street intersection for the PM peak hour with implementation of Projects 2-3 Option 1 and 2-11 Modified Option 1 combined. Table V.2-22, p. V.A.3-253, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-3– PM Analysis

Under 2025 Cumulative conditions for Project 2-3 Option 1, for the PM peak hour, this intersection operates at LOS F with more than 80 seconds of delay. The Church Street/Market Street/14th Street intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions for the PM peak hour. The westbound right-turn lane along 14th Street would be removed under 2025 Cumulative plus Project conditions. No other lane configuration changes are proposed as part of Project 2-3 at this intersection. Since the westbound right-turn volume operates during the overlap phase, there would be no change to the delay or LOS at this intersection due to the lane modification. Hence, a significant impact would not occur at the Church Street/Market Street/14th Street intersection with the implementation of Project 2-3 Option 1.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 2-3 and 2-11 combined – AM Analysis

Under Existing conditions, for the AM peak hour, this intersection operates at LOS F with a delay of more than 80 seconds. The Church Street/Market Street/14th Street intersection would also operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions in the AM peak hour. There are no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, a significant impact would not occur at the Church Street/Market Street/14th Street intersection in the AM peak hour with the implementation of combined Project 2-3 and Project 2-11 Option 2.

Since the impacts of combined Projects 2-3 and 2-11 Option 2 would not result in a significant traffic impact the Church Street/Market Street/14th Street intersection for the AM peak hour, there would be no significant traffic impact from individual Project 2-3 Option 2 under Existing plus Project conditions. Table V.2-19 on, p. V.A.3-251, summarizes these results.

Existing and Existing plus Project Conditions for Projects 2-3 and 2-11 combined – PM Analysis

Under Existing conditions, for the PM peak hour, this intersection operates at LOS D with 52.2 seconds of delay. There are no lane configuration changes to the study intersection under Existing plus Project conditions compared to Existing conditions. Hence, there would be no change in LOS or delay for the Church Street/Market Street/14th Street intersection for Existing plus Project conditions. Therefore, under Existing plus Project conditions, Option 2 of Project 2-3 and Project 2-11 combined would not cause a significant impact to the Church Street/Market Street/14th Street intersection. Table V.2-21 on p. V.A.3-**Error! Bookmark not defined.**, summarizes these results.

Existing and Existing plus Project Conditions for Project 2-3– PM Analysis

Under Existing conditions for project 2-3 Option 2, for the PM peak hour, this intersection operates at LOS D with 52.2 seconds of delay. There are no lane configuration changes to the study intersection under Existing plus Project conditions compared to Existing conditions. Hence, there would be no change in LOS or delay for the Church Street/Market Street/14th Street intersection for Existing plus Project conditions. Therefore, under Existing plus Project conditions, Project 2-3 Option 2 would not cause a significant impact to the Church Street/Market Street/14th Street intersection, as shown on Table V.2-21, p. V.A.3-**Error! Bookmark not defined.**.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-3 and 2-11 combined – AM Analysis

The Church Street/Market Street/14th Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions for the AM peak hour. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; as a result, there will be no change in LOS or delay for this intersection. Therefore, a significant impact would not occur at the Church Street/Market Street/14th Street intersection in the AM peak hour with the implementation of Option 2 of Projects 2-3 and 2-11 combined.

Since under 2025 Cumulative plus Project conditions combined Projects 2-3 and 2-11 Option 2 would not result in a significant traffic impact at the Church Street/Market Street/14th Street intersection for the AM peak hour, there would be no significant traffic impact from individual Project 2-3 Option 2 under 2025 Cumulative plus Project conditions for the AM peak hour. Table V.2-19, p. V.A.3-251, summarizes these results.

2025 Cumulative and Cumulative plus Project Conditions for Projects 2-3 and 2-11 combined – PM Analysis

The Church Street/Market Street/14th Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. The Church Street/Market Street/14th Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection as shown on Table V.2-22 on p. V.A.3-253. Thus a significant impact would not occur at the Church Street/Market Street/14th Street intersection with the implementation of Option 2 of Project 2-3 and Project 2-11 combined.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-3 – PM Analysis

Under 2025 Cumulative conditions for the PM peak hour, this intersection operates at LOS D with 52.2 seconds of delay. There are no lane configuration changes to the study intersection under 2025 Cumulative plus Project conditions compared to 2025 Cumulative conditions. Hence, there would be no change in LOS or delay for the Church Street/Market Street/14th Street intersection for 2025 Cumulative plus Project conditions. Therefore, under 2025 Cumulative plus Project conditions, Project 2-3 Option 2 would not cause a significant impact to the Church Street/Market Street/14th Street intersection. Table V.2-20, p. V.A.3-252, summarizes these results.

Significant Impact 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 and 2-11 Option 1.

TRANSIT

There are no transit lines on this segment of 14th Street. Therefore, there would be no transit impacts resulting from Project 2-3.

PARKING

There would be no parking changes on this segment of 14th Street under either Option 1 or Option 2. Therefore, there would be no parking impacts with implementation of either option of Project 2-3.

PEDESTRIAN

Pedestrian volumes on 14th Street are generally low. Option 1 would create a bulb-out at the northeast corner at the Market and 14th Street intersection and decrease the crossing distance for pedestrians at the crosswalk. Therefore, there would be no significant pedestrian impacts with implementation of Project 2-3 Option 1.

Option 2 would have no changes in sidewalk width or crosswalk layout. Therefore, there would be no pedestrian impacts with implementation of Project 2-3 Option 2.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. Therefore, neither Option 1 nor Option 2 of Project 2-3 would result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

There are several businesses on the south side of 14th and Market Streets, but there are no on-street yellow commercial freight loading spaces designated for delivery vehicles. Double-parked trucks were observed using the curbside travel lane immediately adjacent to the bicycle lane to make deliveries. Observation shows that there were no major conflicts because trucks typically do not encroach upon the bicycle lane. Thus, there would be no significant loading impacts with implementation of Project 2-3 for either Option 1 or Option 2.

While there are no significant loading impacts, SFMTA should consider providing curbside commercial loading zones on the south side of 14th Street and on Market Street to prevent potential conflicts between delivery vehicles and bicyclists as well as with other vehicles.

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 2-4 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 this project 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.

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.

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 existing Bicycle 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 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.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

The center segment was analyzed in the Draft EIR as part of Option 2. The only traffic variation from Option 2 is the addition of the left-turn bicycle lane on 16th Street, from Sanchez to Market Streets, which is not included in Option 2 of the Draft EIR. The addition of the left-turn bicycle lane does not remove any travel lanes or parking. The west end segment of this project would not add a westbound bicycle lane on 17th Street from Church to Hartford Streets. Sharrows would be added along this segment. On the east end segment, Modified Option 1 would add a southbound left-turn lane on Potrero Avenue approaching Alameda Street. The addition of the left-turn lane would not remove any travel lanes or parking. This project would not remove a northbound travel lane on Potrero Avenue between Alameda and Division Streets. Instead, sharrows would be added. The revised project reduces the scope of the project compared to the project analyzed in the Draft EIR. Please refer to the analysis of sharrows on p. V.A.4-13 of the Draft EIR. As discussed, the implementation of sharrows on the bicycle route network would not result in significant impacts. Therefore, there would be no significant traffic impact as a result of the implementation of Project 2-4 Modified Option 1. Significant Impact TR-P2-4c would not occur at the Potrero/16th Street intersection under Modified Option 1, because the lane configuration would be the same as under Option 1 rather than Option 2.

Significant Impacts TR-P2-4a (Projects 2-4 and 2-6 combined) and TR-P2-4b (Projects 2-4 and 2-6 combined) still would occur at the intersection of 10th Street/Brannan Street/Potrero Avenue/Division Street under Existing plus Project and 2025 Cumulative plus Project conditions. Significant Impact TR-P2-4d still would occur at the intersection of Potrero Avenue/16th Street under 2025 Cumulative plus Project conditions.

Intersection LOS calculations were performed for the PM peak hour. Three study intersections are included for the PM Peak Hour for Project 2-4. Tables V.2-23, V.2-24, V.2-25, and V.2-26, on pp. V.A.3-262 and V.A.3-263 summarize these results.

Intersection 20: Potrero Avenue/17th Street

- **Option 1**

Existing and Existing plus Project Conditions
Under Existing conditions, this intersection operates at LOS C with 22.8 seconds of delay. The Potrero Avenue/17th Street intersection would continue to operate satisfactorily at LOS C, with 22.8 seconds of delay under Existing plus Project

conditions. This is due to the fact that there are no lane configuration adjustments to the study intersection under Existing plus Project conditions compared to Existing conditions. Hence, there would be no change in LOS or delay at this intersection. Therefore, a significant impact would not occur at Potrero Avenue/17th Street intersection with the implementation of Project 2-4 Option 1 for Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions

Under 2025 Cumulative conditions, for the PM peak hour, this intersection would operate at LOS D with 40.3 seconds of delay. There are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions, compared to 2025 Cumulative conditions. Hence, the Potrero Avenue/17th Street intersection would continue to operate satisfactorily at LOS D, with 40.3 seconds of average delay under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at Potrero Avenue/17th Street intersection with the implementation of Project 2-4 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions for Project

Under Existing conditions, this intersection operates at LOS C with 22.8 seconds of delay. The Potrero Avenue/17th Street intersection would also operate satisfactorily at LOS C, with 22.8 seconds of delay under Existing plus Project conditions. There are no lane configuration adjustments to the study intersection under Existing plus Project

TABLE V.2-23
CLUSTER 2 - PROJECTS 2-4 AND 2-6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR 10TH STREET/BRANNAN STREET/POTRERO AVENUE/DIVISION STREET EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1				Existing plus Project Option 2			
Existing		Project 2-4		Combined Projects 2-4 and 2-6		Project 2-4		Combined Projects 2-4 and 2-6	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
72.0	**E**	**73.3**	**E**	**78.7**	**E**	**73.3**	**E**	**73.3**	**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.

TABLE V.2-24
CLUSTER 2 – PROJECT 2-4 [c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				Existing plus Project			
		Existing		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
20.	Potrero Avenue/17th Street	22.8	C	22.8	C	22.8	C
21.	10th Street/Brannan Street/ Potrero Avenue/Division Street[c]	**72.0**	**E**	**78.7**	**E**	**73.3**	**E**
22.	Potrero Avenue/16th Street	19.5	B	20.2	C	**69.9**	**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.
c. LOS and average delay for combined impacts for Projects 2-4 and 2-6.

TABLE V.2-25
CLUSTER 2 – PROJECTS 2-4 AND 2-6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR 10TH STREET/BRANNAN STREET/POTRERO AVENUE/DIVISION STREET 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
2025 Cumulative		Project 2-4		Combined Projects 2-4 and 2-6		Project 2-4		Combined Projects 2-4 and 2-6	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	**>80**	**F**	**>80**	**F**	**>80**	**F**	**>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.

TABLE V.2-26
CLUSTER 2 – PROJECT 2-4 [c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				2025 Cumulative plus Project			
		2025 Cumulative		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
20.	Potrero Avenue/17th Street	40.3	D	40.3	D	40.3	D
21.	10th Street/Brannan Street/Potrero Avenue/Division Street[c]	**>80**	**F**	**>80**	**F**	**>80**	**F**
22.	Potrero Avenue/16th Street	**>80**	**F**	**>80**	**F**	**>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.
c. LOS and average delay for combined impacts for Projects 2-4 and 2-6.

conditions, compared to Existing conditions. Hence, there would be no change in LOS or delay for this intersection. Therefore, a significant impact would not occur at Potrero Avenue/17th Street intersection with the implementation of Project 2-4 Option 2 for Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions
Under 2025 Cumulative conditions, for the PM peak hour, this intersection would operate at LOS D with 40.3 seconds of delay. There are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions, compared to 2025 Cumulative conditions. Hence, the Potrero Avenue/17th Street intersection would continue to operate satisfactorily at LOS D, with 40.3 seconds of delay under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at Potrero Avenue/17th Street intersection with the implementation of Project 2-4 Option 2.

Intersection 21: 10th Street/Brannan Street/Potrero Avenue/Division Street

The 10th Street/Brannan Street/Potrero Avenue/Division Street intersection is common to Projects 2-4 and 2-6 within the Cluster 2 area. For Project 2-4, under both Option 1 and Option 2, a northbound through lane is removed. For Project 2-6, under Option 1, the eastbound shared through left-turn lane is removed. However, for Project 2-6, Option 2 has the same lane configuration as Existing (No Project) conditions. The analysis below reflects the combined impact of implementing Projects 2-4 and 2-6 at this intersection. The impacts resulting from the implementation of individual Project 2-4 follows the discussion of the combined impacts.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 2-4 and 2-6 combined
Under Existing conditions, for the PM peak hour, this intersection operates at LOS E. The 10th Street/Brannan Street/Potrero Avenue/Division Street intersection would continue to operate unsatisfactorily at LOS E, under Existing plus Project conditions for the PM peak hour. The eastbound lane configuration would be modified from a shared through left turn lane and a shared through right turn lane to one shared through-left-right turn lane. In addition, one northbound through lane would be removed. Due to the reduction in capacity in the eastbound and northbound approaches, there would be an increase in delay for this intersection. Because the eastbound critical movement at 10th Street/Brannan Street/Potrero Avenue/Division Street either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P2-4a) would occur at the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection with implementation of Option 1 of Projects 2-4 and 2-6 combined.

Existing and Existing plus Project Conditions for Project 2-4

Under Existing conditions for the PM peak hour, this intersection operates at LOS E. The 10th Street/Brannan Street/Potrero Avenue/Division Street intersection would continue to operate satisfactorily at LOS E under Existing plus Project conditions for the PM peak hour. The northbound through lane would be removed under Existing plus Project conditions. No other lane configuration changes are proposed as part of Project 2-4 at this intersection. Since there would be no change to the LOS or delay for the southbound critical movements at this intersection, a significant impact would not occur at the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection with the implementation of Project 2-4 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-4 and 2-6 combined

Under 2025 Cumulative conditions, for the PM peak hour, this intersection operates at LOS F. The 10th Street/Brannan Street/Potrero Avenue/Division Street intersection would continue to operate unsatisfactorily at LOS F, under 2025 Cumulative plus Project conditions for the PM peak hour. The eastbound lane configuration would be modified from a shared through left turn lane and a shared through right turn lane to one shared through-left-right turn lane. In addition, one northbound through lane would be removed. Due to the reduction in capacity in the eastbound and northbound approaches, there would be an increase in delay for this intersection. Deterioration of the eastbound critical movement at 10th Street/Brannan Street/Potrero Avenue/Division Street for Existing plus Project to LOS F relative to Existing Conditions, is determined a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P2-4b) would occur at the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection with implementation of Option 1 of Projects 2-4 and 2-6 combined.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-4

Under 2025 Cumulative conditions for the PM peak hour, this intersection operates at LOS F with more than 80 seconds of delay. The 10th Street/Brannan Street/Potrero Avenue/Division Street intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions for the PM peak hour. The northbound through lane would be removed under Existing plus Project conditions. No other lane configuration changes are proposed as part of Project 2-4 at this intersection. Since there would be no change to the LOS or V/C ratios for the critical movements at this intersection relative to 2025 Cumulative conditions, a significant impact would not occur at the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection with the implementation of Project 2-4 Option 1.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 2-4 and 2-6 combined

Under Existing conditions, for the PM peak hour, this intersection operates at LOS E. The northbound through lane would be removed under Existing plus Project conditions. However, there would be no change in the LOS for the eastbound critical movements at this intersection. Therefore, under Existing plus Project conditions, the implementation of Option 2 of combined Projects 2-4 and 2-6 would not cause a significant impact to the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection. Table V.2-23, p. V.A.3-262, summarizes these results.

Existing and Existing plus Project Conditions for Project 2-4

Under Existing conditions, for the PM peak hour, this intersection operates at LOS E. The northbound through lane would be removed under Existing plus Project conditions. However, there would be no change in the LOS for the southbound critical movements at this intersection relative to Existing conditions. Therefore, under Existing plus Project conditions, the implementation of Project 2-4 Option 2 would not cause a significant impact to the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection. Table V.2-24, p. V.A.3-262, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-4 and 2-6 combined

Under 2025 Cumulative conditions, for the PM peak hour, this intersection operates at LOS F. The northbound through lane would be removed under 2025 Cumulative plus Project conditions. However, there would be no change in the LOS for the eastbound critical movements at this intersection relative to 2025 Cumulative conditions. Therefore, under 2025 Cumulative plus Project conditions, the implementation of Option 2 of Project 2-4 and Project 2-6 combined would not cause a significant impact to the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection. Table V.2-25, p. V.A.3-263, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-4

Under 2025 Cumulative conditions for the PM peak hour, this intersection operates at LOS F. The northbound through lane would be removed under 2025 Cumulative plus Project conditions. However, there would be no change in the LOS for the critical movements at this intersection relative to 2025 Cumulative conditions. Therefore, under 2025 Cumulative plus Project conditions, the implementation of Project 2-4 Option 2 would not cause a significant impact to the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection. Table V.2-25, p. V.A.3-263, summarizes these results.

Intersection 22: Potrero Avenue/16th Street

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS B with 19.5 seconds of delay. The Potrero/16th Street intersection would operate satisfactorily at LOS C, with 20.2 second of delay under Existing plus Project conditions. The northbound lane configuration would be modified from one shared through-left turn lane, one through lane, and one shared through-right turn lane to one exclusive left-turn lane, one through lane, and one shared through-right turn lane. In addition, the southbound lane configuration would be modified from one shared through-left turn lane, one through lane, and one shared through-right turn lane to one exclusive left-turn lane, one through lane, and one shared through-right turn lane. Due to the lane configuration changes in the northbound and southbound direction, there would be an increase in delay along these approaches. The intersection would increase by 0.7 second (from 19.5 to 20.2 seconds) and the LOS deteriorates from LOS B to LOS C, compared to Existing conditions. However, the study intersection would continue to operate at an acceptable LOS; therefore Project 2-4 Option 1 would not a cause a significant impact to the Potrero Avenue/16th Street intersection under Existing plus Project conditions. Table V.2-24, p. V.A.3-262, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Potrero Avenue/16th Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions for the PM peak hour. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Since the eastbound and westbound critical movements at Potrero Avenue/16th Street would improve and do not deteriorate in LOS compared to 2025 Cumulative conditions, a significant impact would not occur at the Potrero Avenue/16th Street intersection with the implementation of Project 2-4 Option 1.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS B with 19.5 seconds of delay. The Potrero/16th Street intersection would operate unsatisfactorily at LOS E, with 69.9 seconds of delay under Existing plus Project conditions. The northbound lane configuration would be modified from one shared through-left turn lane, one through lane, and one shared through-right turn lane to one exclusive left-turn lane, one through lane, and one shared through-right turn lane. The southbound lane configuration would be modified from one shared through-left turn lane, one through lane, and one shared through-right turn lane to one exclusive left-turn lane, one through lane, and one shared through-right turn lane. The eastbound lane configuration would be modified from one shared through-left turn lane and one shared through-right turn lane to one shared through-left turn lane and one exclusive right-turn lane. Finally, the westbound lane configuration would be modified from one shared through-left turn lane and one shared through-right turn lane to one shared left-through-right turn lane. Due to the reduction in capacity in the northbound, southbound and westbound approaches, there would be an increase in delay along these approaches. Because the southbound and westbound critical movements at Potrero Avenue/16th Street deteriorate or would operate at an unacceptable LOS E, with more than 80 seconds of delay under Existing plus Project conditions, a significant impact would (Significant Impact TR-P2-4c) occur at the Potrero Avenue/16th Street intersection with the implementation of Project 2-4 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Potrero Avenue/16th Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions for the PM peak hour. Deterioration of the northbound and westbound critical movements at Potrero Avenue/16th Street for Existing plus Project to LOS E relative to Existing Conditions, is determined a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P2-4d) would occur at the Potrero Avenue/16th Street intersection for 2025 Cumulative plus Project conditions with implementation of Project 2-4 Option 2 as shown on Table V.2-26, p. V.A.3-263.

Significant Impact 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 E under Existing plus Project conditions for Option 1 of combined Projects 2-4 and 2-6.

Significant Impact 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 Projects 2-4 and 2-6 combined.

Significant Impact 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.

Significant Impact TR-P2-4d:

The intersection of Potrero Avenue/16th Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-4 Option 2.

TRANSIT

West End (Corbett Avenue to Church Street)

Muni bus line 37 runs in both directions along 17th Street between Corbett Avenue and Diamond Street, with approximately four buses per hour each way during the AM and PM peak periods; there are no bus stops in this segment. The F-Market streetcar line runs westbound between Castro and Noe Streets with approximately 10 cars per hour each way during the AM and PM peak periods. There is one westbound transit stop at the median on the nearside of Castro Street. There are no other transit services along the 17th Street portion of Project 2-4. Both streetcar and bicycle volumes are low and the proposed Class II bicycle lane would not encroach upon the streetcar right-of-way. Therefore, there would be no conflict between bicyclists and streetcars.

Center Segment (Church Street to Potrero Avenue)

No transit service operates along this segment.

East End (Potrero Avenue to Kansas Street

Muni bus lines 22 and 53 run in both directions along 16th Street between Potrero Avenue and Kansas Streets with approximately eight buses per hour each way during the AM peak period and approximately 11 buses per hour each way during the PM peak period.

Potrero Avenue

Muni bus lines 9 and 33 and SamTrans bus line 292 run on Potrero Avenue between 17th Street and Division Street with approximately 16 buses per hour each way with bus stops at the major intersections.

16th Street

Muni bus lines 22 and 53 operate on 16th Street between Valencia and Mission Streets with approximately 10 buses per hour eastbound. Bus stops exist on 16th Street at both Valencia and Mission Streets.

Transit has limited operation on the roadway of Project 2-4 with either Option 1 or Option 2 including only segments of 16th Street (between Valencia and Mission Streets and between Potrero Avenue and Kansas Street), 17th Street (between Noe and Castro Streets and between Diamond and Corbett Streets), and Potrero Avenue (between 17th and Division Streets). Bicycle and transit volumes are low to moderate within these segments. Project 2-4 with either Option 1 or Option 2 would not change the location or configuration of transit stops or the interactions between bicycles and transit. Transit delay resulting from changes in roadway configuration resulting from Project 2-4 is discussed below.

Project 2-4 shares a common intersection (Intersection 21: 10th Street/Brannan Street/Potrero Avenue/Division Street) with Project 2-6: Division Street Bicycle Lanes, 9th Street to 11th Street. The transit delay analysis below (Projects 2-4 and 2-6 combined) reflects the combined impact of Projects 2-4 and 2-6 modifications to the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection on transit delay. The impacts resulting from the implementation of Project 2-4 (Project 2-4) without Project 2-6 modifications to the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection follow.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 2-4 and 2-6 combined
For Existing plus Project conditions, combined Projects 2-4 and 2-6 Option 1 would not involve a reduction in the number of travel lanes or changes to bus stops along 16th or 17th Streets; impacts to bus and bicycle interactions due to the installation of sharrows and narrowed travel lanes would be minimal. Thus, combined Projects 2-4 and 2-6 Option 1 would not have any impacts on travel time for transit lines operating along either 16th or 17th Streets (Muni transit lines 22, 37, 53, and F-Market). Option 1 would remove a travel lane in both directions on Potrero Avenue between 17th and Division Streets potentially affecting operation of Muni bus lines 9 and 33 and SamTrans bus line 292. However, total calculated delay to transit on Potrero Avenue would be less than 10 seconds per transit vehicle. Therefore, there would be no significant transit impacts with implementation of combined Projects 2-4 and 2-6 Option 1 under Existing plus Project conditions.

Existing and Existing plus Project Conditions for Project 2-4
Since the transit delay for Option 1 of Projects 2-4 and 2-6 combined would not result in a significant transit impact, as discussed above, there would be no significant transit impacts with implementation of individual Project 2-4 Option 1 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-4 and 2-6 combined

For 2025 Cumulative conditions combined Project 2-4 and 2-6 Option 1 would not involve a reduction in the number of travel lanes or changes to bus stops along 16th or 17th Streets; impacts to bus and bicycle interactions due to the installation of sharrows and narrowed travel lanes would be minimal. Thus, Option 1 would not have any impacts on transit travel time or transit/bicycle interactions for transit lines operating along either 16th or 17th Streets (Muni transit lines 22, 37, 53, and F-Market). Option 1 would add approximately 58 seconds of delay northbound with no change in delay southbound in the PM peak period for Muni bus line 33 on Potrero Avenue. Muni bus line 9 and SamTrans bus line 292, also operating on Potrero Avenue, would experience no changes in delay. Therefore, there would be no significant transit impacts with implementation of Option 1 of Projects 2-4 and 2-6 combined under 2025 Cumulative plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-4

Since the transit delay for Option 1 of Project 2-4 Option 1, since the transit delay for Projects 2-4 and 2-6 combined would not result in a significant transit impact, as discussed above, there would be no significant transit impacts with implementation of individual Project 2-4 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 2-4 and 2-6 combined

For Existing plus Project conditions combined Projects 2-4 and 2-6, Option 2 would remove one westbound travel lane along 16th Street between Potrero and San Bruno Avenues. This would add delay of 19 seconds eastbound and 213 seconds (3.6 minutes) westbound on Muni bus lines 22 and 53 in the PM peak period. The headways for Muni bus lines 22 and 53 in the PM peak period are 7 and 30 minutes, respectively. For Muni bus lines 22 and 53, the total added delay of 232 seconds (3.9 minutes) would be less than the transit delay threshold of six minutes. Option 2 would include the same modifications to Potrero Avenue as was described above for Option 1. There would be no added delay to transit on Potrero Avenue for Muni bus lines 9 and 33 and SamTrans bus line 292. Therefore, a significant transit impact would not occur with the implementation of combined Projects 2-4 and 2-6 Option 2 under Existing plus Project conditions.

Existing and Existing plus Project Conditions for Project 2-4

Since the transit delay for combined Projects 2-4 and 2-6 Option 2 would not result in a significant transit impact, as discussed above, there would be no significant transit impacts with implementation of individual Project 2-4 Option 2 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-4 and 2-6 combined

For Cumulative plus Project conditions, combined Project 2-4 and 2-6 Option 2 would remove one westbound travel lane along 16th Street between Potrero and San Bruno Avenues. Option 2 add no delay on Muni bus lines 22 and 53 eastbound but would and add 223 seconds (3.7 minutes) of delay westbound in the PM peak period. The headways for Muni bus lines 22 and 53 in the PM peak period are 7 and 30 minutes, respectively. For Muni bus lines 22 and 53, the total added delay of 223 seconds (3.7 minutes) would be less than the transit delay threshold of six minutes. Option 2 would add approximately 225 seconds (3.8 minutes) of delay northbound with a reduction in delay of 240 seconds southbound for Muni bus line 33 resulting in a total reduction in transit delay. Option 2 would add 226 seconds (3.8 minutes) of delay northbound and 210 seconds (3.5 minutes) southbound for Muni bus line 9 and SamTrans bus line 292. The headways for Muni bus line 9 and SamTrans bus line 292 in the PM peak period are 8 and 30 minutes, respectively; the total added delay of 436 seconds (7.3 minutes) would be greater than the transit delay threshold of six minutes. Therefore, a significant transit impact (Significant Impacts TR-P2-4e and TR-P2-4f) would occur with the implementation of combined Projects 2-4 and 2-6 Option 2 under 2025 Cumulative plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-4

For 2025 Cumulative plus project conditions, Project 2-4 Option 2, the intersection configuration modifications affecting transit service for shared Intersection 21 would be the same for Project 2-4 as with Projects 2-4 and 2-6 combined. Consequently, impacts to transit service would be the same as that discussed above for Projects 2-4 and 2-6 combined. Therefore, a significant transit impact (Significant Impacts TR-P2-4g and TR-P2-4h) to Muni bus line 9 and SamTrans bus line 292 would result from the implementation of individual Project 2-4 Option 2 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P2-4e (Projects 2-4 and 2-6 combined):

Muni bus line 9 would experience significant delays with implementation of Option 2 of the combined Projects 2-4 and 2-6 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P2-4f (Projects 2-4 and 2-6 combined):

SamTrans bus line 292 would experience significant delays with implementation of Option 2 of the combined Projects 2-4 and 2-6 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P2-4g: Muni bus line 9 would experience significant delays under 2025 Cumulative plus Project conditions for individual Project 2-4 Option 2.

Significant Impact TR-P2-4h: SamTrans bus line 292 would experience significant delays under 2025 Cumulative plus Project conditions for individual Project 2-4 with Option 2.

PARKING

There would be no significant parking impacts between Corbett and Church Streets (west end) because there would only be a loss of only five parking spaces under either Option 1 or Option 2 of Project 2-4. There would be no parking impacts between Church and Harrison Streets (western portion of the center segment) because there would be no change in the number of parking spaces under either Option 1 or Option 2 of Project 2-4.

For the remaining segments of Project 2-4, Option 1 would remove 86 on-street parking spaces and Option 2 would remove 49 on-street parking spaces. However, some parking spaces would be added on adjacent streets by converting parallel parking to perpendicular parking. Parking occupancy in the Project 2-4 area is generally high. In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under CEQA, but rather a social effect. The loss of parking may cause potential indirect physical effects, which would include cars circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers, aware of constrained parking conditions in a given area, shifting travel modes. Hence, any secondary environmental impacts that may result from a shortfall in parking would be minor, and any net reduction in on-street parking supply would not result in significant parking impacts. Therefore, there would be no significant parking impacts with the implementation of either Option 1 or Option 2 of Project 2-4.

Modified Option 1 differs from Option 1 in that it would remove 69 parking spaces on the north side of 17th Street between Valencia and Treat Streets compared to the Existing Condition. Additionally, this project would remove approximately 55 parking spaces on the south side and 61 spaces (including seven motorcycle spaces) on the north side of 17th Street between Harrison and Hampshire Streets compared to the Existing condition, for a total removal of 116 parking spaces on this segment.

Modified Option 1 would switch the proposed parking removal on the one-block segment of 17th Street from Potrero Avenue to Kansas Street from the south side to the north side of 17th Street. There would be no net loss of parking in this segment compared to Project 2-4 Option 1.

The Draft EIR analyzed a removal of 86 total parking spaces for Option 1 and 49 parking spaces under Option 2. Modified Option 1 would remove a total of 199 parking spaces on 17th Street between Corbett Avenue and Kansas Street. Parking occupancy in these areas is generally high. The removal of these parking spaces would increase the parking occupancy rate. However, 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 could be triggered by a social impact. (CEQA Guidelines § 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."

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 offset 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 addresses potential secondary effects. Therefore, there would be no significant parking impact as a result of Project 2-4 Modified Option 1**.**

Although, there would be no significant parking impact with the implementation of Project 2-4 Modified Option 1, to address improvements for the non-significant parking impacts resulting from the loss of on-street parking spaces under Existing plus Project and 2025 Cumulative plus Project conditions, SFMTA proposes the implementation of an Improvement Measure (I-P2-4a), which would convert existing parallel to perpendicular parking on some cross streets along 17th Street. This would reduce the net parking loss from 212 spaces to 166 parking spaces. Implementation of Improvement Measure I-P-2-4a would provide additional parking spaces in the project vicinity.

Improvement Measure I-P2-4a:

In order to address improvements for the non-significant parking impacts resulting from the loss of on-street parking spaces under Existing plus Project and 2025 Cumulative plus Project Conditions for Project 2-4 Modified Option 1, it is recommended that the existing parallel parking on some cross streets along 17th Street be converted to perpendicular parking. This improvement measure would reduce the net parking loss as a result of Project 2-4 Modified Option 1 from 212 to 166 parking spaces.

PEDESTRIAN

Pedestrian volumes are generally low to moderate, but could be high near major trip generators, such as in the vicinity of the neighborhood commercial districts at Castro and Mission Streets. There would be no changes in sidewalk width or crosswalk layout, and the interactions between pedestrians and bicyclists would not change as a result of either Option 1 or Option 2. Therefore, there would be no significant pedestrian impacts with implementation of Project 2-4.

BICYCLE

Bicycle volumes along the east end and mid-section of 17th Street are generally moderate, but are low west of Castro Street.

Under Option 1, there could be potential safety issues with bicyclists in the segment of 17th Street between Hartford and Noe Streets because the proposed Class II bicycle lane is close to the Muni tracks and next to a narrow (seven foot wide) parking lane. While there are tracks east of Noe Street towards Pond Street, these tracks are used for temporary storage only and there would be no conflict east of Noe Street. While this situation could pose a hazard for bicyclists, the hazard is no different from existing conditions. The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. In addition, the installation of sharrows would increase motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone.' Therefore, Project 2-4 Option 1 would not result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

Under Option 2 segments of both Class II bicycle lanes and sharrows would be provided. In comparison to Option 1, eastbound bicyclists would have more sharrow treatments and less Class II bicycle lanes compared to Option 1. The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. In addition, the installation of sharrows would increase motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone.' Therefore, Project 2-4 Option 2 would not result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of 17th Street has a mixture of residential, commercial, and some industrial uses; there is also one school located along Project 2-4. No double-parked trucks or significant loading needs were observed[15] along 17th Street with the exception of the retail businesses in the Mission District and the industrial area between Treat Street and South Van Ness Avenue. In these areas, occasional double-parked trucks were observed. The segment of 16th Street between Valencia and Mission Streets and between Potrero Avenue and Kansas Street also has retail uses on both sides; occasional double parking was observed. Since the proposed bicycle improvements would not affect the existing loading arrangement for the corridor, there would

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15 Field surveys were conducted by CHS Consulting on Thursday, August 23, 2007 during the midday.

be no significant loading impacts with the implementation of Project 2-4 with either Option 1 or Option 2.

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

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

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

There are no transit lines on this segment of Beale Street. Therefore, there would be no transit impacts as a result of Project 2-5.

PARKING

There would be no changes in parking layout or in the number of parking spaces in this segment. Therefore, there would be no parking impacts as a result of Project 2-5.

PEDESTRIAN

Pedestrian volumes are generally low, and there would be no changes in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of Project 2-5. Therefore, there would be no pedestrian impacts as a result of Project 2-5.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. Therefore, Project 2-5 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

Loading demand is generally low, and there are sufficient off-street loading areas to accommodate the US Postal Service delivery vehicles on the east side of Beale Street between Folsom Street and the Harrison Street overpass. These delivery vehicles typically back into the loading zone throughout the day and could potentially cause conflicts with bicyclists as well as other vehicles. Because no bicycle improvements are recommended in the northbound direction, the current interactions between delivery vehicles, bicyclists, and traffic would not change as a result of Project 2-5.

The west side of Beale Street has residential and retail uses, and delivery trucks occasionally double-park for loading. The southbound travel lane is approximately 17 feet wide next to on-street parking, so when delivery trucks are double-parked, vehicles and bicyclists would pass to the left by encroaching on the opposing travel lane.

The addition of the southbound Class II bicycle lane would not change the current loading condition and there would be no loss of on-street loading spaces. Therefore, there would be no significant loading impacts as a result of Project 2-5.

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

There are two options for this segment of Division Street.

- **Option 1**
  Option 1 would add a Class II bicycle lane and remove one travel lane in both directions between 9th and 10th Streets. This option would remove approximately 20 total parking spaces between 10th and 11th Streets and also narrow travel lanes between 9th and 10th 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 and 11th Streets.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the PM peak hour. These results are summarized in Table V.2-27, p. V.A.3-277, Table V.2-28, p. V.A.3-277, Table V.2-29, p. V.A.3-278, and Table V.2-30, p. V.A.3-278. Two study intersections are included for the PM peak hour for Project 2-6.

Intersection 21: 10th Street/Brannan Street/Potrero Avenue/Division Street

The 10th Street/Brannan Street/Potrero Avenue/Division Street intersection is common to Projects 2-4 and 2-6 within the Cluster 2 area. The discussion of the combined project impacts was previously presented under Project 2-4 and will not be repeated here.

TABLE V.2-27
CLUSTER 2 – PROJECT 2-6 [c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				Existing plus Project			
		Existing		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
21.	10th Street/Brannan Street/Potrero Avenue/Division Street [c]	**72**	**E**	**78.7**	**E**	**73.3**	**E**
54.	11th Street/Bryant Street/Division Street	32.4	C	**>80**	**F**	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 highlighted in bold.
c. LOS and average delay for 10th Street/Brannan Street/ Potrero Avenue/Division Street for combined impacts of Projects 2-4 and 2-6.

TABLE V.2-28
CLUSTER 2 – PROJECT 2-6 [c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				2025 Cumulative plus Project			
		2025 Cumulative		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
21.	10th Street/Brannan Street/Potrero Avenue/Division Street [c]	**>80**	**F**	**>80**	**F**	**>80**	**F**
54.	11th Street/Bryant Street/Division Street	**75.3**	**E**	**>80**	**F**	**75.3**	**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.
c. LOS and average delay for impacts for combined Projects 2-4 and 2-6.

TABLE V.2-29
CLUSTER 2 – PROJECTS 2-6 AND 2-4
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR 10TH STREET/BRANNAN STREET/POTRERO AVENUE/DIVISION STREET EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1				Existing plus Project Option 2			
Existing		Project 2-6		Combined Projects 2-4 and 2-6		Project 2-6		Combined Projects 2-4 and 2-6	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
72.0	**E**	**77.4**	**E**	**78.7**	**E**	**72.0**	**E**	**73.3**	**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.

TABLE V.2-30
CLUSTER 2 – PROJECTS 2-6 AND 2-4
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR 10TH STREET/BRANNAN STREET/POTRERO AVENUE/DIVISION STREET 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
2025 Cumulative		Project 2-6		Combined Projects 2-4 and 2-6		Project 2-6		Combined Projects 2-4 and 2-6	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	**>80**	**F**	**>80**	**F**	**>80**	**F**	**>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.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 2-4 and 2-6 combined
Please see the discussion of the combined project impacts under Project 2-4.

Existing and Existing plus Project Conditions for Project 2-6
Under Existing conditions for the PM peak hour, this intersection operates at LOS E. The 10th Street/Brannan Street/Potrero Avenue/Division Street intersection would continue to operate satisfactorily at LOS E under Existing plus Project conditions for the PM peak hour. The eastbound shared through left-turn lane would be removed under Existing plus Project conditions. No other lane configuration changes are proposed as part of Project 2-6 at this intersection. Since there would be no change to the LOS or delay for the eastbound critical movement at the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection, a significant impact would not occur at this intersection with the implementation of Project 2-6 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-4 and 2-6 combined
Please see the discussion of the combined project impacts under Project 2-4.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-6
Under 2025 Cumulative conditions for the PM peak hour, this intersection operates at LOS F. The 10th Street/Brannan Street/Potrero Avenue/Division Street intersection would continue to operate unsatisfactorily at LOS F under 2025 Cumulative plus Project conditions for the PM peak hour. The eastbound shared through left-turn lane would be removed under 2025 Cumulative plus Project conditions. No other lane configuration changes are proposed as part of Project 2-6 at this intersection. Because the eastbound critical movements at 10th Street/Brannan Street/Potrero Avenue/Division Street either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P2-6b) would occur at the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection with the implementation of Project 2-6 Option 1.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 2-4 and 2-6 combined
Please see the discussion of the combined project impacts under Project 2-4.

Existing and Existing plus Project Conditions for Project 2-6
Under Existing conditions for the PM peak hour, this intersection operates at LOS E. No lane configuration changes are proposed for this intersection under Existing plus Project conditions relative to Existing conditions. Therefore, under Existing plus Project conditions, the implementation of Project 2-6 Option 2 would not cause a significant

impact to the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection. Table V.2-29, p. V.A.3-278, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-4 and 2-6 combined

Please see the discussion of the combined project impacts under Project 2-4.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-6

Under 2025 Cumulative conditions for the PM peak hour, this intersection operates at LOS F. No lane configuration changes are proposed for this intersection under 2025 Cumulative plus Project conditions relative to Existing conditions. Therefore, under 2025 Cumulative plus Project conditions, the implementation of Project 2-6 Option 2 would not cause a significant impact to the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection under 2025 Cumulative plus Project conditions. Table V.2-30, p. V.A.3-278, summarizes these results.

Intersection 54: 11th Street/Bryant Street/Division Street

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS C with 32.4 seconds of delay. The 11th Street/Bryant Street/Division Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions. The westbound lane configuration would be modified from one through lane and one shared through-right turn lane to one shared through-right turn lane. Due to the reduction in capacity in the westbound approach, there would be an increase in delay for this intersection. The intersection LOS would deteriorate from LOS C to LOS F. Because the westbound critical movement at 11th Street/Bryant Street/Division Street intersection would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P2-6a) would occur at 11th Street/Bryant Street/Division Street intersection with the implementation of Project 2-6 Option 1, as shown on Table V.2-27, p. V.A.3-277.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 11th Street/Bryant Street/Division Street intersection would operate unsatisfactorily at LOS E, with 75.3 seconds of average delay under 2025 Cumulative conditions for the PM peak hour. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Deterioration of the westbound critical movement at 11th Street/Bryant Street/Division Street for Existing plus Project to LOS F relative to Existing Conditions, is determined a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions.

Therefore, a significant impact (Significant Impact TR-P2-6c) would occur at 11th Street/Bryant Street/Division Street intersection with the implementation of Project 2-6 Option 1 under 2025 Cumulative plus Project conditions as shown on Table V.2-28, p. V.A.3-277.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, for the PM peak hour, this intersection operates at LOS C with 32.4 seconds of delay. The 11th Street/Bryant Street/Division Street intersection would operate satisfactorily at LOS C, with 32.4 seconds of delay under Existing plus Project conditions. There are no lane configuration adjustments to the study intersection under Existing plus Project conditions compared to Existing conditions. As a result, there would be no change in LOS or delay for this intersection. Therefore, Project 2-6 Option 2 would not cause a significant impact to the 11th Street/Bryant Street/Division Street intersection for Existing plus Project conditions as shown on Table V.2-27, p. V.A.3-277.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 11th Street/Bryant Street/Division Street intersection would operate unsatisfactorily at LOS E under 2025 Cumulative conditions for the PM peak hour. The 11th Street/Bryant Street/Division Street intersection would continue to operate unsatisfactorily at LOS E under 2025 Cumulative plus Project conditions for the PM peak hour. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at 11th Street/Bryant Street/Division Street intersection with the implementation of Project 2-6 Option 2 under 2025 Cumulative plus Project conditions as shown on Table V.2-28, p. V.A.3-277.

Significant Impact TR-P2-6a:

The intersection of 10th Street/Brannan Street/Potrero Avenue/Division Street would operate at LOS F under Existing plus Project conditions for Project 2-6 Option 1.

Significant Impact TR-P2-6b:

The intersection of ~~10th~~ 11th Street/Bryant Street/Division Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-6 Option 1.

Significant Impact 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.

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 Muni bus stop in this segment of Division Street located on the far side of Bryant Street. Field observations[16] indicate that there is sufficient transition distance at the intersection for Muni buses to stop parallel to the curb without protruding into the adjacent travel lane.

Changes in configuration with Project 2-6 would not affect bus/bicycle interactions at the intersections or bus stops. Bicycle volumes are relatively low to moderate and bus volumes are low so conflicts rarely occur. Muni bus line 9 buses turn right from eastbound Division Street onto southbound Potrero Avenue. Currently, through bicyclists pass these buses and other right-turning vehicles on the left. These conditions would not change with Project 2-6.

Project 2-6 shares a common intersection (Intersection 21: 10th Street/Brannan Street/Potrero Avenue/Division Street) with 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.

- **Option 1**

  Existing and Existing plus Project Conditions for Projects 2-4 and 2-6 combined
  With Option 1 at the far side of Bryant Street, in the eastbound direction, a six-foot Class II bicycle lane would be striped between the nine-foot bus stop and the 15-foot travel lane. The new dimensions, with one travel lane removal, would allow a sufficient width for bicycles to pass buses when they load and unload passengers at the buss stop.

  With Option 1, the loss of one travel lane each way would add delay in the PM peak period to Muni bus line 9 operations with approximately 208 seconds (3.5 minutes) of delay westbound and approximately 50 seconds of delay eastbound. The headway for Muni bus line 9 in the PM peak period is eight minutes. For Muni bus line 9, the total added delay of 258 seconds (4.3 minutes) would be less than the transit delay threshold of six minutes. Therefore, a significant transit impact would not occur with the implementation of combined Projects 2-4 and 2-6 Option 1 under Existing plus Project conditions.

16 Field surveys were conducted by CHS Consulting on Thursday, August 23, 2007 during the midday.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-4 and 2-6 combined
Changes to configuration with Option 1 would be the same as discussed above for Existing plus Project conditions. Option 1 would add no delay in either the westbound or eastbound directions. Therefore, a significant transit impact would not occur with the implementation of combined Projects 2-4 and 2-6 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 2-4 and 2-6 combined
With Option 2 there would be no change in the number of travel lanes along Division Street, and therefore no changes in bus travel times. The eastbound bus stop on the far side of Bryant Street would be in the bicycle lane. When a Muni bus is stopped there, bicyclists would have to wait behind the bus until it clears the stop or would pass on the left using the general travel lane. This behavior is no different from what occurs today at this and many other locations, and would not result in bicycle/bus conflicts. Therefore, there would be no significant transit impacts with implementation of Projects 2-4 and 2-6 combined with Option 2 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-4 and 2-6 combined
With Option 2 there would be no change in the number of travel lanes along Division Street, and therefore no changes in bus travel times. Other changes to bus stops or circulation would be the same as discussed above for Existing plus Project conditions. Therefore, there would be no significant transit impacts with implementation of combined Projects 2-4 and 2-6 Option 2 under 2025 Cumulative plus Project conditions.

Since there are no significant transit impacts under Existing plus Project and 2025 Cumulative plus Project conditions for either Option 1 or Option 2 of combined Projects 2-4 and 2-6, there would be no significant transit impact from individual Project 2-6.

PARKING

Option 1 would remove approximately 20 on-street parking spaces, with 10 spaces on the north side of Division Street west of 10th Street and 10 spaces on the south side east of Bryant Street. Option 2 would remove approximately 65 on-street parking spaces on both sides of Division Street between 10th and 11th Streets at all times. Land uses along this street are mostly industrial with some commercial uses. While parking occupancy along this street is usually high during the weekday midday, it is still possible to find parking on the side streets, especially in areas south of Division Street. Parking removal with either Option 1 or Option 2 would increase parking demand in the area.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under CEQA, but rather a social effect. The loss of parking may cause potential indirect physical effects, which would include cars circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers, aware of constrained parking conditions in a given area, shifting travel modes. Hence, any secondary environmental impacts that may result from a shortfall in parking would be minor. Therefore, any net reduction in on-street parking supply would not result in significant parking impacts. Hence, there would be no significant parking impacts with implementation of Project 2-6 with either Option 1 or Option 2.

PEDESTRIAN

Pedestrian volumes are generally low in this area, and there would be no changes in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of Project 2-6. Therefore, there would be no pedestrian impacts with implementation of either Option 1 or Option 2 of Project 2-6.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. In addition, the removal of on-street parking adjacent to the bicycle lane would have the added benefit of eliminating the hazard for ‘dooring’ by parked vehicles. Therefore, neither Option 1 nor Option 2 of Project 2-6 would not result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Division Street has mostly commercial and light industrial uses that have off-street loading areas and generally do not have on-street loading demands that would conflict with bicyclists or be displaced by parking removal. No double-parked trucks were observed[17] along this segment of Division Street. In addition, no yellow commercial freight loading spaces would be included with the parking removal proposed by Project 2-6. Therefore, there would be no significant loading impacts from Project 2-6 with either Option 1 or Option 2.

[17] Field surveys were conducted by CHS Consulting on Thursday, August 23, 2007 during the midday.

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

Project 2-7 would add northbound sharrows between Harrison and Howard Streets and a southbound Class II bicycle lane between Folsom and Harrison Streets. Project 2-7 would also remove one southbound travel lane between Folsom and Harrison Streets and widen the sidewalk from 10 to 15 feet on both sides of Fremont Street.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the PM peak hour.

One study intersection is included for the PM peak hour for Project 2-7. Table V.2-31, p. V.A.3-285, and Table V.2-32, p. V.A.3-286, summarize these results.

Intersection 48: Fremont Street/Howard Street

The Fremont Street/Howard Street intersection is common to Projects 2-7 and 2-9 within the Cluster 2 area. For Project 2-7, the lane configuration at the intersection would remain the same as under Existing (No Project) conditions. However, for Project 2-9, the lane configuration in the westbound direction would be changed from two through lanes and an exclusive right-turn lane to one through lane and a shared through-right turn lane. Hence, Project 2-9 would reduce the capacity in the westbound direction on Howard Street for this intersection. The analysis below reflects the combined impact of implementing Projects 2-7 and 2-9 at this intersection.

TABLE V.2-31
CLUSTER 2 – PROJECTS 2-7 AND 2-9 COMBINED
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR FREMONT STREET / HOWARD STREET EXISTING AND EXISTING PLUS PROJECT CONDITIONS – WEEKDAY PM PEAK HOUR

		Existing plus Project			
Existing		Project 2-7		Combined Projects 2-7 and 2-9	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
36.5	D	36.5	D	73.9	**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.

TABLE V.2-32
CLUSTER 2 –PROJECTS 2-7 AND 2-9
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR FREMONT STREET/HOWARD STREET 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

2025 Cumulative		2025 Cumulative plus Project			
		Project 2-7		Combined Projects 2-7 and 2-9	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	**>80**	**F**	**>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.

Existing and Existing plus Project Conditions for Projects 2-7 and 2-9 combined

Under Existing conditions for the PM peak hour, this intersection operates at LOS D with 36.5 seconds of delay. The Fremont Street/Howard Street intersection would operate unsatisfactorily at LOS E, with 73.9 seconds of delay under Existing plus Project conditions. The westbound lane configuration would be modified from two through lanes and one exclusive right-turn lane to one through lane and one shared through-right turn lane. Due to the reduction in capacity along the westbound approach, there would be an increase in delay at this intersection. The intersection delay would increase by 37.4 seconds (from 36.5 to 73.9 seconds) and the LOS would deteriorate from LOS D to LOS E. Because the northbound and westbound critical movements would either deteriorate or would operate at an unacceptable LOS E under Existing plus Project conditions, a significant impact (Significant Impact TR-P2-7a) would occur at the Fremont Street/Howard Street intersection with the implementation of combined Projects 2-7 and 2-9. Table V.2-31, p. V.A.3-285, summarizes these results.

Existing and Existing plus Project Conditions for Project 2-7

Under Existing conditions, for the PM peak hour, this intersection operates at LOS D with 36.5 seconds of delay. The Fremont Street/Howard Street intersection would continue to operate satisfactorily at LOS D with 36.5 seconds of delay under Existing plus Project conditions. There are no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, a significant impact would not occur at the Fremont

Street/Howard Street intersection with implementation of Project 2-7. Table V.2-31, p. V.A.3-285, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-7 and 2-9 combined

The Fremont Street/Howard Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions for combined Project 2-7 and 2-9, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Deterioration of the northbound and westbound critical movements at Fremont Street/Howard Street for Existing plus Project to LOS E relative to Existing conditions, is determined to be a significant impact. 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 (Significant Impact TR-P2-7b) would occur at the Fremont Street/Howard Street intersection with the implementation of combined Projects 2-7 and 2-9. Table V.2-32, p. V.A.3-286, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-7

The Fremont Street/Howard Street intersection would operate unsatisfactorily at LOS F with more than 80 seconds of average delay under 2025 Cumulative conditions. This intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions. Therefore, there would be no change in LOS or delay for this intersection as shown on Table V.2-32, p. V.A.3-286. Thus a significant impact would not occur at the Fremont Street/Howard Street intersection with the implementation of Project 2-7 under 2-25 Cumulative plus Project conditions.

Significant Impact 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.

Significant Impact 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.

TRANSIT

Transit operations on Fremont Street are limited to the one block between Folsom and Howard Streets. Along this block, Muni and Golden Gate Transit buses travel northbound. Project 2-7 would install sharrows in the northbound direction but otherwise not change the number or width of travel lanes. These improvements would also not affect the existing Muni or Golden Gate Transit bus stops. Therefore, there would be no significant impact to transit with the implementation of Project 2-7.

PARKING

There would be no changes in parking layout or the number of parking spaces in this segment. Therefore, there would be no parking impacts with implementation of Project 2-7.

PEDESTRIAN

Project 2-7 would widen the sidewalks from 10 to 15 feet wide on both sides of Fremont Street. This improvement would benefit pedestrians by providing more buffer space for increased pedestrian safety and circulation. Pedestrian volumes are generally low to moderate in this area, and the changes in the sidewalk layout would not change the current interactions between pedestrians and bicyclists. Therefore, there would be no significant pedestrian impacts with the implementation of Project 2-7.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes on the segments described above with the designation of a clear right-of-way for their use. On the other segments, the installation of sharrows would increase the motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone'. Therefore, Project 2-7 would not result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

On-street loading demand is typically low on this block of Fremont Street, and there would be no changes in the layout of on-street yellow commercial freight loading spaces or access to off-street loading areas. Therefore, there would be no significant loading impacts with the implementation of Project 2-7.

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

Project 2-8 would extend the existing westbound Class II bicycle lane approaching 9th Street by narrowing the leftmost lane and the right-turn lane. Project 2-8 would convert the shared through/right-turn lane to a through lane and convert a PM peak hour tow-away zone to a permanent right-turn only lane with the removal of approximately three on-street parking spaces on the north side of Howard Street east of 9th Street.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection, on p. V.A.3-3 of this EIR.

TRANSIT

There are no transit lines on this segment of Howard Street. Therefore, there would be no transit impacts with the implementation of Project 2-8.

PARKING

Project 2-8 would remove approximately three on-street metered parking spaces on the north side of Howard Street approaching 9th Street by changing the existing Tow-Away zone (4:00 p.m. to 6:00 p.m.) to a Tow-Away No Stopping Anytime zone. On-street parking occupancy is generally high on this segment of Howard Street but the loss of three spaces would not significantly change the parking demand or impact the behavior of drivers looking for parking. Therefore, there would be no significant parking impacts with the implementation of Project 2-8.

PEDESTRIAN

There would be no changes in sidewalk width or crosswalk layout, and the interactions between pedestrians and bicyclists would not change as a result of Project 2-8. Therefore, there would be no pedestrian impacts with the implementation of Project 2-8.

BICYCLE

The proposed Class II bicycle lane would provide a clear right-of-way for bicyclists. Bicycle circulation and safety on the bicycle lane along Howard Street east of 9th Street would be expected to be the same for this section of Howard Street. Therefore, Project 2-8 would not result in a significant impact to bicyclists but could have the beneficial effect of improving road sharing and safety for bicyclists.

LOADING

This segment of Howard Street has mostly commercial uses, and truck loading is dependent on the availability of on-street parking spaces. Project 2-8 would not remove on-street yellow commercial freight loading spaces; the loss of three metered spaces would not significantly change the parking occupancy or affect truck parking. Therefore, there would be no significant loading impacts with the implementation of Project 2-8.

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

Project 2-9 would add a westbound Class II bicycle lane between The Embarcadero and Fremont Street. Project 2-9 would remove one westbound lane between Fremont and Main Streets by revoking the Tow-Away zone during the AM and PM peak periods and removing one eastbound lane between Stuart and Main Streets. Project 2-9 would also change the striping of the two eastbound lanes between Main and Spear Streets to one eastbound through and one right turn lane.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the PM peak hour. One study intersection is included for the PM Peak Hour for Project 2-9. Table V.2-33, p. V.A.3-290, Table V.2-34, p. V.A.3-291 summarize these results.

**TABLE V.2-33
CLUSTER 2 – PROJECT 2-9
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR FREMONT STREET/HOWARD STREET EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR**

		Existing plus Project			
Existing		Project 2-9		Combined Projects 2-7 and 2-9	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
36.5	D	**73.9**	**E**	**73.9**	**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.

TABLE V.2-34
CLUSTER 2 – PROJECT 2-9
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR FREMONT STREET/HOWARD STREET 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing plus Project			
Existing		Project 2-9		Combined Projects 2-7 and 2-9	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	**>80**	**F**	**>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 48: Fremont Street/Howard Street

Existing and Existing plus Project Conditions for Projects 2-7 and 2-9 combined

Please see the discussion of the combined project impacts under Project 2-7.

Existing and Existing plus Project Conditions for Project 2-9

Under Existing conditions, for the PM peak hour, this intersection operates at LOS D with 36.5 seconds of delay. The Fremont Street/Howard Street intersection would operate unsatisfactorily at LOS E, with 73.9 seconds of delay under Existing plus Project conditions. The westbound lane configuration would be modified from two through lanes and one exclusive right-turn lane to one through lane and one shared through-right turn lane. Due to the reduction in capacity along the westbound approach, there would be an increase in delay at this intersection. The intersection delay would increase by 37.4 seconds (from 36.5 to 73.9 seconds) and the LOS would deteriorate from LOS D to LOS E. Because the northbound and westbound critical movements would either deteriorate or would operate at an unacceptable LOS E, with more than 55 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P 2-9a) would occur at the Fremont Street/Howard Street intersection with the implementation of Project 2-9. Table V.2-33, p. V.A.3-290, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-7 and 2-9 combined

Please see the discussion of the combined project impacts under Project 2-7.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-9

The Fremont Street/Howard Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Deterioration of the northbound and westbound critical movements at Fremont Street/Howard Street for Existing plus Project to LOS E relative to Existing conditions, is determined to be a significant impact. 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 (Significant Impact TR-P2-9b) would occur at the Fremont Street/Howard Street intersection with the implementation of Project 2-9. Table V.2-34, p. V.A.3-291, summarizes these results.

Significant Impact TR-P2-9a:

The Fremont Street/Howard Street intersection would operate unsatisfactorily at LOS E under Existing plus Project conditions for Project 2-9.

Significant Impact TR-P2-9b:

The intersection of Fremont Street/Howard Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-9.

TRANSIT

Muni bus lines 1, 20, 41, and 30X run eastbound along Howard Street from Beale Street and northbound onto Main Street while Muni bus line 30X runs in each direction between Main Street and The Embarcadero. Golden Gate Transit (GGT) bus lines 10, 54, 70/80, 72, 73, and 76 run westbound west of Beale Street. SamTrans bus line KX runs westbound between Beale and Fremont Streets, and SamTrans bus line 391 runs eastbound between Beale and Main Streets. During the AM peak period, there are approximately 47 westbound buses and 67 eastbound buses per hour. During the PM peak period there are approximately 28 westbound buses per hour west of Beale Street and 48 eastbound buses per hour east of Beale Street. There is one westbound Muni bus stop on the nearside of Fremont Street and one eastbound stop on the nearside of Main Street. Bicycle volumes along this section of Howard Street are moderate.

Project 2-9 would not reduce the number of travel lanes in the westbound direction, but would reduce the number of travel lanes in the eastbound direction between Main and Stuart Streets from two to one through lane. The volume of Muni buses (lines 1, 20, and 41) that make left-turn movements from Howard Street onto Main Street is high. However these buses would not be affected by the proposed bicycle improvements since the bicycle lane is located on the other side of the street. Thus, a significant transit impact would not occur.

Converting the eastbound curb lane approaching Spear Street into a right-turn only lane, except for Muni, would benefit transit by allowing through movement for buses without forcing them to share one travel lane with other vehicles. Project 2-9 would also create a part-time bus zone (6:00 a.m. to 10:00 a.m.) on the south side of Howard Street, east of Spear Street. Therefore, a significant transit impact would not occur from Project 2-9.

PARKING

Project 2-9 would cause a net increase of approximately six on-street parking spaces during the AM peak period and approximately 17 on-street parking spaces during the PM peak period between Fremont and Spear Streets. For the AM peak period, Project 2-9 would revoke the existing AM peak period (7:00 a.m. to 9:00 a.m.) Tow-Away zone on the north side of Howard Street between Beale and Fremont Streets resulting in a gain of 10 on-street parking spaces. In addition, a morning peak period only (6:00 a.m. to 10:00 a.m.) bus zone would be added on the southeast corner of Howard and Spear Streets resulting in the loss of four on-street parking spaces. Project 2-9 would also revoke the existing PM peak period Tow-Away zone on the north side of Howard Street between Main and Fremont Streets for a gain of approximately 17 on-street parking spaces during the PM peak period. Therefore, there would be no significant parking impacts with the implementation of Project 2-9.

PEDESTRIAN

Pedestrian volumes are generally moderate, and there would be no changes in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of Project 2-9. Therefore, there would be no pedestrian impacts with the implementation of Project 2-9.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. Therefore, Project 2-9 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Howard Street has both residential and office buildings, and some of these buildings have off-street loading spaces. Most of the retail uses along Howard Street depend on on-street parking spaces for truck loading. Incidents of truck double-parking depend on the availability of curbside parking spaces. Since Project 2-9 would not remove any on-street yellow commercial freight loading spaces, it would not cause any loading impacts.

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

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. The sidewalk on the north side of Market Street at the intersection would be cut northward by five feet to provide an additional queuing area for bicyclists. There would be a dedicated bicycle left-turn signal that would run concurrently with the Market Street westbound left-turn movement onto Valencia Street.

TRANSIT

Muni F-Market streetcar traverses this intersection along Market Street in the center lane, with approximately ten streetcars per hour each way during the AM peak period and approximately nine streetcars per hour in each direction during the PM peak period. The westbound F-Market streetcars and westbound bicyclists making left-turns onto Valencia Street currently do not conflict because the streetcars remain in the center lane and bicyclists use the same left-turn traffic signal phase as automobiles to make left turns. With Project 2-10, bicyclists would have a dedicated traffic signal phase to cross Market Street from the queuing area onto Valencia Street. During the bicycle-only phase, the westbound F-line streetcars traveling in the center lane would stop at the same time as the parallel motor vehicle traffic. Therefore, there would be no potential conflicts between bicyclists and the F-Market streetcars.

Muni bus line 26 turns right from Valencia Street onto eastbound Market Street with an approximate frequency of three buses per hour during the AM and PM peak periods. These buses would not conflict with bicyclists making left-turns from westbound Market Street. There are no bus stops at this location that would conflict with bicycle movement, and there would be no change in the duration of the traffic signal phase for through vehicles on Market Street that would affect transit travel time delays for either the Muni F-Market streetcar or Muni bus line 26. Therefore, there would be no significant transit impacts with implementation of Project 2-10.

PARKING

There would be no changes in parking layout or the existing number of parking spaces at this intersection. Therefore, there would be no significant parking impacts with implementation of Project 2-10.

PEDESTRIAN

The sidewalk on the north side of Market Street at the Valencia Street intersection would be narrowed by five feet to provide a queuing area on the street for bicyclists awaiting their traffic signal to cross Market Street onto Valencia Street. The resulting sidewalk width would be 10 feet, which would be adequate to accommodate the generally moderate pedestrian volumes at this intersection. Therefore, there would be no significant pedestrian impacts with the implementation of Project 2-10.

BICYCLE

Modified Project 2-10 would provide bicyclists with a dedicated traffic signal phase as well as a designated queuing area on the north side of the intersection before turning left. Therefore, Modified Project 2-10 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

The proposed project would not change existing on-street parking layout or loading activity at this location, or affect any off-street loading facilities. Therefore, there would be no significant loading impacts with the implementation of Modified Project 2-10.

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

This project 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. There are two options for this segment of Market Street.

- **Option 1**
  Modified Option 1 would extend the length of the existing Class II bicycle lanes by removing right-turn lanes and a total of 47 on-street parking spaces approaching the intersections at Noe, Sanchez, Dolores, and Guerrero Streets in the eastbound direction and at Laguna, Buchanan, and Sanchez Streets in westbound direction.

- **Option 2**
  Option 2 would extend the length of the existing Class II bicycle lanes by cutting back five feet from the sidewalk approaches at the nearside of Noe, Sanchez, Church, Buchanan, and Laguna Streets in both directions and would result in the removal of three on-street parking spaces.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the AM and PM peak hour. Two study intersections are included for the AM peak hour for Project 2-11. Tables V.2-35, p. V.A.3-297, and V.2-36, p. V.A.3-**Error! Bookmark not defined.**, Table V.2-37, p. V.A.3-298, Table V.2-38, p. V.A.3-298, Table V.2-39, p. V.A.3-299, Table V.2-40, p. V.A.3-**Error! Bookmark not defined.**, and Table V.2-41, p. V.A.3-300 summarize these results.

TABLE V.2-35
CLUSTER 2 – PROJECT 2-11[c,d]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

	2025 Cumulative		2025 Cumulative plus Project Option 1		2025 Cumulative plus Project Option 2	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
40. Octavia Boulevard/Market Street [c]	**>80**	**F**	**>80**	**F**	**>80**	**F**
52. Church Street/Market Street/ 14th Street [d]	**>80**	**F**	**>80**	**F**	**>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.
c. LOS and average delay for Octavia Boulevard/Market Street for combined impacts of Projects 2-11 and 2-12.
d. LOS and average delay for Church Street/Market Street/14th Street for combined impacts of Projects 2-3 and 2-11.

●

REVISED TABLE V.2-36
CLUSTER 2 – PROJECTS 2-3 AND 2-11
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR CHURCH STREET/MARKET STREET/14TH STREET - EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1				Existing plus Project Option 2			
Existing		Project 2-11		Combined Projects 2-3 and 2-11		Project 2-11		Combined Projects 2-3 and 2-11	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
52.2	D	52.2	D	52.2	D	52.2	D	52.2	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.

TABLE V.2-37
CLUSTER 2 – PROJECT 2-11 [c,d]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

	Existing		Existing plus Project			
			Option 1		Option 2	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
40. Octavia Boulevard/Market Street[c]	**>80**	**F**	**>80**	**F**	**>80**	**F**
52. Church Street/Market Street/ 14th Street[d]	**>80**	**F**	**>80**	**F**	**>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.
c. LOS and average delay for Octavia Boulevard/Market Street for combined impacts of Projects 2-11 and 2-12.
d. LOS and average delay for Church Street/Market Street/14th Street for combined impacts of Projects 2-3 and 2-11.

TABLE V.2-38
CLUSTER 2 – PROJECT 2-11[c,d]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

	2025 Cumulative		2025 Cumulative plus Project			
			Option 1		Option 2	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
40. Octavia Boulevard/Market Street [c]	**>80**	**F**	**>80**	**F**	**>80**	**F**
52. Church Street/Market Street/ 14th Street [d]	**>80**	**F**	**>80**	**F**	**>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.
c. LOS and average delay for Octavia Boulevard/Market Street for combined impacts for Projects 2-11 and 2-12.
d. LOS and average delay for Church Street/Market Street/14th Street for combined impacts of Projects 2-3 and 2-11.

TABLE V.2-39
CLUSTER 2 – PROJECT 2-3 AND 2-11
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR CHURCH STREET/MARKET STREET/14TH STREET - 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
2025 Cumulative		Project 2-11		Combined Projects 2-3 and 2-11		Project 2-11		Combined Projects 2-3 and 2-11	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	**>80**	**F**	**>80**	**F**	**>80**	**F**	**>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.

REVISED TABLE V.2-40
CLUSTER 2 – PROJECT 2-11 C,D
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

			Existing plus Project			
	Existing		Option 1		Option 2	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
40. Octavia Boulevard/Market Street[c]	41.9	D	41.9	D	41.9	D
52. Church Street/Market Street/ 14th Street[d]	52.2	D	52.2	D	52.2	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.
c. LOS and average delay for combined impacts for Projects 2-11 and 2-12.
d. LOS and average delay for Church Street/Market Street/14th Street for combined impacts of Projects 2-3 and 2-11.

TABLE V.2-41
CLUSTER 2 – PROJECT 2-11 [c,d]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				2025 Cumulative plus Project			
		2025 Cumulative		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
40.	Octavia Boulevard/Market Street [c]	**>80**	**F**	**>80**	**F**	**>80**	**F**
52.	Church Street/Market Street/ 14th Street [d]	**>80**	**F**	**>80**	**F**	**>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.

c. LOS and average delay for combined impacts for Projects 2-11 and 2-12.

d. LOS and average delay for Church Street/Market Street/14th Street for combined impacts of Projects 2-3 and 2-11.

Intersection 40: Octavia Boulevard/Market Street

The Octavia Boulevard/Market Street intersection is common to Projects 2-11 and 2-12 within the Cluster 2 area. Only one design option is proposed for Project 2-12. For Project 2-11, two design options are proposed. Project 2-12 has the same lane configuration as Existing conditions. Similarly, Options 1 and 2 for Project 2-11 have the same lane configuration as that for Existing conditions. Therefore, no changes to the lane configuration are proposed under either Options for Projects 2-11 and 2-12.

- **Option 1**

  Existing and Existing plus Project Conditions for Projects 2-11 and 2-12 combined – AM Analysis

  In the AM Peak Hour under Existing conditions, this intersection operates at LOS F with more than 80 seconds of delay. The Octavia Boulevard/Market Street intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus combined Projects 2-11 Option 1 and 2-12 conditions. There would be no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay at this intersection, compared to Existing conditions. Therefore, a significant impact would not occur at the Octavia Boulevard/Market Street intersection in the AM peak hour under Existing conditions with the implementation of combined Project 2-11 Option 1 and Project 2-12.

Existing and Existing plus Project Conditions for Projects 2-11 and 2-12 combined – PM Analysis

In the PM Peak Hour, under Existing conditions, this intersection operates at LOS D with 41.9 seconds of delay. The Octavia Boulevard/Market Street intersection would operate satisfactorily at LOS D, with 41.9 seconds of delay under Existing plus combined Projects 2-11 Option 1 and 2-12 conditions. There would be no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, a significant impact would not occur at the Octavia Boulevard/Market Street intersection with the implementation of combined Project 2-11 Option 1 and Project 2-12 for the PM peak hour.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-11 and 2-12 combined – AM Analysis

In the AM Peak Hour, the Octavia Boulevard/Market Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative combined Projects 2-11 Option 1 and 2-12 conditions. This intersection would operate unsatisfactorily at LOS F with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at the Octavia Boulevard/Market Street intersection in the AM peak hour with the implementation of combined Project 2-11 Option 1 and Project 2-12 under 2025 Cumulative plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-11 and 2-12 combined – PM Analysis

In the PM Peak Hour, the Octavia Boulevard/Market Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative combined Projects 2-11 Option 1 and 2-12 conditions. This intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at the Octavia Boulevard/Market Street intersection with the implementation of combined Project 2-11 Option 1 and Project 2-12 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 2-11 and 2-12 combined – AM Analysis

In the AM Peak Hour, under Existing conditions, this intersection operates at LOS F with more than 80 seconds of delay. The Octavia Boulevard/Market Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus combined Projects 2-11 Option 2 and 2-12 conditions. There would be no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection compared to Existing conditions. Therefore, a significant impact would not occur at this intersection with the implementation of combined Project 2-11 Option 2 and Project 2-12

Existing and Existing plus Project Conditions for Projects 2-11 and 2-12 combined – PM Analysis

In the PM Peak Hour, under Existing conditions, this intersection operates at LOS D with 41.9 seconds of delay. The study intersection would continue to operate satisfactorily at LOS D, with 41.9 seconds of delay under Existing plus combined Projects 2-11 Option 2 and 2-12 conditions. There would be no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection for Existing plus Project conditions, compared to Existing conditions. Therefore, a significant impact would not occur at this intersection with the implementation of combined Project 2-11 Option 2 and Project 2-12.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-11 and 2-12 combined – AM Analysis

In the AM Peak Hour, the Octavia Boulevard/Market Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative combined Projects 2-11 Option 2 and 2-12 conditions. This intersection would operate unsatisfactorily at LOS F with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at the Octavia Boulevard/Market Street intersection in the AM peak hour with the implementation of combined Project 2-11 Option 2 and Project 2-12 under 2025 Cumulative plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-11 and 2-12 combined – PM Analysis

In the PM Peak hour, the Octavia Boulevard/Market Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative combined Projects 2-11 Option 2 and 2-12 conditions. This intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at the Octavia Boulevard/Market Street intersection with the implementation of combined Project 2-11 Option 2 and Project 2-12 under 2025 Cumulative plus Project conditions.

Project 2-11

Since the impacts of the combined Projects 2-11 Options 1 and 2 and 2-12 would not result in a significant traffic impact for either the AM or PM peak hour under Existing plus Project and 2025 Cumulative plus Project conditions, there would be no significant traffic impact from either Option 1 or Option 2 of individual Project 2-11.

Intersection 52: Church Street/Market Street/14th Street

The Church Street/Market Street/14th Street intersection is common to Projects 2-3 and 2-11 within the Cluster 2 area. Therefore, the analysis for the combined projects has been presented under Project 2-3, and is not repeated here.

- **Option 1**

Existing and Existing plus Project Conditions for combined Projects 2-3 and 2-11 Option 1 – AM Analysis
Please see the discussion regarding AM analysis for the combined projects under Project 2-3.

Existing and Existing plus Project Conditions for Projects 2-3 and 2-11 combined – PM Analysis
Please see the discussion regarding PM analysis for the combined projects under Project 2-3.

Existing and Existing plus Project Conditions for Project 2-11 Option 1 – AM Analysis
For AM peak hour conditions, combined Projects 2-3 and 2-11 Option 1 would not result in a significant traffic impact at the Church Street/Market Street/14th Street intersection. Therefore, there would be no significant traffic impact for the AM peak hour at the Church Street/Market Street/14th Street intersection as a result of Project 2-11 Option 1.

Existing and Existing plus Project Conditions for Project 2-11 Modified Option 1 – PM Analysis
In the PM peak hour, under Existing conditions, this intersection operates at LOS D with 52.2 seconds of delay. The Church Street/Market Street/14th Street intersection would operate at LOS D, with 52.2 seconds of delay under Existing plus project conditions for Project 2-11 Modified Option 1 , for the PM peak hour. Therefore a significant impact would not occur at the Church Street/Market Street/14th Street intersection with the implementation of Project 2-11 Modified Option 1. Table V.2-36, p.V.A.3-297, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Option 1 of Projects 2-3 and 2-11 combined – AM Analysis

Please see the analysis of impacts for the combined projects under Project 2-3.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-3 and 2-11 combined – PM Analysis

Please see the analysis of impacts for the combined projects under Project 2-3.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-11 – AM Analysis

In the AM Peak Hour, the Church Street/Market Street/14th Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative conditions for the AM peak hour. Under 2025 Cumulative plus Project 2-11 Modified Option 1 conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Since there would be no change in LOS or delay to the intersection as a result of Project 2-11 Modified Option 1 and the proposed project would not change the lane configuration of the westbound approach to the intersection , a significant impact would not occur at this intersection with the implementation of Project 2-11 Modified Option 1 under 2025 Cumulative plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-11 Option 1 – PM Analysis

In the PM Peak Hour, the Church Street/Market Street/14th Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project 2-11 Option 1 conditions, this intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Because Project 2-11 would not change the lane configuration of the southbound approach to this intersection, the LOS and delay for 2025 Cumulative with and without the project would be the same. There would be no change to the delay or LOS at this intersection for 2025 Cumulative plus Project conditions for Project 2-11 Modified Option 1. However, for the purpose of this analysis, the EIR will take the more conservative approach and retain the LOS F as a significant and unavoidable impact.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 2-3 and 2-11 combined – AM Analysis
Please see the analysis of impacts for the combined projects under Project 2-3.

Existing and Existing plus Project Conditions for Projects 2-3 and 2-11 combined – PM Analysis
Please see the analysis of impacts for the combined projects under Project 2-3.

Existing and Existing plus Project Conditions for Project 2-11 Option 2 – AM Analysis
For AM peak hour conditions, combined Projects 2-3 and 2-11 Option 2 would not result in a significant traffic impact at the Church Street/Market Street/14th Street intersection. Therefore, there would be no significant traffic impact for the AM peak hour at the Church Street/Market Street/14th Street intersection as a result of Project 2-11 Option 2.

Existing and Existing plus Project Conditions for Project 2-11 – PM Analysis
In the PM Peak Hour, under Existing conditions, for the PM peak hour, this intersection operates at LOS D with 52.2 seconds of delay. There are no lane configuration changes to the study intersection under Existing plus Project 2-11 Option 2 conditions compared to Existing conditions. Hence, there would be no change in LOS or delay for the Church Street/Market Street/14th Street intersection for Existing plus Project conditions. Therefore, under Existing plus Project conditions, Project 2-11 Option 2 would not cause a significant impact to the Church Street/Market Street/14th Street intersection. Table V.2-40, p. V.A.3-**Error! Bookmark not defined.**, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-3 and 2-11 combined – AM Analysis
Please see the analysis of impacts for the combined projects under Project 2-3.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-3 and 2-11 combined – PM Analysis
Please see the analysis of impacts for the combined projects under Project 2-3.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-11 – AM Analysis
In the AM Peak Hour, the Church Street/Market Street/14th Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project 2-11 Option 2 conditions, for the AM peak hour. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at the Church Street/Market Street/14th Street intersection for the AM Peak hour with the implementation of Project 2-11 Option 2 under 2025 Cumulative plus Project conditions. Table V.2-38, p. V.A.3-298, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-11 – PM Analysis

In the PM Peak Hour, the Church Street/Market Street/14th Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project 2-11 Option 2 conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at the Church Street/Market Street/14th Street intersection for the PM Peak hour with the implementation of Project 2-11 Option 2 under 2025 Cumulative plus Project conditions. Table V.2-38, p. V.A.3-298, summarizes these results.

● *Significant Impact 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.

TRANSIT

The Muni F-Market streetcar runs on the center lane with approximately 10 cars per hour each way during the AM and PM peak periods. F-Market streetcars stop in the center lane to load and unload passengers at a transit island and do not conflict with bicycle movement.

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 two westbound Muni 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[1] show that buses generally pick up and drop off passengers at the stops at an angle without being completely parallel to the curb.

[1] Field surveys were conducted by CHS Consulting on Thursday, September 20, 2007 during the midday.

- **Option 1**
  Under Option 1, the right-turn only lane on eastbound Market Street approaching Sanchez Street would be removed and replaced by a six-foot wide Class II bicycle lane, with additional width given to the adjacent travel lane. When buses arrive at the near-side bus stop at this location, they would stop in the curbside bicycle lane to load or unload passengers, and bicyclists would pass the bus to the left in the general travel lane as they currently do when buses stop in the existing right-turn only lane. Therefore, there would be no significant transit impacts under Project 2-11 Option 1.

- **Option 2**
  Option 2 would reduce the width of the sidewalk on Market Street by five feet at this location in order to maintain the right-turn lane and extend the five-foot wide Class II bicycle lane on the nearside of Sanchez Street. Option 2 would operate the same for transit as the Existing conditions. Therefore, there would be no significant transit impacts under Project 2-11 Option 2.

PARKING

There are approximately 185 existing on-street parking spaces on both sides of Market Street between 17th Street and Octavia Boulevard.

- **Option 1**
  Modified Option 1 would remove approximately 47 on-street parking spaces (about 27 percent of the total) between 17th Street and Octavia Boulevard, about 27 spaces on the north side of Market Street and 20 spaces on the south side. Parking occupancy on Market Street in the vicinity of Project 2-11 is high at approximately 80 percent. The loss of 47 parking spaces under Modified Option 1 would create a parking demand higher than the proposed supply and would cause approximately 10 vehicles to seek parking elsewhere in the vicinity. In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under CEQA, but rather a social effect. The loss of parking may cause potential indirect physical effects, which would include cars circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers becoming aware of constrained parking conditions in a given area and subsequently shifting travel modes. Any secondary environmental impacts that may result from a shortfall in parking would be minor, and any net reduction in on-street parking supply would not result in significant parking impacts. Therefore, this would not be considered a significant parking impact with implementation of Project 2-11 Option 1.

- **Option 2**
  Option 2 would remove approximately three on-street parking spaces on the south side of Market Street between Duboce and Guerrero Streets. The loss of three parking spaces would be minimal and the demand could still be accommodated within the remaining

spaces. Therefore there would be no significant parking impact with implementation of Project 2-11 Option 2.

PEDESTRIAN

- **Option 1**
  Option 1 would reduce the sidewalk width on the north side of Market Street by five feet on the nearside of Laguna and Buchanan Streets and on the south side direction on the nearside of Guerrero Street. The resulting sidewalk widths at these locations would be a minimum of 15 feet, which is a sufficient width for pedestrians to travel safely.

- **Option 2**
  Option 2 would reduce the width of the sidewalk by five feet on the nearside of Laguna, Buchanan, Church, Sanchez, and Noe Streets on both sides of Market Street. The resulting sidewalk widths at these locations would be a minimum of 10 feet, which is suitable for pedestrian movements.

  Under both options, Project 2-11 would extend the pedestrian crossing distance by five feet at Noe and Sanchez Streets. The curb-to-curb width along this section of Market Street is approximately 82 feet wide and there is a refuge area on the south side of the street approaching these two intersections. The existing pedestrian crossing time is approximately 26 seconds which should be sufficient for pedestrians to cross the proposed width of Market Street (87 feet at 3.3 ft/sec.). Therefore, there would be no significant pedestrian impacts with the implementation of Project 2-11.

BICYCLE

Extending the existing Class II bicycle lanes to the intersections would provide bicyclists with a designated right-of-way for travel. Therefore, neither Option 1 nor Option 2 of Project 2-11 would have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Market Street has substantial retail and commercial uses and delivery vehicles rely on the on-street parking spaces for loading and unloading. A moderate amount of double-parking was observed[2] during the midday.

- **Option 1**
  With Option 1, the block with the largest reduction in on-street parking spaces (nine spaces) is on the north side of Market Street near Noe Street. This corner has a restaurant

[2] Field surveys were conducted by CHS Consulting on Thursday, September 20, 2007 during the midday.

and other active retail uses, and, as a result of Project 2-11 Option 1, their loading demand would have to be accommodated on Noe Street where additional on-street yellow commercial freight loading spaces may need to be created. Therefore, there would be significant loading impacts (Significant Impacts TR-P2-11c and 2-11d) with implementation of Project 2-11 Option 1 under Existing plus Project and 2025 Cumulative plus Project conditions.

- **Option 2**
  Option 2 would not remove on-street parking spaces and therefore would not have an impact on loading.

Significant Impact 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.

Significant Impact 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 under 2025 Cumulative plus Project conditions.

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 2025 Cumulative plus Project conditions. Pre-project conditions describe what existed before the implementation of Project 2-12 and are analyzed under Existing and 2025 Cumulative conditions.

A Class II bicycle lane was added in both directions, except on the south side between Gough Street and Valencia Street, where sharrows were added. Approximately 30 metered on-street parking spaces and six metered motorcycle spaces were removed from Market Street between 12th Street and Octavia Boulevard. A total of 30 metered parking spaces were added at nearby locations on Market, 12th and Gough Streets by converting parallel parking spaces to perpendicular spaces and by the removal of a travel lane.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

One study intersection is included for the AM and PM peak hours for Project 2-12.

Intersection 40: Octavia Boulevard/Market Street

This Octavia Boulevard/Market Street intersection is common to both Projects 2-11 and 2-12. Therefore, the AM and PM analysis for this intersection has been discussed under Project 2-11. There would be no significant traffic impacts resulting from Projects 2-11 and 2-12 combined. Therefore, there would be no significant impacts from individual Project 2-12 for either AM or PM peak hour conditions, for either Existing plus Project or 2025 Cumulative plus Project. Please see the discussion for the combined projects under Project 2-11 for both AM and PM analysis for Existing plus Project and 2025 Cumulative plus Project. See Table V.2-37, p. V.A.3-298, Table V.2-38, p. V.A.3-298, Table V.2-39, p. V.A.3-299, Table V.2-40, p. V.A.3-**Error! Bookmark not defined.**, and Table V.2-41, p. V.A.3-300, for the results of study at this intersection.

TRANSIT

There are five eastbound Muni bus lines (6, 7, 26, 71, and 71L) with a combined frequency of approximately 25 buses per hour during the AM and PM peak periods. The Muni F-Market streetcar line operates in the median with approximately 10 cars per hour during the AM peak period and approximately nine cars per hour during the PM peak period. All eastbound Muni buses and F-Market streetcars travel in the center lane of Market Street with island stops adjacent to the center lane. There is no interface between bicycles and eastbound Muni service.

In the westbound direction, there are four Muni bus lines (6, 7, 71, and 71L) with a combined frequency of approximately 22 buses per hour during the AM and the PM peak periods on this segment of Market Street. In addition, the F-Market streetcar line operates approximately 10 cars per hour during the AM peak period and approximately nine cars per hour during the PM peak period. These buses and streetcars travel in the center lane with an island stop adjacent to the center lane east of the Market and Gough Street intersection. Muni bus lines 6, 7, 71, and 71L (approximately 22 buses per hour during the AM and the PM peak periods) turn right onto Haight Street at Gough Street. This right turn causes a conflict point between Muni buses and bicyclists moving through (westbound) along Market Street. Muni buses and bicyclists start to cross paths at approximately 100 feet before reaching the intersection of Market, Gough, and Haight Streets. However, observations[3] indicate that bus drivers and bicyclists tend to yield to each other at this approach. This conflict exists today and Project 2-12 would not make it any

[3] Field surveys were conducted by CHS Consulting on Thursday, September 20, 2007 during the PM peak.

worse than the existing condition. Therefore, no significant transit impacts with implementation of Project 2-12.

PARKING

Project 2-12 removed 30 metered parking spaces and six metered motorcycle spaces along Market Street between 12th Street and Octavia Boulevard but also added six metered parking spaces on the north side of Market Street between Franklin and Rose Streets, 20 metered spaces on 12th Street between Market Street and Van Ness Avenue (by converting parallel to perpendicular parking spaces), and four metered spaces on the east side of Gough Street between Market and Colton Streets for a net loss of six motorcycle parking spaces.

The loss of six metered motorcycle parking spaces has had a minimal impact, and has been accommodated in the vicinity of Project 2-12. Therefore there have been no significant parking impacts resulting from the implementation of Project 2-12.

PEDESTRIAN

Pedestrian volumes in this area are moderate to high. There were no changes in sidewalk width or crosswalk layout as a result of Project 2-12. In general bicyclists have not been observed[4] making turns that would conflict with pedestrians along this segment of Market Street. The interactions between pedestrians and bicyclists have not changed as a result of Project 2-12 with Option 1 and Option 2. Therefore, there have been no significant pedestrian impacts with implementation of Project 2-12.

BICYCLE

Market Street has one of the highest volumes of bicyclists in the city; the installation of bicycle lanes has provided bicyclists with a designated right-of-way for travel. The installation of sharrows has increased motor vehicle drivers' awareness that bicyclists may be on the road and has helped bicyclists identify a safe travel pathway outside the 'door zone'. Delivery vehicles were occasionally observed to be parked along the curb in the bicycle lane and oftentimes extending several feet into the adjacent travel lane. The combined width of the bicycle lane and adjacent travel lane through Project 2-12 is 16 to 17 feet. This provides ample room for bicyclists to safely pass the stopped delivery trucks within the travel lane partially obstructed by the delivery vehicle. Therefore, Project 2-12 has not had a significant impact on cyclists but has had the beneficial effect of improving roadway conditions and safety for bicyclists.

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[4] Field surveys were conducted by CHS Consulting on Thursday, September 20, 2007 during the midday.

LOADING

This segment of Market Street has mostly retail and commercial uses. Their loading demand is partially met in the designated loading zones along Market Street or on the side streets. Occasional truck-parking on the sidewalks or in the curb lane was observed during the midday. While some of these trucks were in violation of the *Transportation Code*, no significant conflicts between trucks and pedestrians were observed because pedestrian volumes in this segment of Market Street are relatively moderate, and sidewalks are sufficiently wide. There was no significant traffic delay observed because traffic volumes are generally low during midday. Therefore, there are no significant loading impacts from the implementation of Project 2-12.

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

Project 2-13 was partially implemented as a part of the Central Freeway Ancillary Projects on September 9, 2005 prior to the Bicycle Plan injunction. Project 2-13 added a bi-directional Class I bicycle path connecting the intersection of Market Street and Octavia Boulevard to the western terminus of McCoppin Street, and a yet-to-be implemented Class II bicycle lane in the westbound direction. Approximately four on-street parking spaces were removed on the north side of McCoppin Street.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection, on p. V.A.3-3 of this EIR..

TRANSIT

There are no transit lines on this segment of McCoppin Street. Therefore, there are no transit impacts.

PARKING

Project 2-13 removed four on-street parking spaces. While parking occupancy rates in the area are relatively high, there are usually available parking spaces on this last block of McCoppin Street. Therefore, the loss of four parking spaces with implementation of Project 2-13 would not cause a significant parking impact.

PEDESTRIAN

Pedestrian volumes are generally low, and there were no changes in sidewalk width or crosswalk layout. With this Class I facility, bicyclists and pedestrians share a pathway separated from motor vehicle traffic and pedestrians are separated from bicyclists by the sidewalk curb. No pedestrian/bicycle conflicts were observed.[5] Therefore, there would be no pedestrian impacts with implementation of Project 2-13.

BICYCLE

The proposed Class I bicycle path and Class II bicycle lanes would provide bicyclists with a designated right-of-way for travel. The removal of on-street parking on the north side of McCoppin Street would help bicyclists avoid the risk of getting hit by the door of a parked car by eliminating the "door zone." Therefore, Project 2-13 would not result in a negative impact to bicyclists but could have the beneficial effect of improving road sharing and safety for bicyclists.

LOADING

Loading demand is low at this dead end block and there were no double-parked vehicles or significant loading needs observed in the field in this segment of McCoppin Street. Therefore, there would be no loading impacts with the implementation of Project 2-13.

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

● Modified Project 2-14 would add a westbound Class II bicycle lane in both directions between Gough and Valencia Streets by removing one westbound travel lane. Four parking spaces would be gained by converting parallel parking to 60-degree back-in angle parking between Gough and Valencia Streets.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection, on p. V.A.3-3 of this EIR..

TRANSIT

Muni bus line 26 runs only in the westbound direction between Gough and Valencia Streets, with approximately three buses per hour during the AM and PM peak periods. There is an existing stop for Muni bus line 26, approximately 130 long, at the far side of the Gough Street intersection. Transit volumes are very low, and observed bicycle volumes were also low, so current interactions between buses and bicyclists are minimal. The proposed Class II bicycle lane and removal of one westbound travel lane would not substantially change existing

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[5] Field surveys were conducted by CHS Consulting on Thursday, September 20, 2007 during the midday.

interactions between buses and bicyclists or affect transit operation and travel time. Therefore, there would be no significant transit impacts with the implementation of Project 2-14.

PARKING

Modified Project 2-14 would result in a net gain of approximately four on-street parking spaces by converting parallel parking to 60-degree back-in angle parking on the south side of McCoppin Street between Jessie and Stevenson Streets. Changes to the configuration of on-street parking were analyzed in the Draft EIR as Minor Improvement 4.1-9 on pp. V.A.4-25 to V.A.4-27. Because the proposed project would add four parking spaces to the project vicinity, there would be no significant parking impacts with the implementation of Modified Project 2-14.

PEDESTRIAN

Pedestrian volumes are generally low, and there would be no changes in sidewalk width or crosswalk layout with Project 2-14. The interactions between pedestrians and bicyclists would not change as a result of Project 2-14. Therefore, there would be no pedestrian impacts with the implementation of Project 2-14.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. Therefore, Project 2-14 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

No on-street loading spaces would be removed as the result of the project. Land uses along this street are mostly residential with some commercial. No double-parked vehicles or significant loading needs were observed on this segment of McCoppin Street. Therefore, there would be no loading impacts with the implementation of Project 2-14.

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

Project 2-15 would add a westbound Class II bicycle lane between South Van Ness Avenue and Gough Street, resulting in a narrowing of travel lanes. The current curb-to-curb width of approximately 61.5 feet would not change as a result of Project 2-15.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection, on p. V.A.3-3 of this EIR.

TRANSIT

Muni bus lines 14, 14L, 26, and 49 operate along this segment of Otis Street with approximately 21 buses per hour during the AM and PM peak periods. There is an approximately 130-foot long Muni bus stop on the far side of 12th Street. The existing curb lane is very wide (23.5 feet); restriping for the bicycle lane would still provide sufficient width to accommodate transit, the bicycle lane and parking. The installation of a bicycle lane would better delineate the separate travel path for bicyclists and general traffic but would not change how bicycles and transit interact. The only narrowing of travel lanes would occur on the inside lanes which are not used by bicycles or transit. Therefore, there would be no significant impacts on transit capacity, operation, or travel time, or on the interactions between buses and bicyclists with the implementation of Project 2-15.

PARKING

There would be no changes in parking layout or in the existing number of parking spaces in this segment of Otis Street. Therefore, there would be no parking impacts with the implementation of Project 2-15.

PEDESTRIAN

Pedestrian volumes are generally low, and there would be no changes in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of Project 2-15. Therefore, there would be no pedestrian impacts with the implementation of Project 2-15.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. Double-parking by delivery vehicles occurs occasionally along this segment of Otis Street. While this double-parking activity would likely continue with installation of the bicycle lane, bicyclists would still be able to pass double-parked vehicles to the left in the general traffic lane. This would not represent a change from existing conditions. In addition, the proposed restriping would provide parking, bicycle, and travel lanes all with standard widths. Therefore, Project 2-15 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

There are several commercial and industrial uses along the north side of Otis Street. Their loading demand is typically accommodated at the on-street parking spaces; double-parking occurs only occasionally.[6] Since there would be no changes in the number or location of on-street parking including the on-street yellow commercial freight loading spaces, there would be no loading impacts with the implementation of Project 2-15.

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.

Project 2-16 would add a Class II bicycle lane in both directions between 2nd and 8th Streets and sharrows between The Embarcadero and 2nd Street. Project 2-16 would reduce travel lanes from two to one and add a two-way center left-turn lane in both directions between 2nd and 4th Streets. The project would also add Class II bicycle lanes on Townsend Street in both directions between 7th and 8th Streets by narrowing travel lanes. No travel lane or parking removals would be required along this segment.

The segment of Townsend Street between 4th and 7th Streets would have two options. Option 1 would convert parking on the north side of Townsend Street into parallel parking and the pull-in angled parking on the south side into back-in angled parking. This option would remove approximately 80 on-street parking spaces and six part-time parking spaces that are currently restricted to truck loading during certain hours

Option 2 would convert parking on the north side into back-in perpendicular parking and the pull-in angled parking on the south side into parallel parking. This option would result in a loss

6 Field surveys were conducted by CHS Consulting on Thursday, September 20, 2007 during the midday.

of approximately 26 spaces, but a gain of 16 part-time parking spaces that are currently restricted to truck loading during certain hours

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the PM peak hour. Tables V.2-42, p. V.A.3-317, and V.2-43, p. V.A.3-317, summarize these results.

The Draft EIR analyzed five study intersections for Project 2-16. The only intersection affected by the project modification would be the intersection of 4th Street/Townsend Street. The lane configuration of Modified Option 1 at 4th Street/Townsend Street differs from Draft EIR Option 1 in that Modified Option 1 includes changes that are part of the Central Subway extension (see description in 2025 Cumulative discussion below). Those changes were made to the traffic model, and the traffic model was reanalyzed for the cumulative and cumulative plus project conditions. Table C&R-13, below, summarizes these results, followed by a discussion of the Central Subway's impact to this intersection.

TABLE C&R-13
PROJECT 2-16 INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY
2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS
WEEKDAY PM PEAK HOUR

		2025 Cumulative		2025 Cumulative plus Project MODIFIED Option 1	
	Intersection	Average Delay[a]	LOS[b] I V/C[c]	Average Delay[a]	LOS[b] I V/C[c]
15.	4th Street/Townsend Street	57.8	E ; 1.184	73.9	E ; 1.252

Notes:

a. Delay in seconds per vehicle.

b. Intersections operating at LOS E or LOS F conditions highlighted in bold.

c. V/C (Volume to Capacity) ratio for intersections operating at LOS E or LOS F.

TABLE V.2-42
CLUSTER 2 – PROJECT 2-16[c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				Existing plus Project[c]			
		Existing		Option 1		Option 2	
Intersection		Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
6.	2nd Street/Townsend Street[c]	13.8	B	20	C	20	C
14.	7th Street/Townsend Street	25.4	C	**>80**	**F**	**>80**	**F**
15.	4th Street/Townsend Street	21	C	20.8	C	29.7	C
16.	3rd Street/Townsend Street	38.8	D	40.1	D	38.8	D
17.	6th Street /Brannan Street	**>80**	**F**	**>80**	**F**	**>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.
c. LOS and average delay for 2nd Street/Townsend Street for combined impacts of Projects 2-1 and 2-16.

TABLE V.2-43
CLUSTER 2 – PROJECT 2-16 [c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				2025 Cumulative plus Project[c]			
		2025 Cumulative		Option 1		Option 2	
Intersection		Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
6.	2nd Street/Townsend Street[c]	15.8	B	**55.1**	**E**	**55.1**	**E**
14.	7th Street/Townsend Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
15.	4th Street/Townsend Street	**70.9**	**E**	**>80**	**F**	**63.7**	**E**
16.	3rd Street/Townsend Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
17.	6th Street /Brannan Street	**>80**	**F**	**>80**	**F**	**>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.
c. LOS and average delay for 2nd Street/Townsend Street for combined impacts of Projects 2-1 and 2-16.

TABLE V.2-44
CLUSTER 2 – PROJECTS 2-1 AND 2-16
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR 2ND STREET/TOWNSEND STREET EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1				Existing plus Project Option 2			
Existing		Project 2-16		Combined Project 2-1 and 2-16		Project 2-16		Combined Project 2-1 and 2-16	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
13.8	B	20	C	20	C	20	C	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.

TABLE V.2-45
CLUSTER 2 – PROJECTS 2-1 AND 2-16
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR 2ND STREET/TOWNSEND STREET 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
2025 Cumulative		Project 2-16		Combined Projects 2-1 and 2-16		Project 2-16		Combined Projects 2-1 and 2-16	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
15.8	B	**55.1**	**E**	**55.1**	**E**	**55.1**	**E**	**55.1**	**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 6: 2nd Street/Townsend Street

The 2nd Street/Townsend Street intersection is common to Projects 2-1 and 2-16 within the Cluster 2 area. For Project 2-1, the lane configuration at the intersection remains the same as under Existing (No Project) conditions for both Option 1 and Option 2. However, Project 2-16 reduces the capacity in the eastbound direction on Townsend Street for this intersection. Under Project 2-16, both Options 1 and 2 would modify the eastbound shared through-left and shared through-right lane to a single shared through-left-right turn lane.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 2-1 and 2-16 combined
Please see the discussion of the combined projects impacts under Project 2-1.

Existing and Existing plus Project Conditions for Project 2-16
Under Existing conditions, this intersection operates at LOS B in the PM peak hour with 13.8 seconds of delay. The 2nd Street/Townsend Street intersection would operate satisfactorily at LOS C, with 20 seconds of delay under Existing plus Project conditions. Therefore, Project 2-16 Option 1 would not cause a significant traffic impact to the 2nd Street/Townsend Street intersection under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-1 and 2-16 combined
Please see the discussion of the combined projects impacts under Project 2-1.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-16
The 2nd Street/Townsend Street intersection would operate satisfactorily at LOS B in the PM peak hour, with 15.8 seconds of average delay under 2025 Cumulative conditions. The 2nd Street/Townsend Street intersection would operate unsatisfactorily at LOS E, with 55.1 seconds of delay under 2025 Cumulative plus Project conditions. Because the southbound and eastbound critical movements at 2nd Street/Townsend Street would deteriorate, with a corresponding deterioration in the V/C ratios for these movements relative to 2025 Cumulative conditions, a significant impact (Significant Impact TR-P2-16a) would occur at this intersection with the implementation of Project 2-16 Option 1.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 2-1 and 2-16 combined
Please see the discussion of the combined projects impacts under Project 2-1.

Existing and Existing plus Project Conditions for Project 2-16
Under Existing conditions, this intersection operates at LOS B in the PM peak hour with 13.8 seconds of delay. The 2nd Street/Townsend Street intersection would operate satisfactorily at LOS C, with 20 seconds of delay under Existing plus Project 2-16 Option 2 conditions. Therefore, Project 2-16 Option 2 would not cause a significant traffic impact to the 2nd Street/Townsend Street intersection under Existing plus Project conditions. Table V.2-43, p. V.A.3-317, shows a comparison between LOS and average delay for this intersection under Existing and Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 2-1 and 2-16 combined

Please see the discussion of the combined project impacts under Project 2-1.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 2-16

The 2nd Street/Townsend Street intersection would operate unsatisfactorily at LOS E in the PM peak hour, with 55.1 seconds of delay under 2025 Cumulative plus Project 2-16 Option 2 conditions. Because the southbound and eastbound critical movements at 2nd Street/Townsend Street would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P2-16b) would occur at the 2nd Street/Townsend Street intersection with the implementation of Option 2 of Project 2-16 alone. Table V.2-42, p. V.A.3-317, summarizes these results.

Intersection 14: 7th Street/Townsend Street

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 25.4 seconds of delay. The 7th Street/Townsend Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project 2-16 Option 1 conditions. The eastbound lane configuration would be modified from one shared through-left turn lane and one shared through-right turn lane to one shared through-left turn lane, and one exclusive right-turn lane. Due to the lane configuration adjustment in the eastbound direction, there would be an increase in delay along this approach. The average intersection delay would increase by more than 80 seconds compared to Existing conditions. Because the northbound and eastbound critical movements at the 7th Street/Townsend Street intersection would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P2-16c) would occur at the 7th Street/Townsend Street intersection with the implementation of Project 2-16 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 7th Street/Townsend Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project 2-16 Option 1 conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Deterioration of the northbound and eastbound critical movements at 7th Street/Townsend Street to LOS F, when comparing Existing plus Project to Existing Conditions, is determined to be a significant impact. As a consequence a corresponding LOS deterioration would be expected, at this intersection for 2025 Cumulative plus Project when compared to 2025

Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P2-16e) would occur at the 7th Street/Townsend Street intersection with the implementation of Project 2-16 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 25.4 seconds of delay. The 7th Street/Townsend Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project 2-16 Option 2 conditions. The eastbound lane configuration would be modified from one shared through-left turn lane and one shared through-right turn lane to one shared through-left turn lane, and one exclusive right-turn lane. Due to the lane configuration adjustment in the eastbound direction, there would be an increase in delay. The average intersection delay would increase by more than 80 seconds compared to Existing conditions. Because the northbound and eastbound critical movements at the 7th Street/Townsend Street intersection would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P2-16d) would occur at the 7th Street/Townsend Street intersection with implementation of Project 2-16 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 7th Street/Townsend Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. The 7th Street/Townsend Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project 2-16 Option 2 conditions. Deterioration of the northbound and eastbound critical movements at 7th Street/Townsend Street to LOS F, when comparing Existing plus Project to Existing conditions, is determined to be a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P 2-16f) would occur at the 7th Street/Townsend Street intersection with the implementation of Project 2-16 Option 2 under 2025 Cumulative plus Project conditions.

Intersection 15: 4th Street/Townsend Street

- **Modified Option 1**

- **2025 Cumulative and 2025 Cumulative plus Project Conditions (Central Subway)**

The 4th Street/Townsend Street intersection was analyzed under 2025 Cumulative conditions with proposed lane changes on 4th Street as part of the Central Subway extension. This project would convert 4th Street into a two-way street north of Townsend Street, add rail tracks down the center of the street, and eliminate two southbound left turn lanes on 4th Street. The proposed configuration on southbound 4th

Street would be one through lane and one shared through-right turn lane. On northbound 4th Street there would be a shared through-right turn lane. Under this configuration and project volumes, the 4th Street/Townsend Street intersection would operate unsatisfactorily at LOS E, with 57.8 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project Option 1 conditions, this intersection would operate unsatisfactorily at LOS E, with 73.9 seconds of average delay. Therefore, significant impact TR-P2-16g would still occur at this intersection with Modified Option 1.

Additionally, the following Significant Impacts associated with Option 1 also would apply to Modified Option 1. Significant Impact TR-P2-16a would still occur at the intersection of 2nd/Townsend Streets under 2025 Cumulative plus Project conditions. Significant Impact TR-P2-16c would still occur at the intersection of 7th/Townsend Streets under Existing plus Project conditions. Significant Impact TR-P2-16e would still occur at the intersection of 7th/Townsend Streets under 2025 Cumulative plus Project conditions under Modified Option 1.

- **Option 1**

Existing and Existing plus Project Conditions
Under Existing conditions, this intersection operates at LOS C with a delay of 21 seconds. The 4th Street/Townsend Street intersection would operate satisfactorily at LOS C, with 20.8 seconds of delay under Existing plus Project 2-16 Option 1 conditions. The northbound lane configuration would be modified from two exclusive right-turn lanes to one exclusive right-turn lane. The southbound lane configuration would be modified

from two exclusive left-turn lanes, one through lane, and one shared through-right turn lane to one exclusive left-turn lane, two through lanes, and one exclusive right-turn lane. The eastbound lane configuration would be modified from one through lane and one shared through-right turn lane to one through lane and one exclusive right-turn lane. However, even with this reduction in capacity in the northbound, southbound, and eastbound directions, the average intersection delay would decrease by 0.2 seconds, compared to Existing conditions. Therefore, Project 2-16 Option 1 would not cause a significant traffic impact to the 4th Street/Townsend Street intersection under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 4th Street/Townsend Street intersection would operate unsatisfactorily at LOS E, with 70.9 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project 2-16 Option 1 conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Because the southbound and westbound critical movements at the 4th Street/Townsend Street intersection either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P2-16g) would occur at the 4th Street/Townsend Street intersection with the implementation of Project 2-16 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with a delay of 21 seconds. The 4th Street/Townsend Street intersection would operate satisfactorily at LOS C, with 29.7 seconds of delay under Existing plus Project 2-16 Option 2 conditions. The northbound lane configuration would be modified from two exclusive right-turn lanes to one exclusive right-turn lane. The southbound lane configuration would be modified from two exclusive left-turn lanes, one through lane, and one shared through-right turn lane to one exclusive left-turn lane, two through lanes, and one exclusive right-turn lane. The eastbound lane configuration would be modified from one through lane and one shared through-right turn lane to one shared through-right turn lane. Due to the reduction of capacity in the northbound direction, southbound direction, and eastbound direction, the average intersection delay would increase along these approaches. The average intersection delay would increase by 8.7 seconds, compared to Existing conditions. However, the intersection would continue to operate at a satisfactory LOS. Therefore, Project 2-16 Option 2 would not cause a significant traffic impact to the 4th Street/Townsend Street intersection under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 4th Street/Townsend Street intersection would operate unsatisfactorily at LOS E, with 63.7 seconds of delay under 2025 Cumulative plus Project 2-16 Option 2 conditions.

Since the intersection would operate at LOS E and the amount of delay decreases by 7.2 seconds (from 70.9 to 63.7 seconds), and the westbound critical movement would improve and would not deteriorate to an unacceptable LOS; a significant impact would not occur at the 4th Street/Townsend Street intersection with the implementation of Project 2-16 Option 2 under 2025 Cumulative plus Project conditions.

Intersection 16: 3rd Street/Townsend Street

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS D with 38.8 seconds of delay. The 3rd Street/Townsend Street intersection would operate satisfactorily at LOS D, with 40.1 seconds of delay under Existing plus Project conditions. The eastbound lane configuration would be modified from two through lanes and one exclusive left-turn lane to one through lane and one exclusive left-turn lane. Due to the reduction of capacity in the eastbound direction, there would be an increase in delay along this approach. The average intersection delay would increase by 1.3 seconds, compared to Existing conditions. The 3rd Street/Townsend Street intersection would operate satisfactorily at LOS D, with 40.1 seconds of delay under Existing plus Project conditions. Therefore, Project 2-16 Option 1 would not cause a significant traffic impact to the 3rd Street/Townsend Street intersection under Existing plus Project conditions. See Table V.2-42, p. V.A.3-317, for these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 3rd Street/Townsend Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay. However, the northbound and eastbound critical movements at 3rd Street/Townsend Street would not deteriorate, compared to 2025 Cumulative conditions; a significant impact would not occur at this intersection with the implementation of Project 2-16 Option 1 under 2025 Cumulative plus Project conditions. See Table V.2-43, p. V.A.3-317, for these results.

- **Option 2**

Existing and Existing plus Project Conditions

The 3rd Street/Townsend Street intersection would operate satisfactorily at LOS D, with 38.8 seconds of average delay under Existing plus Project conditions. There would be no lane configuration adjustments to the intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection compared to Existing conditions. Therefore, Project 2-16 Option 2 would not cause a significant impact to the 3rd Street/Townsend Street intersection under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions
The 3rd Street/Townsend Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. The 3rd Street/Townsend Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at this intersection with the implementation of Project 2-16 Option 2 under 2025 Cumulative plus Project conditions.

Intersection 17: 6th Street/Brannan Street

- **Option 1**

Existing and Existing plus Project Conditions
Under Existing conditions, this intersection operates at LOS F in the PM peak hour with more than 80 seconds of delay. The 6th Street/Brannan Street intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions. There would be no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, a significant impact would not occur at the 6th Street/Brannan Street intersection with the implementation of Project 2-16 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions
The 6th Street/Brannan Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. The 6th Street/Brannan Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at the 6th Street/Brannan Street intersection with the implementation of Project 2-16 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions
Under Existing conditions, this intersection operates at LOS F in the PM peak hour with more than 80 seconds of delay. The 6th Street/Brannan Street intersection would also operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions. There would be no lane configuration adjustments to the study intersection under Existing plus Project conditions. Hence, there would be no change in

LOS or delay for this intersection, compared to Existing conditions. Therefore, a significant impact would not occur at the 6th Street/Brannan Street intersection with the implementation of Project 2-16 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 6th Street/Brannan Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. The 6th Street/Brannan Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at the 6th Street/Brannan Street intersection with the implementation of Project 2-16 Option 2 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P2-16a:

The 2nd Street/Townsend Street intersection would operate unsatisfactorily at LOS E under 2025 Cumulative plus Project conditions for Option 1. Therefore, a significant impact would occur at the 2nd Street/Townsend Street intersection with the implementation of Project 2-16 Option 1 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P2-16b:

The 2nd Street/Townsend Street intersection would operate unsatisfactorily at LOS E under 2025 Cumulative plus Project conditions for Option 2. Therefore, a significant impact would occur at the 2nd Street/Townsend Street intersection with the implementation of Project 2-16 Option 2 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P2-16c:

Under Existing plus Project conditions for Project 2-16 Option 1, the 7th Street/Townsend Street intersection would operate 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 Existing plus Project conditions.

Significant Impact TR-P2-16d:

Under Existing plus Project conditions for Project 2-16 Option 2, the 7th Street/Townsend Street intersection would operate at LOS F. Therefore, a significant impact would occur at the 7th Street/Townsend Street intersection with the implementation of Project 2-16 Option 2 under Existing plus Project conditions.

Significant Impact TR-P2-16e:

Under 2025 Cumulative plus Project conditions for Project 2-16 Option 1, the 7th Street/Townsend Street intersection would operate 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.

Significant Impact TR-P2-16f:

Under 2025 Cumulative plus Project conditions for Option 2, the 7th Street/Townsend Street intersection would operate at LOS F. Therefore, a significant impact would occur at the 7th Street/Townsend Street intersection with the implementation of Project 2-16 Option 2 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P2-16g:

Under 2025 Cumulative plus Project conditions for Option 1, the 4th Street/Townsend Street intersection would operate at LOS F. Therefore, a significant impact would occur at the 4th Street/Townsend Street intersection with the implementation of Project 2-16 Option 1 under 2025 Cumulative plus Project conditions.

TRANSIT

Muni bus line 10 runs on Townsend Street between 2nd and 8th Streets, and Muni bus lines 19, 30, 45, 47, 80X, 82X, and 108 run along only short segments of Townsend Street.. Muni bus lines 80X and 82X operate only during the AM peak period. The segment of Townsend Street between 3rd and 4th Streets has the most Muni bus lines (10, 30, 45, 80X, 82X, and 108), with 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. Amtrak buses use the south side of Townsend Street between 4th and 5th Streets as a layover area in front of the Caltrain Station. Between 4th and 8th Streets, Muni bus volumes reduce significantly. Muni bus line 47 travels only in the westbound direction between 4th and 5th Streets and Muni bus line 19 travels only in the eastbound direction between 8th and 7th Streets.

Due to the relative low to moderate bicycle volumes under Existing conditions, there is little interaction between buses and bicyclists at the bus stop between 3rd and 4th Streets, except occasional conflicts between buses and bicyclists when buses are leaving the stop toward the 3rd Street intersection. In general, buses and bicyclists yield to each other.

Both Option 1 and Option 2 of Project 2-16 would reconfigure the intersection of 4th Street/Townsend Street. The new configuration, with two left turn lanes from southeast bound 4th Street to northeast bound Townsend, may cause a significant impact to Muni bus lines 30 and 45. While these bus lines would be able to make the turn under the new conditions, under certain circumstances they may encroach on the bus zone on the south side of Townsend Street and possibly would encroach on the bicycle lane. For example, when a Muni line 30 bus loads and unloads passengers or lies over in the bus zone[7] immediately adjacent to the east crosswalk at the intersection of 4th Street/Townsend Street, a Muni line 45 bus arriving behind that Muni line 30 bus may be prevented from making the turn. For this reason a significant transit impact would occur for Muni bus lines 30 and 45 with either Option 1 or Option 2 of Project 2-16.

Existing plus Project conditions, Project 2-16 Options 1 and 2

Due to the inability of Muni bus lines 30 and 45 to make left turns, under certain circumstances, from 4th Street to Townsend Street, a significant operational transit impact (Significant Impacts TR-P2-16h, TR-P2-16i, TR-P2-16j, TR-P2-16k) would occur under Existing plus Project conditions with implementation of Option 1 or Option 2 of Project 2-16.

2025 Cumulative plus Project conditions, Project 2-16 Options 1 and 2

Due to the inability of Muni bus lines 30 and 45 to make left turns, under certain circumstances, from 4th Street to Townsend Street, a significant operational transit impact (Significant Impacts TR-P2-16l TR-P2-16m, TR-P2-16n and TR-P2-16o) would occur under 2025 Cumulative plus Project conditions with implementation of Option 1 or Option 2 of Project 2-16.

Significant Impact 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.

Significant Impact 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.

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7 Currently, the south side of Townsend Street is bus zone and a layover area for the length of the block.

Significant Impact 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.

Significant Impact 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.

Significant Impact 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.

Significant Impact 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.

Significant Impact 2-16n:

A significant transit impact would occur to Muni bus line 30 under 2025 Cumulative plus Project conditions for Project 2-16 Option 2.

Significant Impact 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.

Project 2-16 shares Intersection 6: 2nd Street/Townsend Street with Project 2-1: 2nd Street Bicycle Lanes, King Street to Market Street. The transit delay analysis below (Projects 2-1 and 2-16 combined) reflects the combined impact of Projects 2-1 and 2-16 modifications to the 2nd Street/Townsend Street intersection on transit delay.

With combined Projects 2-1and 2-16 for both Option 1 and Option 2, there would be an insignificant impact on transit travel time between The Embarcadero and 7th Street, even with the removal of travel lanes between 2nd and 4th Streets. Consequently, there would be no transit delay impact on Muni bus lines 30, 45, 47, 80X, 82X and 108 for either Existing plus Project or 2025 Cumulative plus Project.

- **Option 1**

Existing and Existing plus Project conditions, combined Projects 2-1 and 2-16

Option 1 would not add delay to Muni bus line 10 westbound, but would add 275 seconds (4.6 minutes) of delay eastbound in the PM peak period. For Muni bus line 19, Option 1 would add 222 seconds (3.7 minutes) of delay eastbound. The headways for Muni bus lines 10 and 19 in the PM peak period are 10 minutes. For Muni bus line 10, the total added delay of 275 seconds (4.6 minutes) would be less than the transit delay threshold of six minutes. For Muni bus line 19, the total added delay of 222 seconds (3.7 minutes) would be less than the transit delay threshold of six minutes. Therefore, a significant transit delay impact would not occur with the implementation of combined Projects 2-1 and 2-16 Option 1 under Existing plus Project conditions.

2025 Cumulative plus Project conditions combined 2-1 and 2-16 Option 1

Option 1 would not change operation for Muni bus line 10 westbound, but would add 248 seconds (4.1 minutes) of delay eastbound. Option 1 would add no delay to Muni bus line 19. The headways for Muni bus lines 10 and 19 in the PM peak period are 10 minutes. For Muni bus line 10, the total added delay of 248 seconds (4.1 minutes) would be less than the transit delay threshold of six minutes. For Muni bus line 19, no delay would be added with Projects 2-1 and 2-16 combined with Option 1. Therefore, a significant transit delay impact would not occur with the implementation of Projects 2-1 and 2-16 combined with Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing plus Project conditions, combined 2-1 and 2-16

Option 2 would not change operation for Muni bus line 10 westbound, but would add 272 seconds (4.5 minutes) of delay eastbound. For Muni bus line 19, Option 2 would add 222 seconds (3.7 minutes) of delay eastbound. The headways for Muni bus lines 10 and 19 in the PM peak period are 10 minutes. For Muni bus line 10, the total added delay of 272 seconds (4.5 minutes) would be less than the transit delay threshold of six minutes. For Muni bus line 19, the total added delay of 222 seconds (3.7 minutes) would be less than the transit delay threshold of six minutes. Therefore, a significant transit delay impact would not occur with the implementation of Option 2 of combined Projects 2-1 and 2-16 under Existing plus Project conditions.

2025 Cumulative plus Project conditions, combined 2-1 and 2-16

Option 2 would not change operation westbound for Muni bus line 10, but would add 16 seconds of delay eastbound. Option 2 would add no delay for Muni bus line 19. The headways for Muni bus lines 10 and 19 in the PM peak period are 10 minutes. For Muni bus line 10, the total added delay of 16 seconds would be less than the transit delay threshold of six minutes. For Muni bus line 19, no delay would be added with Projects 2-1 and 2-16 combined with Option 1. Therefore, a significant transit delay impact would not occur with the implementation of Projects 2-1 and 2-16 combined with Option 2 under 2025 Cumulative plus Project conditions.

As discussed at the beginning of this transit analysis section, Project 2-16 may result in a significant transit impact for Muni bus lines 30 and 45 due to operational constraints. However, since combined Projects 2-1 and 2-16 do not result in significant transit delay, there would be no significant impacts related to transit delay as a result of individual Project 2-16.

PARKING

As under Option 1, Modified Option 1 would convert the existing perpendicular parking on the north side of Townsend Street between 4th and 7th Streets to parallel parking and would convert the existing front-in angled parking on Townsend Street between 7th Street and 150 feet west of 5th Street to back-in angled parking. In addition, Modified Option 1 would convert the angle parking on the south side of Townsend Street between 150 feet west of 5th and 4th Streets to parallel parking, resulting in a loss of 20 additional spaces compared to Option 1. The proposed parking removal just west of 5th Street would provide two eastbound traffic lanes on the eastbound approach to the intersection of Townsend and 5th Streets. Modified Option 1 would result in a total loss of 113 parking spaces, compared to a loss of 86 spaces under Option 1 in the Draft EIR. Because existing parking occupancy in this area is generally high, the loss of 113 parking spaces would increase the parking occupancy rate.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact as under the CEQA but rather a social effect. The loss of parking may cause potential, indirect physical effects, which would include cars circling and looking for a parking space on neighboring streets. The secondary effects of drivers searching for parking is typically offset 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 that may result from a shortfall in parking in the vicinity of modified Project 5-1 would be minor. The changes in on-street parking also would not cause any secondary physical impacts, such as traffic congestion, air quality impacts, or noise impacts caused by congestion. Therefore, there would be no significant parking impacts as a result of the implementation of Project 2-16.

On-street parking would be removed on portions of Townsend Street between 4th and 7th Streets. There are approximately 480 parking spaces on both sides of Townsend Street between 8th Street and The Embarcadero. The existing midday parking occupancy rate is over 100 percent because several vehicles were observed to park illegally. Option 1 would result in a loss of approximately 86 parking spaces. Option 2 would result in a loss of approximately 26 parking spaces and a gain of approximately 16 parking spaces, for a net loss of 10 spaces.

The change of pull-in to back-in angled parking would potentially benefit bicyclists by improving approaching bicyclists' visibility to motor vehicle drivers and other traffic, both when drivers are entering and exiting a parking stall. When entering a parking stall by backing in, drivers would be looking backwards towards oncoming traffic and would be more aware of approaching bicyclists. Bicyclists would also be better able to see these vehicles backing into the parking spaces and, therefore, would have ample warning to safely maneuver around these vehicles. When exiting a parking stall, drivers would face the street with a better view of oncoming traffic in comparison to drivers backing out of the pull-in parking stall whose view of oncoming traffic may be obscured by adjacent parked vehicles.

The current parking occupancy rate is very high, and the removal of 86 parking spaces under Option 1 and 16 parking spaces under Option 2 would further increase parking occupancy. 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.

In San Francisco, 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, 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."

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 offset 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. Therefore, there would be no significant parking impacts with implementation of Project 2-16.

PEDESTRIAN

Pedestrians were observed to walk on the street between the travel lane and on-street parking either because of the lack of sidewalks or the presence of illegally parked vehicles blocking the existing unpaved path. The formalization of on-street parking would reduce illegal parking, so that vehicles would not block the pedestrian paths, especially on the unpaved path along the Caltrain fence on the south side of Townsend Street between 5th and 7th Streets. Pedestrian volumes are relatively high during the commute periods and midday between 2nd and 4th Streets, so the regulation of on-street parking in this area would be a benefit. Therefore, there would be no significant pedestrian impacts as a result of Project 2-16 with either Option 1 or Option 2.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. The change of pull-in to back-in angled parking would potentially benefit bicyclists by improving approaching bicyclists' visibility to motor vehicle drivers and other traffic, both when drivers are entering and exiting a parking stall. When entering a parking stall by backing in, drivers would be looking backwards towards oncoming traffic and would be more aware of approaching bicyclists. Bicyclists would also be better able to see these vehicles backing into the parking spaces and, therefore, would have ample warning to safely maneuver around these vehicles. When exiting a parking stall, drivers would face the street with a better view of oncoming traffic in comparison to drivers backing out of the pull-in parking stall whose view of oncoming traffic may be obscured by adjacent parked vehicles. Therefore, neither Option 1 nor Option 2 of Project 2-16 would result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

Existing off-street loading zones along Townsend Street would be changed from pull-in to back-in on-street parking to accommodate the loading demand. The back-in parking operation would be safer because delivery vehicles would load and unload at the curb rather than in the street and the driver's visibility when exiting the parking space would improve because the driver would only need to turn 135 degrees rather than 180 degrees in order to see outside the window. Therefore, there would be no significant loading impacts.

CLUSTER 2: SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impact 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.

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 the 2nd Street/Bryant Street intersection with the implementation of Project 2-1 Option 1 under Existing plus Project conditions.

Significant Impact 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.

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 would occur at 2nd Street/Bryant Street intersection under 2025 Cumulative plus Project conditions with the implementation of Project 2-1 Option 1.

Significant Impact 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.

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 intersection operations from LOS F to LOS E (a reduction of 54 seconds of average delay). It has been ensured that the minimum green times required for pedestrians to cross the 2nd Street/Harrison Street intersection have been maintained even after the green time adjustments to the signal. Nevertheless, this mitigation measure would not reduce the project impacts to a less than significant level for Project 2-1 Option 1. Table V.2-46, p. V.A.3-333, summarizes these results.

TABLE V.2-46
CLUSTER 2 – PROJECT 2-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR 2ND STREET/HARRISON STREET

Existing plus Project Option 1		Existing plus Project Option 1 with Mitigation Measures		Existing plus Project Option 2		Existing plus Project Option 2 with Mitigation Measures	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	78.3	E	**>80**	**F**	78.3	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.

Significant Impact 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.

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 (a reduction of 54 seconds of average delay). It has been ensured that the minimum green times required for pedestrians to cross the intersection have been maintained even after the green time adjustments to the signal. Nevertheless, this mitigation measure would not reduce the project impacts to a less than significant level for Project 2-1 Option 2. Table V.2-46, p. V.A.3-333, summarizes these results.

Significant Impact TR-P2-1e:

The intersection of 2nd Street/Harrison Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1.

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. It has been ensured that the minimum green times required for pedestrians to cross the intersection have been maintained even after the green time adjustments to the signal. Nevertheless, this mitigation measure would not reduce the project impacts to a less-than-significant level for Project 2-1 Option 1. Table V.2-47, p. V.A.3-335, summarizes these results.

Significant Impact 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.

TABLE V.2-47
CLUSTER 2 – PROJECT 2-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR 2ND STREET/HARRISON STREET

2025 Cumulative plus Project Option 1			2025 Cumulative plus Project Option 1 with Mitigation Measures			2025 Cumulative plus Project Option 2			2025 Cumulative plus Project Option 2 with Mitigation Measures		
Average Delay[a]	LOS[b]	V/C	Average Delay[a]	LOS[b]	V/C	Average Delay[a]	LOS[b]	V/C	Average Delay[a]	LOS[b]	V/C
>80	**F**	**1.33**	**>80**	**F**	**1.32**	**>80**	**F**	**1.33**	**>80**	**F**	**1.32**

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.

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. It has been ensured that the minimum green times required for pedestrians to cross the intersection have been maintained even after the green time adjustments to the signal. Nevertheless, this mitigation measure will not reduce the project impacts of Project 2-1 Option 2 to a less-than-significant level. Table V.2-48, p. V.A.3-336, summarizes these results.

Significant Impact 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.

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. Table V.2-48, p. V.A.3-336, summarizes these results.

TABLE V.2-48
CLUSTER 2 – PROJECT 2-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR 2ND STREET/FOLSOM STREET

Existing plus Project Option 1		Existing plus Project Option 1 with Mitigation Measures		Existing plus Project Option 2		Existing plus Project Option 2 with Mitigation Measures	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
76.5	**E**	47.9	D	**76.5**	**E**	47.9	D

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.

Significant Impact 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.

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. Table V.2-48, p. V.A.3-336, summarizes these results.

Significant Impact TR-P2-1i:

The intersection of 2nd Street/Folsom Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-1Option 1.

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 of Project 2-1 with Option 1 to a less than significant level. Table V.2-49, p. V.A.3-337, summarizes these results.

TABLE V.2-49
CLUSTER 2 – PROJECT 2-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR 2ND STREET/FOLSOM STREET

2025 Cumulative plus Project Option 1			2025 Cumulative plus Project Option 1 with Mitigation Measures			2025 Cumulative plus Project Option 2			2025 Cumulative plus Project Option 2 with Mitigation Measures		
Average Delay[a]	LOS[b]	V/C	Average Delay[a]	LOS[b]	V/C	Average Delay[a]	LOS[b]	V/C	Average Delay[a]	LOS[b]	V/C
>80	**F**	**1.59**	**>80**	**F**	**1.49**	**>80**	**F**	**1.59**	**>80**	**F**	**1.49**

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.

Significant Impact 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.

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 of Project 2-1 Option 2 to a less than significant level.

Significant Impact TR-P2-1k:

The intersection of 2nd Street/Howard Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1.

M-TR-P2-1k:

No feasible mitigation measures have been identified for the 2nd Street/Howard Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at the 2nd Street/Howard Street intersection with the implementation of Project 2-1 Option 1.

Significant Impact 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.

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 impact would occur at the 2nd Street/Howard Street intersection with the implementation of Project 2-1 Option 2.

Significant Impact TR-P2-1m (Projects 2-1 and 2-16 combined):

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.

M-TR-P2-1m:

No feasible mitigation measures have been identified to mitigate for the 2nd Street/Townsend Street intersection under Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at the 2nd Street/Townsend Street intersection with the implementation of Option 1 of the combined Projects 2-1 and 2-16.

Significant Impact TR-P2-1n (Projects 2-1 and 2-16 combined):

The intersection of 2nd Street/Townsend Street would operate at LOS E under 2025 Cumulative plus Project conditions for Option 2 of the combined Projects 2-1 and 2-16.

M-TR-P2-1n:

No feasible mitigation measures have been identified to mitigate the 2nd Street/Townsend Street intersection under Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at 2nd Street/Townsend Street intersection with the implementation Option 2 of the combined Projects 2-1 and 2-16.

Significant Impact 2-1o (Projects 2-1 and 2-16 combined):

Muni bus line 10 would experience significant delays as a result of implementation of the combined Projects 2-1 and 2-16 Option 1 under Existing plus Project conditions.

M-TR-P2-1o (Projects 2-1 and 2-16 combined):

The implementation of Option 1 of the combined Projects 2-1 and 2-16 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 (M-TR-P2-1c through M-TR-P2-1f), and 2nd Street / Folsom Street (M-TR-P2-1g through M-TR-P2-1j), intersections, 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 from Option 1 of the combined Projects 2-1 and 2-16 under Existing plus Project conditions would be reduced to a less than significant level.

Significant Impact 2-1p (Projects 2-1 and 2-16 combined):

Muni bus line 10 would experience significant delays as a result of Option 2 of the combined Projects 2-1 and 2-16 under Existing plus Project conditions.

M-TR-P2-1p (Projects 2-1 and 2-16 combined):

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 (M-TR-P2-1c through M-TR-P2-1f), and 2nd Street / Folsom Street (M-TR-P2-1g through M-TR-P2-1j) 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 Option 2 of the combined Projects 2-1 and 2-16 under Existing plus Project conditions would be reduced to a less than significant level.

Significant Impact 2-1q (Projects 2-1 and 2-16 combined):

Muni bus line 10 would experience significant delays as a result of implementation of Option 1 of the combined Projects 2-1 and 2-16 under 2025 Cumulative plus Project conditions.

M-TR-P2-1q (Projects 2-1 and 2-16 combined):

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. With mitigation as described for the 2nd Street / Harrison Street (M-TR-P2-1c through M-TR-P2-1f), and 2nd Street / Folsom Street (M-TR-P2-1g through M-TR-P2-1j) intersections, 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 implementation of Option 1 of the combined Projects 2-1 and 2-16 under 2025 Cumulative plus Project conditions.

Significant Impact 2-1r (Projects 2-1 and 2-16 combined):

Muni bus line 10 would experience significant delays as a result of implementation of Option 2 of the combined Projects 2-1 and 2-16 under 2025 Cumulative plus Project conditions.

M-TR-P2-1r (Projects 2-1 and 2-16 combined):

The implementation of Projects 2-1 and 2-16 combined 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 (M-TR-P2-1c through M-TR-P2-1f), and 2nd Street / Folsom Street (M-TR-P2-1g through M-TR-P2-1j) intersections, 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 implementation of Option 2 of the combined Projects 2-1 and 2-16 under 2025 Cumulative plus Project conditions.

Significant Impact 2-1s:

A significant transit impact to Muni bus line 10 would occur as a result of individual Project 2-1 with Option 1 under Existing plus Project conditions.

M-TR-P2-1s:

The implementation of Project 2-1 only with 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 (M-TR-P2-1c through M-TR-P2-1f), and 2nd Street/Folsom Street (M-TR-P2-1g through M-TR-P2-1j) intersections, 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.

Significant Impact 2-1t:

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.

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 (M-TR-P2-1c through M-TR-P2-1f), and 2nd Street/Folsom Street (M-TR-P2-1g through M-TR-P2-1j) intersections, approximately 58 seconds of delay southbound and 21 seconds of delay northbound would be added to Muni 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 Option 2 under Existing plus Project conditions would be reduced to a less than significant level.

Significant Impact 2-1u:

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.

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 (M-TR-P2-1c through M-TR-P2-1f), and 2nd Street/Folsom Street (M-TR-P2-1g through M-TR-P2-1j) 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.

Significant Impact 2-1v:

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.

M-TR-P2-1v:

The implementation of Project 2-1 only with 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 (M-TR-P2-1c through M-TR-P2-1f), and 2nd Street/Folsom Street (M-TR-P2-1g through M-TR-P2-1j) intersections, 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.

Significant Impact 2-1w:

A significant impact on passenger loading would occur on 2nd Street between Clementina Street and Folsom Street as a result of Project 2-1 Option 1 under Existing plus Project conditions.

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 along 2nd Street between Clementina Street and Folsom Street for Project 2-1 with Option 1 under Existing plus Project conditions to a less-than significant level.

Significant Impact 2-1x:

A significant impact on passenger loading would occur along 2nd Street between Clementina Street and Folsom Street as a result of Project 2-1 with Option 2 under Existing plus Project conditions.

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 with Option 2 under Existing plus Project conditions to a less-than significant level.

Significant Impact 2-1y:

A significant impact on passenger loading would occur along 2nd Street between Clementina and Folsom Street as a result of Project 2-1 with Option 1 under 2025 Cumulative plus Project conditions.

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.

Significant Impact 2-1z:

A significant impact on passenger loading would occur along 2nd Street between Clementina and Folsom Street as a result of Project 2-1 with Option 2 under 2025 Cumulative plus Project conditions.

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 with Option 2 under 2025 Cumulative plus Project conditions to a less-than significant level.

Significant Impact 2-1aa:

A significant impact on commercial freight loading would occur along 2nd Street between Market Street and Bryant Street as a result of Project 2-1 with Option 1 under Existing plus Project conditions.

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 with implementation of Project 2-1 with Option 1 under Existing plus Project conditions.

Significant Impact 2-1bb:

A significant impact on commercial freight loading would occur along 2nd Street between Market Street/Bryant Street as a result of Project 2-1 with Option 2 under Existing plus Project conditions.

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 with Option 2 under Existing plus Project conditions.

Significant Impact 2-1cc:

A significant impact on commercial freight loading would occur along 2nd Street between Market Street and Bryant Street as a result of Project 2-1 with Option 1 under 2025 Cumulative plus Project conditions.

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 with Option 1 under 2025 Cumulative plus Project conditions.

Significant Impact 2-1dd:

A significant impact on commercial freight loading would occur along 2nd Street between Market Street and Bryant Street as a result of Project 2-1 with Option 2 under 2025 Cumulative plus Project conditions.

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 with Option 2 under 2025 Cumulative plus Project conditions.

Significant Impact 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.

M-TR-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, with 52.6 seconds of delay (a reduction of 28.6 seconds of average delay). It has been ensured that the minimum green times required for pedestrians to cross the intersection have been maintained even after the green time adjustments to the signal. In addition, it has been ensured that this modification to the signal timing will not adversely affect signal progression along 5th Street. Hence, this mitigation measure would reduce the impacts of Project 2-2 with Option 1 to a less-than-significant level. Table V.2-50, p. V.A.3-345, summarizes these results.

TABLE V.2-50
CLUSTER 2 – PROJECT 2-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1		Existing plus Project Option 1 with Mitigation Measures	
	Intersection	**Average Delay[a]**	**LOS[b]**	**Average Delay[a]**	**LOS[b]**
7.	5th Street/Bryant Street	**>80**	**F**	52.6	D

Source: Wilbur Smith Associates, October 2008

Notes:

a. Delay in seconds per vehicle.

b. Intersections operating at LOS E or LOS F conditions are highlighted in bold.

Significant Impact TR-P2-2b:

The intersection of 5th Street/Bryant Street would operate at LOS F under Existing plus Project conditions for Project 2-2 Option 2.

M-TR-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.

Significant Impact 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.

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.

Significant Impact 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.

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.

Significant Impact TR-P2-2e:

The intersection of 5th Street/Howard Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 2.

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 Option 2.

Significant Impact 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.

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.

Significant Impact TR-P2-3a (Projects 2-3 and 2-11 combined):

The intersection of Church Street/Market Street/14th Street would operate at LOS F under Existing plus Project conditions for Option 1 of combined Projects 2-3 and 2-11.

M-TR-P2-3a:

The phasing for the westbound Market Street approach shall be modified from a permitted phase to a protected phase. This would improve the Church Street/Market Street/14th Street intersection operations from LOS F to LOS D, under Existing plus Project conditions, with 46.2 second of delay. Hence, this mitigation measure would reduce the project impacts for Option 1 to a less-than-significant level. Table V.2-51, p. V.A.3-347, summarizes these results.

TABLE V.2-51
CLUSTER 2 – PROJECT 2-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1		Existing plus Project Option 1 with Mitigation Measures	
	Intersection	**Average Delay[a]**	**LOS[b]**	**Average Delay[a]**	**LOS[b]**
52.	Church Street/Market Street/14th Street	**>80**	**F**	46.2	D

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.

Significant Impact 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 and 2-11 Option 1.

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 Church Street/Market Street/14th Street intersection with the implementation of combined Project 2-3 and 2-11 Option 1.

Significant Impact 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 E under Existing plus Project conditions for Option 1 of combined Projects 2-4 and 2-6.

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 10th Street/Brannan Street/Potrero Avenue/Division Street intersection with the implementation of Option 1 of Projects 2-4 and 2-6 combined.

Significant Impact 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 Projects 2-4 and 2-6 combined.

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 Project 2-4 and 2-6 combined.

Significant Impact 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.

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 Potrero Avenue/16th Street intersection with the implementation of Project 2-4 Option 2.

Significant Impact TR-P2-4d:

The intersection of Potrero Avenue/16th Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-4 Option 2.

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 Potrero Avenue/16th Street intersection with the implementation of Project 2-4 Option 2.

Significant Impact TR-P2-4e (Projects 2-4 and 2-6 combined):

Muni bus line 9 would experience significant delays with implementation of Option 2 of the combined Projects 2-4 and 2-6 under 2025 Cumulative plus Project conditions.

M-TR-P2-4e:

No feasible mitigation measures have been identified for delay on Muni bus line 9 for Option 2 of the combined Projects 2-4 and 2-6 under 2025 Cumulative plus Project conditions. Hence, a significant impact would occur for Muni bus line 9 with implementation of Option 2 of the combined Projects 2-4 and 2-6.

Significant Impact TR-P2-4f (Projects 2-4 and 2-6 combined):

SamTrans bus line 292 would experience significant delays with implementation of Option 2 of the combined Projects 2-4 and 2-6 under 2025 Cumulative plus Project conditions.

M-TR-P2-4f:

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 Option 2 of the combined Projects 2-4 and 2-6.

Significant Impact TR-P2-4g: Muni bus line 9 would experience significant delays under 2025 Cumulative plus Project conditions for individual Project 2-4 Option 2.

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.

Significant Impact TR-P2-4h: SamTrans bus line 292 would experience significant delays under 2025 Cumulative plus Project conditions for individual Project 2-4 with Option 2.

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 with Option 2.

Significant Impact 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.

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 10th Street/Brannan Street/Potrero Avenue/Division Street intersection with the implementation of Project 2-6 Option 1.

Significant Impact TR-P2-6b:

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.

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. Table V.2-52, p. V.A.3-351, summarizes these results.

TABLE V.2-52
CLUSTER 2 – PROJECT 2-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

	Existing plus Project Option 1		Existing plus Project Option 1 with Mitigation Measures	
Intersection	**Average Delay**[a]	**LOS**[b]	**Average Delay**[a]	**LOS**[b]
54. 11th Street/Bryant Street/Division Street	**>80**	**F**	54.9 (**55**)	D (**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.

Significant Impact 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.

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 11th Street/Bryant Street/Division Street intersection with the implementation of Project 2-6 Option 1.

Significant Impact 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.

M-TR-P2-7a (Projects 2-7 and 2-9 combined):

The cycle length at the Fremont Street/Howard Street intersection shall be increased by 35 seconds (from 60 seconds to 95 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. Table V.2-53, p. V.A.3-352 summarizes these results.

TABLE V.2-53
CLUSTER 2 – PROJECT 2-7
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

Intersection	Existing plus Project Option 1		Existing plus Project Option 1 with Mitigation Measures	
	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
48. Fremont Street/Howard Street	**73.9**	**E**	54.9	D

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.

Significant Impact 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.

M-TR-P2-7b (Projects 2-7 and 2-9 combined):

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. Table V.2-53, p. V.A.3-352, and Table V.2-54, p. V.A.3-353 summarize, these results.

TABLE V.2-54
CLUSTER 2 – PROJECT 2-7
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

Intersection	2025 Cumulative plus Project Option 1		2025 Cumulative plus Project Option 1 with Mitigation Measures	
	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
48. Fremont Street/Howard Street	**>80**	**F**	**>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 are highlighted in bold.

Significant Impact TR-P2-9a:

The Fremont Street/Howard Street intersection would operate unsatisfactorily at LOS E, with 73.9 seconds of delay under Existing plus Project conditions for Project 2-9.

M-TR-P2-9a:

It is proposed that the cycle length at the Fremont Street/Howard Street intersection be increased by 35 seconds (from 60 seconds to 95 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 threshold of 55 seconds of delay which is deemed unsatisfactory operation. Therefore, this mitigation measure would not reduce the project impacts of combined Project 2-9 to a less than significant level. Table V.2-55, p. V.A.3-354, summarizes these results.

TABLE V.2-55
CLUSTER 2 – PROJECT 2-9
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

	Existing plus Project Option 1 (Project 2-9)		Existing plus Project Option 1 with Mitigation Measures	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
48. Fremont Street/Howard Street	**73.9**	**E**	54.9	D

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.

Significant Impact TR-P2-9b:

The intersection of Fremont Street/Howard Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-9.

M-TR-P2-9b:

It is proposed that lane configuration adjustments be made to the westbound Howard Street direction to improve LOS and reduce the delay at the Fremont Street/Howard Street intersection. The westbound Howard Street approach shall be modified from one through lane and one shared through-right turn lane, into two through lanes and one exclusive right-turn lane. The LOS will remain at level F. Therefore, this mitigation measure would not reduce the project impacts of Project 2-9 to a less-than-significant level for 2025 Cumulative plus Project conditions. Table V.2-56, p. V.A.3-355, summarizes these results.

TABLE V.2-56
CLUSTER 2 – PROJECT 2-9
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

Intersection	2025 Cumulative plus Project Option 1		2025 Cumulative plus Project Option 1 (Project 2-9) with Mitigation Measures	
	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
48. Fremont Street/Howard Street	**>80**	**F**	**>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 are highlighted in bold.

Significant Impact TR-P2-11a:

The Church Street/Market Street/14th Street intersection would operate at LOS F under Existing plus Project conditions for the PM peak hour. Therefore, a significant impact would occur at the Church Street/Market Street/14th Street intersection with the implementation of Project 2-11 Option 1 under Existing plus Project conditions.

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.

Significant Impact TR-P2-11b:

The intersection of Church Street/Market Street/14th Street would operate at LOS F under 2025 Cumulative plus Project conditions for 2-11 Option 1 for the PM peak hour.

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.

Significant Impact TR-P2-11c:

A significant impact to loading would result on Market Street near Noe Street from implementation of Project 2-11 Option 1 under Existing plus Project conditions.

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.

Significant Impact TR-P2-11d:

A significant impact to loading would result on Market Street near Noe Street from implementation of Project 2-11 Option 1 under 2025 Cumulative plus Project conditions.

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 implementation of Project 2-11 Option 1 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P2-16a:

The 2nd Street/Townsend Street intersection would operate unsatisfactorily at LOS E under 2025 Cumulative plus Project conditions for Option 1. Therefore, a significant impact would occur at the 2nd Street/Townsend Street intersection with the implementation of Project 2-16 Option 1 under 2025 Cumulative plus Project conditions.

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 2nd Street/Townsend Street intersection with the implementation of Project 2-16 Option 1.

Significant Impact TR-P2-16b:

The 2nd Street/Townsend Street intersection would operate unsatisfactorily at LOS E under 2025 Cumulative plus Project conditions for Option 2. Therefore, a significant impact would occur at the 2nd Street/Townsend Street intersection with the implementation of Project 2-16 Option 2 under 2025 Cumulative plus Project conditions.

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..

Significant Impact TR-P2-16c:

Under Existing plus Project conditions for Project 2-16 Option 1, the 7th Street/Townsend Street intersection would operate 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 Existing plus Project conditions.

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, with 35.2 seconds of delay. It has been ensured that the minimum green times required for pedestrians to cross the intersection have been maintained even after the green time adjustments to the signal. Hence, this mitigation measure would reduce the project impacts of Project 2-16 Option 1 to a less than significant level. Table V.2-57, p. V.A.3-357, summarizes these results.

TABLE V.2-57
CLUSTER 2 – PROJECT 2-16
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR 7TH STREET/TOWNSEND STREET

Existing plus Project Option 1		Existing plus Project Option 1 with Mitigation Measures		Existing plus Project Option 2		Existing plus Project Option 2 with Mitigation Measures	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	35.2	D	**>80**	**F**	35.2	D

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.

Significant Impact TR-P2-16d:

Under Existing plus Project conditions for Project 2-16 Option 2, the 7th Street/Townsend Street intersection would operate at LOS F. Therefore, a significant impact would occur at the 7th Street/Townsend Street intersection with the implementation of Project 2-16 Option 2 under Existing plus Project conditions.

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 the northbound 7th Street approach, to improve the 7th Street/Townsend Street intersection operations from LOS F to LOS D, with 35.2 seconds of delay. It has been ensured that the minimum green times required for pedestrians to cross the intersection have been maintained even after the green time adjustments to the signal. Hence, this mitigation measure would reduce the project impacts of Project 2-16 Option 2 to a less than significant level. Table V.2-55, p. V.A.3-, summarizes these results.

Significant Impact TR-P2-16e:

Under 2025 Cumulative plus Project conditions for Project 2-16 Option 1, the 7th Street/Townsend Street intersection would operate 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.

M-TR-P2-16e:

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. Assuming that the existing railroad alignment would be removed, the eastbound Townsend Street approach would be modified from one shared through-left turn lane and one exclusive right-turn lane to one shared through-left turn lane and one shared through-right turn lane. Hence, this lane adjustment decreases the amount of average delay and reduces the V/C ratio by 78 percent (from 5.52 to 1.24). This would improve intersection operations. Nevertheless, a significant impact would occur at the 7th Street/Townsend Street intersection with the implementation of Project 2-16 Option 1 under 2025 Cumulative conditions. Table V.2-58, p. V.A.3-359, summarizes these results.

TABLE V.2-58
CLUSTER 2 – PROJECT 2-16
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR 7TH STREET/TOWNSEND STREET

2025 Cumulative plus Project Option 1			2025 Cumulative plus Project Option 1 with Mitigation Measures			2025 Cumulative plus Project Option 2			2025 Cumulative plus Project Option 2 with Mitigation Measures		
Average Delay[a]	LOS[b]	V/C	Average Delay[a]	LOS[b]	V/C	Average Delay[a]	LOS[b]	V/C	Average Delay[a]	LOS[b]	V/C
>80	**F**	**5.52**	**>80**	**F**	**1.24**	**>80**	**F**	**5.52**	**>80**	**F**	**1.24**

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.

Significant Impact TR-P2-16f:

Under 2025 Cumulative plus Project conditions for Option 2, the 7th Street/Townsend Street intersection would operate at LOS F. Therefore, a significant impact would occur at the 7th Street/Townsend Street intersection with the implementation of Project 2-16 Option 2 under 2025 Cumulative plus Project conditions.

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. Assuming that the existing railroad alignment would be removed, the eastbound Townsend Street approach would be modified from one shared through-left turn lane and one exclusive right-turn lane to one shared through-left turn lane and one shared through-right turn lane. Hence, this lane adjustment decreases the amount of average delay and reduces the V/C ratio by 78 percent (from 5.52 to 1.24). This would improve intersection operations. Nevertheless, a significant impact would occur at the 7th Street/Townsend Street intersection with the implementation of Project 2-16 Option 2 under 2025 Cumulative conditions. Table V.2-58, p. V.A.3-359, summarizes these results.

Significant Impact TR-P2-16g:

Under 2025 Cumulative plus Project conditions for Option 1, the 4th Street/Townsend Street intersection would operate at LOS F. Therefore, a significant impact would occur at the 4th Street/Townsend Street intersection with the implementation of Project 2-16 Option 1 under 2025 Cumulative plus Project conditions.

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 reduced from the southbound 4th Street approach. This would improve the 4th Street/Townsend Street intersection operations from LOS F to LOS D, with 42.2 seconds of delay. It has been ensured that the minimum green times required for pedestrians to cross the intersection have been maintained even after the green time adjustments to the signal. Hence, this mitigation measure would reduce the project impacts of Project 2-16 Option 1 to a less than significant level. Table V.2-59, V.A.3-360, summarizes these results.

TABLE V.2-59
CLUSTER 2 – PROJECT 2-16
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1		2025 Cumulative plus Project Option 1 with Mitigation Measures	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
15.	4th Street/Townsend Street	**>80**	**F**	42.2	D

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.

Significant Impact 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.

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 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.

Significant Impact 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.

M-TR-P2-16i:

Refer to Mitigation Measure 2-16h 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.

Significant Impact 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.

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.

Significant Impact 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.

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.

Significant Impact 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.

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.

Significant Impact 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.

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.

Significant Impact 2-16n:

A significant transit impact would occur to Muni bus line 30 under 2025 Cumulative plus Project conditions for Project 2-16 Option 2.

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 these measures, significant transit impact would occur to Muni bus line 30 under 2025 Cumulative plus Project conditions for Project 2-16 Option 2.

Significant Impact 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.

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.

Improvement Measure I-P2-11a:

In order to address improvements for the non-significant loading impacts resulting from the loss of on-street loading spaces under Existing plus Project and 2025 Cumulative plus Project conditions, it is recommended that the City conduct a loading needs analysis to determine how many and where additional on-street yellow commercial freight loading spaces are required on or near Market Street between Laguna and Noe Streets.

CLUSTER 3: CIVIC CENTER/WESTERN ADDITION[1]

This section provides a description of the Existing plus Project and 2025 Cumulative and 2025 Cumulative plus Project transportation conditions within the near-term improvements in Cluster 3. Project 3-6 was implemented prior to the Bicycle Plan injunction. 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.

A preferred project design has not been developed for Project 3-2. The preferred project design for Cluster 3 near-term improvements are Option 1 of Project 3-1, Project 3-3, Project 3-4, Project 3-5, and Project 3-6. These are described and analyzed below with no text changes.

Figures showing the turning movement traffic volumes and lane configurations at the study intersections in Cluster for Existing plus Project, 2025 Cumulative, and 2025 Cumulative plus Project conditions may be found within the transportation impact analysis discussion for Cluster within the Transportation Impact Study. Level of service calculation sheets for those intersections and transit delay calculation sheets for affected transit routes may be found in the appendices of the Transportation Impact Study.[2]

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 Bicycle Plan 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. Modifications to the existing traffic signal and lane configuration of the intersection were made, and as of September 16, 2008 SFMTA has implemented Project 3-1. Therefore, the environmental analysis of Project 3-1 is being presented as part of the Bicycle Plan EIR for informational purposes.

Project 3-1 involved signal phasing and timing changes that would eliminate the conflict between Fell Street westbound left-turn vehicles and pedestrians and bicycles crossing Masonic Avenue on the south side of Fell Street. The Fell/Masonic intersection traffic signal phasing was

1 Unless otherwise indicated, all intersection analysis is for PM Peak Hour conditions.

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.

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 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 receives 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 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.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the PM peak hour. One study intersection is included for the PM peak hour for Project 3-1. Tables V.3-5 and V.3-6, p. V.A.3-366 and p. V.A.3-371, respectively, summarize the results for this intersection.

TABLE V.3-4
CLUSTER 3 – PROJECTS 3-1 AND 3-2
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR MASONIC AVENUE/FELL STREET EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1				Existing plus Project Option 2			
Existing		Project 3-1		Combined Projects 3-1 and 3-2		Project 3-1		Combined Projects 3-1 and 3-2	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
24.6	C	20.7	C	**68.7**	**E**	-	-	54.0	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 43: Masonic Avenue/Fell Street

The Masonic Avenue/Fell Street intersection is common to Projects 3-1 and 3-2 within the Cluster 3 area. Option 1 is the only proposed option for Project 3-1. However, two options are proposed as part of Project 3-2. For Project 3-1 the lane configuration in the westbound direction would be modified. However, for Project 3-2 the southbound lane configuration is proposed to be modified. The analysis below reflects the combined impact of implementing Projects 3-1 and 3-2 at this intersection. The impacts resulting from the implementation of Project 3-1 alone follow the discussion of the combined impacts. A table summarizing the cumulative impacts under weekday PM peak hours for the two options is included below. These results are summarized in Table V.3-6, p. V.A.3-371.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 3-1 and 3-2 combined

Under Existing conditions, this intersection operates at LOS C with 24.6 seconds of delay. The Masonic Avenue/Fell Street intersection would operate unsatisfactorily at LOS E, with 68.7 seconds of average delay under Existing plus Project conditions. The southbound lane configuration would be modified from two through lanes, one shared through-right turn lane, and one exclusive right-turn lane to one through lane and an exclusive right-turn lane. The westbound lane configuration would be modified from two through lanes, one shared through-right turn lane and one shared through-left turn lane to three through lanes, one shared through-right turn lane and one exclusive left-turn lane. Due to the reduction of capacity in the southbound direction and the lane configuration adjustment along the westbound approach, the average intersection delay would increase compared to Existing conditions. Because the southbound critical movements would either deteriorate or would operate at an unacceptable LOS F with more than 80 seconds of average delay under Existing plus Project conditions, therefore, a significant impact (Significant Impact TR-P3-1a) would occur at the Masonic Avenue/Fell Street intersection with the implementation of Option 1 of Projects 3-1 and 3-2 combined. See Table V.3-4 on p. V.A.3-364 for a summary of results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 3-1 and 3-2 combined

The Masonic Avenue/Fell Street intersection would operate satisfactorily at LOS C, with 27.7 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, the Masonic Avenue/Fell Street intersection would operate unsatisfactorily at LOS E compared to LOS C for the 2025 Cumulative conditions. Deterioration of the southbound critical movement at Masonic Avenue/Fell Street to LOS F, when comparing Existing plus Project to Existing Conditions, is deemed a significant impact. As a consequence, a corresponding LOS deterioration is expected at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P3-1b) would occur at the Masonic Avenue/Fell Street intersection with implementation of Option 1 of Projects 3-1 and 3-2 combined. Table V.3-5, p. V.A.3-366, and Table V.3-6, p. V.A.3-371, summarize the results for Project 3-1 and Projects 3-1 and 3-2 combined. See Table V.3-5 on p. V.A.3-366 for a summary of results.

TABLE V.3-5
CLUSTER 3 – PROJECTS 3-1 AND 3-2
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR MASONIC AVENUE/FELL STREET 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
2025 Cumulative		Project 3-1		Combined Projects 3-1 and 3-2		Project 3-1		Combined Projects 3-1 and 3-2	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
27.7	C	22.6	C	**78.3**	**E**	-	-	**59.9**	**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.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 3-1 and 3-2 combined

Since Project 3-1 has only one option, the Existing plus Project conditions for Option 2 of Projects 3-1 and 3-2 combined are the same as for the Existing plus Project conditions for Project 3-2 Option 2. Please refer to the analysis under Existing plus Project conditions for Project 3-2 Option 2.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 3-1 and 3-2 combined

Since Project 3-1 has only one option, the 2025 Cumulative plus Project conditions for Option 2 of Projects 3-1 and 3-2 combined are the same as for the 2025 Cumulative plus Project conditions for Project 3-2 Option 2. Please refer to the analysis under 2025 Cumulative plus Project conditions for Project 3-2 Option 2.

Existing and Existing plus Project Conditions for Project 3-1

Under Existing conditions, this intersection operates at LOS C with 24.6 seconds of delay. The Masonic Avenue/Fell Street intersection would operate satisfactorily at LOS C, with 20.7 seconds of average delay under Existing plus Project conditions. The southbound lane configuration would remain the same as under Existing conditions. However, the westbound lane configuration would be modified from two through lanes, one shared through-right turn lane and one shared through-left turn lane to three through lanes, one shared through-right turn lane and one exclusive left-turn lane. Due to the additional capacity provided under Existing plus Project conditions, the delay at this intersection would be reduced and it would continue to operate at an acceptable

LOS. Therefore, no significant impacts would occur at the Masonic Avenue/Fell Street intersection with the implementation of individual Project 3-1.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 3-1

The Masonic Avenue/Fell Street intersection would operate satisfactorily at LOS C, with 27.7 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions for the analysis of Project 3-1, the Masonic Avenue/Fell Street intersection would operate satisfactorily at LOS C with 22.6 seconds of delay. The southbound lane configuration remains the same as under Existing conditions. However, the westbound lane configuration would be modified from two through lanes, one shared through-right turn lane and one shared through-left turn lane to three through lanes, one shared through-right turn lane and one exclusive left-turn lane. Due to the additional capacity provided under 2025 Cumulative plus Project conditions, the delay at this intersection would be reduced and it would continue to operate at an acceptable LOS. Therefore, no significant impacts would occur at the Masonic Avenue/Fell Street intersection with the implementation of individual Project 3-1 under 2025 Cumulative plus Project conditions.

Significant Impact 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.

Significant Impact 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.

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.

With the signal timing changes, the green time for the westbound approach would increase from the current 31 seconds to 34 seconds during the AM peak period and decrease from the current 48 seconds to 43 seconds during the PM peak period. During the PM peak hour, the green time for the north-south movement would increase by eight seconds.

Project 3-1 shares a common intersection (Intersection 43: Masonic Avenue/Fell Street) with Project 3-2; Masonic Avenue Bicycle Lanes, Fell Street to Geary Boulevard. The transit delay analysis below (Projects 3-1 and 3-2 combined) reflects the combined impact of Projects 3-1 and 3-2 Option 1 modifications to the Masonic Avenue/Fell Street intersection on transit delay.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 3-1 and 3-2 combined
Projects 3-1 and 3-2 Option 1 combined would decrease Muni bus line 43 travel time by approximately 14 seconds northbound and 5 seconds southbound in the PM peak hour when compared to Existing conditions. However, Projects 3-1 and 3-2 Option 1combined would add approximately 60 seconds of delay for westbound lines 16AX and 16BX. The headway for Muni bus lines 16AX, 16BX, and 43 in the PM peak period are 10, 11, and 10 minutes, respectively; no delay would be added to Muni bus line 43 while 60 seconds (1 minute) of total delay would be added to Muni bus lines 16AX and 16BX; the total added delay of 60 seconds (1 minute) for Muni bus lines 16AX and 16BX resulting from Projects 3-1 and 3-2 combined would be less than the transit delay threshold of six minutes. Therefore, a significant transit impact would not occur for Muni bus lines 16AX, 16BX, and 43 with the implementation of Projects 3-1 and 3-2 Option 1 combined under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 3-1 and 3-2 combined
Under 2025 Cumulative plus Project conditions, Muni 43 northbound bus travel time in the PM peak hour would decrease by approximately 13 seconds while approximately 6 seconds would be added to southbound buses during the PM peak hour. However, Projects 3-1 and 3-2 combined would add approximately 219 seconds (3.7 minutes) of delay for westbound buses 16AX and 16BX in the PM peak hour. no delay would be added to Muni bus line 43 while 219 seconds (3.7 minutes) of total delay would be added to Muni bus lines 16AX and 16BX; the total added delay of 219 seconds (3.7 minutes) for Muni bus lines 16AX and 16BX resulting from Projects 3-1 and 3-2 combined would be less than the transit delay threshold of six minutes. Therefore, a significant transit impact would not occur for Muni bus lines 16AX, 16BX, and 43 with the implementation of Projects 3-1 and 3-2 combined under 2025 Cumulative plus Project conditions.

Since there are no significant transit impacts under Existing plus Project and 2025 Cumulative plus Project conditions for Projects 3-1 and 3-2 Option 1 combined, there would be no significant transit impact from individual Project 3-1.

PARKING

Project 3-1 would remove a total of approximately four on-street parking spaces on the south side of Fell Street east of Masonic Avenue. Parking occupancy in this area is relatively high. In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under CEQA, but rather a social effect. The loss of parking may cause potential indirect physical effects, which would include cars circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers, aware of constrained parking conditions in a given area, shifting travel modes. Hence, any secondary environmental impacts that may result from a shortfall in parking would be minor. Therefore, any net reduction in on-street parking supply would not result in significant parking impacts. Hence, any secondary environmental impacts that may result from the loss of four parking spaces by Project 3-1 would be minor. Therefore, there would be no significant parking impacts with implementation of Project 3-1.

PEDESTRIAN

Project 3-1 would reduce conflicts between pedestrians and bicyclists crossing Masonic Avenue and motor vehicles turning left from westbound Fell Street onto southbound Masonic Avenue by providing a signal phase for pedestrians and bicyclists separate from left-turning motor vehicles. Interactions between pedestrians and bicyclists would be improved with the elimination of left-turning motor vehicles. Given the volume of pedestrian and bicycle traffic at this crossing, there is ample width for these modes to safely share the crossing. In addition, the separate signal phase will allow pedestrians and bicyclists to concentrate on their interactions without concern for the hazard of left-turning motor vehicles. The pedestrian crossing time across Fell Avenue would increase from 30 seconds to 38 seconds during the PM peak hour, which would be beneficial for pedestrians. The crossing time across Masonic Avenue would decrease from 51 seconds to 39 seconds on the north side of the crosswalk and decrease to 25 seconds on the south side crosswalk. The curb to curb width of Masonic Avenue is 62 feet. The available green time with Project 3-1 would be sufficient for pedestrians to make this crossing. Therefore, there would be no significant pedestrian impacts with implementation of Project 3-1.

BICYCLE

Project 3-1 would reduce conflicts between bicyclists crossing Masonic Avenue and vehicles turning left from westbound Fell Street onto southbound Masonic Avenue by providing separate signal phases for these two movements. The reduction in the east-west crossing time for bicycles would be the same as that of pedestrians. Therefore, there would be no significant bicycle impacts with implementation of Project 3-1.

LOADING

This intersection is located near the Panhandle and there are few loading needs associated with this parkland. The on-street parking removal would not include on-street yellow commercial freight loading spaces. Therefore, there would be no loading impacts with implementation of Project 3-1.

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

There are two options for this segment of Masonic Avenue. In general, Option 1 would create a Class II bicycle lane during the peak period in the peak direction only and Option 2 would create a shared bus bicycle lane all day long. Both options would require either parking removal or travel lane reduction.

- **Option 1**
  Between Geary Boulevard and Anza/O'Farrell Streets, Option 1 would remove one southbound travel lane and add a southbound Class II bicycle lane. It would add a northbound Class II bicycle lane by removing 15 on-street parking spaces on the east side of Masonic Avenue. Option 1 would also add a "Tow-Away Lane Must Turn Right" regulation between 4:00 p.m. and 7:00 p.m. on northbound Masonic Avenue at Geary Boulevard.

  Between Anza/O'Farrell Streets and Hayes Street, Option 1 would create a two-way turn lane in the center and add a four-foot wide Class II bicycle lane in both directions. During the AM peak period (7:00 a.m. to 9:00 a.m.), two northbound lanes and one southbound lane would be provided and during the PM peak period (4:00 a.m. to 6:00 a.m.), there would be two southbound lanes and one northbound lane. During off peak period, there would be one lane in both directions.

- **Option 2**
  Between Hayes and Fell Streets, Option 1 would have similar features as the other parts of the corridor. It would remove one travel lane in the northbound direction and two travel lanes in the southbound direction. PM peak period tow-away would be rescinded on the west side of Masonic Avenue, resulting in the increased of eight parking spaces during the PM peak hour.

  Between Geary Boulevard and Anza Street, Option 2 would remove all on-street parking on the east side of Masonic Avenue and on-street parking at all times from mid-block to Anza Street on the west side.

  Between Anza/O'Farrell Streets and Hayes Street, Option 2 would remove on-street parking on both sides of Masonic Avenue between 7:00 a.m. and 6:00 p.m. and designate the nine-foot six-inch to 10-foot wide curb lanes as shared bus and bicycle lanes in both directions.

Between Hayes and Fell Streets, Option 2 would remove one southbound through right lane, remove the PM tow-away zone, and add a five-foot southbound Class II bicycle lane. This option would remove approximately 6 on-street parking spaces and would add a six-foot northbound Class II bicycle lane from Fell Street to mid-block on the east side. Rescinding the afternoon tow-away zone would result in a gain of approximately five parking spaces during afternoon hours. A northbound right-turn lane would also be added at the approach to Hayes Street.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the AM and PM peak hour. Tables V.3-6 on p. V.A.3-371, V.3-7 on p. V.A.3-372, V.3-8 on p. V.A.3-372, and V.3-9 on p. V.A.3-373, summarize the results for this intersection.

TABLE V.3-6
CLUSTER 3 – PROJECT 3-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

				Existing plus Project			
		Existing		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS	Average Delay[a]	LOS
59.	Masonic Avenue/Turk Street	19.8	B	28.1	C	22.8	C
60.	Masonic Avenue/Fulton Street	16.1	B	22	C	18.6	B

Source: Wilbur Smith Associates, October 2008

Note:

a. Delay in seconds per vehicle.

TABLE V.3-7
CLUSTER 3 – PROJECT 3-2[c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

	Existing		Existing plus Project			
			Option 1		Option 2	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
43. Masonic Avenue/Fell Street[c]	24.6	C	**68.7**	**E**	54.0	D[d]
44. Masonic Avenue/Geary Boulevard	38.2	D	48.4	D	38.2	D
59. Masonic Avenue/Turk Street	19.5	B	47.6	D	20.8	C
60. Masonic Avenue/Fulton Street	18.7	B	28	C	18.6	B

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.
c. LOS and average delay for combined impacts for Projects 3-1 and 3-2.
d Since Project 3-1 has only one option, this LOS refers to Project 3-2 Option 2 conditions.

TABLE V.3-8
CLUSTER 3 – PROJECT 3-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS – WEEKDAY AM PEAK HOUR

	2025 Cumulative		2025 Cumulative plus Project			
			Option 1		Option 2	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
59. Masonic Avenue/Turk Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
60. Masonic Avenue/Fulton Street	**58.3**	**E**	**>80**	**F**	**>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.

TABLE V.3-9
CLUSTER 3 – PROJECT 3-2[c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS — WEEKDAY PM PEAK HOUR

		2025 Cumulative		2025 Cumulative plus Project Option 1		2025 Cumulative plus Project Option 2	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
43.	Masonic Avenue/Fell Street[c]	27.7	C	**78.3**	**E**	**59.9**	**E**[d]
44.	Masonic Avenue/Geary Boulevard	41.8	D	**68.7**	**E**	41.8	D
59.	Masonic Avenue/Turk Street	26.8	C	**>80**	**F**	31	C
60.	Masonic Avenue/Fulton Street	23.1	C	47	D	26.6	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.
c. LOS and average delay for combined impacts for Projects 3-1 and 3-2.
d Since Project 3-1 has only one option, this LOS refers to Project 3-2 Option 2 conditions.

TABLE V.3-10
CLUSTER 3
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR MASONIC AVENUE/FELL STREET EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

Existing		Existing plus Project Option 1: Project 3-2		Existing plus Project Option 1: Combined		Existing plus Project Option 2: Project 3-2		Existing plus Project Option 2: Combined	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
24.6	C	**70.1**	**E**	**68.7**	**E**	**55.4**	**E**	54.0	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.

TABLE V.3-11
CLUSTER 3
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR MASONIC AVENUE/FELL STREET 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
2025 Cumulative		Project 3-2		Combined		Project 3-2		Combined	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
27.7	C	**>80**	**F**	**78.3**	**E**	**64.2**	**E**	**59.9**	**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 43: Masonic Avenue/Fell Street

The Masonic Avenue/Fell Street intersection is common to Projects 3-1 and 3-2 within the Cluster 3 area. This intersection was analyzed for impacts in the PM peak hour. Only one option is proposed for Project 3-1. However, two options are proposed as part of Project 3-2. The analysis for the combined impact of implementing Projects 3-1 and 3-2 Option 1 at this intersection was previously provided. The impacts resulting from the implementation of individual Project 3-2 are discussed below. The study results for the Masonic Avenue/Fell Street intersection LOS are presented in Table V.3-10, p. 373 and Table V.3-11, p. 374 for both Existing plus Project and Cumulative plus Project conditions, under both Option 1 and 2.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 3-1 and 3-2 combined
Please see the discussion of combined project impacts under Project 3-1.

Existing and Existing plus Project Conditions for Project 3-2
Under Existing conditions, this intersection operates at LOS C in the PM Peak hour with 24.6 seconds of delay. The Masonic Avenue/Fell Street intersection would operate unsatisfactorily at LOS E, with 70.1 seconds of average delay under Existing plus Project conditions. The southbound lane configuration would be modified from two through lanes, a shared through-right lane and an exclusive right lane to a through lane and an exclusive right-turn lane under Existing plus Project conditions. However, the westbound lane configuration would remain the same as Existing conditions. Because the southbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus

Project conditions, a significant impact (Significant Impact TR-P3-2e) would occur at the Masonic Avenue/Fell Street intersection with the implementation of Project 3-2 Option 1. Table V.3-10, p. V.A.3-373 summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 3-1 and 3-2 combined

Please see the discussion of combined project impacts under Project 3-1.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 3-2

The Masonic Avenue/Fell Street intersection would operate satisfactorily at LOS C, with 27.7 seconds of average delay under 2025 Cumulative conditions in the PM Peak Hour. Under 2025 Cumulative plus Project conditions, the Masonic Avenue/Fell Street intersection would operate unsatisfactorily at LOS F with more than 80 seconds of delay. The southbound lane configuration would be modified from two through lanes, a shared through-right lane and an exclusive right lane to a through lane and an exclusive right-turn lane under 2025 Cumulative plus Project conditions. However, the westbound lane configuration remains the same as 2025 Cumulative conditions. Deterioration of the southbound critical movement at Masonic Avenue/Fell Street to LOS F, when comparing Existing plus Project to Existing Conditions, is deemed a significant impact. As a consequence, a corresponding LOS deterioration is expected at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P3-2g) would occur at the Masonic Avenue/Fell Street intersection with the implementation of Project 3-2 Option 1. Table V.3-11, p. V.A.3-374 summarizes these results.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 3-1 and 3-2 combined

Since Project 3-1 has only one option, the Existing plus Project conditions for Option 2 of Projects 3-1 and 3-2 combined are the same as for the Existing plus Project conditions for Project 3-2 Option 2. Please see the discussion below for Project 3-2.

Existing and Existing plus Project Conditions for Project 3-2

Under Existing conditions, this intersection operates at LOS C with 24.6 seconds of delay. The Masonic Avenue/Fell Street intersection would operate unsatisfactorily at LOS E, with 55.4 seconds of average delay under Existing plus Project conditions. The southbound lane configuration is modified from two through lanes, a shared through-right lane and an exclusive right lane to two through lanes and an exclusive right-turn lane under Existing plus Project conditions. However, the westbound lane configuration remains the same as Existing conditions. Because the southbound critical movements either deteriorate or will operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P3-2f) would occur at the Masonic Avenue/Fell Street intersection with the implementation of Project 3-2 Option 2. Table V.3-10, p. V.A.3-373 summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 3-2 alone
Under 2025 Cumulative conditions, this intersection operates at LOS C with 27.7 seconds of delay. The Masonic Avenue/Fell Street intersection would operate unsatisfactorily at LOS E, with 64.2 seconds of average delay under 2025 Cumulative plus Project conditions. The southbound lane configuration is modified from two through lanes, a shared through-right lane and an exclusive right lane to two through lanes and an exclusive right-turn lane under 2025 Cumulative plus Project conditions. However, the westbound lane configuration remains the same as 2025 Cumulative conditions. Deterioration of the southbound critical movement at Masonic Avenue/Fell Street for Existing plus Project to LOS F relative to Existing Conditions, is determined a significant impact. As a consequence, a corresponding LOS deterioration is expected at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P3-2h) would occur at the Masonic Avenue/Fell Street intersection with implementation of Project 3-2 Option 2.

Intersection 44: Masonic Avenue/Geary Boulevard

- **Option 1**

Existing and Existing plus Project Conditions
Under Existing conditions, this intersection operates at LOS D with 38.2 seconds of delay. The Masonic Avenue/Geary Boulevard intersection would operate satisfactorily at LOS D, with 48.4 seconds of average delay under Existing plus Project conditions. The southbound lane configuration would be modified from two through lanes and one shared through-right turn lane to two through lanes and one exclusive right-turn lane. Due to the reduction of capacity in the southbound approach, the average intersection delay would increase by 10.2 seconds, compared to Existing conditions. Project 3-2 Option 1 would not cause a significant impact to the Masonic Avenue/Geary Boulevard intersection under Existing plus Project conditions for the PM Peak hour.

2025 Cumulative and 2025 Cumulative plus Project Conditions
The Masonic Avenue/Geary Boulevard intersection would operate unsatisfactorily at LOS E, with 68.7 seconds of delay under 2025 Cumulative plus Project conditions, compared to LOS D and 41.8 seconds of delay for the 2025 Cumulative conditions. Because the southbound critical movement either deteriorates or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P3-2i) would occur with the implementation of Project 3-2 Option 1.

- **Option 2**

Existing and Existing plus Project Conditions

There would be no lane configuration adjustments to the Masonic Avenue/Geary Boulevard intersection under Existing plus Project conditions. The intersection would continue to operate satisfactorily at LOS D, with 38.2 seconds of average delay under Existing plus Project conditions. Hence, Project 3-2 Option 2 would not cause a significant impact to the Masonic Avenue/Geary Boulevard intersection under Existing plus Project conditions for the PM Peak hour. Table V.3-7, p. V.A.3-372, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Masonic Avenue/Geary Boulevard intersection would continue to operate satisfactorily at LOS D, with 41.8 seconds of delay under 2025 Cumulative plus Project conditions. No lane configuration changes are proposed under 2025 Cumulative plus Project conditions relative to 2025 Cumulative conditions. Hence, there would be no change in LOS or delay for this intersection, compared to 2025 Cumulative conditions. Therefore, there would not be any significant impacts at the Masonic Avenue/Geary Boulevard intersection with the implementation of Project 3-2 Option 2 under 2025 Cumulative plus Project conditions. Table V.3-9, p. V.A.3-373, summarizes these results.

<u>Intersection 59: Masonic Avenue/Turk Street</u>

- **Option 1**

Existing and Existing plus Project Conditions – AM Analysis

In the AM Peak hour under Existing conditions, this intersection operates at LOS B with 19.8 seconds of delay. The Masonic Avenue/Turk Street intersection would operate satisfactorily at LOS C, with 28.1 seconds of average delay under Existing plus Project conditions. The northbound lane configuration would be modified from two through lanes and one shared through-right turn lane to one through lane and one shared through-right turn lane. The southbound lane configuration would be modified from one through lane and one shared through-right turn lane to one shared through-right turn lane. Due to the reduction of capacity in the northbound and southbound approaches, the average intersection delay would increase by 8.3 seconds, compared to Existing conditions. Project 3-2 Option 1 would not cause a significant impact to the Masonic Avenue/Turk Street intersection for the AM Peak hour under Existing plus Project conditions.

Existing and Existing plus Project Conditions – PM Analysis

In the PM Peak Hour, under Existing conditions, this intersection operates at LOS B with 19.5 seconds of delay. The Masonic Avenue/Turk Street intersection would operate satisfactorily at LOS D, with 47.6 seconds of average delay under Existing plus Project conditions. The northbound lane configuration would be modified from one through lane and one shared through-right turn lane to one shared through-right turn lane. The southbound lane configuration would be modified from two through lanes and one shared through-right turn lane to one through lane and one shared through-right turn lane. Due to the reduction of capacity in the northbound and southbound approaches, the average intersection delay would increase by 28.1 seconds, compared to Existing conditions. Project 3-2 Option 1 would not cause a significant impact to the Masonic Avenue/Turk Street intersection under Existing plus Project conditions for the PM Peak hour.

2025 Cumulative and 2025 Cumulative plus Project Conditions – AM Analysis
The Masonic Avenue/Turk Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions in the AM Peak Hour. The Masonic Avenue/Turk Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Because the northbound and southbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P3-2a) for the AM Peak hour would occur at the Masonic Avenue/Turk Street intersection with the implementation of Project 3-2 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions – PM Analysis
In the PM Peak Hour, the Masonic Avenue/Turk Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions, compared to LOS C and 26.8 seconds of delay for the 2025 Cumulative conditions. Because the northbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P3-2j) would occur at the Masonic Avenue/Turk Street intersection for the PM Peak hour with the implementation of Project 3-2 Option 1.

- **Option 2**

Existing and Existing plus Project Conditions – AM Analysis
In the AM Peak hour, under Existing conditions, this intersection operates at LOS B with 19.8 seconds of delay. The Masonic Avenue/Turk Street intersection would operate satisfactorily at LOS C, with 22.8 seconds of average delay under Existing plus Project conditions. The northbound lane configuration would be modified from two through lanes and one shared through-right turn lane to two through lanes and one exclusive right-turn lane. The southbound lane configuration would be modified from one through lane and one shared through-right turn lane to two through lanes and one exclusive right-turn lane. Due to the lane configuration adjustment in the northbound and southbound approaches, the average intersection delay would increase by 3 seconds, compared to Existing conditions. Project 3-2 Option 2 would not cause a significant impact to the Masonic Avenue/Turk Street intersection for the AM Peak hour

under Existing plus Project conditions. Table V.3-6, p. V.A.3-371, summarizes these results.

Existing and Existing plus Project Conditions – PM Analysis

In the PM Peak Hour, under Existing conditions, this intersection operates at LOS B with 19.5 seconds of delay. The Masonic Avenue/Turk Street intersection would operate satisfactorily at LOS C, with 20.8 seconds of average delay under Existing plus Project conditions. The northbound lane configuration would be modified from one through lane and one shared through-right turn lane to two through lanes and one exclusive right-turn lane. The southbound lane configuration would be modified from two through lanes and one shared through-right turn lane to two through lanes and one exclusive right-turn lane. Due to the lane configuration adjustment in the northbound and southbound approaches, the average intersection delay would increase by 1.3 seconds, compared to Existing conditions. Project 3-2 Option 2 would not cause a significant impact to the Masonic Avenue/Turk Street intersection under Existing plus Project conditions for the PM Peak hour. Table V.3-7, p. V.A.3-372, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions – AM Analysis

In addition, Masonic Avenue/Turk Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions in the AM Peak Hour. Because the northbound and southbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P3-2b) for the AM Peak hour would occur at the Masonic Avenue/Turk Street intersection with the implementation of Project 3-2 Option 2. Table V.3-8, p. V.A.3-372, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions – PM Analysis

In the PM Peak Hour, the Masonic Avenue/Turk Street intersection would operate satisfactorily at LOS C, with 31 seconds of delay under 2025 Cumulative plus Project conditions, compared to LOS C and 26.8 seconds of delay for the 2025 Cumulative conditions. Since this intersection would continue to operate at an acceptable LOS for the 2025 Cumulative plus Project conditions, there would be no significant impacts at the Masonic Avenue/Turk Street intersection with the implementation of Project 3-2 Option 2. Table V.3-9, p. V.A.3-373, summarizes these results.

Intersection 60: Masonic Avenue/Fulton Street

- **Option 1**

Existing and Existing plus Project Conditions – AM Analysis

In the AM Peak hour, under Existing conditions, this intersection operates at LOS B with 16.1 seconds of delay. The Masonic Avenue/Fulton Street intersection would operate satisfactorily at LOS C, with 22 seconds of average delay under Existing plus Project conditions. The northbound lane configuration would be modified from two through lanes and one shared through-right turn lane to one through lane and one shared through-right turn lane. The southbound lane configuration would be modified from one through lane and one shared through-right turn lane to one shared through-right turn lane. Due to the reduction of capacity in the northbound and southbound approaches, the average intersection delay would increase by 5.9 seconds, compared to Existing conditions. Project 3-2 Option 1 would not cause a significant impact to the Masonic Avenue/Fulton Street intersection for the AM Peak hour under Existing plus Project conditions.

Existing and Existing plus Project Conditions – PM Analysis

In the PM Peak hour, under Existing conditions, this intersection operates at LOS B with 15.8 seconds of delay. The Masonic Avenue/Fulton Street intersection would operate satisfactorily at LOS C, with 28 seconds of average delay under Existing plus Project conditions. The northbound lane configuration would be modified from one through lane and one shared through-right turn lane to one shared through-right turn lane. The southbound lane configuration would be modified from two through lanes and one shared through-right turn lane to one through lane and one shared through-right turn lane. Due to the reduction of capacity in the northbound and southbound approaches, the average intersection delay would increase by 9.3 seconds, compared to Existing conditions. Project 3-2 Option 1 would not cause a significant impact to the Masonic Avenue/Fulton Street intersection under Existing plus Project 3-2 Option 1 conditions for the PM Peak hour.

2025 Cumulative and 2025 Cumulative plus Project Conditions – AM Analysis

The Masonic Avenue/Fulton Street intersection would operate unsatisfactorily at LOS F in the AM Peak Hour, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions, compared to LOS C for 2025 Cumulative conditions. Because the northbound and southbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P3-2c) would occur in the AM peak hour at the Masonic Avenue/Fulton Street intersection with the implementation of Project 3-2 Option 1.

2025 Cumulative and 2025 Cumulative plus Project Conditions – PM Analysis

In the PM Peak Hour, the Masonic Avenue/Fulton Street intersection would operate satisfactorily at LOS D, with 47 seconds of delay under 2025 Cumulative plus Project conditions, compared to LOS C and 23.1 seconds of delay for the 2025 Cumulative conditions. Since the intersection would continue to operate at an acceptable level of service, a significant impact would not occur at the Masonic Avenue/Fulton Street intersection with the implementation of Project 3-2 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions – AM Analysis
In the AM Peak hour, under Existing conditions, this intersection operates at LOS B with 16.1 seconds of delay. The Masonic Avenue/Fulton Street intersection would operate satisfactorily at LOS B, with 18.6 seconds of average delay under Existing plus Project conditions. The northbound lane configuration would be modified from two through lanes and one shared through-right turn lane to two through lanes and one exclusive right-turn lane. The southbound lane configuration would be modified from one through lane and one shared through-right turn lane to two through lanes and one exclusive right-turn lane. Due to the lane configuration adjustment in the northbound and southbound approaches, the average intersection delay would increase by 2.5 seconds, compared to Existing conditions. Project 3-2 Option 2 would not cause a significant impact to the Masonic Avenue/Fulton Street intersection for the AM Peak hour under Existing plus Project 3-2 Option 2 conditions. Table V.3-6, p. V.A.3-371, summarizes these results.

Existing and Existing plus Project Conditions – PM Analysis
In the PM Peak Hour, the Masonic Avenue/Fulton Street intersection would operate satisfactorily at LOS B, with 18.6 seconds of average delay under Existing plus Project conditions. The northbound lane configuration would be modified from one through lane and one shared through-right turn lane to two through lanes and one exclusive right-turn lane. The southbound lane configuration would be modified from two through lanes and one shared through-right turn lane to two through lanes and one exclusive right-turn lane. Due to the lane configuration adjustment in the northbound and southbound approaches, the average intersection delay would decrease by 0.1 seconds, compared to Existing conditions. Hence, Project 3-2 Option 2 would not cause a significant impact at the Masonic Avenue/Fulton Street intersection under Existing plus Project 3-2 Option 2 conditions for the PM Peak hour. Table V.3-7, p. V.A.3-372, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions – AM Analysis
The Masonic Avenue/Fulton Street intersection would operate unsatisfactorily at LOS F in the AM Peak Hour, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions, compared to LOS C for the 2025 Cumulative conditions. Because the northbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P3-2d) would occur with the implementation of Project 3-2 Option 2. Table V.3-8, p. V.A.3-372, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions – PM Analysis
In the PM Peak Hour, the Masonic Avenue/Fulton Street intersection would operate satisfactorily at LOS C, with 26.6 seconds of delay under 2025 Cumulative plus Project

conditions, compared to LOS C and 23.1 seconds of delay for the 2025 Cumulative conditions. Therefore, a significant impact would not occur at the Masonic Avenue/Fulton Street intersection with the implementation of Project 3-2 Option 2 under 2025 Cumulative plus Project conditions. Table V.3-9, p. V.A.3-373, summarizes these results.

Significant Impact TR-P3-2a:

The intersection of Masonic Avenue/Turk Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 3-2 Option 1 for the AM peak hour.

Significant Impact TR-P3-2b:

The intersection of Masonic Avenue/Turk Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 3-2 Option 2 for the AM peak hour.

Significant Impact TR-P3-2c:

The intersection of Masonic Avenue/Fulton Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 3-2 Option 1 for the AM peak hour.

Significant Impact TR-P3-2d:

The intersection of Masonic Avenue/Fulton Street would operate at LOS F in the AM peak hour under 2025 Cumulative plus Project conditions for Project 3-2 Option 2.

Significant Impact TR-P3-2e:

The intersection of Masonic Avenue/Fell Street would operate at LOS E under Existing plus Project conditions for Project 3-2 Option 1.

Significant Impact TR-P3-2f:

The intersection of Masonic Avenue/Fell Street would operate at LOS E under Existing plus Project conditions for Project 3-2 Option 2.

Significant Impact TR-P3-2g:

The intersection of Masonic Avenue/Fell Street would operate at LOS E under 2025 Cumulative plus Project conditions for Project 3-2 Option 1.

Significant Impact TR-P3-2h:

The intersection of Masonic Avenue/Fell Street would operate at LOS E under 2025 Cumulative plus Project conditions for Project 3-2 Option 2.

Significant Impact TR-P3-2i:

The intersection of Masonic Avenue/Geary Boulevard would operate at LOS E under 2025 Cumulative plus Project conditions for Project 3-2 Option 1.

Significant Impact TR-P3-2j:

The intersection of Masonic Avenue/Turk Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 3-2 Option 1.

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 approximately six buses per hour.

There are two near side bus stops and three far side bus stops in this corridor for both the northbound and southbound directions. Due to the narrow curb lane (nine feet six inches), buses typically encroach upon the curb travel lane when loading passengers regardless of bus stop locations. Bus volumes along Masonic Avenue are generally low to moderate (six buses per hour each way south of Turk Street and 12 buses per hour each way between Turk Street and Geary Boulevard). Bicycle volumes are generally low; consequently there is little interaction between buses and bicyclists at bus stops.

Project 3-2 shares a common intersection (Intersection 43: Masonic Avenue/Fell Street) with Project 3-1: Fell Street and Masonic Avenue Intersection Improvements. The transit delay analysis below (Projects 3-1 and 3-2 Combined) reflects the combined impact of Projects 3-1 and 3-2 modifications to the Masonic Avenue/Fell Street intersection on transit delay. The impacts resulting from the implementation of individual Project 3-2 without Project 3-1 modifications to the Masonic Avenue/Fell Street intersection follow.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 3-1 and 3-2 combined
Option 1 would result in a reduction of one travel lane in both directions on this segment of Masonic Avenue. This change would add approximately 375 seconds (6.3 minutes) of delay for Muni bus line 43 for northbound buses and reduce delay by approximately 51 seconds southbound in the PM peak hour under the Existing plus Project condition. For Muni bus line 31BX, delay would be reduced by approximately 132 seconds (2.2 minutes) southbound. The headways for Muni bus lines 43 and 31BX are 10 minutes. For Muni bus line 43, the total added delay of approximately 324 seconds (5.4 minutes) has been assumed to be 6 minutes and, therefore, would be greater than the transit delay threshold of six minutes. For Muni bus line 31BX, the total delay would be reduced by approximately 132 seconds (2.2 minutes). Therefore, a significant transit impact would occur for Muni bus line 43 with the implementation of combined Projects 3-1 and 3-2 Option 1 under Existing plus Project conditions for the PM peak hour.

Existing and Existing plus Project Conditions for Project 3-2
Option 1 would result in a reduction of one travel lane in both directions on this segment of Masonic Avenue. This change would add approximately 383 seconds (6.4 minutes) of delay for Muni bus line 43 for northbound buses and approximately 27 seconds of delay southbound in the PM peak hour under the Existing plus Project condition. For Muni bus line 31BX, delay would be reduced by approximately 132 seconds (2.2 minutes) southbound. The headways for Muni bus lines 43 and 31BX are 10 minutes. For Muni bus line 43, the total added delay of approximately 410 seconds (6.8 minutes) would be greater than the transit delay threshold of six minutes. For Muni bus line 31BX, the total delay would be reduced by approximately 132 seconds (2.2 minutes). Therefore, a significant transit impact (Significant Impact TR-P3-2m) would occur for Muni bus line 43 with the implementation of individual Project 3-2 under Existing plus Project conditions for Option 1 for the PM peak hour.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 3-1 and 3-2 combined
Option 1 would result in a reduction of one travel lane in both directions on this segment of Masonic Avenue. Under 2025 Cumulative plus Project conditions for Muni bus line 43, this change in the PM peak hour would add approximately 554 seconds (9.2 minutes) of delay for northbound buses and approximately 152 seconds (2.5 minutes) of delay for southbound buses. For Muni bus line 31BX, approximately 17 seconds of delay would be added southbound. For Muni bus line 43, the total added delay of approximately 706 seconds (11.8 minutes) would be greater than the transit delay threshold of six minutes. For Muni bus line 31BX, the total added delay of approximately 17 seconds would be less than the transit delay threshold of six minutes. Therefore, a significant transit impact (Significant Impact TR-P3-2l) would occur for

Muni bus line 43 with the implementation of Projects 3-1 and 3-2 Option 1 combined under 2025 Cumulative plus Project conditions for the PM peak hour.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 3-2 alone
Option 1 would result in a reduction of one travel lane in both directions on this segment of Masonic Avenue. Under 2025 Cumulative plus Project conditions for Muni bus line 43, this change in the PM peak hour would add approximately 561 seconds (9.4 minutes) of delay for northbound buses and approximately 243 seconds (4.1 minutes) of delay for southbound buses. For Muni bus line 31BX, approximately 17 seconds of delay would be added southbound. For Muni bus line 43, the total added delay of approximately 804 seconds (13.4 minutes) would be greater than the transit delay threshold of six minutes. For Muni bus line 31BX, the total added delay of approximately 17 seconds would be less than the transit delay threshold of six minutes. Therefore, a significant transit impact (Significant Impact TR-P3-2k) would occur for Muni bus line 43 with the implementation of individual Project 3-2 under 2025 Cumulative plus Project conditions for Option 1 for the PM peak hour.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 3-1 and 3-2 combined
Project 3-1 does not have an Option 2. Therefore, please refer to the discussion for Project 3-2 Option 2.

Existing and Existing plus Project Conditions for Project 3-2
For Existing plus Project conditions, Project 3-2 Option 2 would not cause delay to Muni bus operations along this corridor as buses would be provided with an exclusive bus lane for their use. While the proposed bus lane would be shared with bicyclists, it is expected that conflicts related to bicycle/bus interactions would not be significant because of the low volumes of both bicycle and bus traffic along this corridor. Therefore, there would be no significant transit impacts with the implementation of individual Project 3-2 Option 2 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 3-2
For 2025 Cumulative plus Project conditions, Project 3-2 Option 2 would not cause delay to Muni bus operations along this corridor as buses would be provided with an exclusive bus lane for their use. While the proposed bus lane would be shared with bicyclists, it is expected that conflicts related to bicycle/bus interactions would not be significant because of the low volumes of both bicycle and bus traffic along this corridor. Therefore, there would be no significant transit impacts with the implementation of individual Project 3-2 Option 2 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P3-2k (Projects 3-1 and 3-2 combined):

Under Existing plus Project conditions, Option 1 of combined Projects 3-1 and 3-2 combined would result in a significant impact to transit for Muni bus line 43 in the PM peak hour.

Significant Impact TR-P3-2l (Projects 3-1 and 3-2 combined):

Under 2025 Cumulative plus Project conditions, Option 1 of the combined Projects 3-1 and 3-2 would result in a significant impact to transit for Muni bus line 43 in the PM peak hour.

Significant Impact TR-P3-2m:

Under Existing 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.

Significant Impact 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.

PARKING

There are a total of approximately 150 existing on-street parking spaces on both sides of Masonic Avenue between Geary Boulevard and Fell Street.

- **Option 1**
  Option 1 would permanently remove approximately 13 on-street parking spaces; 11 spaces on the east side of Masonic Avenue between Geary Boulevard and O'Farrell Street and two spaces on the east side of Masonic Avenue between Fell and Hayes Streets.

  Existing on-street parking occupancy along Masonic Avenue varies, ranging from 50 to 80 percent. Parking occupancy is higher in the mid-section near the University of San Francisco (USF) and lower in the northern and southern sections. Thus, the total number of vacant spaces also varies, depending on the block. The permanent removal of 13 on-street parking spaces under Option 1 would increase overall parking occupancy but demand would be accommodated with the area's existing parking supply in the vicinity. Therefore, there would not be a significant parking impact with implementation of Project 3-2 Option 1.

- **Option 2**
  Option 2 would permanently remove approximately 27 on-street parking spaces, 21 spaces on both sides of Masonic Avenue between Geary Boulevard and O'Farrell Street and six spaces along the portion from mid-block to Fell Street between Hayes and Fell Streets. This option would also remove a total of approximately 115 parking spaces on both sides of Masonic Avenue between Anza/O'Farrell Street and Hayes Street during weekdays from 7:00 a.m. to 6:00 p.m.

The removal of 142 on-street parking spaces during weekday midday under Option 2 would force approximately 70 to 90 vehicles to find parking during this time along those streets perpendicular to Masonic Avenue. Currently, parking occupancy on some side streets is high, especially along Anza, Turk, Golden Gate, and Fulton Streets, west of Masonic Avenue. A considerable number of USF students also use these streets for parking during weekday midday. Option 2 would further increase parking occupancy in the area and make parking more difficult to find. This could potentially affect occupancy on side streets several blocks further away from Masonic Avenue.

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.

In San Francisco, 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, 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."

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 offset 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. There would be a substantial loss of parking with Project 3-2 Option 2. However, there would be no significant parking impacts with implementation of Project 3-2 Option 2.

PEDESTRIAN

- **Option 1**
  Option 1 would not result in any changes to the pedestrian environment. Therefore there would be no significant pedestrian impacts with Project 3-2 Option 1.

- **Option 2**
  Option 2 would not include any changes to sidewalks and crosswalks although with the removal of on-street parking there could be a perceived change in pedestrian safety with the loss of the parking lane buffer between moving traffic and the sidewalk. This change is not considered significant because pedestrians usually do not walk immediately adjacent to the curb due to the presence of traffic signs and light posts. However, students from the San Francisco Day School tend to congregate along Masonic Avenue near Golden Gate Avenue after school hours. No curb parking is currently allowed on Masonic Avenue during the AM (northbound) and PM (southbound) peak commute periods; in addition, the bicycle lane would also function as a buffer between the curb and vehicular traffic. The changes proposed by Option 2 would not be greatly different from what occurs currently during those times. Therefore, there would be no significant pedestrian impacts as a result of Project 3-2 Option 2.

BICYCLE

Bicycle volumes along Masonic Avenue are generally low.

- **Option 1**
  Under Option 1, the installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel during the weekday from 7:00 a.m. and 6:00 p.m. Therefore, Project 3-2 Option 1 would not result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

- **Option 2**
  Under Option 2 the installation of bicycle lanes would also provide bicyclists with a designated right-of-way for travel on the shared bus and bicycle lane on weekdays between 7:00 a.m. and 6:00 p.m. The chances of bus and bicyclist conflicts in this lane would be relatively low because of the differing travel speeds. In those instances buses or bicyclists would use the adjacent travel lane to pass. Therefore, Project 3-2 Option 2 would not result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Masonic Avenue has mostly residential buildings. There are several institutional uses and two large retail stores on the ground floor directly fronting Masonic

Avenue. No double-parked trucks were observed on this segment of Masonic Avenue. Loading activities for the institutional uses generally occur on the side streets or within off-street parking lots. There is one on-street yellow commercial freight loading space serving the retail spaces on the near side of Hayes Avenue.

- **Option 1**
  Option 1 would create no change to the existing operation of the yellow commercial freight loading space. Therefore, there would not be a significant loading impact resulting from Project 3-2 Option 1.

- **Option 2**
  With Option 2 the on-street loading activities would be impacted because no on-street parking would be allowed on the east side of Masonic Avenue between 7:00 a.m. and 6:00 p.m. With the loss of on-street parking, delivery vehicles most likely would park in the northbound right turn lane along Masonic Avenue or in the Muni bus stop on Hayes Street to make deliveries to the retail store on the corner. Since delivery trucks can legally park in the right turn lane during non-peak traffic hours and the loading demand to this retail store is relatively small, Option 2 would not cause significant loading impact.

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

Project 3-3 would add westbound sharrows between Market and Franklin Streets and between Fillmore Street and Masonic Avenue. A five-foot wide westbound Class II bicycle lane would be added between Franklin and Fillmore Streets by narrowing the travel lanes from approximately 14 feet and 4.5 inches to 12 feet wide. Project 3-3 would also add sharrows in both directions on Charles J. Brenham Place between Market and McAllister Streets.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection, 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 Golden Gate Transit (GGT) bus lines (10, 54, 70/80, 72, 73, 76 and 93) run westbound along McAllister Street between Market and Webster Streets (GGT bus 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.

Transit service between Market and Webster Streets includes all Muni and GGT bus lines discussed above; volumes are moderate to high, especially during the PM peak period. Bus stops along this segment of McAllister Street are placed close to each other, located at almost every block. Because most of the bus stops are located on the far side, and the curb lane is between 16 to 18 feet wide, buses typically do not encroach upon the adjacent travel lane. The only exception is the eastbound near-side bus stop in front of City Hall at Polk Street. Buses at this stop often stop further away from the curb in order to more quickly reenter traffic. 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 per hour during the PM peak period. Bicycle volumes along this segment are low to moderate, thus, there is very little interaction between bicyclists and buses. The striping of sharrows would not cause any delays to Muni or GGT bus operations while moving or at bus stops.

West of Webster Street, transit volumes are substantially lower. Muni bus line 5 operates with approximately 10 buses per hour in each direction. Bicycle volumes in this segment are also very low. About half of the 14 bus stops in this segment are located on the far side of the intersection and the other half are either near side of mid-block stops. There is very little interaction between buses and bicyclists because both bus and bicycle volumes are low. The proposed westbound sharrows between Fillmore Street and Masonic Avenue would not substantially change the current interactions between buses and bicyclists, or materially delay transit operation in terms of additional delays. The proposed westbound Class II bicycle lane, between Franklin and Fillmore Streets, would be striped between eight-foot wide parking and a 12-foot wide travel lane, which is a standard design. This design would accommodate both buses and bicyclists without conflict or impact on transit operation. Project 3-3 would not affect transit capacity, transit operation, or travel time. Therefore, there would be no significant transit impacts with implementation of Project 3-3.

PARKING

There would be no changes in parking layout or number of parking spaces. Therefore, there would be no parking impacts as a result of Project 3-3.

PEDESTRIAN

Pedestrian volumes are generally low, except along the segment between Market Street and Van Ness Avenue. There would be no changes in sidewalk width or crosswalk layout, and the interactions between pedestrians and bicyclists would not change as a result of Project 3-3. Therefore, there would be no pedestrian impacts with implementation of Project 3-3.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. In addition, the installation of sharrows would increase the motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone'.[3] Hence, Project 3-3 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This area has mostly residential uses with occasional commercial development. There were no double-parked vehicles or significant loading needs observed[4] in the field. There would be no changes in on-street and off-street layout of loading spaces. Therefore, there would be no loading impacts with implementation of Project 3-3.

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

There are two options for this segment of Polk Street. There is an existing southbound Class II bicycle lane within this segment.

- **Options 1 and 2**
  Both Options 1 and 2 would add a northbound Class II bicycle lane between Grove and McAllister Streets and a seven-foot and nine-inch wide contra-flow bicycle lane between Hayes and Grove Streets separated by a four-foot wide median. Both options would remove on-street parking on the east side of Polk Street between Market and Grove Streets, and convert pull-in angled parking into back-in angled parking between Grove and McAllister Streets. Both options would remove the existing striped area on the west side of Polk Street at the approach to Market Street.

3 The 'door zone' refers to that area adjacent to a parked car where a bicyclist runs the risk of being hit by a suddenly opened car door.

4 Field surveys were conducted by CHS Consulting on Tuesday, September 11, 2007 during the midday.

- **Option 1**
  Under Option 1, the width of the two existing southbound travel lanes between McAllister and Grove Streets would be reduced from 11 feet to 10 feet 6 inches.

- **Option 2**
  Option 2 would have the same design as Option 1 north of Hayes Street. The key difference between Options 1 and 2 is the block of Polk Street between Market and Hayes Streets. The segment of Polk Street between Market and Hayes Streets under Option 2 would be converted from a one-way to a two-way street with one 11-foot and six-inch wide lane and northbound sharrows. On-street parking on the east side of Polk Street in this segment would be removed. At the approach to the Hayes Street, this northbound lane would be forced to make a left-turn onto Hayes Street only.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

Muni bus line 21 runs southbound on Polk Street only between Grove and Market Streets, with approximately eight buses per hour during the AM and PM peak periods. There are no Muni bus stops in this segment of Polk Street. Buses make a right turn from Grove Street onto Polk Street and then stay on the east lane to Market Street and then make a left turn onto Market Street towards downtown. The southbound curb lanes are currently 10 to 13 feet wide between Grove and Market Streets. Transit volumes are moderate, and bicycle volumes in this area are low to moderate. Both buses and bicyclists travel comfortably in this segment, and there are no obvious conflicts. Conflicts between buses and bicyclists seldom occur at the right-turn movement from eastbound Grove Street onto southbound Polk Street.

Both Options 1 and 2 would maintain 11 feet to 12 feet wide southbound lanes between Grove and Market Streets, which would provide an adequate width for bus operation adjacent to the existing five-foot wide bicycle lane. Neither option would change the current interactions between southbound buses and bicyclists. There is no northbound transit service where the proposed contra-flow bicycle lane would be installed. Therefore, there would be no significant transit impacts with implementation of Project 3-4 with either Option 1 or Option 2.

PARKING

There are a total of approximately 78 on-street parking spaces on both sides of Polk Street between Market and McAllister Street. Both Options 1 and 2 would remove approximately 12 on-street parking spaces on the east side of Polk Street between Market and Grove Streets. Loss or shortage of parking is not a permanent part of the physical environment, thus, the impacts would not be significant.

- **Option 1**
  Option 1 would relocate the white zone between Market and Hayes Street in front of the Fox Plaza Building from the curbside to the west side of the proposed raised median

- **Option 2**
  Option 2 would force all vehicles needing drop-off activity to come from Market Street. Double-parking was observed at this passenger loading zone. In the future double-parking would cause potential congestion and conflict with the proposed northbound bicycle movement.

  Both Options 1 and 2 would also convert existing pull-in angled parking into back-in angled parking on the east side of Polk Street between McAllister and Grove Streets without changing the number of parking spaces. The change of pull-in to back-in angled parking would potentially benefit bicyclists by improving approaching bicyclists' visibility to motor vehicle drivers and other traffic, both when drivers are entering and exiting a parking stall. When entering a parking stall by backing in, drivers would be looking backwards towards oncoming traffic and would be more aware of approaching bicyclists. Bicyclists would also be better able to see these vehicles backing into the parking spaces and, therefore, would have ample warning to safely maneuver around these vehicles. When exiting a parking stall drivers would face the street with a better view of oncoming traffic in comparison to drivers backing out of the pull-in parking stall, whose view of oncoming traffic may be obscured by adjacent parked vehicles.

  Loss of parking could cause potential secondary effects, such as drivers attempting to find parking at or near Polk Street and then seek parking farther away if convenient parking is unavailable, potentially circling and looking for a parking space in areas of limited parking supply. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Given that 12 on-street spaces of a total of 78 spaces (15 percent) would be removed, any secondary environmental impacts that may result from a shortfall in parking in the vicinity of Project 3-4 would be minor. Therefore, there would be no significant parking impacts with implementation of either Option 1 or Option 2 of Project 3-4.

PEDESTRIAN

Pedestrian volumes are generally low to moderate between Grove and Market Streets, but high between Grove and McAllister Streets in front of the City Hall and at the Market Street intersection. The proposed median and the bicycle lane on the east side of Polk Street between Market and Grove Streets under Option 1 and between Market and Hayes Street under Option

2 would benefit pedestrians by creating an additional buffer zone between pedestrians and contra-flow traffic.

- **Option 1**
  Option 1 would not create any changes in sidewalk width or crosswalk layout. Therefore, there would be no pedestrian impacts under Project 3-4 Option 1.

- **Option 2**
  Option 2 would narrow the sidewalk on the east side of Polk Street approaching Hayes Street in the northbound direction and increase the crossing distance across Polk Street by two feet and three inches from 17 feet to 14 feet 9 inches. This impact would not be significant because there would continue to be sufficiently wide sidewalk and the increase in crossing distance would be increase pedestrian crossing time by less than one second. Therefore, there would be no significant pedestrian impacts under Project 3-4 Option 2.

BICYCLE

Project 3-4 for both Option 1 and Option 2 would have the same design for the segment of Polk Street between McAllister and Hayes Streets. From McAllister Street to Grove Street, Project 3-4 would add a northbound bicycle lane and change pull-in angled parking to back-in angled parking. Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. In addition, changing pull-in angled parking to back-in angled parking would potentially benefit bicyclists by improving the driver’s visibility of approaching bicyclists and other vehicles both when entering and exiting the parking stall. When entering the parking stall by backing in, the driver would be looking towards oncoming traffic and would be more aware of approaching bicyclists. When exiting the parking stall, the driver is facing the street with a better view of traffic in the travel lane in comparison to drivers backing out of the pull-in parking stall, whose view of oncoming traffic may be obscured by an adjacent parked vehicle.

Both Option 1 and Option 2 would also add a northbound contraflow bicycle lane. This bicycle lane would provide bicyclists with a dedicated right-of-way separated from vehicle traffic with a concrete median. While a contraflow bicycle lane is infrequently used, it is appropriate for a short segment of one-way street as is found on this segment of Polk Street. Bicyclists will be largely protected from oncoming traffic by the concrete median with potential conflict points at the access to the loading dock north of Hayes Street and at the intersections at either end of the block. Trucks backing into the loading dock would move slowly while making this movement across the contraflow bicycle lane. The trucks would be highly visible to bicyclists and would not constitute a hazard to bicyclists in the contraflow lane. Northbound bicyclists traveling through the signalized Polk Street/Grove Street intersection would cross the path of southbound motorists on Polk Street turning left onto Grove Street. However, this is a typical movement at an intersection; motorists and bicyclists would have a clear view of each other and be able to avoid conflicts. Similarly, at the Polk Street/Hayes Street intersection few conflicts should occur between motor vehicles and bicyclists in the northbound contraflow lane. Southbound motor vehicles will only be turning right onto Hayes Street or continuing straight on Polk Street. Neither movement will cross the path of northbound bicyclists.

For the segment of Project 3-4 between Hayes Street and Market Street, designs for Option 1 and Option 2 differ.

- **Option 1**
  Option 1 would include a northbound contraflow bicycle lane. This bicycle lane would provide bicyclists with a dedicated right-of-way separated from vehicle traffic with a concrete median. A break in the median would allow trucks to enter the loading dock for Fox Plaza just south of Hayes Street. Trucks must back into the loading dock and move slowly while making this maneuver. Trucks would be highly visible to bicyclists and would not constitute a hazard to bicyclists in the contraflow lane. The passenger loading zone (white zone) would be relocated to from the curb to the street side (west side) of the median. Therefore, vehicles using the loading zone would not cross the path of bicyclists. Passengers being dropped off or picked up at the white zone would have to be careful when crossing the bicycle lane to the sidewalk. Appropriate signage would address safety issues related to potential conflicts between bicyclists and pedestrians at this location.

- **Option 2**
  Option 2 would change this block of Polk Street between Hayes and Market Street from one-way to two-way operation. Sharrows would be added to the new northbound travel lane. The installation of sharrows would increase motor vehicle drivers' awareness that bicyclists may be on the road. Trucks backing into the loading dock at Fox Plaza would move slowly while making this maneuver. Trucks would be highly visible to bicyclists and would not constitute a hazard to bicyclists in the northbound travel lane. Bicyclists would have to be aware of vehicles crossing their path to access the passenger loading zone (white zone). Bicyclists following the path designated by the sharrows would not be in conflict with this movement.

  Project 3-4 with either Option 1 or Option 2 would not result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Polk Street has mostly office and institutional uses. There are two off-street loading docks located on the east side of Polk Street to the north and south of the Hayes and Polk Street intersection.

For the section of Polk Street between McAllister and Hayes Streets, Option 1 and Option 2 have the same design. This would include a contraflow bicycle lane on the east side of Polk Street separated from vehicle traffic with a concrete median. Access to the loading dock located north of Hayes Street would be maintained with a break in the median. Trucks backing into the loading dock would move slowly while making this movement across the contraflow bicycle lane. The trucks would be highly visible to bicyclists and this movement would not result in a conflict between trucks and bicyclists in the contraflow lane.

- **Option 1**
  Option 1 for the segment of Polk Street between Hayes Street and Market Street would include a northbound contraflow bicycle lane on the east side of Polk Street separated from vehicle traffic with a concrete median. An opening in the median would be provided for access to the Fox Plaza loading area just south of Hayes Street. Trucks must back into the loading dock and move slowly while making this maneuver. Trucks would be highly visible to bicyclists and this movement would not result in a conflict between trucks and bicyclists in the contraflow lane. This option would move the white passenger-loading zone on the east side of Polk Street between Market and Hayes Streets to the west side of the concrete median. The proposed white zone would be adjacent to the travel lane in an area with a total width of 18 feet. Pedestrians would be required to cross the bicycle lane to gain access to the sidewalk. However, Project 3-4 Option 1 would not result in significant impacts to passenger or freight loading.

- **Option 2**
  Under Option 2, the change from one-way to two-way operation on Polk Street in front of the Fox Plaza loading dock would require trucks to use westbound Market Street to access the loading dock. Sharrows would be added to the new northbound travel lane. Trucks backing into the loading dock at Fox Plaza would move slowly while making this maneuver. Trucks would be highly visible to bicyclists and this movement would not result in a conflict between trucks and bicyclists in the northbound travel lane. Trucks exiting the loading dock would be able to use Polk Street in either direction. This change in circulation may inconvenience some drivers but would not result in a significant loading impact Option 2 and would not affect current passenger loading activities. Therefore, Project 3-4 Option 2 would not result in significant loading impacts.

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

There are two options for this segment of Scott Street.

- **Option 1**
  Option 1 would add a northbound Class II left-turn bicycle lane between the two opposing travel lanes and remove the left-turn bays in both directions between Oak Street and Fell Street. There would be no parking removal.

- **Option 2**
  Option 2 would add a northbound Class II left-turn bicycle lane between the two opposing travel lanes between Oak Street and Fell Street. Approximately three on-street parking spaces would be removed on the west side of Scott Street between Fell Street and approximately 98 feet southward.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

There are no transit lines in this segment of Scott Street. Therefore, there would be no transit impacts under either Option 1 or Option 2.

PARKING

- **Option 1**
  There would no changes in parking under Option 1. Therefore, there would be no parking impacts under Project 3-5 Option 1.

- **Option 2**
  Option 2 would remove approximately three on-street parking spaces on the west side of Scott Street between Fell Street and approximately 98 feet southward. Parking occupancy in the area is typically moderate, and this minor parking change would not substantially increase the occupancy rates. Therefore, there would be no significant parking impacts under Project 3-5 Option 2.

PEDESTRIAN

Pedestrian volumes in this area are generally low, and there would be no changes in sidewalk width or crosswalk layout. The removal of on-street parking on the west side of the street would place the southbound travel lane directly adjacent to the sidewalk and may reduce the perceived safety of pedestrians but would not change their actual safety because a street without parking is not an unusual or unsafe design. Therefore, there would be no pedestrian impacts from Project 3-5 with either Option 1 or Option 2.

BICYCLE

Both Options 1 and 2 would add a northbound Class II left-turn bicycle lane located to the left of left-turning vehicles. This configuration is not a standard practice for the placement of left-turn bicycle lanes, which are generally placed to the right of the left-turn lane. However, the receiving bicycle lane on Fell Street is located on the left side of the one-way street to facilitate access to the bicycle paths in the Panhandle at Baker Street, three blocks from this intersection. For both Options 1 and 2, this nonstandard placement makes sense. The length of the bicycle left-turn lane gives bicyclists ample opportunity to safely weave through traffic to reach the left-turn lane. The bicycle box that was implemented on northbound Scott Street on the nearside of Oak Street under “The Wiggle” project discussed below would also help bicyclists access the proposed left-turn bicycle lane. Thus neither Option 1 nor Option 2 of Project 3-5 would have a significant impact on bicycle circulation but instead should improve the ability of bicyclists to make this left-turn and to access the bicycle lanes on Fell Street. Therefore, there would be no significant bicycle impacts with the implementation of either Option 1 or Option 2 of Project 3-5, but Project 3-5 could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Scott Street is residential and has low loading demand. Loading is usually accommodated by the on-street parking spaces, and there would be no changes to the on-street or off-street zones. No double-parked trucks or significant loading needs were observed in this segment of Scott Street. Therefore, there would be no significant loading impacts with implementation of either Option 1 or Option 2 of Project 3-5.

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 plus Project and 2025 Cumulative plus Project conditions. Pre-project conditions describe what existed before the implementation of Project 3-6 and are analyzed under Existing and 2025 Cumulative conditions.

With Project 3-6, sharrows were added on Duboce Avenue, Steiner Street, Waller Street, Pierce Street, Haight Street, and Scott Street. A northbound Class II bicycle lane was striped on Scott Street between Haight and Oak Streets, and a bicycle box and a “No Turn on Red” restriction were added on Scott Street at the nearside of Oak Street in the northbound direction.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

Muni bus lines 6, 7, 71, and 71L run westbound only along Haight Street, with approximately 22 buses per hour each way during the AM and PM peak periods. Muni N-Judah light rail line runs in both directions along Duboce Avenue, with approximately eight trains per hour each way during the AM and PM peak periods. Adding sharrows did not change how Muni buses and the light rail operate or how bicyclists ride on the street. Therefore, Project 3-6 has not resulted in significant transit impacts.

PARKING

There were no changes in parking along “The Wiggle.” Therefore, there are no parking impacts as a result of implementation of Project 3-6.

PEDESTRIAN

There was no change in sidewalk or crosswalk layouts in “The Wiggle.” Therefore, there are no pedestrian impacts with Project 3-6.

BICYCLE

The installation of sharrows has increased the motor vehicle drivers’ awareness that bicyclists may be on the road as well as identified for bicyclists the pathway outside the ‘door zone’.[5] The bicycle box allows safer left-turn movement of bicyclists from Scott Street onto Oak Street by providing a queuing area to turn ahead without conflicting with motor vehicles. Hence, Project 3-6 has not had a significant impact on cyclists, but has had the beneficial effect of improving roadway conditions and safety for bicyclists.

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5 See note on San Francisco’s Shared Lane Pavement Markings: Improving Bicycle Safety.

LOADING

This area has mostly residential and some recreational and retail uses with a low on-street loading demand. There were no double-parked vehicles or significant loading needs observed[6] in the field. Therefore, there are no loading impacts for either Option 1 or 2 of Project 3-6.

CLUSTER 3: SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impact 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.

M-TR-P3-1a (Projects 3-1 and 3-2 combined):

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 direction of Fell Street. With these adjustments, Masonic Avenue/Fell Street intersection operations will improve to LOS D, with 52.7 seconds of delay. It has been ensured that the minimum green times required for pedestrians to cross the intersection would be maintained even after the green time adjustments to the signal. Hence, this mitigation measure would reduce impacts from combined Projects 3-1 and 3-2 Option 1 to a less-than-significant level under Existing plus Project conditions. Table V.3-12 on p. V.A.3-400, below, summarizes the LOS results after this mitigation measure is applied.

TABLE V.3-12
CLUSTER 3 – PROJECTS 3-1 AND 3-2 COMBINED
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1		Existing plus Project Option 1 with Mitigation Measures	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS
43.	Masonic Avenue/Fell Street	**68.7**	**E**	52.7	D

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.

[6] Field surveys were conducted by CHS Consulting on Friday, September 14, 2007 during the midday.

Significant Impact 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.

M-TR-P3-1b (Projects 3-1 and 3-2 combined):

No feasible mitigation measures have been identified for the Masonic Avenue/Fell Street intersection under 2025 Cumulative plus Project conditions for combined Projects 3-1 and 3-2 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.

Significant Impact TR-P3-2a:

The intersection of Masonic Avenue/Turk Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1 for the AM peak hour.

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 the Masonic Avenue/Turk Street intersection with the implementation of Project 3-2 Option 1.

Significant Impact TR-P3-2b:

The intersection of Masonic Avenue/Turk Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 3-2 Option 2 for the AM peak hour.

M-TR-P3-2b:

No feasible mitigation measures have been identified for the Masonic Avenue/Turk Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the Masonic Avenue/Turk Street intersection with the implementation of Project 3-2 Option 2.

Significant Impact TR-P3-2c:

The intersection of Masonic Avenue/Fulton Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1 for the AM peak hour.

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 Option 1. Hence, a significant impact would occur at the Masonic Avenue/Fulton Street intersection with the implementation of Project 3-2 Option 1.

Significant Impact TR-P3-2d:

The intersection of Masonic Avenue/Fulton Street would operate at LOS F in the AM peak hour under 2025 Cumulative plus Project conditions for Project 3-2 Option 2.

M-TR-P3-2d:

No feasible mitigation measures have been identified for the Masonic Avenue/Fulton Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the Masonic Avenue/Fulton Street intersection with the implementation of Project 3-2 Option 2.

Significant Impact TR-P3-2e:

The intersection of Masonic Avenue/Fell Street would operate at LOS E under Existing plus Project conditions for Project 3-2 Option 1.

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.

Significant Impact TR-P3-2f:

The intersection of Masonic Avenue/Fell Street would operate at LOS E under Existing plus Project conditions for Project 3-2 Option 2.

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, with 45.8 seconds of delay and a V/C ratio of 1.1. It has been ensured that the minimum green times required for pedestrians to cross the intersection have been maintained even after the green time adjustments to the signal. Hence, this mitigation measure would reduce the project impacts at the Masonic Avenue/Fell Street intersection to a less than significant level for Project 3-2 with Option 2 under Existing plus Project conditions. Table V.3-13, p. 403, summarizes the LOS results after this mitigation measure is applied.

TABLE V.3-13
CLUSTER 3 – PROJECT 3-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 2 (Project 3-2)		Existing plus Project Option 2 (Project 3-2) with Mitigation Measures	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
43.	Masonic Avenue/Fell Street	**55.4**	**E**	45.8	D

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.

Significant Impact TR-P3-2g:

The intersection of Masonic Avenue/Fell Street would operate at LOS E under 2025 Cumulative plus Project conditions for Project 3-2 Option 1.

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.

Significant Impact TR-P3-2h:

The intersection of Masonic Avenue/Fell Street would operate at LOS E under 2025 Cumulative plus Project conditions for Project 3-2 Option 2.

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.

Significant Impact TR-P3-2i:

The intersection of Masonic Avenue/Geary Boulevard would operate at LOS E under 2025 Cumulative plus Project conditions for Project 3-2 Option 1.

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.

Significant Impact TR-P3-2j:

The intersection of Masonic Avenue/Turk Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 3-2 Option 1.

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 at the Masonic Avenue/Turk Street intersection to LOS E, with 72.5 seconds of delay and a V/C ratio of 1.29. It has been ensured that the minimum green times required for pedestrians to cross the intersection have been maintained even after the green time adjustments to the signal. However, the Masonic Avenue/Turk Street intersection would continue to operate at an unacceptable LOS, therefore the traffic impact would be significant even after this improvement measure is implemented. Table V.3-14, p. V.A.3-405, summarizes the LOS results after this improvement measure is applied.

TABLE V.3-14
CLUSTER 3 – PROJECT 3-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1		2025 Cumulative plus Project Option 1 with Mitigation Measures	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
59.	Masonic Avenue/Turk Street	**>80**	**F**	**72.5**	**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.

Significant Impact TR-P3-2k (Projects 3-1 and 3-2 combined):

Under Existing plus Project conditions, Option 1 of combined Projects 3-1 and 3-2 combined would result in a significant impact to transit for Muni bus line 43 in the PM peak hour.

M-TR-P3-2k (Projects 3-1 and 3-2 combined):

Under Existing plus Project conditions in the PM peak hour, combined Projects 3-1 and 3-2 Option 1 would add approximately 324 seconds (5.4 minutes) of total delay. Since the total added delay for Muni bus line 43 would be 5.4 minutes, a total delay of 6 minutes was assumed and, therefore, a significant transit impact would occur with the implementation of Option 1 of combined Projects 3-1 and 3-2 under Existing plus Project conditions. 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 implementation of Option 1 of the combined Projects 3-1 and 3-2 under Existing plus Project conditions in the PM peak hour.

Significant Impact 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 impact to transit for Muni bus line 43 in the PM peak hour.

M-TR-P3-2l (Projects 3-1 and 3-2 combined):

With Option 1 under Existing plus Project conditions in the PM peak hour, combined Projects 3-1 and 3-2 would add approximately 324 seconds (5.4 minutes) of total delay. Since the total added delay for Muni bus line 43 would be 5.4 minutes, a total delay of 6 minutes was assumed and, therefore, a significant transit impact would occur with the implementation of combined Projects 3-1 and 3-2 under Existing plus Project conditions for Option 1. 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 with Option 1 under Existing plus Project conditions in the PM peak hour.

Significant Impact TR-P3-2m:

Under Existing 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.

M-TR-P3-2m:

With Option 1 under Existing plus Project conditions, individual Project 3-2 would add approximately 410 seconds (6.8 minutes) of total delay. 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.

Significant Impact 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.

M-TR-P3-2n:

With Option 1 under 2025 Cumulative plus Project conditions, individual Project 3-2 would add approximately 804 seconds (13.4 minutes) of total delay to Muni Bus line 43. With mitigation as described in Mitigation Measure M-TR-P3-2j, p. V.A.3-404, transit delay would be reduced over unmitigated conditions with approximately 449 seconds (7.4 minutes) of delay northbound and approximately 233 seconds (3.9 minutes) of delay southbound. However, the total transit delay of 682 seconds (11.3 minutes) would continue to be greater than the transit delay threshold of six minutes. Therefore, 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.

CLUSTER 4: MISSION BAY/HUNTERS POINT/BAYVIEW AREA[1]

This section provides a description of the Existing plus Project, 2025 Cumulative and 2025 Cumulative plus Project transportation conditions within in Cluster 4. One design option is being proposed for Projects 4-1, 4-3, and 4-5. Two options are proposed for the remaining near-term improvements (Projects 4-2 and 4-4) within Cluster 4.

A preferred project design has not been developed for Project 4-4. The preferred project design for Cluster 4 near-term improvements are Option 1 of Project 4-1, Project 4-2, Project 4-3, and Project 4-5. These are described and analyzed below with no text changes.

Figures showing the turning movement traffic volumes and lane configurations at the study intersections in Cluster 4 for Existing plus Project, 2025 Cumulative, and 2025 Cumulative plus Project conditions may be found within the transportation impact analysis discussion for Cluster 4 within the Transportation Impact Study. Level of service calculation sheets for those intersections and transit delay calculation sheets for affected transit routes may be found in the appendices of the Transportation Impact Study.[2]

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

Project 4-1 would add one Class II bicycle lane in both directions between 3rd Street and Terry A. François Boulevard by reconfiguring the existing travel lanes and widening the street as part of the Mission Bay Plan.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

There are no transit lines on this segment of 16th Street. Therefore, there would be no transit impacts with implementation of Project 4-1.

1 Unless otherwise indicated, all intersection analysis is for PM Peak Hour conditions.
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.

● PARKING

There is no on-street parking in this segment. Therefore, there would be no parking impact with implementation of Project 4-1.

PEDESTRIAN

Pedestrian volumes are very low presently, but could increase as the Mission Bay project is completed. Once the parcels on both sides of 16th Street are fully built, 10-foot wide sidewalks and crosswalks would be constructed. Thus, the interactions between pedestrians and bicyclists would improve as the result of the land development projects in the area. Therefore, there would be no significant pedestrian impacts with implementation of Project 4-1.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. Therefore, Project 4-1 would not result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

There are currently no active land uses on either side of 16th Street within this segment due to construction in the area. It is expected that new development projects in the area would provide sufficient off-street loading spaces to meet the demand, thus, there would be no loading impacts with implementation of Project 4-1.

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

There are two options for this segment of Cargo Way.

- **Option 1**
  Option 1 would add Class II bicycle lanes in both directions and remove on-street parking on the south side of Cargo Way between 3rd and Jennings Streets. Both options would install a Class II left-turn bicycle lane on eastbound Cargo Way approaching Illinois Street and Amador Street.

- **Option 2**
  Option 2 would create a two-way Class I bicycle path on the south side of Cargo Way between Illinois and Jennings Streets. Option 2 would narrow the existing raised median from 13 to eight feet and reduce the width of the travel lanes to 12 feet. The total curb to curb width would be reduced from 79 to 56 feet. Same as Option 1, existing on-street parking spaces on the south side would be removed.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

There are no transit lines on this segment of Cargo Way. Therefore, there would be no transit impacts as a result of Project 4-2 with either Option 1 or Option 2.

PARKING

- **Option 1**
  Option 1 would remove approximately 160 on-street parking spaces on both sides of Cargo Way. Observations[3] show that demand for on-street parking is very low due to the fact that land on the north side of the street is undeveloped and includes an active freight rail track running parallel to the street. In addition, buildings on the south side have sufficient off-street parking lots to accommodate their demand. Consequently, parking demand can be met in this area even with the loss of 160 on-street spaces. Therefore, there would be no significant parking impacts with implementation of Project 4-2 Option 1.

- **Option 2**
  Option 2 would not involve the removal of on-street parking along Cargo Way. Therefore, there would be no parking impacts with implementation of Project 4-2 Option 2.

PEDESTRIAN

Pedestrian volumes are generally very low. There would be no change in sidewalk width or crosswalk layout under Option 1, but Option 2 would improve the sidewalk by relocating street trees from the middle of the existing narrow sidewalk northward to between the proposed bicycle path and existing sidewalk. Therefore, there would be no significant pedestrian impacts as a result of Project 4-2 with either Option 1 or Option 2.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. In addition, under Option 1 the removal of on-street parking adjacent to the bicycle travel way would eliminate the hazard of 'dooring' from parked cars. Hence, Project 4-2 with Option 1 would not have a significant impact on cyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

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[3] Field surveys were conducted by CHS Consulting on Tuesday, September 18, 2007 during the midday.

The proposed Class I bicycle path under Option 2 would benefit bicyclists because they would have a dedicated right-of-way separated from vehicles, buses, and pedestrians. Therefore, there would be no significant bicycle impacts with implementation of Project 4-2 Option 2.

LOADING

Most of the loading activities for the industrial uses in Piers 94/96 and the India Basin Industrial Park occur within the sites and not on the street. Removal of on-street parking under Option 1 would not include any on-street yellow commercial freight loading spaces and there would be no changes in on-street or off-street loading spaces. Therefore, there would be no significant loading impacts with implementation of Project 4-2 with either Option 1 or Option 2.

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

Project 4-3 would add Class II bicycle lanes in both directions between 16th Street and Cargo Way. To accomplish this, approximately 45 on-street parking spaces would be lost on the east side of Illinois Street north of 22nd Street. However, 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.

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, as summarized in Table V.4-2, p. V.A.3-410, and Table V.4-3, on p. V.A.3-410.

TABLE V.4-2
CLUSTER 4 – PROJECT 4-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing		Existing plus Project	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS
49.	Illinois Street/César Chávez Street	8.7	A	8.7	A
50.	Illinois Street/Mariposa Street/Terry François Boulevard	17.7	B	17.7	B

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

TABLE V.4-3
CLUSTER 4 – PROJECT 4-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative		2025 Cumulative plus Project	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS
49.	Illinois Street/César Chávez Street	11.9	B	11.8	B
50.	Illinois Street/Mariposa Street/Terry François Boulevard	54	D	54	D

Source: *Wilbur Smith Associates, October 2008*

Note:

a. Delay in seconds per vehicle.

Intersection 49: Illinois Street/Cesar Chavez Street

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS A with 8.7 seconds of delay. The northbound lane configuration would be modified at the Illinois Street/César Chávez Street intersection from one shared through-left turn lane and one shared through-right turn lane to one shared left-through-right turn lane. The southbound lane configuration would be modified from one shared through-left turn lane and one shared through-right turn lane to one shared through-right turn lane and one exclusive left-turn lane. As a result, the intersection would operate satisfactorily at LOS A, with 8.7 seconds of average delay under Existing plus Project conditions, compared to Existing conditions. The traffic volume at this intersection is relatively low. Thus, the changes in the lane configuration under Existing plus Project conditions would not impact the traffic operations. Therefore, Project 4-3 would not cause a significant traffic impact at the Illinois Street/Cesar Chavez Street intersection, as summarized in Table V.4-2, p. V.A.3-240.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Illinois Street/César Chávez Street intersection would operate satisfactorily at LOS B, with 11.9 seconds of average delay under 2025 Cumulative conditions. It would continue to operate satisfactorily at LOS B, with 11.8 seconds of delay under 2025 Cumulative plus Project conditions. The traffic volume at this intersection is relatively low. Thus, the changes in the lane configuration under Existing plus Project conditions would not impact the traffic operations.

Therefore, there would not be any significant impacts at the Illinois Street/Cesar Chavez Street intersection with the implementation of Project 4-3 under 2025 Cumulative plus Project conditions. Table V.4-3, p. V.A.3-241, summarizes these results.

Intersection 50: Illinois Street/Mariposa Street/Terry Francois Boulevard

Existing and Existing plus Project Conditions

No lane configuration adjustments are proposed at the intersection of Illinois Street/Mariposa Street/Terry François Boulevard under Existing plus Project conditions and the intersection would continue to operate satisfactorily at LOS B, with 17.7 seconds of average delay. Therefore, Project 4-3 would not cause a significant impact at the Illinois Street/Mariposa Street/Terry François Boulevard intersection under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Illinois Street/Mariposa Street/Terry François Boulevard intersection would operate satisfactorily at LOS D, with 54 seconds of average delay under 2025 Cumulative conditions and would continue to do so under 2025 Cumulative plus Project conditions. Therefore, a significant traffic impact would not occur at the Illinois Street/Mariposa Street/Terry François Boulevard intersection with the implementation of Project 4-3 under 2025 Cumulative plus Project conditions.

Intersection 50: Illinois Street/Mariposa Street/Terry Francois Boulevard

Existing and Existing plus Project Conditions

No lane configuration adjustments are proposed at the intersection of Illinois Street/Mariposa Street/Terry François Boulevard under Existing plus Project conditions and the intersection would continue to operate satisfactorily at LOS B, with 17.7 seconds of average delay. Therefore, Project 4-3 would not cause a significant impact at the Illinois Street/Mariposa Street/Terry François Boulevard intersection under Existing plus Project conditions. Table V.4-2, p. V.A.3-410, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Illinois Street/Mariposa Street/Terry François Boulevard intersection would operate satisfactorily at LOS D, with 54 seconds of average delay under 2025 Cumulative conditions and would continue to do so under 2025 Cumulative plus Project conditions. Therefore, a significant traffic impact would not occur at the Illinois Street/Mariposa Street/Terry François Boulevard intersection with the implementation of Project 4-3 under 2025 Cumulative plus Project conditions. Table V.4-3, p. V.A.3-411, summarizes these results.

TRANSIT

Muni bus line 48 runs southbound on Illinois Street 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 along this segment of Illinois Street, so there would be no conflicts between bicyclists and buses relating to buses entering and exiting a bus stop. In addition, there would be no measurable change in Muni travel time along these two blocks of Illinois Street due to minimal effects on traffic delay. Therefore, there would be no significant transit impacts with implementation of Project 4-3.

PARKING

With Project 4-3, there would be a net gain of approximately 99 on-street parking spaces along Illinois and Tennessee Streets. However, parking layout and locations would change. There would be a loss of approximately 45 on-street parking spaces on the east side of Illinois Street north of 22nd Street due to the conversion of diagonal parking spaces to parallel spaces. The project would add approximately 144 parking spaces at other locations: 50 spaces along Tennessee Street between 18th and 20th Streets, 40 spaces along 24th Street east of Illinois Street, and 54 spaces on the east side of Illinois Street, south of 25th Street.

The midday parking occupancy rate along Illinois Street north of 25th Street was approximately 81 percent on the west side of Illinois Street and approximately 94 percent on the east side. The loss of 45 spaces between 20th and 22nd Streets would be offset by the increase in parking in the project area. However, drivers in the affected locations would have to find parking along 24th Street or on the south side of 25th Street and walk a few more blocks to reach their destinations. Because parking supply would increase with implementation of Project 4-3, there would be no significant parking impacts.

PEDESTRIAN

Pedestrian volumes are generally low, and there would be no changes in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of Project 4-3. Therefore, there would be no pedestrian impacts with implementation of Project 4-3.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. Change of diagonal parking to parallel parking on the east side of Illinois Street would eliminate the hazard resulting from vehicles backing out of the diagonal parking with poor visibility of approaching traffic. Several buildings along the west side of Illinois Street have their loading docks flush with the building façade and trucks park perpendicular to the building to make deliveries. Occasional truck double parking was also observed.[4] In cases when a truck double parked or parked perpendicular to the building, they may infringe on the proposed Class II bicycle lane, causing a conflict with bicycle movement. This condition occurs mostly during midday when bicycle volumes are low and does not represent a change from existing conditions. Therefore, Project 4-3 would not result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

The change of diagonal parking to parallel parking on the east side of Illinois Street would not affect any existing loading spaces. Currently, there are very few buildings on the east side of Illinois Street. Therefore, there would be no significant loading impacts with implementation of Project 4-3.

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

There are two options for this segment of Innes Avenue.

- **Option 1**
  Option 1 would add Class II bicycle lanes in both directions along Innes Avenue between Donahue Street and Hunters Point Boulevard. Project 4-4 would also remove on-street parking on the south side of Innes Avenue between Hunters Point Boulevard and Earl Street and on both sides between Earl and Donahue Streets.

- **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.

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4 Field surveys were conducted by CHS Consulting on Tuesday, September 18, 2007 during the midday.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection 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 nearside Muni bus stops on both sides of the street at Griffith Street, Arelious Walker Drive, and Earl Street and one northbound bus stop on the far-side of Donahue Street. In general, Muni boardings at these stops are very low. Because both transit and bicycle volumes are very low in this area, there is little or no interaction between buses and bicyclists. Project 4-4 would not change transit capacity, operation, or travel time or the interactions between buses and bicyclists. Therefore, there would be no significant transit impacts with implementation of Project 4-4 with either Option 1 or Option 2.

PARKING

- **Option 1**
  Option 1 would remove approximately 135 on-street parking spaces between Hunters Point Boulevard and Donahue Street, with 75 spaces on the south side of Innes Avenue between Hunters Point Boulevard and Earl Street and 60 spaces on both sides between Earl and Donahue Streets.

- **Option 2**
  Option 2 would involve removal of approximately 60 spaces on both sides between Earl and Donahue Streets.

  There are few active land uses along Project 4-4 with activity concentrated on Innes Avenue between Hunters Point Boulevard and Earl Street. Consequently, on-street parking occupancy is very low and existing demand can be accommodated even with the reduction in supply from implementation of either Option 1 or Option 2. Therefore, there would be no significant parking impacts resulting from Project 4-4 with either Option 1 or Option 2. It should be noted that with the proposed development in the Hunters Point Shipyard, the future parking utilization in the vicinity of Donahue Street is expected to increase.

PEDESTRIAN

Pedestrian volumes are very low in this industrial and mostly vacant area, and there would be no changes in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of either option. Therefore, there would be no pedestrian impacts as a result of Project 4-4 with either Option 1 or Option 2.

BICYCLE

With both Option 1 and 2, bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. The installation of sharrows with Option 2 would increase motor vehicle drivers' awareness that bicyclists may be on the road and would help bicyclists identify a safe travel pathway outside the "door zone".[5] Hence, both options of Project 4-4 would not have a significant impact on cyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Innes Avenue has some industrial uses and residential buildings, but the majority of the street frontage is either a hill or vacant lots. On-street parking removal would not include any on-street yellow commercial freight loading spaces. On-street loading demand in this area is low, and even with parking removal the available on-street and off-street parking spaces could accommodate any potential loading needs. Therefore, there would be no significant loading impacts as a result of Project 4-4 with either Option 1 or Option 2.

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

Project 4-5 would add a five-foot wide Class II bicycle lane in each direction between 16th and Mariposa Streets by allocating 8 feet for parking and narrowing the travel lanes to 12 feet.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

Transit

There are no transit lines on this segment of Mississippi Street. Therefore, there would be no transit impacts with implementation of Project 4-5.

5 The "door zone" refers to that area adjacent to a parked car where a bicyclist runs the risk of being hit by a suddenly opened car door.

Parking

There would be no changes in parking layout or in the number of parking spaces in this segment of Mississippi Street. Therefore, there would be no parking impacts with implementation of Project 4-5.

Pedestrian

There would be no changes in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of Project 4-5. Therefore, there would be no pedestrian impacts with implementation of Project 4-5.

Bicycle

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. However, there is potential for parked trucks to infringe upon the proposed bicycle lane or conflict with bicycle movement when backing into the street. Bicycle volumes and loading activity are generally low in this area and these conflicts would not represent a change from existing conditions. Therefore, Project 4-5 would not result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Mississippi Street is in an industrial area. The current interactions between loading vehicles and bicyclists would not change as a result of Project 4-5 and would not affect loading activity. There would also be no changes to the available on-street or off-street loading spaces along this segment. Therefore, there would be no significant loading impacts with implementation of Project 4-5.

CLUSTER 4: SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

No significant impacts were identified in Cluster 4.

CLUSTER 5: MISSION/GLEN PARK/EXCELSIOR AREA[6]

This section provides a description of the Existing plus Project and 2025 Cumulative and 2025 Cumulative plus Project transportation conditions within the near-term improvements in

[6] Unless otherwise indicated, all intersection analysis is for PM Peak Hour conditions.

Cluster 5. Projects 5-1, 5-2, 5-3, 5-7, 5-8 and 5-11 have one design option; the remaining projects have two design options.

A preferred project design has not been developed for either Project 5-6 or Project 5-10. The preferred project design for near-term improvements in Cluster 5 are the following options: Project 5-3 Option 1, Project 5-5 Option 1, Project 5-11 Option 1, and Project 5-13 Option 1. These are described and analyzed below with no text changes. Project 5-1 Modified Option 1, Project 5-2 Modified Option 1, Project 5-4 Modified Option 1, Project 5-9 Modified Option 2, and Project 5-12 Modified Option 1 are modified projects as described and analyzed in this section.

The Existing plus Project, 2025 Cumulative, and 2025 Cumulative plus Project turning movement traffic volumes at the study intersections within Cluster 5, the intersection lane configurations at those intersections, and the level of service and transit delay calculation sheets can be found in the TIS.

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 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 from 12 to 10 feet, and the parking on the north side of the street would be reduced from eight to seven feet in width in order to create space for the eastbound bicycle lane.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

The modified project would install a westbound Class II bicycle lane from Kansas Street to 50 feet west of Utah Street through removal of parking on the north side of the street, but would not reduce the number of traffic lanes. The modified project would not include a Class II bicycle lane in the eastbound direction on the block of 23rd Street between Potrero Avenue and Utah

Street as analyzed in the Draft EIR. Modified Project 5-1 would reduce the scope of the project compared to the project analyzed in the Draft EIR, and therefore, no additional traffic analysis would be required under the revised project.

This project would add sharrows to the existing Class III bicycle route in the eastbound direction from Potrero Avenue to Utah Street. Sharrows in the eastbound direction were not analyzed for this project in the Draft EIR. This project would add sharrows to the existing Class III bicycle route in the westbound direction from 50 feet west of Utah Street to Potrero Avenue, a distance of approximately 200 feet. The Draft EIR analyzed sharrows in the westbound direction for the entire project length, from Kansas Street to Potrero Avenue. Refer to the analysis of the installation of sharrows to the bicycle route network on p. V.A.4-13 of the Draft EIR. Because the potential impacts resulting from the installation of sharrows are presented in the Draft EIR, no additional analysis is required as a result of this project revision. In addition, as discussed in the Draft EIR, there would be no significant impacts as a result of the installation of sharrows.

Modified Project 5-1 would not remove any traffic lanes. Therefore, as discussed above there would not be a significant traffic impact with the implementation of Modified Project 5-1.

Intersection LOS calculations were performed for the PM peak hour.

PM Peak Hour

One study intersection is included for the PM Peak Hour for Project 5-1. Table V.5-12, p. V.A.3-408, and Table V.5-13, p. V.A.3-419, summarize these results.

TABLE V.5-12
CLUSTER 5 – PROJECT 5-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing		Existing plus Project	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS
19.	Potrero Avenue/23rd Street	24.7	C	24.7	C

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

TABLE V.5-13
CLUSTER 5 – PROJECT 5-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative		2025 Cumulative plus Project	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS
19.	Potrero Avenue/23rd Street	26.9	C	26.9	C

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

Intersection 19: Potrero Avenue/23rd Street

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with a delay of 24.7 seconds. The Potrero Avenue/23rd Street intersection would continue to operate satisfactorily at LOS C, with 24.7 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, Project 5-1 would not cause a significant impact to the Potrero Avenue/23rd Street intersection under Existing plus Project conditions. See Table V.5-12, p. V.A.3-408, for these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

Under 2025 Cumulative conditions, the Potrero Avenue/23rd Street intersection would operate satisfactorily at LOS C, with 26.9 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate satisfactorily at LOS C, with 26.9 seconds of delay. Therefore, a significant impact would not occur at this intersection with the implementation of Project 5-1. See Table V.5-13, p. V.A.3-419, for these results.

TRANSIT

Muni bus line 48 and UCSF Blue/Gold shuttles run along this segment of 23rd Street, with approximately nine buses per hour each way and three westbound and seven eastbound UCSF shuttles during the AM and PM peak periods.

Project 5-1 would narrow both travel lanes from 12 to 10 feet in width and the westbound on-street parking lane from 8 to 7 feet in width. The reduction in width of travel and on-street parking lanes, with Project 5-1, would not effect Muni or UCSF shuttle operations. Bus and bicycle interaction would not change with Project 5-1 from existing conditions. Therefore, there would be no significant transit impact with implementation of Project 5-1.

PARKING

There are approximately 62 existing on-street parking spaces on both sides of 23rd Street between Kansas Street and Potrero Avenue. Modified Project 5-1 would remove approximately 36 on-street parking spaces on the north side of 23rd Street between Kansas Street and Potrero Avenue. Because existing parking occupancy along 23rd Street is generally high, the loss of 36 spaces on this block would increase the occupancy rate in the area.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact as under the CEQA but rather a social effect. The loss of parking may cause potential, indirect physical effects, which would include cars circling and looking for a parking space on neighboring streets. The secondary effects of drivers searching for parking is typically offset 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 that may result from a shortfall in parking in the vicinity of modified Project 5-1 would be minor. The changes in on-street parking also would not cause any secondary physical impacts, such as traffic congestion, air quality impacts, or noise impacts caused by congestion. Therefore, there would be no significant parking impacts as a result of Modified Project 5-1.

Project 5-1 would narrow the westbound parking lane to 7 feet, but there would be no parking removal. Therefore, there would be no significant parking impacts with implementation of Project 5-1.

PEDESTRIAN

Pedestrian volumes are heaviest at the crosswalks at the T-intersection in front of the SFGH main entrance. Because there are stop signs for through traffic at this location on 23rd Street, bicycles and motor vehicles would have to stop and would in effect accommodate safe crossing for pedestrians at this location. Furthermore, there would be no changes in the sidewalk width or crosswalk layout, and the interactions between pedestrians and bicyclists would not change as a result of Project 5-1. Therefore, there would be no pedestrian impacts with implementation of Project 5-1.

BICYCLE

The installation of sharrows would increase the motor vehicle driver's awareness that bicyclists may be on the road as well as identify to the bicyclists the pathway outside the 'door zone'.[7] Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. Hence, Project 5-1 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

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 at off-street loading facilities on the campus. The proposed new SFGH acute care buildings include loading improvement measures that require that SFGH assess the loading needs at each location or building, and then develop a plan for either consolidating loading operations at the main loading dock behind Building 5 and then redistributing to other buildings, or creating

[7] See note on San Francisco's Shared Lane Pavement Markings: Improving Bicycle Safety.

additional loading spaces at the buildings/locations where needed. Only occasional double-parking was observed[8] along 23rd Street west of Utah Street. There would be no changes in the number or location of on-street yellow commercial freight loading spaces or access to off-street loading facilities. Therefore, there would be no significant loading impacts with implementation of Project 5-1.

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 Class II bicycle lane in each direction on Alemany Boulevard between Rousseau and Putnam Streets and sharrows in both directions between Bayshore Boulevard and Putnam Street. Project 5-2 would remove an eastbound travel lane between Rousseau and Trumbull Streets and one westbound lane between Putnam and Ellsworth Streets. Approximately 375 under-utilized on-street parking spaces would be removed, north side of Alemany Boulevard between Ellsworth and Rousseau Streets and south side between Rousseau and Putnam Streets. The project would also add a left-turn Class II bicycle lane on eastbound Alemany Boulevard approaching Bayshore Boulevard.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

In addition to the changes proposed in Project 5-2, Modified Project 5-2 would remove an eastbound travel lane on Alemany Boulevard from Trumbull Street to 300 feet west of Putnam Street in order to provide a buffer lane between fast moving traffic on Alemany Boulevard and the proposed Class II bicycle lane. This lane removal is along a segment of Alemany Boulevard parallel to the I-280 freeway that has three lanes of traffic in each direction. This section of Alemany Boulevard is uninterrupted by intersections and traffic generally operates in free flow conditions. Therefore, the intersection analysis provided in the Draft EIR is unchanged for this modification. For the traffic volumes along this segment, two lanes are sufficient to

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8 Field surveys were conducted by CHS Consulting on Tuesday, September 18, 2007 during the midday.

accommodate the traffic volume. The lane configuration for the I-280 on- and off-ramp merges would not be changed. The eastbound lane proposed to be removed is the far right lane of Alemany Boulevard, and the on- and off-ramps connecting to the I-280 freeway are on the left side of Alemany Boulevard. The lane configuration at the signalized intersection of Alemany Boulevard and Putnam Street would not be changed from existing condition or from what was analyzed in the Draft EIR. The eastbound lane removal ends 200 feet west of the Alemany Boulevard/Putnam Street intersection. There would be no reduction in the number of traffic lanes at the Alemany Boulevard/Putnam Street intersection, so there would be no change in the intersection LOS. Therefore, there would be no significant traffic impact as a result of the implementation of Modified Project 5-2.

Intersection LOS calculations were performed for the PM peak hour.

PM Peak Hour

Three study intersections are included for the PM Peak Hour for Project 5-2.

One study intersection is included for the PM peak hour for Project 5-2. Table V.5-14, p. V.A.3-424, and Table V.5-15, p. V.A.3-425, summarize these results for Existing plus Project and Cumulative plus Project PM Peak Hour.

Intersection 26: Bayshore Boulevard/Alemany Boulevard/Industrial Street

The Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection is common to Projects 5-2 and 5-4 within the Cluster 5 area. Only one design option is proposed for Project 5-2. However, for Project 5-4, two design options - Option 1 and Option 2 are proposed. For Project 5-2, no lane configuration changes are proposed relative to Existing conditions. For Project 5-4, Option 1 would reduce one through lane in the northbound direction. Option 2 for

Project 5-4 would result in the replacement of a shared through-right lane in the northbound direction with an exclusive right-turn lane. Since combined Projects 5-2 and 5-4 would not result in a significant traffic impact at the intersection of Bayshore Boulevard/Alemany Boulevard/Industrial Street for the PM peak hour under Existing plus Project conditions, there would be no significant traffic impact at the intersection of Bayshore Boulevard/Alemany Boulevard/Industrial Street for the PM peak hour under Existing plus Project and 2025 Cumulative plus Project conditions. Therefore, the analysis below reflects the impacts of both projects.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 5-2 and 5-4 combined

Under Existing conditions, this intersection operates at LOS D with 51.2 seconds of delay. The Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection would operate unsatisfactorily at LOS D, with 52.3 seconds of average delay under Existing plus Project conditions for Projects 5-2 and 5-4 combined. The northbound lane configuration would be modified from two through lanes, one exclusive left-turn lane, and one shared through-right turn lane to one through lane, one exclusive left-turn lane, and one shared through-right turn lane. Since the intersection continues to operate at an acceptable LOS, Projects 5-2 and 5-4 Option 1 would not cause a significant traffic impact to the Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection under Existing plus Project conditions. Table V.5-14, p. V.A.3-424 summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-2 and 5-4 combined

The Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection would operate unsatisfactorily at LOS F in the PM Peak Hour, with more than 80 seconds of average delay under 2025 Cumulative conditions. With implementation of Option 1 of the combined Projects 5-2 and 5-4 under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. However, there would be no change in LOS for the southbound critical movement; therefore, a significant impact would not occur at this intersection with the implementation of Projects 5-2 and 5-4 combined Option 1. Table v.5-15 on p. V.A.3-425 summarizes these results.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 5-2 and 5-4 combined

Under Existing conditions, this intersection operates at LOS D with 51.2 seconds of delay. The Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection would operate unsatisfactorily at LOS D, with 51.7 seconds of delay under Existing plus Project conditions for Option 2 of the combined Projects 5-2 and 5-4 combined. The northbound lane configuration would be modified from two through lanes, one exclusive left-turn lane, and one shared through-right turn lane to two through lanes, one exclusive left-turn lane, and one exclusive right-turn lane. Since the intersection continues to operate at an acceptable LOS, Projects 5-2 and 5-4 combined Option 2 would not cause a significant traffic impact to the Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection under Existing plus Project conditions. Please see Table V.5-20 on p. V.A.3-438.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-2 and 5-4 combined

The Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection would operate unsatisfactorily at LOS F in the PM Peak Hour, with more than 80 seconds of average delay for Option 2 of the combined Projects 5-2 and 5-4 combined under 2025 Cumulative conditions. The Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there would be no change in LOS for the southbound critical movement; therefore, a significant impact would not occur at this intersection with the implementation of Option 2 of the combined Projects 5-2 and 5-4. Please see Table V.5-21 on p. V.A.3-438.

Intersection 33: Putnam Street/I-280 Off-Ramp/Alemany Boulevard

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 25.5 seconds of delay. The Putnam Street/I-280 Off-Ramp/Alemany Boulevard intersection would operate satisfactorily at LOS C, with 25.5 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay at this intersection, compared to Existing conditions. Therefore, Project 5-2 would not cause a significant impact to the Putnam Street/I-280 Off-Ramp/Alemany Boulevard intersection under Existing plus Project conditions. Table V.5-14, p V.A.3-424, summarizes these results.

TABLE V.5-14
CLUSTER 5 – PROJECT 5-2 [b]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

	Existing		Existing plus Project	
Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS
26. Bayshore Boulevard/Alemany Boulevard/Industrial Street[b]	51.2	D	52.3	D
33. Putnam Street/I-280 off-ramp/Alemany Boulevard	25.5	C	25.5	C
36. Justin Drive/Congdon Street/Alemany Boulevard	20	C	20.5	C

Source: Wilbur Smith Associates, October 2008

Notes:
a. Delay in seconds per vehicle.
b. LOS and average delay for Bayshore Boulevard/Alemany Boulevard/Industrial Street for combined impacts of Projects 5-2 and 5-4.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Putnam Street/I-280 Off-Ramp/Alemany Boulevard intersection would operate satisfactorily at LOS D, with 39.4 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate satisfactorily at LOS D, with 39.4 seconds of delay under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at this intersection with the implementation of Project 5-2. Table V.5-15, p. V.A.3-425, below, summarizes these results.

TABLE V.5-15
CLUSTER 5 – PROJECT 5-2 [c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative		2025 Cumulative plus Project	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
26.	Bayshore Boulevard/Alemany Boulevard/Industrial Street[c]	**>80**	**F**	**>80**	**F**
33.	Putnam Street/I-280 off-ramp/Alemany Boulevard	39.4	D	39.4	D
36.	Justin Drive/Congdon Street/Alemany Boulevard	53.5	D	30	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.
c. LOS and average delay for Bayshore Boulevard/Alemany Boulevard/Industrial Street for combined impacts of Projects 5-2 and 5-4.

Intersection 36: Justin Drive/Congdon Street/Alemany Boulevard

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 20 seconds of delay. The Justin Drive/Congdon Street/Alemany Boulevard intersection would operate satisfactorily at LOS C, with 25.5 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration would be modified from two through lanes and one shared through-right turn lane to two through lanes and one exclusive right-turn lane. The westbound lane configuration would be modified from two through lanes and one shared through-right turn lane to one through lane and one shared through-right turn lane. Due to the reduction of capacity in the westbound direction and the lane configuration adjustment in the eastbound direction, there would be an increase in delay along these approaches. However, the average intersection delay would increase by 0.5 seconds, compared to Existing conditions. Therefore, Project 5-2 would not cause a significant traffic impact to the Justin Drive/Congdon Street/Alemany Boulevard intersection under Existing plus Project conditions. Table V.5-14, p. V.A.3-424, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Justin Drive/Congdon Street/Alemany Boulevard intersection would operate satisfactorily at LOS D, with 53.5 seconds of average delay under 2025 Cumulative conditions. The Justin Drive/Congdon Street/Alemany Boulevard intersection would operate satisfactorily at LOS C, with 30 seconds of delay under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at this intersection with the implementation of Project 5-2. Table V.5-15, p. V.A.3-425 summarizes these results.

TRANSIT

Project 5-2 shares a common intersection (Intersection 26: Bayshore Boulevard/Alemany Boulevard/Industrial Street) with Project 5-4: Alemany Boulevard Bicycle Lanes, Bayshore Boulevard to Rousseau Street. The transit delay analysis below (Projects 5-2 and 5-4 combined) reflects the combined impact of Projects 5-2 and 5-4 modifications to the Alemany Boulevard Bicycle Lanes, Bayshore Boulevard to Rousseau Street intersection on transit delay. The impacts resulting from the implementation of individual Project 5-2 (Project 5-2) without Project 5-4 modifications will follow.

- **Option 1**

  Existing and Existing plus Project Conditions for Projects 5-2 and 5-4 combined
  Under Existing conditions, for combined Project 5-4 and Project 5-2 Option 1 would add no delay for Muni bus lines 9, 9X, 9AX and SamTrans 292 southbound and approximately 147 seconds (2.5 minutes) of delay northbound in the PM peak period. Option 1 would add approximately 190 seconds (3.2 minutes) of delay for Muni bus lines 23 and 24 southbound with no change in delay northbound in the PM peak period. The headways for transit service on this segment of Bayshore Boulevard range from 8 to 30 minutes; the total added delay of approximately 147 seconds (2.5 minutes) for Muni bus lines 9, 9X, 9AX and SamTrans 292 or 190 seconds (3.2 minutes) for Muni bus lines 23 and 24 would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with the implementation of Projects 5-2 and 5-4 combined Option 1 under Existing plus Project conditions.

  2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-2 and 5-4 combined
  Under Cumulative conditions, for combined Project 5-4 and Project 5-2, Option 1 would add no delay for Muni bus lines 9, 9X, 9AX and SamTrans 292 southbound and approximately 417 seconds (7.0 minutes) of delay northbound in the PM peak period. Option 1 would add approximately 12 seconds of delay for Muni bus lines 23 and 24 southbound and 58 seconds of delay northbound in the PM peak period. The headways

for transit service on this segment of Bayshore Boulevard range from 8 to 30 minutes; the total added delay of approximately 417 seconds (7.0 minutes) for Muni bus lines 9, 9X, 9AX and SamTrans 292 would be greater than the transit delay threshold of 6 minutes. The total added delay of approximately 70 seconds (1.2 minutes) for Muni bus lines 23 and 24 would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact (Significant Impact TR-P5-4f) would occur for Muni bus lines 9, 9X, 9AX and SamTrans 292 with the implementation of Projects 5-2 and 5-4 combined Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 5-2 and 5-4 combined

Under Existing conditions, for combined Project 5-4 and Project 5-2 Option 2 would add no delay for Muni bus lines 9, 9X, 9AX and SamTrans 292 southbound and approximately 20 seconds of delay northbound in the PM peak period. Option 2 would not impact operation of Muni bus lines 23 or 24 in either the northbound or southbound directions in the PM peak hour. The headways for transit service on this segment of Bayshore Boulevard range from 8 to 30 minutes; the total added delay of approximately 20 seconds for Muni bus lines 9, 9X, 9AX and SamTrans 292 would be less than the transit delay threshold of 6 minutes. There would be no change in delay for Muni bus lines 23 and 24. Therefore, a significant transit impact would not occur with implementation of Projects 5-2 and 5-4 combined Option 2 under Existing plus Project Conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-2 and 5-4 combined

Under Cumulative conditions, for combined Project 5-4 and Project 5-2, Option 2 would add no delay for Muni bus lines 9, 9X, 9AX and SamTrans 292 southbound and approximately 103 seconds (1.7 minutes) of delay northbound in the PM peak period. Option 2 would not impact operation of Muni bus lines 23 or 24 in either the northbound or southbound directions in the PM peak hour. The headways for transit service on this segment of Bayshore Boulevard range from 8 to 30 minutes; the total added delay of approximately 103 seconds (1.7 minutes) for Muni bus lines 9, 9X, 9AX and SamTrans 292 would be less than the transit delay threshold of 6 minutes. There would be no change in delay for Muni bus lines 23 and 24. Therefore, a significant transit impact would not occur with implementation of Projects 5-2 and 5-4 combined Option 2 under 2025 Cumulative plus Project conditions.

Project Conditions for Project 5-2 alone

Muni bus line 14X runs in both directions along this segment, and Muni bus line 67 runs only in the westbound direction. 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 peak periods. The two westbound Muni bus stops in this segment are located on the nearside of Folsom Street and on the far side of Ellsworth Street. Project 5-2 would not cause any Muni delay in this section of Alemany Boulevard because there would be no change to the existing Muni bus stop configuration or location; therefore there would be no significant transit impacts as a result of implementation of Project 5-2 alone.

PARKING

Project 5-2 would remove a total of approximately 375 on-street parking spaces on the north side of Alemany Boulevard between Ellsworth and Rousseau Streets and on the south side between Rousseau and Putnam Streets. The I-280 freeway is located on the south side of Alemany Boulevard between Bayshore Boulevard and the overpass over I-280. Land uses on the north side of Alemany Boulevard include an industrial building and three to four story residential buildings. The industrial building has its own parking lot and the residential buildings have parking garages and lots. The demand for on-street parking spaces was observed to be low during the weekday midday. On the weekends, the parking demand is high in the vicinity of Alemany Boulevard and Putnam Street due the Farmers' Market and Flea Market. Demand for weekday on-street parking would be accommodated with the supply remaining after implementation of Project 5-2.

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.

In San Francisco, 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, 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."

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 offset 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. Therefore, there would be no significant parking impacts with implementation of Project 5-2.

PEDESTRIAN

The I-280 freeway is located on the south side of Alemany Boulevard, and there is no sidewalk on either side of Alemany Boulevard between Justin Drive and Ellsworth Street. Pedestrian volumes are generally very low along the segment of Alemany Boulevard which has high traffic speed. Project 5-2 would not change existing conditions for pedestrians; therefore, there would be no pedestrian impacts related to implementation of Project 5-2.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. Hence, Project 5-2 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Alemany Boulevard has residential buildings on the north side and the I-280 freeway on the south side; consequently on-street loading demand is very low. No double-parking was observed. The removal of on-street parking would not remove on-street commercial freight loading spaces. Therefore, there would be no loading impacts with implementation of Project 5-2.

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 2025 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.

As a result of Project 5-3, one travel lane was removed and six-foot Class II bicycle lanes were added in each direction on Alemany Boulevard between Rousseau Street and San Jose Avenue with the exception of 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. A right-turn lane was added on the nearside of Ocean Avenue in the southbound direction by removing approximately two on-street parking spaces.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the PM peak hour.

PM Peak Hour

Two study intersections are included for the PM Peak Hour for Project 5-3.

Intersection 34: Alemany Boulevard/Ocean Avenue

The Alemany Boulevard/Ocean Street intersection is common to Projects 5-3 and 5-9 within the Cluster 5 area. Only one design option is proposed for Project 5-3. However, for Project 5-9, two design options, Option 1 and Option 2, are proposed. For both Projects 5-3 and 5-9, no lane configuration changes are proposed relative to Existing conditions for Option 1. Similarly, for Project 5-9, Option 2 no lane configuration changes are proposed relative to Existing conditions. Since there are no lane configuration changes with either near-term improvements, the impacts of both Projects 5-3 and 5-9 would not result in a significant traffic impact for the PM peak hour.

Since combined Projects 5-3 and 5-9 would not result in a significant traffic impact at the intersection of Alemany Boulevard/Ocean Avenue for the AM peak hour under Existing plus Project conditions, there would be no significant traffic impact from individual Project 5-3 at the intersection of Alemany Boulevard/Ocean Avenue for the AM peak hour under Existing plus Project or 2025 Cumulative plus Project conditions.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 5-3 and 5-9 combined

Under Existing conditions, this intersection operates at LOS B with 16.1 seconds of delay. The Alemany Boulevard/Ocean Avenue intersection would operate satisfactorily at LOS B, with 17.3 seconds of average delay under Existing plus Project conditions. The northbound lane configuration would be modified from one through lane, one shared through-left turn lane, and one shared through-right turn lane to one shared through-left turn lane and one shared through-right turn lane. The southbound lane configuration would be modified from one through lane, one shared through-left turn lane, and one shared through-right turn lane to one through lane, one shared through-left turn lane, and one exclusive right-turn lane. Due to the reduction of capacity in the northbound direction and the lane configuration adjustment in the southbound direction, there would be an increase in delay along these approaches. However, the average intersection delay would increase by 1.2 seconds, compared to Existing conditions. Therefore, implementation of Option 1 of the combined Projects 5-3 and 5-9 would not cause a significant traffic impact to the Alemany Boulevard/Ocean Avenue intersection under Existing plus Project conditions. Table V.5-16, p V.A.3-431, summarizes these results.

TABLE **V.5-16**
CLUSTER 5 – PROJECT 5-3 [b]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				Existing plus Project			
		Existing		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS	Average Delay[a]	LOS
34.	Alemany Boulevard/Ocean Avenue[b]	16.1	B	17.3	B	-	-
35.	Alemany Boulevard/Sickles Avenue	41.2	D	42.1	D	41.2	D

Source: Wilbur Smith Associates, October 2008.

Note:

a. Delay in seconds per vehicle.

b. LOS and average delay for Alemany Boulevard/Ocean Avenue for combined impacts of Projects 5-3 and 5-9.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-3 and 5-9 combined

The Alemany Boulevard/Ocean Avenue intersection would operate satisfactorily at LOS B in the PM Peak Hour, with 17.6 seconds of average delay under 2025 Cumulative conditions. The Alemany Boulevard/Ocean Avenue intersection would operate satisfactorily at LOS C, with 20.4 seconds of delay, and the eastbound critical movement would not operate at an unacceptable LOS under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at this intersection with the implementation of Option 1 of the combined Projects 5-3 and 5-9. Table V.5-17, p. V.A.3-432, summarizes these results.

TABLE V.5-17
CLUSTER 5 – PROJECT 5-3[c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				2025 Cumulative plus Project			
		2025 Cumulative		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
34.	Alemany Boulevard/Ocean Avenue[c]	17.6	B	20.4	C	-	-
35.	Alemany Boulevard/Sickles Avenue	**>80**	**F**	**>80**	**F**	**>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.
c. LOS and average delay for Alemany Boulevard/Ocean Avenue for combined impacts of Project 5-3 and 5-9

- **Option 2**

Existing and Existing plus Project Conditions for Projects 5-3 and 5-9 combined

Under Existing conditions, this intersection operates at LOS B with 16.1 seconds of delay. The Alemany Boulevard/Ocean Avenue intersection would operate satisfactorily at LOS B, with 16.1 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, Projects 5-3 and 5-9 combined Option 2 would not cause a significant impact to the Alemany Boulevard/Ocean Avenue intersection under Existing plus Project conditions. Table V.5-16, p. V.A.3-431, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-3 and 5-9 combined

The Alemany Boulevard/Ocean Avenue intersection would operate satisfactorily at LOS B in the PM Peak Hour, with 17.6 seconds of delay, and the eastbound critical movement would not operate at an unacceptable LOS under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at this intersection with the implementation for Projects 5-3 and 5-9 combined Option 2. Table V.5-17, p. V.A.3-432 summarizes these results.

Intersection 35: Alemany Boulevard/Sickles Avenue

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS D with 41.2 seconds of delay. The Alemany Boulevard/Sickles Avenue intersection would operate satisfactorily at LOS D, with 42.1 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration is modified from one through lane, one shared through-left turn lane, and one shared through-right turn lane to one shared through-left turn lane and one through-right turn lane. Due to the reduction of capacity in the eastbound direction, there is an increase in delay along this approach. The average intersection delay would increase by 0.9 seconds, compared to Existing conditions. Therefore, Project 5-3 Option 1 has not caused a significant traffic impact to the Alemany Boulevard/Sickles Avenue intersection under Existing plus Project conditions. Table V.5-16, p. V.A.3-431, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

Under 2025 Cumulative conditions, the Alemany Boulevard/Sickles Avenue intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay. Under 2025 Cumulative plus Project conditions, the Alemany Boulevard/Sickles Avenue intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Because the southbound critical movements at Alemany Boulevard/Sickles Avenue would not deteriorate; a significant impact would not occur at this intersection with the implementation for Project 5-3 Option 1. Table V.5-17, p. V.A.3-432, summarizes these results.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS D with 41.2 seconds of delay. The Alemany Boulevard/Sickles Avenue intersection would operate satisfactorily at LOS D, with 41.2 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there is no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, Project 5-3 Option 2 has not caused a significant impact to the Alemany Boulevard/Sickles Avenue intersection under Existing plus Project conditions. Table V.5-16, p. V.A.3-431, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

Under 2025 Cumulative plus Project 5-3 Option 2 conditions, the Alemany Boulevard/Sickles Avenue intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at this intersection with the implementation of Project 5-3 Option 2. Table V.5-17, p. V.A.3-432, summarizes these results.

TRANSIT

Muni bus lines 44 and 52 operate along Alemany Boulevard between Silver Avenue and Rousseau Street with approximately 10 buses per hour in each direction during the AM and PM peak periods. There are no transit lines along the other sections of the corridor. Transit volumes are moderate and bicycle volumes are low along the segment between Silver Avenue and Rousseau Street, which is only approximately two blocks long.

Project 5-3 provided 9-foot wide bus stops adjacent to the proposed bicycle lane. The reduction of one travel lane in this section of Alemany Boulevard has not affected Muni travel time. With sufficient space and relatively low potential for conflicts between buses and bicyclists, there have been no impacts on transit travel time or transit operation. Therefore, there are no significant transit impacts with implementation of Project 5-3.

PARKING

Project 5-3 removed approximately two on-street parking spaces on the nearside of Ocean Avenue in the southbound direction. The minor change in the number of parking spaces would not affect access to parking because occupancy in this area is relatively low. Therefore, there are no significant parking impacts with implementation of Project 5-3.

PEDESTRIAN

Pedestrian volumes are generally low, but moderate at intersections with yellow crosswalks designated for the schools along Alemany Boulevard specifically at Onondaga Avenue, Santa Rosa Avenue, and Cotter Street during before and after school hours (approximately 30 minutes around 8:00 a.m. and 3:00 p. m.). Bicycle volumes making right turns at the intersections are also low, so the potential for conflicts between pedestrians and bicyclists is low. There were no changes in sidewalk width or crosswalk layout as a result of Project 5-3. Therefore, there are no significant pedestrian impacts with implementation of Project 5-3.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. The installation of sharrows increased motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone'.[9] Therefore, Project 5-3 has not resulted in a significant impact to bicyclists, but has had the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Alemany Boulevard has mostly residential use, which has a low on-street loading demand. No double-parking in the area was observed. Therefore, there are no significant loading impacts with implementation of Project 5-3.

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.

There are two options for this segment of Bayshore Boulevard.

Both Options 1 and 2 would add a Class II bicycle lane in each direction between Cesar Chavez Street and Silver Avenue.

- **Option 1**

  Option 1 would remove a travel lane in each direction between Cesar Chavez Street and Silver Avenue. This option would remove approximately 15 on-street parking spaces on the east side of Bayshore Boulevard between Silver Avenue and Boutwell Street.

[9] In February 2004, Alta Planning + Design completed a study, San Francisco's Shared Lane Pavement Markings: Improving Bicycle Safety, on shared lane markings for Class III bicycle ways in San Francisco. In this study, a key conclusion was that the pavement markings (also known as sharrow markings) increased the awareness of the bicyclists' and motorists' position on the road. Bicyclists tended to ride further from parked cars, and motorists tended to pass bicyclists at a greater distance from the pavement marking. The report's recommendation was to use the sharrow markings on appropriate shared lanes but not as a substitution for bicycle lanes where feasible.

- **Option 2**

  Option 2 would add sharrows in each direction between Cesar Chavez Street and approximately the beginning of the couplet split. This option would remove on-street parking on both sides of Bayshore Boulevard from the couplet split to Industrial Street and remove one northbound lane starting from mid-block between Helena and Industrial Streets.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

The Draft EIR analyzed four study intersections for Project 5-4. The revised project would modify one of those intersections from what was analyzed in the Draft EIR. Those changes were made to the traffic model, and the traffic model was reanalyzed. Results of this analysis are presented in Tables C&R-14 and C&R-15, below. The findings show that Bayshore Boulevard/Oakdale Avenue intersection would operate satisfactorily with Project 5-4 Modified Option 2 under Existing plus Project and 2025 Cumulative plus Project Conditions.

TABLE C&R-14
PROJECT 5-4 INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY
EXISTING AND EXISTING PLUS PROJECT CONDITIONS
WEEKDAY PM PEAK HOUR

				Existing plus Project			
		Existing		Modified Option 2		Option 2	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
24.	Bayshore Boulevard/ Oakdale Avenue	29.6	C	28.5	C	29.6	C

Notes:
a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions highlighted in bold.
c. LOS and average delay for Bayshore Boulevard/Alemany Boulevard/Industrial Street for combined impacts of Projects 5-2 and 5-4.

TABLE C&R-15
PROJECT 5-4 INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY
2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS
WEEKDAY PM PEAK HOUR

				2025 Cumulative plus Project			
		2025 Cumulative		Modified Option 2		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
24.	Bayshore Boulevard/ Oakdale Avenue	34.6	C	32.8	C	34.6	C

Notes:
a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions highlighted in bold.
c. LOS and average delay for Bayshore Boulevard/Alemany Boulevard/Industrial Street for combined impacts of Projects 5-2 and 5-4.

AM Peak Hour

One study intersection is included for the AM Peak Hour for Project 5-4. Tables V.5-18, p. V.A.3-436, and V.5-19, p. V.A.3-436, summarize these results.

TABLE V.5-18
CLUSTER 5 – PROJECT 5-4
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

	Existing		Existing plus Project			
			Option 1		Option 2	
Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS	Average Delay[a]	LOS
23. Bayshore Boulevard/Jerrold Avenue/US 101 off-ramp	**76.8**	**E**	**>80**	**F**	**76.8**	**E**

Source: Wilbur Smith Associates, October 2008.

Note:

a. Delay in seconds per vehicle.

TABLE V.5-19
CLUSTER 5 – PROJECT 5-4
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

	2025 Cumulative		2025 Cumulative plus Project			
			Option 1		Option 2	
Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS[b]	Average Delay[a]	LOS
23. Bayshore Boulevard/Jerrold Avenue/US 101 off-ramp	**>80**	**F**	**>80**	**F**	**>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 23: Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp

- **Option 1**

Existing and Existing plus Project Conditions – AM Analysis

In the AM Peak hour, under Existing conditions, for Option 1, this intersection operates at LOS E with 76.8 seconds of delay. The Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions. The northbound lane configuration is modified from three through lanes and one shared through-right turn lane to two through lanes and one shared through-right turn lane. Due to the reduction of capacity in the northbound direction, there would be an increase in delay along this approach. The average intersection delay would increase by 28.4 seconds, compared to Existing conditions. Because the northbound critical movements at Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp either deteriorate or will operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P5-4a) would occur at this intersection with the implementation of Project 5-4 with Option 1.

PM Peak Hour

Four study intersections are included for the PM Peak Hour for Project 5-4. Tables V.5-20, p. V.A.3-438, and V.5-21, p. V.A.3-438, summarize these results.

Existing and Existing plus Project Conditions - PM Analysis

In the PM Peak hour, under Existing conditions, this intersection operates at LOS E with 58.9 seconds of delay. The Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions. The northbound lane configuration is modified from three through lanes and one shared through-right turn lane to two through lanes and one shared through-right turn lane. Due to the reduction of capacity in the northbound direction, there would be an increase in delay along this approach. The average intersection delay would increase by 38.5 seconds, compared to Existing conditions. Therefore, Project 5-4 Option 1 would cause a significant traffic impact (Significant Impact TR-P5-4c) to the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection under Existing plus Project conditions. Table V.5-20, p. V.A.3-438, summarizes these results.

TABLE V.5-20
CLUSTER 5 – PROJECT 5-4[c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

			Existing plus Project			
	Existing		Option 1		Option 2	
Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
23. Bayshore Boulevard/Jerrold Avenue/US 101 off-ramp	58.9	E	**>80**	**F**	58.9	E
24. Bayshore Boulevard/Oakdale Avenue	29.6	C	37.8	D	29.6	C
25. Bayshore Boulevard/Cortland Avenue	21.2	C	22.9	C	21.2	C
26. Bayshore Boulevard/Alemany Boulevard/Industrial Street[c]	51.2	D	52.3	D	51.7	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.
c. LOS and average delay for Bayshore Boulevard/Alemany Boulevard/Industrial Street for combined impacts of Projects 5-2 and 5-4.

TABLE V.5-21
CLUSTER 5 – PROJECT 5-4[c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

			2025 Cumulative plus Project			
	2025 Cumulative		Option 1		Option 2	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
23. Bayshore Boulevard/Jerrold Avenue/US 101 off-ramp	**>80**	**F**	**>80**	**F**	**>80**	**F**
24. Bayshore Boulevard/Oakdale Avenue	34.6	C	**63.1**	**E**	34.6	C
25. Bayshore Boulevard/Cortland Avenue	28.3	C	33.2	C	28.3	C
26. Bayshore Boulevard/Alemany Boulevard/Industrial Street[c]	**>80**	**F**	**>80**	**F**	**>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.
c. LOS and average delay for Bayshore Boulevard/Alemany Boulevard/Industrial Street for combined impacts of Projects 5-2 and 5-4.

2025 Cumulative and 2025 Cumulative plus Project Conditions – AM Analysis

In the AM Peak hour, under Cumulative conditions, for Option 1 this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Deterioration of the northbound critical movement at Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp for Existing plus Project to LOS F relative to Existing Conditions, is determined to be a significant impact. As a consequence, a corresponding LOS deterioration is expected at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P5-4b) would occur at this intersection with implementation of Project 5-4 Option 1. Table V.5-19, p. V.A.3-436, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions – PM Analysis

In the PM Peak hour, under Cumulative conditions, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Deterioration of the northbound critical movement at Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp for Existing plus Project to LOS F relative to Existing Conditions, is determined a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P5-4d) would occur at this intersection with implementation of Project 5-4 Option 1. Table V.21, p. V.A.3-438, summarizes these results.

- **Option 2**

Existing and Existing plus Project Conditions – AM Analysis

In the AM Peak hour, under Existing conditions, for Option 2, this intersection operates at LOS E with 76.8 seconds of delay. The Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate unsatisfactorily at LOS E, with 76.8 seconds of average delay under Existing plus Project conditions. However, there are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there is no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, Project 5-4 would not cause a significant impact to the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection under Existing plus Project conditions. Table V.5-18, p. V.A.3-436, summarizes these results.

Existing and Existing plus Project Conditions – PM Analysis

In the PM Peak hour, under Existing conditions, for Option 2, this intersection operates at LOS E with 58.9 seconds of delay. The Bayshore Boulevard/Jerrold Avenue/US 101

Off-Ramp intersection would operate satisfactorily at LOS E, with 58.9 seconds of average delay under Existing plus Project conditions. There is no change to the lane configuration at this intersection under Existing plus Project conditions relative to Existing conditions. Hence, there is no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, Project 5-4 would not cause a significant impact to the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp with the implementation of Project 5-4. Table V.5-20, p. V.A.3-438, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions – AM Analysis
In the AM Peak hour, under Cumulative conditions, for Option 2, this intersection would continue operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. No lane configuration changes are proposed for 2025 Cumulative plus Project conditions relative to 2025 Cumulative conditions. Therefore, a significant impact would not occur at this intersection with the implementation for Project 5-4. Table V.5-19, p. V.A.3-436, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions – PM Analysis
In the PM Peak hour, under Cumulative conditions, for Option 2, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. However, there is no change to the lane configuration at this intersection under 2025 Cumulative plus Project conditions relative to 2025 Cumulative conditions. Hence, there is no change in LOS or delay for this intersection, compared to 2025 Cumulative conditions. Therefore, Project 5-4 would not cause a significant impact to the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp with the implementation of Project 5-4. Table V.5-21, p. V.A.3-438, summarizes these results.

Intersection 24: Bayshore Boulevard/Oakdale Avenue

● Modified Option 2 would change the westbound approach to the Bayshore Boulevard/Oakdale Avenue intersection from one left turn lane and one shared left-right turn lane to one left turn lane, one left turn bicycle lane and one right turn lane. Under Existing plus Project conditions, this intersection would continue to operate acceptably at LOS C under Modified Option 2, as shown on Table III.6. Under the 2025 Cumulative and Cumulative plus Project conditions, the intersection would also operate acceptably at LOS C. Therefore, Project 5-4 Modified Option 2 would not have a significant traffic impact on this intersection.

- **Option 1**

Existing and Existing plus Project Conditions
Under Existing conditions, this intersection operates at LOS C with 29.6 seconds of delay. The Bayshore Boulevard/Oakdale Avenue intersection would operate satisfactorily at LOS D, with 37.8 seconds of average delay under Existing plus Project

conditions. The northbound lane configuration would be modified from two through lanes and one shared through-right turn lane to one through lane and one shared through-right turn lane. The southbound lane configuration would be modified from two through lanes and two exclusive left-turn lanes to two through lanes and one exclusive left-turn lane. Due to the reduction of capacity in the northbound and southbound directions, there would be an increase in delay along these approaches. However, the average intersection delay would increase by 8.2 seconds, compared to Existing conditions. Therefore, Project 5-4 Option 1 would not cause a significant traffic impact to the Bayshore Boulevard/Oakdale Avenue intersection under Existing plus

Project conditions. Table V.5-20, p. V.A.3-438, summarizes the Existing and Existing plus Project PM Peak Hour results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Bayshore Boulevard/Oakdale Avenue intersection would operate satisfactorily at LOS C in the PM Peak Hour, with 34.6 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS E, with 63.1 seconds of delay. Because the northbound and southbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions; a significant impact (Significant Impact TR-P5-4e) would occur at this intersection with the implementation of Project 5-4 Option 1. Table V.5-21, p. V.A.3-438, summarizes the Cumulative and Cumulative plus Project PM Peak Hour results.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 29.6 seconds of delay. The Bayshore Boulevard/Oakdale Avenue intersection would continue to operate satisfactorily at LOS C, with 29.6 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, Project 5-4 would not cause a significant impact to the Bayshore Boulevard/Oakdale Avenue with the implementation of Project 5-4 Option 2. Tables V.5-18 and V.5-20 on p. V.A.3-436 and p. V.A.3-438, respectively, summarize all Existing and Existing plus Project results at this intersection.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Bayshore Boulevard/Oakdale Avenue intersection would operate satisfactorily at LOS C in the PM Peak Hour, with 34.6 seconds of delay under 2025 Cumulative plus Project conditions. No lane configuration changes are proposed under 2025 Cumulative plus Project conditions relative to 2025 Cumulative conditions. Therefore, a significant impact would not occur at this intersection with the implementation of Project 5-4 Option 2. Tables V.5-19 and V.5-21 on p. V.A.3-436 and p. V.A.3-438, respectively, summarize all Cumulative and Cumulative plus Project results at this intersection.

Intersection 25: Bayshore Boulevard/Cortland Avenue

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 21.2 seconds of delay. The Bayshore Boulevard/Cortland Avenue intersection would operate satisfactorily at LOS C, with 22.9 seconds of average delay under Existing plus Project conditions. The northbound lane configuration would be modified from three through lanes and one exclusive left-turn lane to two through lanes and one exclusive left-turn lane. The southbound lane configuration would be modified from two through lanes and one shared through-right turn lane to one through lane and one shared through-right turn lane. Due to the reduction of capacity in the northbound and southbound directions, there would be an increase in delay along these approaches. The average intersection delay would increase by 1.7 seconds, compared to Existing conditions. However, Project 5-4 Option 1 would not cause a significant traffic impact to the Bayshore Boulevard/Cortland Avenue intersection under Existing plus Project conditions. Table V.5-20, p. V.A.3-438, summarizes the Existing and Existing plus Project results at the PM Peak Hour at the intersection of Bayshore Avenue/Cortland Avenue.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Bayshore Boulevard/Cortland Avenue intersection would operate satisfactorily at LOS C in the PM Peak Hour, with 28.3 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate satisfactorily at LOS C, with 33.2 seconds of delay. Therefore, a significant impact would not occur at this intersection with the implementation of Project 5-4 Option 1. Table V.5-21, p. V.A.3-438, summarizes the Cumulative and Cumulative plus Project results at the PM Peak Hour at the intersection of Bayshore Avenue/Cortland Avenue.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 21.2 seconds of delay. The Bayshore Boulevard/Cortland Avenue intersection would continue to operate satisfactorily at LOS C, with 21.2 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, Project 5-4 Option 2 would not cause a significant impact to the Bayshore Boulevard/Cortland Avenue intersection. Table V.5-20, p. V.A.3-438, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Bayshore Boulevard/Cortland Avenue intersection would operate satisfactorily at LOS C in the PM Peak Hour, with 28.3 seconds of delay under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at this intersection with the implementation of Project 5-4 Option 2. Table V.5-21, p. V.A.3-438, summarizes these results.

Intersection 26: Bayshore Boulevard/Alemany Boulevard/Industrial Street

The Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection is common to Projects 5-2 and 5-4 within the Cluster 5 area. Only one design option is proposed for Project 5-2. For Project 5-4, two design options are proposed. For Project 5-2, no lane configuration changes are proposed relative to Existing conditions. For Project 5-4, Option 1 would reduce one through lane in the northbound direction. Option 2 for Project 5-4 would result in the replacement of a shared through-right lane in the northbound direction with an exclusive right-turn lane. Since the impacts of both Projects 5-2 and 5-4 would not result in a significant traffic impact for the PM peak hour, there would be no significant traffic impact from individual Project 5-4 for either Existing plus Project or 2025 Cumulative plus Project conditions.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 5-2 and 5-4 combined

Please see the analysis of impacts for the combined projects under Project 5-2 on p. V.A.3-422.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-2 and 5-4 combined

Please see the analysis of impacts for the combined projects under Project 5-2 on p. V.A.3-422.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 5-2 and 5-4 combined

Please see the analysis of impacts for the combined projects under Project 5-2 on p. V.A.3-422.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-2 and 5-4 combined

Please see the analysis of impacts for the combined projects under Project 5-2 on p. V.A.3-423.

Significant Impact TR-P5-4a:

Under Existing conditions, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-ramp intersection would operate at LOS E with 76.8 seconds of delay. However, under Existing plus Project conditions for Option 1, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the northbound direction on Bayshore Boulevard. Because the northbound critical movement deteriorates for Option 1 from LOS D under 2025 Cumulative conditions to LOS F with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at this intersection with the implementation of Project 5-4.

Significant Impact TR-P5-4b:

The intersection of Bayshore Boulevard/Oakdale Avenue would operate at LOS E under 2025 Cumulative plus Project conditions for Option 1.

Under 2025 Cumulative conditions, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-ramp intersection would operate at LOS D with 42.9 seconds of delay. However, under 2025 Cumulative plus Project conditions for Option 1, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the northbound direction. Because the northbound critical movement deteriorates for Option 1 from LOS D under 2025 Cumulative conditions to LOS F with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at this intersection with the implementation of Project 5-4.

Significant Impact TR-P5-4c:

Under Existing conditions, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-ramp intersection would operate at LOS E with 58.9 seconds of delay. However, under Existing plus Project conditions for Option 1, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the northbound direction. Because the northbound critical movement deteriorates for Option 1 from LOS D under 2025 Cumulative conditions to LOS F with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at this intersection with the implementation of Project 5-4.

Significant Impact TR-P5-4d:

Under 2025 Cumulative conditions, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-ramp intersection would operate at LOS F with more than 80 seconds of delay. Under 2025

Cumulative plus Project conditions for Option 1, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the northbound direction on Bayshore Boulevard. Because the northbound critical movement deteriorates for Option 1 with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at this intersection with the implementation of Project 5-4.

Significant Impact TR-P5-4e:

A significant loading impact would occur as a result of Project 5-4.

Under 2025 Cumulative conditions, this intersection would operate at LOS C with a delay of 34.6 seconds. However, under 2025 Cumulative plus Project conditions for Option 1, the Bayshore Boulevard/Oakdale Avenue intersection would operate at LOS E with a delay of 63.1 seconds as a result of the lane configuration changes along the northbound and southbound approaches of Bayshore Boulevard. Because the northbound and southbound critical movements deteriorate for Option 1 from LOS D under 2025 Cumulative conditions to LOS F with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-4.

Significant Impact 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 Projects 5-2 and 5-4 combined Option 1.

Significant Impact 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 only with Option 1.

TRANSIT

The transit impacts resulting from Project 5-4 Modified Option 2 would be similar to the transit impacts described in the Draft EIR except for a 700’ long segment in the northbound direction between Helena Street and Marengo Street where a shared transit and bicycle lane is proposed. This lane would also be used by vehicles making right turns. There are approximately 25 buses per hour in the northbound direction of this portion of Bayshore Boulevard during the AM and PM peak periods. Bicycle volumes on this segment of Bayshore Boulevard are generally moderate. As stated on p. V.A.3-446 of the Draft EIR, few conflicts were observed between buses and bicyclists at the bus stops along the section of Bayshore Boulevard between Helena and Marengo Streets.

With the low bicycle volumes on this segment of Bayshore Boulevard, transit planners, based on similar situations, find there would be minimal conflict between buses and bicycles in the proposed shared lane. Currently the right travel lane of Bayshore Boulevard is used by buses, regular traffic and bicycles. A shared bus and transit lane would carry less traffic than a general traffic lane and therefore it would be an improvement over the existing condition for transit vehicles. Therefore, Project 5-4 Modified Option 2 would have the same transit impacts as described for Option 2 in the Draft EIR.

As described in the Draft EIR, Project 5-4 shares a common intersection with Project 5-2 (Intersection 26: Bayshore Boulevard/Alemany Boulevard/Industrial Street). The Draft EIR identified a significant transit impact as a result of the combination of Projects 5-2 and 5-4 Option 1 for 2025 Cumulative plus Project conditions (Significant Impact TR-P5-4f) and also for Project 5-4 Option 1 individually for 2025 Cumulative plus Project conditions (Significant Impact TR-P5-4g). Modified Option 2 would reduce delays at some intersections. However, due to similarities elsewhere in roadway configuration to Option 1, there would still be delays at other intersections along the project alignment. There could be a potentially significant transit delay and taking a conservative position, Significant Impacts TR-P5-4f and TR-P5-4g for transit would remain as a result of Project 5-4 Modified Option 2.

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 with Muni bus line 24 on Bayshore Boulevard between Courtland Avenue and Industrial Street. 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.

Bicycle volumes along this section of Bayshore Boulevard are generally low; no conflicts were observed[10] between buses and bicyclists at the bus stops along this section of Bayshore Boulevard with the exception of the northbound bus stop at the Bayshore Boulevard/Silver Avenue intersection. This bus stop is located on the north side of the intersection; bus bunching at the stop was observed causing buses to queue into the intersection and requiring bicyclists to use the general traffic lane.

Project 5-4 shares a common intersection (Intersection 26: Bayshore Boulevard/Alemany Boulevard/Industrial Street) with Project 5-2: Alemany Boulevard Bicycle Lanes, Bayshore Boulevard to Rousseau Street. The transit delay analysis below (Projects 5-2 and 5-4 combined) reflects the combined impact of Projects 5-2 and 5-4 modifications to the Alemany Boulevard Bicycle Lanes, Bayshore Boulevard to Rousseau Street intersection on transit delay. The impacts resulting from the implementation of individual Project 5-4 (Project 5-4) without Project 5-2 modifications to the Alemany Boulevard Bicycle Lanes, Bayshore Boulevard to Rousseau Street intersection will follow.

- **Option 1**

  Existing and Existing plus Project Conditions for Projects 5-2 and 5-4 combined
  Please see Project 5-2 discussion on p. V.A.3-421

  2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-2 and 5-4 combined
  Please see Project 5-2 discussion on p. V.A.3-421

- **Option 2**

  Existing and Existing plus Project Conditions for Projects 5-2 and 5-4 combined
  Please see Project 5-2 discussion on p. V.A.3-421

  2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-2 and 5-4 combined
  Please see Project 5-2 discussion on p. V.A.3-421

  Existing and Existing plus Project Conditions for Project 5-4 alone
  Under Existing conditions, for Project 5-4 by itself, no lane configuration changes that would affect transit service are proposed relative to Existing conditions for the shared Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection by individual Project 5-2 with either Option 1 or Option 2. Consequently, the transit impacts resulting from individual Project 5-4 would be the same as for Projects 5-2 and 5-4 combined.

[10] Field surveys were conducted by CHS Consulting on Tuesday, October 30, 2007 during the PM peak.

Therefore, a significant transit impact would not occur with the implementation of individual Project 5-4 with either Option 1 or Option 2 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 5-4 alone
Under Cumulative conditions, for Project 5-4 by itself, no lane configuration changes that would affect transit service are proposed relative to Cumulative conditions for the shared Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection by individual Project 5-2 with either Option 1 or Option 2. Consequently, the transit impacts resulting from individual Project 5-4 would be the same as for Projects 5-2 and 5-4 combined. Therefore, a significant transit impact (Significant Impact TR-P5-4g) would occur for Muni bus lines 9, 9X, 9AX and SamTrans 292 with the implementation of individual Project 5-4 with Option 1 under 2025 Cumulative plus Project conditions. No significant transit impact would occur with Option 2.

PARKING

Compared to the project analyzed in the Draft EIR, Project 5-4 Modified Option 2 would remove approximately 27 more parking spaces on the east side of Bayshore Boulevard from Boutwell Street to Helena Street for a total removal of 112 on-street parking spaces on Bayshore Boulevard between Silver Avenue and Industrial Street. Adjacent parcels on this segment of Bayshore Boulevard are not available for development; US 101 borders the west side and a steep sloped hill borders the east side. Parking occupancy is very low on this segment of Bayshore Boulevard.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact as under the CEQA but rather a social effect. The loss of parking may cause potential, indirect physical effects, which would include cars circling and looking for a parking space on neighboring streets. The secondary effects of drivers searching for parking is typically offset 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 that may result from a shortfall in parking in the vicinity of Project 5-4 Modified Option 2 would be minor. The changes in on-street parking also would not cause any secondary physical impacts, such as traffic congestion, air quality impacts, or noise impacts caused by congestion. Therefore, there would be no significant parking impacts as a result of Project 5-4 Modified Option 2.

- **Option 1**
  Option 1 would remove approximately 85 on-street parking spaces (15 from east side and 70 from west side) on Bayshore Boulevard between Industrial Street and Silver Avenue. Adjacent parcels on this segment of Bayshore Boulevard are not available for development; US 101 borders the west side and a steep sloped hill borders the east side. There is little use of these on-street parking spaces on this segment of Bayshore Boulevard with no more than five cars observed to be parked in this location. Since there is no parking demand along this segment of Bayshore Boulevard, the loss of 85 on-street parking spaces with implementation of Project 5-4 Option 1 would not result in a significant parking impact.

- **Option 2**
  Option 2 would remove approximately 220 on-street parking spaces on Bayshore Boulevard from both sides of the street between Cesar Chavez and Industrial Streets. This removal would increase the parking occupancy rate on this segment of Bayshore Boulevard which already has a high parking demand. In addition, 110 on-street parking spaces (40 on east side and 70 on west side) would be removed on Bayshore Boulevard between Industrial Street and Silver Avenue. As discussed above for Option 1, this segment of Bayshore Boulevard has little parking demand.

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.

In San Francisco, 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, 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."

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 offset 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. Therefore, there would be no significant parking impacts with implementation of Project 5-4 Option 2.

PEDESTRIAN

Pedestrian volumes are generally very low, and there would be no changes in sidewalk width or crosswalk layout. The current interactions between pedestrians and bicyclists would not change under either Option 1 or Option 2. Therefore, there would be no significant impacts with Project 5-4 for either Option 1 or Option 2.

BICYCLE

Under Options 1 and 2 the installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. The installation of sharrows would increase the motor vehicle drivers' awareness that bicyclists share the road and identify for bicyclists the safe pathway outside the "door zone".[11] However, with the loss of parking under Option 2, double-parking may occur for freight loading activities most likely within the bicycle lane. In these situations, bicyclists would use the general travel lane which does not significantly differ from Existing conditions Therefore, Project 5-4 with either Option 1 or Option 2 would not result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

Project 5-4 Modified Option 2 would remove approximately 14 parking spaces on the west side of Bayshore Boulevard between Hilton Street to Industrial Street, which is a short segment of Bayshore Boulevard between Industrial Street and Cesar Chavez Street. Hence, on-street parking spaces that are available for loading activities, along Bayshore Boulevard between Cesar Chavez and Industrial Street and Industrial Avenue, would not be eliminated. However, Significant Impacts TR-P5-4h and TR-P5-4i would still occur as a result of Project 5-4 Modified Option 2.

- **Option 1**
  Parking removal with Option 1 would eliminate available on-street parking spaces for loading activities. However, the area proposed for parking removal has no adjacent land uses and no loading activities. Therefore, there would be no significant loading impacts with Project 5-4 Option 1.

- **Option 2**
  Parking removal with Option 2 on the segment of Bayshore Boulevard between Cesar Chavez and Industrial Streets has a substantial amount of industrial and commercial uses; on-street parking removal would eliminate available on-street parking spaces for loading activities. Due to the high demand for freight loading to the stores and customer pick-ups in this area, the parking removal by Option 2 would result in double parking in the travel lanes or bicycle lanes for loading activities. The City of San Francisco Transportation Code Section 38N allows vehicles to temporarily block a bicycle lane during weekday midday, but not during the AM (7:00 a.m. to 9:00 a.m.) and PM (4:00 p. m. to 6:00 p. m.) peak periods. Thus, no deliveries can be made during these periods

[11] In February 2004, Alta Planning + Design completed a study, *San Francisco's Shared Lane Pavement Markings: Improving Bicycle Safety*, on shared lane markings for Class III bikeways in San Francisco. In this study, a key conclusion was that the pavement markings (also known as sharrow markings) increased the awareness of the bicyclists' and motorists' position on the road. Bicyclists tended to ride further from parked cars, and motorists tended to pass bicyclists at a greater distance from the pavement marking. The report's recommendation was to use the sharrow markings on appropriate shared lanes but not as a substitution for bicycle lanes where feasible.

because there are no other options available to receive deliveries. Because truck loading demand is high along this corridor, a significant loading impact (Significant Impacts TR-P5-4h and TR-P5-4i) would result with implementation of Project 5-4 Option 2 under Existing plus Project and 2025 Cumulative plus Project conditions.

Significant Impact TR-P5-4h:

A significant loading impact would occur as a result of Project 5-4 Option 2 under Existing plus Project conditions.

Significant Impact TR-P5-4i:

A significant loading impact would occur as a result of Project 5-4 Option 2 under 2025 Cumulative plus Project conditions.

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

There are two options for this segment of Cesar Chavez.

- **Option 1**
  Option 1 would add a Class II bicycle lane in each direction and remove either an eastbound or westbound travel lane.

- **Option 2**
  Option 2 would add both an eastbound Class II bicycle lane and a westbound Class II bicycle lane, and remove all on-street parking on the north side of Cesar Chavez between the US 101 and the I-280.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the PM peak hour.

PM Peak Hour

Two study intersections are included for the PM Peak Hour for Project 5-5.

Intersection 31: Evans Street/Cesar Chavez Street

- **Option 1**

  Existing and Existing plus Project Conditions
  Under Existing conditions, this intersection operates at LOS D with 47.4 seconds of delay. The Evans Avenue/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration would be modified from two through lanes and one exclusive right-turn lane to one through lane and one exclusive right-turn lane. Due to the reduction of capacity in the eastbound direction, there would be an increase in delay. Because the eastbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P5-5a) would occur at this intersection with the implementation of Project 5-5 Option 1. Table V.5-22, p. V.A.3-451, summarizes these results.

TABLE V.5-22
CLUSTER 5 – PROJECT 5-5
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing		Existing plus Project			
				Option 1		Option 2	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS[b]	Average Delay[a]	LOS
31.	Evans Avenue/Cesar Chavez Street	47.4	D	**>80**	**F**	47.4	D
32.	Pennsylvania Avenue/Cesar Chavez Street/I-280 off-ramp	31.9	C	33.6	C	31.9	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.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Evans Avenue/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Deterioration of the eastbound critical movement at Evans Avenue/Cesar Chavez Street for Existing plus Project to LOS F relative to Existing Conditions, is determined a significant impact. As a consequence, a corresponding LOS deterioration is expected at this intersection for 2025 Cumulative plus Project, when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P5-5b) would occur at this intersection with implementation of Project 5-5 Option 1. Table V.5-23, p. V.A.3-453, summarizes these results.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS D with 47.4 seconds of delay. The Evans Avenue/Cesar Chavez Street intersection would operate satisfactorily at LOS D, with 47.4 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, Project 5-5 would not cause a significant impact to the Evans Avenue/Cesar Chavez Street intersection with the implementation for Project 5-5 Option 2 under Existing plus Project conditions. Table V.5-22, p. V.A.3-451, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Evans Avenue/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. The Evans Avenue/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at this intersection with the implementation of Project 5-5 Option 2. Table V.5-23, p. V.A.3-453, summarizes these results.

Intersection 32: Pennsylvania Avenue/Cesar Chavez Street/I-280 Off-Ramp

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 31.9 seconds of delay. The Pennsylvania Avenue/Cesar Chavez Street/I-280 Off-Ramp intersection would operate satisfactorily at LOS C, with 33.6 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration would be modified from two through lanes and one exclusive left-turn lane to one through lane and one exclusive left-turn lane. Due to the reduction of capacity in the eastbound direction, there would be an increase in delay along this approach. The average intersection delay would increase by 1.6 seconds, compared to Existing conditions. Therefore, Project 5-5 Option 1 would not cause a significant traffic impact to the Pennsylvania Avenue/Cesar Chavez Street/I-280 Off-Ramp intersection under Existing plus Project conditions. Table V.5-22, p. V.A.3-451, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Pennsylvania Avenue/Cesar Chavez Street/I-280 Off-Ramp intersection would operate unsatisfactorily at LOS E in the PM Peak Hour, with 73.3 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS E, with 69.7 seconds of delay. Since the intersection delay decreases by 3.6 seconds and the eastbound critical movements improve under 2025 Cumulative plus Project conditions, a significant impact would not occur at this intersection with the implementation of Project 5-5 Option 1. Table V.5-23, p. V.A.3-453, summarizes these results.

- **Option 2**

Existing and Existing plus Project Conditions

The Pennsylvania Avenue/Cesar Chavez Street/I-280 Off-Ramp intersection would operate satisfactorily at LOS C, with 31.9 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under

Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, Project 5-5 would not cause a significant impact to the Pennsylvania Avenue/Cesar Chavez Street/I-280 Off-Ramp intersection with the implementation for Project 5-5 Option 2 under Existing plus Project conditions. Table V.5-22, p. V.A.3-451, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Pennsylvania Avenue/Cesar Chavez Street/I-280 Off-Ramp intersection would operate unsatisfactorily at LOS E in the PM Peak Hour, with more than 73.3 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at this intersection with the implementation of Project 5-5 Option 2. Table V.5-23, p. V.A.3-453, summarizes these results.

TABLE V.5-23
CLUSTER 5 – PROJECT 5-5
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				2025 Cumulative plus Project			
		2025 Cumulative		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
31.	Evans Avenue/Cesar Chavez Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
32.	Pennsylvania Avenue/Cesar Chavez Street/I-280 off-ramp	**73.3**	**E**	**69.7**	**E**	**73.3**	**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.

Significant Impact TR-P5-5a:

The intersection of Evans Street/Cesar Chavez Street would operate at LOS F under Existing plus Project conditions for Option 1.

Under Existing conditions, the Evans Avenue/Cesar Chavez Street intersection would operate at LOS D with 47.4 seconds of delay. However, under Existing plus Project conditions for Option 1, the Evans Avenue/Cesar Chavez Street intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound direction on Cesar Chavez Street. Because the eastbound critical movement deteriorates for Option 1 from

LOS D under Existing conditions to LOS F with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at this intersection with the implementation of Project 5-5.

Significant Impact TR-P5-5b:

The intersection of Evans Street/Cesar Chavez Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1.

Under 2025 Cumulative conditions, the Evans Avenue/Chavez Street intersection would operate at LOS F with a V/C ratio of 1.37. However, under 2025 Cumulative plus Project conditions for Option 1, the Evans Avenue/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.83 as a result of the lane configuration changes in the eastbound direction on Cesar Chavez Street. Because the eastbound critical movement deteriorates for Option 1 with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at this intersection with the implementation of Project 5-5.

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; transit volumes are relatively low. Bicycle volumes are also very low so current potential conflicts between buses and bicyclists are minimal.

- **Option 1**

  Existing and Existing plus Project Conditions
  For Existing conditions, Option 1 would add approximately four seconds of delay to Muni bus line 19 in the westbound direction with no change in delay in the eastbound direction. The headway for Muni bus line 19 in the PM peak period is 10 minutes; the total added delay of four seconds would be less than the transit delay threshold of 6 minutes. Therefore, there would not be a significant transit impact with implementation of Project 5-5 Option 1 under Existing plus Project conditions.

  2025 Cumulative and 2025 Cumulative plus Project Conditions
  For Cumulative conditions, Option 1 would add approximately 22 seconds of delay to Muni bus line 19 in the westbound direction with no change in delay in the eastbound direction. The headway for Muni bus line 19 in the PM peak period is 10 minutes; the total added delay of 22 seconds would be less than the transit delay threshold of 6

minutes. Therefore there would be no significant transit impact with implementation of Project 5-5 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions
For Existing conditions, Option 2 would not change the travel time to Muni bus line 19 in either the westbound or eastbound direction. Therefore, there would be no significant transit impact with implementation of Project 5-5 Option 2 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions
For Cumulative conditions, Option 2 would add approximately 207 seconds (3.4 minutes) of delay to Muni bus line 19 in the westbound direction with no change in delay in the eastbound direction. The headway for Muni bus line 19 in the PM peak period is 10 minutes; the total added delay of 207 seconds (3.4 minutes) would be less than the transit delay threshold of 6 minutes. Therefore there would be no significant transit impact with implementation of Project 5-5 Option 2 under 2025 Cumulative plus Project conditions.

PARKING

- **Option 1**
  Option 1 would not include parking removal. Therefore, there would be no parking impacts with Project 5-5 Option 1.

- **Option 2**
  Option 2 would remove approximately 94 on-street parking spaces on the north side of Cesar Chavez Street between the US 101 and the I-280 freeways. Most of the buildings along Cesar Chavez Street have industrial uses and are located on the north side of the street. Parking occupancy in this segment of Cesar Chavez Street is approximately 70 percent on the south side and 62 percent on the north side. With the removal of 94 parking spaces, there would be a parking deficit for this segment of Cesar Chavez Street. Option 2 would force existing users to park on the south side of Cesar Chavez Street or seek parking farther away if convenient parking is unavailable.

  In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under CEQA, but rather a social effect. The loss of parking may cause potential indirect physical effects, which would include cars circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers, aware of constrained parking conditions in a given area, shifting travel modes. Hence, any secondary environmental impacts that may result from a shortfall in parking would be minor. Therefore, any net reduction in on-street parking supply would not result in significant parking impacts. Thus, there would be no significant parking impacts with implementation of Project 5-5 Option 2.

PEDESTRIAN

Pedestrian volumes are generally very low, and there would be no changes in sidewalk width or crosswalk layout. The current interactions between pedestrians and bicyclists would not change as a result of either option. Therefore, there would be no pedestrian impacts as a result of Project 5-5 with either Option 1 or Option 2.

BICYCLE

The proposed Class II bicycle lanes under both Options 1 and 2 would provide a clear right-of-way for bicyclists. Under Option 2, bicyclists traveling in the proposed westbound bicycle lane would benefit from the removal of on-street parking on the north side because the potential for 'dooring' from an adjacent parked car would be eliminated. Therefore, there would be no significant bicycle impacts as a result of Project 5-5 with either Option 1 or Option 2, but could have the beneficial effect of improving roadway conditions and safety for cyclists.

LOADING

Option 1 would not include removal of on-street yellow freight commercial loading spaces or affect access to off-street loading facilities. Therefore, there would be no loading impacts with Project 5-5 Option 1.

Almost all of the industrial uses along this segment of Cesar Chavez have off-street loading spaces and loading activities are accommodated on-site. Therefore, the removal of on-street parking spaces on the north side of Cesar Chavez under Option 2 in this segment would not affect loading activity. There were no double-parked trucks observed[12] on this segment of Cesar Chavez. Therefore, there would be no significant loading impacts as a result of Project 5-5 Option 2.

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 the addition of street trees along this same segment.

[12] Field surveys were conducted by CHS Consulting on Tuesday, October 30, 2007 during the midday.

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:

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.

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:

Segment II Option 1 would remove one through travel lane in each direction, remove, relocate or widen 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.

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.

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.

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.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

AM Peak Hour

One study intersection is included for the AM Peak Hour for Project 5-6.

Intersection 28: Mission Street/Cesar Chavez Street

- **Option 1**

  Existing and Existing plus Project Conditions – AM Analysis
  In the AM Peak hour, under Existing conditions, this intersection operates at LOS C with 27.7 seconds of delay. The Mission Street/Cesar Chavez Street intersection would operate satisfactorily at LOS C, with 28.6 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration would be modified from two through lanes and one shared through-right turn lane to one through lane and one shared through-right turn lane. The westbound lane configuration would be modified from two through lanes, one exclusive left-turn lane, and one shared through-right turn lane to one through lane and one shared through-right turn lane. However, the average intersection delay would increase by 0.9 seconds, compared to Existing conditions. Therefore, Project 5-6 Option 1 would not cause a significant traffic impact to the Mission Street/Cesar Chavez Street intersection under Existing plus Project conditions. Peak H See Table V.5-24, p. V.A.3-458, for a summary of these results.

TABLE V.5-24
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

				Existing plus Project			
		Existing		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS	Average Delay[a]	LOS
28.	Mission Street/Cesar Chavez Street	27.7	C	28.6	C	33.0	C

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Existing and Existing plus Project Conditions – PM Analysis

Under Existing conditions, this intersection operates at LOS D with 37.5 seconds of delay. The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions. The westbound lane configuration is modified from two through lanes, one exclusive left-turn lane, and one shared through-right turn lane to one through lane, and one shared through-right turn lane. Due to the reduction of capacity in the westbound direction, there would be an increase in delay. Because the southbound and westbound critical movements either deteriorate or will operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P5-6g) would occur at this intersection with implementation of Project 5-6 Option 1. See Table V.5-26, p. V.A.3-460, for a summary of these results.

TABLE V.5-25
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

				2025 Cumulative plus Project			
		2025 Cumulative		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
28.	Mission Street/Cesar Chavez Street	**60.6**	**E**	**>80**	**F**	**73.5**	**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.

2025 Cumulative and 2025 Cumulative plus Project Conditions – AM Analysis

The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS E in the AM Peak Hour, with 60.6 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions. Because the southbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P5-6a) would occur at this intersection with implementation of Project 5-6 Option 1. See Table V.5-25, p. V.A.3-459, for a summary of these results.

TABLE V.5-26
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				Existing plus Project			
		Existing		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
27.	Guerrero Street/Cesar Chavez Street	52.5	D	**>80**	**F**	**>80**	**F**
28.	Mission Street/Cesar Chavez Street	37.5	D	**>80**	**F**	**55.7**	**E**
29.	South Van Ness Avenue/Cesar Chavez Street	32.4	C	**>80**	**F**	**>80**	**F**
30.	Bryant Street/Cesar Chavez Street	51.4	D	**>80**	**F**	**66.4**	**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.

2025 Cumulative and 2025 Cumulative plus Project Conditions – PM Analysis

The Mission Street/Cesar Chavez Street intersection would operate satisfactorily at LOS E, with 64.9 seconds of average delay under 2025 Cumulative conditions. The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Deterioration of the southbound and westbound critical movement at Mission Street/Cesar Chavez Street for Existing plus Project to LOS F relative to Existing Conditions, is determined a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P5-6i) would occur at this intersection with implementation of Project 5-6 Option 1. See Table V.5-27, p. V.A.3-461, for a summary of these results.

TABLE V.5-27
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				2025 Cumulative plus Project			
		2025 Cumulative		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
27.	Guerrero Street/Cesar Chavez Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
28.	Mission Street/Cesar Chavez Street	**64.9**	**E**	**>80**	**F**	**>80**	**F**
29.	South Van Ness Avenue/Cesar Chavez Street	**>80**	**F**	**>80**	**F**	**>80**	**F**
30.	Bryant Street/Cesar Chavez Street	**>80**	**F**	**>80**	**F**	**>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.

- **Option 2**

Existing and Existing plus Project Conditions – AM Analysis

In the AM Peak hour, under Existing conditions, this intersection operates at LOS C with 27.7 seconds of delay. The Mission Street/Cesar Chavez Street intersection would operate satisfactorily at LOS C, with 33 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration would be modified from two through lanes and one shared through-right turn lane to one through lane and one shared through-right turn lane. The westbound lane configuration would be modified from two through lanes, one exclusive left-turn lane, and one shared through-right turn lane to one through lane, one exclusive left-turn lane, and one shared through-right turn lane. Due to the reduction of capacity in the eastbound and westbound directions, there would be an increase in delay along these approaches. However, the average intersection delay would increase by 5.3 seconds, compared to Existing conditions. Therefore, Project 5-6 Option 2 would not cause a significant traffic impact to the Mission Street/Cesar Chavez Street intersection under Existing plus Project conditions. See Table V.5-24, p. V.A.3-458, for a summary of these results.

Existing and Existing plus Project Conditions – PM Analysis

Under Existing conditions, this intersection operates at LOS D with 37.5 seconds of delay. The Mission Street/Cesar Chavez Street intersection would operate satisfactorily at LOS E, with 55.7 seconds of average delay under Existing plus Project conditions. The westbound lane configuration is modified from two through lanes, one exclusive left-turn lane, and one shared through-right turn lane to one through lane, one exclusive left-turn lane, and one shared through-right turn lane. Due to the reduction of capacity in the westbound direction there would be an increase in delay. Because the westbound critical movements either deteriorate or will operate at an unacceptable LOS E, with more than 55 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P5-6h) would occur at this intersection with implementation of Project 5-6 Option 2. See Table V.5-26, p. V.A.3-460, for a summary of these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions – AM Analysis
The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS E in the AM Peak Hour, with 60.6 seconds of average delay under 2025 Cumulative conditions. The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS E, with 73.5 seconds of delay under 2025 Cumulative plus Project conditions. Because the westbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P5-6b) would occur at this intersection with implementation of Project 5-6 Option 2. See Table V.5-25, p. V.A.3-459, for a summary of these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions – PM Analysis
The Mission Street/Cesar Chavez Street intersection would operate satisfactorily at LOS E, with 64.9 seconds of average delay under 2025 Cumulative conditions. The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Deterioration of the southbound and westbound critical movements at Mission Street/Cesar Chavez Street for Existing plus Project to LOS F relative to Existing Conditions, is determined a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P5-6j) would occur at this intersection with implementation of Project 5-6 Option 2. See Table V.5-27, p. V.A.3-461, for a summary of these results.

Intersection 27: Guerrero Street/Cesar Chavez Street

- **Option 1**

Existing and Existing plus Project Conditions
Under Existing conditions, this intersection operates at LOS D with 52.5 seconds of delay. The Guerrero Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions. The westbound lane configuration would be modified from one through lane, two exclusive left-turn lanes, and one shared through-right turn lane to one shared through-right turn lane, and two exclusive left-turn lanes. Due to the

reduction of capacity in the westbound direction there would be an increase in delay along these approaches. Because the southbound and westbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P5-6c) would occur at this intersection with implementation of Project 5-6 Option 1. See Table V.5-26, p. V.A.3-460, for a summary of Weekday PM Peak Hour results for Existing and Existing plus Project scenarios at the intersection of Guerrero Street/Cesar Chavez Street.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Guerrero Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F in the PM Peak Hour, with more than 80 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Deterioration of the southbound and westbound critical movement at Guerrero Street/Cesar Chavez Street to LOS F, when comparing Existing plus Project to Existing Conditions, is deemed a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P5-6e) would occur at this intersection with implementation of Project 5-6 Option 1. See Table V.5-27, p. V.A.3-461, for a summary of Weekday PM Peak Hour results for Cumulative and Cumulative plus Project scenarios at the intersection of Guerrero Street/Cesar Chavez Street.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS D with 52.5 seconds of delay. The Guerrero Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration would be modified from one shared through-left turn lane and one shared through-right turn lane to one exclusive left-turn lane and one shared through-right turn lane. The westbound lane configuration would be modified from one through lane, two exclusive left-turn lanes, and one shared through-right turn lane to one exclusive left-turn lane, one through lane, and one shared through-right turn lane. Due to the reduction of capacity in the eastbound and westbound directions, there would be an increase in delay. Because the southbound, eastbound and westbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P5-6d) would occur at this intersection with implementation of Project 5-6 Option 2. Table V.5-26, p. V.A.3-460, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Guerrero Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F in the PM Peak Hour, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Deterioration of the southbound, eastbound, and westbound critical movement at Guerrero Street/Cesar Chavez Street for Existing plus Project to LOS F relative to Existing Conditions, is determined a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P5-6f) would occur at this intersection with implementation of Project 5-6 Option 2.Table V.5-27, p. V.A.3-461, summarizes these results.

Intersection 29: South Van Ness/Cesar Chavez Street

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 32.4 seconds of delay. The South Van Ness/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions. The westbound lane configuration would be modified from two through lanes and one shared through-right turn lane to one through lane and one shared through-right turn lane. The eastbound lane configuration would be modified from two through lanes, one shared through-left-turn lane to one through lane, and one shared through-left-turn lane. Due to the reduction of capacity in the eastbound direction, and westbound direction there would be an increase in delay. Because the eastbound and westbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P5-6k) would occur at this intersection with implementation of Project 5-6 Option 1. See Table V.5-26, p. V.A.3-460, for a summary of Weekday PM Peak Hour results for Existing and Existing plus Project scenarios at the intersection of South Van Ness/Cesar Chavez Street.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The South Van Ness/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F in the PM Peak Hour, with more than 80 seconds of average delay under 2025 Cumulative conditions. The South Van Ness/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Deterioration of the eastbound and westbound critical movement at South Van Ness/Cesar Chavez Street to LOS F when comparing Existing plus Project to Existing Conditions is deemed a significant impact. As a consequence a corresponding LOS deterioration is expected at this intersection for 2025

Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P5-6m) would occur at this intersection with implementation of Project 5-6 Option 1. See Table V.5-27, p. V.A.3-461, for a summary of Weekday PM Peak Hour results for Cumulative and Cumulative plus Project scenarios at the intersection of South Van Ness/Cesar Chavez Street.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 32.4 seconds of delay. The South Van Ness/Cesar Chavez Street intersection would operate unsatisfactorily at LOS E, with 78.5 seconds of average delay under Existing plus Project conditions. The westbound lane configuration would be modified from two through lanes and one shared through-right turn lane to one through lane and one shared through-right turn lane. The eastbound lane configuration would be modified from two through lanes and one shared through-left turn lane to two through lanes and one exclusive left-turn lane. Due to the reduction of capacity in the eastbound direction, and westbound direction there would be an increase in delay. Because the eastbound and westbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P5-6l) would occur at this intersection with implementation of Project 5-6 Option 2. See Table V.5-26, p. V.A.3-460, for a summary of Weekday PM Peak Hour results for Existing and Existing plus Project scenarios, for both Options 1 and 2, at the intersection of South Van Ness/Cesar Chavez Street.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The South Van Ness/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F in the PM Peak Hour, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Deterioration of the eastbound and westbound critical movement at South Van Ness/Cesar Chavez Street to LOS F, when comparing Existing plus Project to Existing Conditions, is deemed a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P5-6n) would occur at this intersection with implementation of Project 5-6 Option 2. See Table V.5-27, p. V.A.3-461, for a summary of Weekday PM Peak Hour results for Cumulative and Cumulative plus Project scenarios, for both Options 1 and 2, at the intersection of South Van Ness/Cesar Chavez Street.

Intersection 30: Bryant Street/Cesar Chavez Street

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS D with 51.4 seconds of delay. The Bryant Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions. . The westbound lane configuration would be modified from two through lanes, one exclusive left-turn lane, and one shared through-right turn lane to one through lane, one exclusive left-turn lane, and one shared through-right turn lane. The eastbound lane configuration would be modified from one through lane, one shared through-left turn lane, and one shared through-right turn lane to one shared through-left turn lane, and one shared through-right turn lane. Due to the reduction of capacity in the eastbound direction, and westbound direction there would be an increase in delay along these approaches. Because the eastbound and westbound critical movements would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P5-6o) would occur at this intersection with implementation of Project 5-6 Option 1. See Table V.5-26, p. V.A.3-460, for a summary of Weekday PM Peak Hour results for Existing and Existing plus Project scenarios, for both Options 1 and 2, at the intersection of Bryant Street/Cesar Chavez Street.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Bryant Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F in the PM Peak Hour, with more than 80 seconds of average delay under 2025 Cumulative conditions. The Bryant Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Deterioration of the eastbound and westbound critical movements at Bryant Street/Cesar Chavez Street to LOS F, when comparing Existing plus Project to Existing Conditions, is deemed a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P5-6q) would occur at this intersection with implementation of Project 5-6 Option 1. See Table V.5-27, p. V.A.3-461, for a summary of Weekday PM Peak Hour results for Cumulative and Cumulative plus Project scenarios, for both Options 1 and 2, at the intersection of Bryant Street/Cesar Chavez Street.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS D with 51.4 seconds of delay. The Bryant Street /Cesar Chavez Street intersection would operate unsatisfactorily at LOS E, with 66.4 seconds of average delay under Existing plus Project conditions. The westbound lane configuration would be modified from two through lanes, one exclusive left-turn lane, and one shared through-right turn lane to one through lane, one exclusive left-turn lane, and one shared through-right turn lane. The eastbound lane configuration would be modified from one through lane, one shared through-left turn lane, and one shared through-right turn lane to one through lane, one exclusive left-turn lane, and one shared through-right turn lane. Due to the reduction of capacity in the eastbound direction, and westbound direction there would be an increase in delay along these approaches. Because the eastbound critical movement would either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P5-6p) would occur at this intersection with implementation of Project 5-6 Option 2. See Table V.5-26, p. V.A.3-460, for a summary of Weekday PM Peak Hour results for Existing and Existing plus Project scenarios, for both Options 1 and 2, at the intersection of Bryant Street/Cesar Chavez Street.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Bryant Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F in the PM Peak Hour, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Deterioration of the eastbound and westbound critical movements at Bryant Street/Cesar Chavez Street to LOS F, when comparing Existing plus Project to Existing Conditions, is deemed a significant impact. As a consequence a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P5-6r) would occur at this intersection with implementation of Project 5-6 Option 2. See Table V.5-27, p. V.A.3-461, for a summary of Weekday PM Peak Hour results for Cumulative and Cumulative plus Project scenarios, for both Options 1 and 2, at the intersection of Bryant Street/Cesar Chavez Street.

Significant Impact TR-P5-6a:

The intersection of Mission Street/Cesar Chavez Street would operate at LOS E under 2025 Cumulative plus Project conditions for Option 1.

Under 2025 Cumulative conditions, the Mission Street/Cesar Chavez Street intersection would operate at LOS E with 60.6 seconds of delay. However, under 2025 Cumulative plus Project conditions for Option 1, the Mission Street/Cesar Chavez Street intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound direction on Cesar Chavez Street. Because the southbound critical movement deteriorates for Option 1 under 2025 Cumulative conditions to LOS F with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6b:

The intersection of Mission Street/Cesar Chavez Street would operate at LOS E under 2025 Cumulative plus Project conditions for Option 2.

The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS E, with 60.6 seconds of average delay under 2025 Cumulative conditions. The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS E, with 73.5 seconds of delay under 2025 Cumulative plus Project conditions with Option 2. Because the westbound critical movements either deteriorate or will operate at an unacceptable LOS E, with more than 55 seconds of average delay under 2025 Cumulative plus Project conditions for Option 2, a significant impact would occur at this intersection with implementation of Project 5-6.

Significant Impact TR-P5-6c:

The intersection of Guerrero Street/Cesar Chavez Street would operate at LOS F under Existing plus Project conditions for Option 1.

Under Existing conditions, the Guerrero Street/Cesar Chavez Street intersection operates at LOS D with 52.5 seconds of delay. However, under Existing plus Project conditions for Option 1, the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes along the eastbound and westbound approaches of Cesar Chavez Street. Because the southbound, eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact may occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6d:

The intersection of Guerrero Street/Cesar Chavez Street would operate at LOS F under Existing plus Project conditions for Option 2.

Under Existing conditions, the Guerrero Street/Cesar Chavez Street intersection operates at LOS D with 52.5 seconds of delay. However, under Existing plus Project conditions for Option 2, the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the westbound direction of Cesar Chavez Street. Because the southbound, eastbound and westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6e:

The intersection of Guerrero Street/Cesar Chavez Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1.

Under 2025 Cumulative conditions, the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.30. However, under 2025 Cumulative plus Project conditions for Option 1, the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the southbound, eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6f:

The intersection of Guerrero Street/Cesar Chavez Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 2.

Under 2025 Cumulative conditions, the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.30. However, under 2025 Cumulative plus Project conditions for Option 2, the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the westbound direction on Cesar Chavez Street. Because the southbound, eastbound and westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6g:

The intersection of Mission Street/Cesar Chavez Street would operate at LOS F under Existing Project conditions for Option 1.

Under Existing conditions, the Mission Street/Cesar Chavez Street intersection operates at LOS D with 37.5 seconds of delay. The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions as a result of the lane configuration changes in the westbound direction on Cesar Chavez Street. Because the southbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6h:

Under Existing conditions, this intersection operates at LOS D with 37.5 seconds of delay. The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS E, with 55.7 seconds of average delay under Existing plus Project conditions for Option 2 as a result of the lane configuration changes in the westbound direction. Because the westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6i:

The intersection of Mission Street/Cesar Chavez Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 2.

Under 2025 Cumulative conditions, the Mission Street/Cesar Chavez Street intersection would operate at LOS E with 64.9 seconds of delay. However, under 2025 Cumulative plus Project conditions for Option 1, the Mission Street/Cesar Chavez Street intersection would operate at LOS F with more than 80 seconds of average delay as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact may occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6j:

Under 2025 Cumulative conditions, the Mission Street/Cesar Chavez Street intersection would operate at LOS E with 64.9 seconds of delay. However, under 2025 Cumulative plus Project conditions for Option 2, the Mission Street/Cesar Chavez Street intersection would operate at LOS F with more than 80 seconds of average delay as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6k:

Under Existing conditions, the Cesar Chavez Street/South Van Ness Avenue intersection operates at LOS C with 32.4 seconds of delay. However, under Existing plus Project conditions for Option 1, the South Van Ness Avenue/Cesar Chavez Street intersection would operate at LOS F with more than 80 seconds of average delay as a result of the lane configuration changes to the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6l:

Under Existing conditions, the Cesar Chavez Street/South Van Ness Avenue intersection operates at LOS C with 32.4 seconds of delay. However, under Existing plus Project conditions for Option 2, the South Van Ness Avenue/Cesar Chavez Street intersection would operate at LOS E with 78.5 seconds of average delay as a result of the lane configuration changes to the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6m:

The intersection of South Van Ness Avenue/Cesar Chavez Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 2.

Under 2025 Cumulative conditions, the Cesar Chavez Street/South Van Ness Avenue intersection would operate at LOS F with a V/C ratio of 1.49. However, under 2025 Cumulative plus Project conditions for Option 1, the South Van Ness Avenue/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.91 as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6n:

Under 2025 Cumulative conditions, the Cesar Chavez Street/South Van Ness Avenue intersection would operate at LOS F with a V/C ratio of 1.49. However, under 2025 Cumulative plus Project conditions for Option 2, the South Van Ness Avenue/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.53 as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6o:

The intersection of Bryant Street/Cesar Chavez Street would operate at LOS F under Existing plus Project conditions for Option 2.

Under Existing conditions, the Bryant Street/Cesar Chavez Street intersection operates at LOS D with 51.4 seconds of delay. However, under Existing plus Project conditions for Option 1, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F with more than 80 seconds of average delay as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact may occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6p:

Under Existing conditions, the Bryant Street/Cesar Chavez Street intersection operates at LOS D with 51.4 seconds of delay. However, under Existing plus Project conditions for Option 2, the Bryant Street/Cesar Chavez Street intersection would operate at LOS E with 66.4 seconds of average delay as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6q:

The intersection of Bryant Street/Cesar Chavez Street would operate at LOS F under Cumulative plus Project conditions for Option 2.

Under 2025 Cumulative conditions, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.71. However, under 2025 Cumulative plus Project conditions for Option 1, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 2.27 as a result of the lane configuration changes in the eastbound and westbound directions. Because the northbound, eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6e through 5-6q

As discussed above (TR-P5-6e through TR-P5-6q), there would be significant impacts to intersection LOS at the Guerrero Street/Cesar Chavez Street intersection, under Existing plus Project conditions with Option 2 and, under 2025 Cumulative conditions with Options 1and 2. There would also be significant impacts to intersection LOS at the Mission Street/Cesar Chavez Street intersection under Existing plus Project conditions with Options 1 and 2, and under 2025 Cumulative conditions with Options 1 and 2. There would also be significant impacts to intersection LOS at the South Van Ness/Cesar Chavez Street intersection under Existing plus Project conditions with Options 1 and 2, and under 2025 Cumulative conditions with Options 1 and 2. There would also be significant impacts to intersection LOS at the Bryant Street/Cesar Chavez Street intersection under Options 1 and 2, and under 2025 Cumulative conditions with Option 1.

Significant Impact TR-P5-6r:

Under 2025 Cumulative conditions, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.71. However, under 2025 Cumulative plus Project conditions for Option 2, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 2.23 as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the northbound, eastbound and westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

TRANSIT

Muni routes 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 South Van Ness Avenue and Valencia Street 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 Project 5-6 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. Transit volumes are relatively low along Project 5-6; and bicycle volumes were also observed[13] to be very low. No conflicts between transit and bicyclists at bus stops were observed either along Cesar Chavez Street or 26th Street. 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/drop-off of passengers.

Project 5-6 is located on segments of both Cesar Chavez Street and 26th Street. The transit delay impacts for Cesar Chavez are presented below. The 26th Street segment of Project 5-6 which carries eastbound Muni bus line 12 and a segment of eastbound Muni bus line 27 would not include lane removal or changes to the bus stops. In addition, interaction between bicyclists and buses would not change from existing conditions and is, therefore, not included in the transit delay discussion below.

- **Option 1**

  Existing and Existing plus Project Conditions
  Option 1 would add approximately 474 seconds (7.9 minutes) of delay westbound in the PM peak period for Muni bus line 12. Option 1 would add approximately 540 seconds (9.0 minutes) of delay westbound and approximately 327 seconds (5.5 minutes) of delay eastbound in the PM peak period for Muni bus line 27. The headways for Muni bus lines 12 and 27 in the PM peak period are 10 and 12 minutes, respectively. For Muni bus line 12, the total added delay of 474 seconds (7.9 minutes) would exceed the transit delay threshold of 6 minutes. For Muni bus line 27, the total added delay of 867 seconds (14.5 minutes) would exceed the transit delay threshold of 6 minutes. Therefore, a significant transit impact (Significant Impact TR-P5-6s and TR-P5-6t) would occur for Muni bus lines 12 and 27 with implementation of Project 5-6 Option 1 under Existing plus Project conditions.

[13] Field surveys were conducted by CHS Consulting on Tuesday, October 30, 2007 during the PM peak.

2025 Cumulative and 2025 Cumulative plus Project Conditions

In the PM peak period, Option 1 would add approximately 1,487 seconds (24.7 minutes) of delay westbound for Muni bus line 12. Option 1 would add approximately 1,798 seconds (29.9 minutes) of delay westbound and approximately 631 seconds (10.5 minutes) of delay eastbound for Muni bus line 27. The headways for Muni bus lines 12 and 27 in the PM peak period are 10 and 12 minutes, respectively. For Muni bus line 12, the total added delay of approximately 1,487 seconds (24.7 minutes) would be greater than the transit delay threshold of 6 minutes. For Muni bus line 27, the total added delay of approximately 2,429 seconds (40.5 minutes) would be greater than the transit delay threshold of 6 minutes. Therefore, a significant transit impact (Significant Impact TR-P5-6u and TR-P5-6v) would occur for Muni bus lines 12 and 27 with the implementation of Project 5-6 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

Option 2 would add approximately 261 seconds (4.4 minutes) of delay westbound in the PM peak period for Muni bus line 12. Option 2 would add approximately 330 seconds (5.5 minutes) of delay westbound and reduce delay by 41 seconds eastbound in the PM peak period for Muni bus line 27. The headways for Muni bus lines 12 and 27 in the PM peak period are 10 and 12 minutes, respectively. For Muni bus line 12, the total added delay of 261 seconds (4.4 minutes) would be less than the transit delay threshold of 6 minutes. For Muni bus line 27, the total added delay of 289 seconds (4.8 minutes) would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not result from implementation of Project 5-6 Option 2 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project

In the PM peak period, Option 2 would add approximately 159 seconds (2.7 minutes) of delay westbound for Muni bus line 12. Option 2 would add approximately 479 seconds (7.9 minutes) of delay westbound with a reduction in delay of approximately 345 seconds (5.8 minutes) eastbound for Muni bus line 27. The headways for Muni bus lines 12 and 27 in the PM peak period are 10 and 12 minutes, respectively. For Muni bus line 12, the total added delay of 159 seconds (2.7 minutes) would be less than the transit delay threshold of 6 minutes. For Muni bus line 27, the total added delay of 134 seconds (2.3 minutes) would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not result from with implementation of Project 5-6 Option 2 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P5-6s:

Muni bus line 12 would experience significant delays under Existing plus Project conditions for Project 5-6 Option 1.

Significant Impact TR-P5-6t:

Muni bus line 27 would experience significant delays under Existing plus Project conditions for Project 5-6 Option 1.

Significant Impact TR-P5-6u:

Muni bus line 12 would experience significant delays under 2025 Cumulative plus Project conditions for Option 1.

Significant Impact TR-P5-6v:

Muni bus line 27 would experience significant delays under 2025 Cumulative plus Project conditions for Option 1.

PARKING

Project 5-6 Option 1 could remove up to 45-53 on-street parking spaces, primarily due to potential sidewalk widening at corners. There would be no changes in parking layout or the number of parking spaces along the Cesar Chavez section of Project 5-6 with either Option 1 or Option 2.

Project 5-6 on 26th Street would remove approximately four on-street parking spaces per block between Hampshire and Sanchez Streets. This would result in a total loss of approximately 76 spaces over this 1.25 mile section. There are approximately 400 spaces along this section. Parking occupancy in this area is relatively high, and primarily serves the residences along 26th Street. There is little retail development with the exception of neighborhood commercial businesses at the intersections of 26th Street with major cross streets, i.e. Folsom and Mission Streets.

Implementation of the 26th Street section or Option 1 of the Cesar Chavez section of Project 5-6 would increase parking occupancy in the area. 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.

In San Francisco, 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, 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."

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 offset 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. Therefore, there would be no significant parking impacts with implementation of Project 5-6 for either Option 1 or Option 2.

PEDESTRIAN

Pedestrian volumes are generally very low along Project 5-6.

- **Option 1**
  With Option 1, changes would be made to the center median including widening, removing and relocating. Even without the center median, there is adequate time in the pedestrian crossing signal phase for pedestrians to safely cross Cesar Chavez Street. At some locations, bulb-outs would be added to widen the sidewalk and reduce crossing distance. Therefore, there would be no significant pedestrian impacts with implementation of Project 5-6 Option 1.

- **Option 2**
  With Option 2, some segments of the center median would be removed; others would be widened or retained as-is. No changes would be made to sidewalk width. Even without the center median, there is adequate time in the pedestrian crossing signal phase for pedestrians to safely cross Cesar Chavez Street. Therefore, there would be no pedestrian impacts with implementation of Project 5-6 Option 2.

BICYCLE

For both Options 1 and Option 2, bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. The installation of sharrow would increase the motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the "door zone".[14] Hence, for Project 5-6 neither Option 1 nor Option 2 would have a significant impact on cyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This area has mostly residential uses. Observations[15] noted occasional double-parking by delivery vehicles in the curbside travel lane, but typically on-street loading demand is low. There would be no changes in on-street and off-street layout of loading spaces. Therefore, there would be no significant loading impacts with implementation of either Option 1 or Option 2.

PROJECT 5-7: GLEN PARK AREA BICYCLE LANES, SEGMENT A - CONNECTION BETWEEN ALEMANY BOULEVARD AND SAN JOSE AVENUE, AND SEGMENT 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 Segment A would add a new route to the City's existing bicycle route network on northbound Milton Street between Bosworth Street and San Jose Avenue. The project 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.

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14 In February 2004, Alta Planning + Design completed a study, *San Francisco's Shared Lane Pavement Markings: Improving Bicycle Safety*, on shared lane markings for Class III bikeways in San Francisco. In this study, a key conclusion was that the pavement markings (also known as sharrow markings) increased the awareness of the bicyclists' and motorists' position on the road. Bicyclists tended to ride further from parked cars, and motorists tended to pass bicyclists at a greater distance from the pavement marking. The report's recommendation was to use the sharrow markings on appropriate shared lanes but not as a substitution for bicycle lanes where feasible.

15 Field surveys were conducted by CHS Consulting on Tuesday, October 30, 2007 during the midday.

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

Project 5-7 Segment B would add a new route to the City's existing bicycle route network. The project 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 Bicycle Route 70 (Class III) on Circular Avenue.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

a. Muni bus lines 23, 44, and 52 run on different segments in this area. 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 buses per hour during the AM and PM peak periods. Transit service is less frequent on other segments of Project 5-7a. Muni bus lines 44 and 52 have an eastbound bus stop on Bosworth Street at 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 serve the Glen Park BART Station, operating throughout the day but with the greatest frequency in the AM and PM peak periods. In the AM peak period, employer shuttles, including large 56-passenger coach buses and smaller 20-passenger shuttles, illegally pickup passengers at the bus stop on the southern side of Bosworth Street. During the PM peak period employer shuttles unloaded passengers at the loading/disabled parking bay on the east side of Diamond Street south of Bosworth Street. Observations[16] show that this loading area is often heavily used by both the shuttles and waiting automobiles. During the PM peak demand, shuttles may double park on Diamond Street at the southern end of the block (away from Bosworth Street) to load/unload passengers. While this activity on Diamond Street is an important activity around the Glen Park BART Station, it does not occur along Project 5-7a and would not be affected by changes proposed by Project 5-7a.

[16] Field surveys were conducted by CHS Consulting and Wilbur Smith Associates on Friday, 26, 2007 and Tuesday, September 30, 2008, respectively during the PM peak period.

For this segment of Bosworth Street approaching Diamond Street, both Option 1 and Option 2 would include a westbound bicycle lane and eastbound sharrows. These near-term improvements would not change the location or dimension of the existing bus stops at the Bosworth Street/Diamond Street intersection. In fact, the westbound bicycle lanes would terminate before the westbound nearside bus stop on Bosworth Street at Diamond Street. However, westbound buses may stop in the bicycle lane before the bus stop to load/unload passengers as evidenced by current practices due to bus bunching at the stop and traffic blocking access to the stop. This potential conflict is discussed below in the Bicycle section. Project 5-7a also would not affect Muni bus services along Bosworth Street because there would be no reduction in the number of travel lanes; the resulting lane width with the proposed bicycle lanes would be at least 11 feet in width, which is sufficient for Muni bus operation.

Under Option 1, the westbound bus stop on Still Street is a pole stop without dedicated space for passenger loading. Thus, Muni buses must stop in the travel lane to load and unload passengers. With the installation of a westbound bicycle lane on Still Street under Option 1, Muni buses would be required to stop in the bicycle lane for passenger loading, causing conflict with bicyclists. However, transit (six buses per hour during the peak AM and PM peak periods), bicycle and traffic volumes are low in this area; therefore, the potential for conflicts and impact on travel time or transit operation is low. Therefore, there would be no significant transit impacts with implementation of Project 5-7a Option 1.

b. Under Option 2, there would be no Class II bicycle lane along Still Street and no changes affecting transit service; therefore, there would be no impacts to transit resulting from Project 5-7a Option 2.

There is no transit service in segment b; therefore, there would be no transit impacts with implementation of Project 5-7b.

PARKING

a. Parking demand is generally high along Bosworth Street and Lyell Street, but moderate along Alemany Boulevard, Rousseau, Still, and Arlington Streets.

There would be a total loss of approximately 59 on-street parking spaces along Arlington and Bosworth Streets under Option 1 and 66 spaces under Project 5-7a Modified Option 2. The loss of 59 to 66 parking spaces would increase the overall occupancy rate along these two streets from approximately 77 percent to over 100 percent for both Option 1 and Modified Option 2. The parking needs are different north and south of the Still and Lyell Street intersection. Most parking spaces along these two streets are occupied by transit riders during the day. As a result of parking removal, these drivers would need to find parking in neighboring streets further away from the Glen Park BART Station thereby increasing parking occupancy rates on those neighborhood streets currently not impacted by BART riders.

While parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under the CEQA, the loss of parking could cause potential secondary effects, such as drivers circling and looking for a parking space on neighboring streets. The secondary effects are typically offset by a reduction in vehicle trips due by others who are aware of constrained parking conditions and find alternative modes to their destination. Hence, any secondary environmental impacts that may result from a shortfall in parking in the vicinity of Project 5-7a would be minor. Since shortage of parking is not an environmental impact under CEQA, there would be no significant parking impacts with implementation of Project 5-7a with either Option 1 or Option 2.

Improvement Measure 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.

b. No parking removal would result from implementation of Project 5-7b; therefore there would be no parking impacts with implementation of Project 5-7b.

PEDESTRIAN

a. Pedestrian volumes are generally low, and there would be no changes in sidewalk width or crosswalk layout under either Option 1 or Option 2. Pedestrian activity in the vicinity of the Glen Park BART Station is high with considerable pedestrian volumes crossing both Bosworth and Diamond Streets. With both Option 1 and Option 2, the westbound bicycle lane on Bosworth Street would terminate before the intersection with Diamond Street. Therefore, the crosswalk and interactions between pedestrians and bicyclists would not change as a result of either option at this location. In addition, no changes to crossing distance or to interactions between pedestrians and bicyclists would result from the installation of sharrows in the eastbound travel lane. Therefore, there would be no pedestrian impacts as a result of Project 5-7a.

b. No pedestrians are allowed on the ramps included in Project 5-7b; therefore, there would be no pedestrian impacts with implementation of Project 5-7b.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use under both Project 5-7a Option 1 and Option 2 and Project 5-7b. The installation of sharrows would increase motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone'. There could be potential conflicts between westbound buses and bicyclists on Bosworth Street approaching Diamond Street when buses are not able to fully enter the near-side bus stop because the bus stop is occupied. As currently happens, buses may stop before the bus stop to load/unload passengers. With Project 5-7a for either Option 1 or Option 2, this loading/unloading activity may occur in the westbound bicycle lane. Since the bicycle lane would be terminated before the bus stop, bicyclists will be preparing to re-enter the general traffic lane. In the event that a bus is blocking the bicycle lane, bicyclists would be required to merge a bit sooner. This would not differ from what occurs under Existing conditions. Hence, Project 5-7 would not have a significant impact on cyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

a. These streets are mostly in a residential area, and demand for truck loading is low. The parking removal would not include the removal of on-street yellow commercial freight loading spaces, and there would be no changes in off-street loading areas for either Option 1 or Option 2. Passenger loading activity at the Glen Park BART Station is considerable. The designated passenger loading area is located on the eastside of Diamond Street south of Bosworth Street and is not included on the alignment of Project 5-7a. Employer shuttles also use this loading bay; at PM peak times, shuttles are sometimes forced to double-park on Diamond Street to load/unload passengers. Overflow demand for passenger loading also extends to Bosworth Street in front of the BART Station in the AM peak. Existing passenger loading activities at the Glen Park BART Station would not be changed by Project 5-7a. Therefore, there would be no significant loading impacts as a result of either Option 1 or Option 2 of Project 5-7a.

b. No loading occurs along Project 5-7b; therefore there would be no loading impacts as a result of Project 5-7b.

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

The Project would add Class II bicycle lanes in both directions between 23rd and 26th Streets. Travel lanes would be narrowed at the intersections to create painted or raised pedestrian refuges.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

Muni bus lines 19 and 48 run only in the northbound direction along Project 5-8, with approximately 11 buses per hour during the AM and PM peak periods. There are three bus stops within this segment of Kansas Street at 23rd, 25th, and 26th Streets. Currently, the wide curb lanes sufficiently accommodate buses, vehicles, and bicyclists at the bus stops. Transit volumes are moderate and bicycle volumes are generally low, so interactions and potential for conflicts between buses and bicyclists at the bus stops is minimal.

Modified Project 5-8 would add Class II bicycle lanes in both directions on Kansas Street between 23rd and 25th Streets and a Class II bicycle lane in the northbound direction from 25th to 26th Streets. Travel lanes would be narrowed at the intersections to create painted or raised pedestrian refuges. Project 5-8 would add sharrows to the existing Class III bicycle route in the southbound direction from 25th Street to 26th Street. The 20-foot curb lane width at the northbound bus stops on the far side of 26th Street and the 22-foot curb lane at the nearside of 23rd Street would accommodate the overall moderate bus, and low vehicle and bicyclist volumes. Buses stopping at the nearside of 25th Street would be required to stop in the bicycle lane for passenger loading, causing conflict with bicyclists. However, transit (11 buses per hour during the AM and PM peak hours), bicycle, and traffic volumes are moderate in this area; therefore, the addition of bicycle lanes would not change transit capacity, transit operation, or travel time. Therefore, there would be no significant transit impacts with implementation of Project 5-8.

PARKING

There would be no changes in parking layout or in the number of parking spaces in this segment. Therefore, there would be no parking impacts.

PEDESTRIAN

Pedestrian volumes are generally low, and there would be no changes in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of Project 5-8. Painted or raised pedestrian refuges would be created at the intersections through narrowing of the travel lanes to reduce pedestrian crossing distances and improve pedestrian safety along this segment of Kansas Street. Therefore, there would be no significant pedestrian impacts with implementation of Project 5-8.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. Because the bicycle lane would be striped adjacent to a seven-foot wide parking, bicyclists may travel in the “door zone,” but bicycle volumes are generally low, and the 13-foot wide travel lane would provide buffer space for bicyclists to avoid potential conflicts. Therefore, Project 5-8 would not result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This area has mostly residential uses, which typically do not have an on-street loading demand that would conflict with bicyclists. The available on-street parking spaces would accommodate any occasional loading needs. Therefore, there would be no significant loading impacts with implementation of Project 5-8.

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 add a Class II bicycle lane in each direction between San Jose Avenue and Alemany Boulevard.

There are two options for the segment of Ocean Avenue between Lee and San Jose Avenues. Option 1 would add a westbound Class II bicycle lane between Phelan and San Jose Avenues and remove a westbound travel lane between Geneva Avenue and the I-280 off-ramp. Option 1 would also add an eastbound Class II bicycle lane between Lee Avenue and the I-280 on-ramp and remove an eastbound travel lane between Phelan Avenue and approximately 100 feet east of the I-280 off-ramp. Approximately 50 on-street parking spaces would be removed.

Option 2 would add a westbound Class II bicycle lane between San Jose Avenue and the I-280 off-ramp and an eastbound Class II bicycle lane between Geneva Avenue and the I-280 on-ramp. Approximately 90 on-street parking spaces would be removed. Option 2 would also add sharrows in the westbound direction to the existing Class III bicycle route between the I-280 Southbound off-ramp and Lee Avenue.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Segment I between Alemany Boulevard and San Jose Avenue

Modified Project 5-9 Segment I would install sharrows instead of a bicycle lane in the eastbound direction from San Jose Avenue to Cayuga Avenue and in the westbound direction from Alemany Boulevard to Cayuga Avenue. The modified project would reduce the scope of the project compared to the project analyzed in the Draft EIR. The Draft EIR analyzed the presence of sharrows on the existing bicycle route network, concluding that the installation of sharrows would not significantly impact traffic or transit operations (see p. V.A.4-13 of the Draft EIR). Therefore, there would be no significant impact as a result of the implementation of Modified Project 5-9 Segment I.

Segment II between San Jose Avenue and Lee Avenue

The revised lane configuration approaching Howth Street, which includes the removal of an eastbound travel lane from 135 feet east of Geneva Avenue to Howth Street, is the same configuration as analyzed for this segment in Option 1 of the Draft EIR. And as noted on pp. V.A.3-485 - V.A.3-488, and V.A.3-492 – V.A.3-493 of the Draft EIR, this lane configuration would not cause a significant impact to traffic, and therefore, no additional analysis would be required as a result of this project revision.

On eastbound Ocean Avenue east of Howth Street along the segment of Ocean Avenue that has one left turn lane leading to the northbound I-280 on-ramp, the lane configuration would be the same as existing conditions. Sharrows would be installed in the eastbound direction from Howth Street to San Jose Avenue. The Draft EIR analyzed the presence of sharrows on the existing bicycle route network, concluding that the installation of sharrows would not significantly impact traffic or transit operations (see p. V.A.4-13 of the Draft EIR). Therefore, there would be no significant impact as a result of the implementation of Project 5-9 Segment II Modified Option 2 in this segment.

Intersection LOS analysis was conducted for the AM and PM peak hour.

AM Peak Hour

One study intersection is included for the AM Peak Hour for Project 5-9.

Intersection 41: Phelan Avenue/Geneva Avenue/Ocean Avenue

The Phelan Avenue/Geneva Avenue/Ocean Avenue intersection is common to Projects 5-9 and 5-10 within the Cluster 5 area. For Project 5-9, the lane configuration at the intersection remains the same as under Existing (No Project) conditions for Option 2. However, Project 5-9 reduces the capacity in the eastbound direction on Ocean Avenue for this intersection. Under Project 5-10, no lane configuration changes are proposed for both Options 1 and 2 and the geometry remains the same as Existing (No Project) conditions. Since the impacts of both Projects 5-9 and 5-10 in combination would not result in a significant traffic impact for the AM peak hour, there would be no significant traffic impact from individual Project 5-9. Therefore, the analysis below reflects the impacts of both projects. The analysis for Options 1 and 2 of the combined Projects 5-9 and 5-10 is presented below.

- **Option 1**

  Existing and Existing plus Project Conditions for Projects 5-9 and 5-10 combined – AM Analysis
  In the AM Peak hour, under Existing conditions, this intersection operates at LOS B with 19.5 seconds of delay. The Phelan Avenue/Geneva Avenue/Ocean Avenue intersection would operate satisfactorily at LOS B, with 19.9 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration would be modified from one through lane, one exclusive left-turn lane, and one shared through-right turn lane to one through lane, one exclusive left-turn lane, and one exclusive right-turn lane. Due to the lane configuration adjustment in the eastbound direction, there would be an increase in delay along this approach. However, the average intersection delay would increase by 0.4 seconds, compared to Existing conditions. Therefore, implementation of Option 1 of the combined Projects 5-9 and 5-10 would not cause a significant traffic impact to the Phelan Avenue/Geneva Avenue/Ocean Avenue intersection under Existing plus Project conditions. These results are summarized in Table V.5-28, p. V.A.3-486

TABLE V.5-28
CLUSTER 5 – PROJECT 5-9[b]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

	Existing		Existing plus Project Option 1		Existing plus Project Option 2	
Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS	Average Delay[a]	LOS
41. Phelan Avenue/Geneva Avenue/Ocean Avenue[b]	19.5	B	19.9	B	19.5	B

Source: Wilbur Smith Associates, October 2008.

Notes:

a. Delay in seconds per vehicle.

b. LOS and average delay for Phelan Avenue/Geneva Avenue/Ocean Avenue for combined impacts of Projects 5-9 and 5-10.

Existing and Existing plus Project Conditions for Projects 5-9 and 5-10 combined – PM Analysis

In the PM Peak hour, under Existing conditions, this intersection operates at LOS B with 17.6 seconds of delay. The Phelan Avenue/Geneva Avenue/Ocean Avenue intersection would operate satisfactorily at LOS B, with 18.0 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration would be modified from one through lane, one exclusive left-turn lane, and one shared through-right turn lane to one through lane, one exclusive left-turn lane, and one exclusive right-turn lane. Due to the lane configuration adjustment in the eastbound direction, there would be an increase in delay. However, the average intersection delay would increase by 0.7 seconds, compared to Existing conditions. Therefore, Projects 5-9 and 5-10 with Option 1 would not cause a significant traffic impact to the Phelan Avenue/Geneva Avenue/Ocean Avenue intersection under Existing plus Project conditions. See Table V.5-30, p. V.A.3-488, for these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-9 and 5-10 combined – AM Analysis

The Phelan Avenue/Geneva Avenue/Ocean Avenue intersection would operate satisfactorily at LOS C in the AM Peak Hour, with 28.2 seconds of average delay under 2025 Cumulative conditions. The Phelan Avenue/Geneva Avenue/Ocean Avenue intersection would operate satisfactorily at LOS C, with 28.4 seconds of delay under 2025 Cumulative plus Project conditions. Since the intersection continues to operate at acceptable LOS, no significant impacts would occur at this intersection with the implementation of Option 1 of the combined Projects 5-9 and 5-10. Table V.5-29, p. V.A.3-487, summarizes these results.

TABLE V.5-29
CLUSTER 5 – PROJECT 5-9[b]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

				2025 Cumulative plus Project			
		2025 Cumulative		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS[b]	Average Delay[a]	LOS
41.	Phelan Avenue/Geneva Avenue/Ocean Avenue[b]	28.2	C	28.4	C	28.2	C

Source: Wilbur Smith Associates, October 2008.

Notes:

a. Delay in seconds per vehicle.

b. LOS and average delay for Phelan Avenue/Geneva Avenue/Ocean Avenue for combined impacts of Projects 5-9 and 5-10.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-9 and 5-10 combined – PM Analysis

In the PM Peak Hour, the Phelan Avenue/Geneva Avenue/Ocean Avenue intersection would operate satisfactorily at LOS D, with 38.6 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS D, with 43.1 seconds of delay. Therefore, a significant impact would not occur at this intersection with the implementation of Option 1 of the combined Projects 5-9 and 5-10. See Table V.5-31, p. V.A.3-488, for these results.

TABLE V.5-30
CLUSTER 5 – PROJECT 5-9[b,c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

			Existing plus Project			
	Existing		Option 1		Option 2	
Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS	Average Delay[a]	LOS
34. Alemany Boulevard/Ocean Avenue[b]	16.1	B	17.3	B	16.1	B
41. Phelan Avenue/Geneva Avenue/Ocean Avenue[c]	17.6	B	18.0	B	17.6	B
42. San Jose Avenue/Ocean Avenue	25.2	C	25.2	C	25.2	C

Source: Wilbur Smith Associates, October 2008.

Notes:

a. Delay in seconds per vehicle.
b. LOS and average delay for Alemany Boulevard/Ocean Avenue for combined impacts of Projects 5-3 and 5-9.
c. LOS and average delay for Phelan Avenue/Geneva Avenue/Ocean Avenue for combined impacts of Projects 5-9 and 5-10.

TABLE V.5-31
CLUSTER 5 – PROJECT 5-9[c,d]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

			2025 Cumulative plus Project			
	2025 Cumulative		Option 1		Option 2	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
34. Alemany Boulevard/Ocean Avenue[c]	17.6	B	20.4	C	17.6	B
41. Phelan Avenue/Geneva Avenue/Ocean Avenue[d]	38.6	D	43.1	D	38.6	D
42. San Jose Avenue/Ocean Avenue	**>80**	**F**	**>80**	**F**	**>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.
c. LOS and average delay for Alemany Boulevard/Ocean Avenue for combined impacts of Projects 5-3 and 5-9.
d. LOS and average delay for Phelan Avenue/Geneva Avenue/Ocean Avenue for combined impacts of Projects 5-9 and 5-10.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 5-9 and 5-10 combined – AM Analysis

In the AM Peak hour, under Existing conditions, this intersection operates at LOS B with 19.5 seconds of delay. The Phelan Avenue/Geneva Avenue/Ocean Avenue intersection would continue to operate satisfactorily at LOS B, with 19.5 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, implementation of Option 2 of the combined Projects 5-9 and 5-10 would not cause a significant impact to the Phelan Avenue/Geneva Avenue/Ocean Avenue. See Table V.5-28, p. V.A.3-486, for these results.

Existing and Existing plus Project Conditions for Projects 5-9 and 5-10 combined – PM Analysis

In the PM Peak Hour, under Existing conditions, this intersection operates at LOS B with 17.6 seconds of delay. The Phelan Avenue/Geneva Avenue/Ocean Avenue intersection would operate satisfactorily at LOS B, with 17.6 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, implementation of Option 2 of the combined Projects 5-9 and 5-10 would not cause a significant impact to the Phelan Avenue/Geneva Avenue/Ocean Avenue intersection under Existing plus Project conditions. See Table V.5-30, p. V.A.3-488, for these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-9 and 5-10 combined – AM Analysis

The Phelan Avenue/Geneva Avenue/Ocean Avenue intersection would continue to operate unsatisfactorily at LOS C in the AM Peak Hour, with 28.2 seconds of delay under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at this intersection with the implementation of Option 2 of the combined Projects 5-9 and 5-10. Table V.3-29, p. V.A.3-487, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-9 and 5-10 combined – PM Analysis

In the PM Peak Hour, the Phelan Avenue/Geneva Avenue/Ocean Avenue intersection would operate satisfactorily at LOS D, with 38.6 seconds of delay under 2025 Cumulative plus Project conditions. No lane configuration changes are proposed under 2025 Cumulative plus Project conditions relative to 2025 Cumulative conditions. Therefore, a significant impact would not occur at this intersection with the implementation of Option 2 of the combined Projects 5-9 and 5-10. Table V.5-31, p. V.A.3-488, summarizes these results.

Intersection 34: Alemany Boulevard/Ocean Avenue

The Alemany Boulevard/Ocean Street intersection is common to Projects 5-3 and 5-9 within the Cluster 5 area. One design option is proposed for Project 5-3. Project 5-9, two design options - are proposed. For both Projects 5-3 and 5-9, no lane configuration changes are proposed relative to Existing conditions for Option 1. Similarly, for Project 5-9, Option 2 no lane configuration changes are proposed. Since there are no lane configuration changes with either near-term improvements, the impacts of both Projects 5-3 and 5-9 would not result in a significant traffic impact for the PM peak hour. Hence, there would be no significant traffic impact from individual project 5-9 with either Option 1 or Option 2 for either Existing plus or Project and 2025 Cumulative plus Project Conditions.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 5-3 and 5-9 combined
Please see the analysis of impacts for the combined projects under Project 5-3 on p. V.A.3-431.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-3 and 5-9 combined
Please see the analysis of impacts for the combined projects under Project 5-3 on p. V.A.3-431.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 5-3 and 5-9 combined
Please see the analysis of impacts for the combined projects under Project 5-3 on p. V.A.3-432.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-3 and 5-9 combined
Please see the analysis of impacts for the combined projects under Project 5-3 on p. V.A.3-432.

Intersection 42: San Jose Avenue/Ocean Avenue

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 25.2 seconds of delay. The San Jose Avenue/Ocean Avenue intersection would operate satisfactorily at LOS C, with 25.2 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, a significant impact would not occur at this intersection with the implementation of Project 5-9 Option 1. See Table V.5-30, p. V.A.3-488, for PM Peak Hour results for Existing and Existing plus Project results at the intersection of San Jose Avenue/Ocean Avenue.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The San Jose Avenue/Ocean Avenue intersection would operate unsatisfactorily at LOS F in the PM Peak Hour, with more than 80 seconds of average delay under 2025 Cumulative conditions. The San Jose Avenue/Ocean Avenue intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at this intersection with the implementation of Project 5-9 Option 1. See Table V.5-31, p. V.A.3-488, for PM Peak Hour results for Cumulative and Cumulative plus Project results at the intersection of San Jose Avenue/Ocean Avenue.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 25.2 seconds of delay. The San Jose Avenue/Ocean Avenue intersection would operate satisfactorily at LOS C, with 25.2 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, a significant impact would not occur at this intersection with the implementation of Project 5-9 Option 2. See Table V.5-30, p. V.A.3-488, for PM Peak Hour results for Existing and Existing plus Project results at the intersection of San Jose Avenue/Ocean Avenue.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The San Jose Avenue/Ocean Avenue intersection would operate unsatisfactorily at LOS F in the PM Peak Hour, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at this intersection with the implementation of Project 5-9 Option 2. See Table V.5-31, p. V.A.3-488, for PM Peak Hour results for Cumulative and Cumulative plus Project results at the intersection of San Jose Avenue/Ocean Avenue.

TRANSIT

Muni light rail line K-Ingleside runs in the center median in each direction on Ocean Avenue between Lee and San Jose Avenues and within an exclusive right-of-way between Geneva and San Jose Avenues. There are approximately seven trains per hour each way during the AM and PM peak periods. K-Ingleside also stops in the center median to load and unload passengers, so there is no interaction between trains and bicyclists.

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, 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. Transit volumes are relatively high along this corridor, but since bicycle volumes are generally low, interactions between buses and bicyclists are infrequent.

Between Lee and San Jose Avenues, under both Option 1 and Option 2 the westbound bus stop on the far side of San Jose Avenue would have a substandard seven-foot width, and buses would protrude into the proposed five-foot bicycle lane. Bicyclists currently pass buses to the left, and this interaction would not change as a result of the proposed striping. Along the remaining segment of Ocean Avenue, both options would allocate sufficient widths for travel lanes and Class II bicycle lanes at the bus stops so that the proposed bicycle lanes would not affect transit travel time or transit operation. There would be no changes in the route or stop locations.

Project 5-9 shares a common intersection (Intersection 41: Phelan Avenue/Geneva Avenue/Ocean Avenue) with Project 5-10: Phelan Avenue Bicycle Lanes, Judson Avenue to Ocean Avenue. The transit delay analysis below (Projects 5-9 and 5-10 combined) reflects the combined impact of Projects 5-9 and 5-10 modifications to the Phelan Avenue/Geneva Avenue/Ocean Avenue intersection on transit delay.

Since combined Projects 5-9 and 5-10 would not result in a significant transit impact at the Intersection 41 for either the AM or PM peak hour under Existing plus Project conditions, there would be no significant transit impacts from individual Project 5-9 at the intersection of Phelan Avenue/Geneva Avenue/Ocean Avenue for both the AM and PM peak hour.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 5-9 and 5-10 combined
Option 1 would add approximately 6 seconds of delay eastbound and approximately 1 second of delay westbound. The headways for Muni transit lines operating on this segment of Ocean Avenue range from 7.5 minutes to 30 minutes. The total added delay of 7 seconds would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with implementation of combined Projects 5-9 and 5-10 Option 1 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-9 and 5-10 combined
Option 1 would add approximately 54 seconds of delay eastbound and approximately 2 seconds of delay westbound. The headways for Muni transit lines operating on this segment of Ocean Avenue range from 7.5 minutes to 30 minutes. The total added delay of 56 seconds would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with implementation of combined Projects 5-9 and 5-10 Option 1 under Existing plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 5-9 and 5-10 combined
Option 2 would add approximately 1 second of delay eastbound and approximately 1 second of delay westbound. The headways for Muni transit lines operating on this segment of Ocean Avenue range from 7.5 minutes to 30 minutes. The total added delay of 2 seconds would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with implementation of combined Projects 5-9 and 5-10 Option 2 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-9 and 5-10 combined
Option 2 would have no change in delay in the eastbound direction and approximately 159 seconds (2.7 minutes) of delay in the westbound direction. The headways for Muni transit lines operating on this segment of Ocean Avenue range from 7.5 minutes to 30 minutes. The total added delay of 159 seconds (2.7 minutes) would be less than the

transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with implementation of combined Projects 5-9 and 5-10 Option 2 under 2025 Cumulative plus Project conditions.

Since there are no significant transit impacts under Existing plus Project and 2025 Cumulative plus Project conditions for either Option 1 or Option 2 of Projects 5-9 and 5-10 combined, there would be no significant transit impact from individual Project 5-9.

PARKING

Segment I between Alemany Boulevard and San Jose Avenue

Modified Project 5-9 Segment I would remove four parking spaces on Ocean Avenue in the westbound direction approaching San Jose Avenue. Parking occupancy in this area is generally moderate and the removal of four spaces is not expected to impact the parking conditions within the neighborhood. Therefore, there would be no significant parking impact as a result of this project revision.

Segment II between San Jose Avenue and Lee Avenue

Project 5-9 Segment II Modified Option 2 would result in the removal of approximately 45 parking spaces on Ocean Avenue between San Jose Avenue and Lee Avenue. The removal of approximately 50 parking spaces was analyzed for Segment II Option 1 in the Draft EIR and 90 parking spaces was analyzed for Segment II Option 2 in the Draft EIR.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact as under the CEQA but rather a social effect. The loss of parking may cause potential, indirect physical effects, which would include cars circling and looking for a parking space on neighboring streets. The secondary effects of drivers searching for parking is typically offset 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 that may result from a shortfall in parking in the vicinity of Project 5-9 would be minor. The changes in on-street parking also would not cause any secondary physical impacts, such as traffic congestion, air quality impacts, or noise impacts caused by congestion. The total amount of parking loss for the preferred project would be approximately 49 parking spaces, similar to what was analyzed for Option 1 in the Draft EIR. Therefore, there would be no significant parking impacts as a result of modified Project 5-9.

Option 1 would remove a total of approximately 50 on-street parking spaces on Ocean Avenue between San Jose and Lee Avenues and Option 2 would remove a total of approximately 90 on-street parking spaces on Ocean Avenue between San Jose and Lee Avenues. Parking occupancy is relatively high in this area. Removal of 50 to 90 parking spaces would increase parking occupancy rates.

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.

In San Francisco, 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, 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."

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 offset 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.

Project 5-9 is in the immediate proximity of the Balboa Park BART Station and transit service is convenient and frequent; thus, loss of parking would potentially cause a shift of transportation modes away from private automobiles and to transit. There may be secondary impacts of drivers seeking a parking space further away from Ocean Avenue. Therefore, there would be no significant parking impacts as a result of either Option 1 or Option 2 for Project 5-9.

PEDESTRIAN

Pedestrian volumes are generally low east of City College, but substantially higher in the vicinity City College of San Francisco between Phelan and Lee Avenues particularly during the morning and midday periods. However, there would be no changes in sidewalk width or crosswalk layout, and the interactions between pedestrians and bicyclists would not change as a result of either Option 1 or Option 2. Therefore, there would be no pedestrian impacts as a result of Project 5-9 with either Option 1 or Option 2.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use with Option 1. Option 2 would also provide bicycle lanes in conjunction with sharrows to the existing bicycle route on Ocean Avenue from the I-280 freeway southbound off-ramp to Lee Avenue. The installation of sharrows would increase the motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone'. Hence, Project 5-9 with either Option 1 or Option 2 would not have a significant impact on cyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

Most of the land uses (City College of San Francisco, Muni Balboa Park Station, and Balboa Park (BART) have little demand for on-street yellow commercial freight loading spaces. There were no double-parked vehicles or significant loading needs observed in this segment of Ocean Avenue. In addition, there would not be any on-street yellow commercial freight loading spaces removed as part of Project 5-9 with either Option 1 or Option 2. Therefore, there would be no loading impacts as a result of Project 5-9 with either Option 1 or Option 2.

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

There are two options for this segment of Phelan Avenue.

- **Option 1**

  Option 1 would add a Class II bicycle lane in each direction between Judson and Ocean Avenues. The Project would remove a travel lane in each direction along Phelan Avenue between Ocean and Judson Avenues, except the lane configuration at the southbound approach to Ocean Avenue would not change. The Project would also add a raised median and sidewalk bulb-outs at the crosswalks between South Cloud Circle and Judson Avenue. There would be no parking removal.

- **Option 2**

  Option 2 would add a Class II bicycle lane in each direction and remove on-street parking on both sides of Phelan Avenue between Ocean and Judson Avenues. 140 parking spaces and 30 motorcycle spaces total would be removed. There would be no lane reduction.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

One study intersection is included for the AM Peak Hour for Project 5-10.

Intersection 41: Phelan Avenue/Geneva Avenue/Ocean Avenue

The Phelan Avenue/Geneva Avenue/Ocean Avenue intersection is common to Projects 5-9 and 5-10 within the Cluster 5 area. For Project 5-9, the lane configuration at the intersection remains the same as under Existing (No Project) conditions for Option 2. However, Project 5-9 reduces the capacity in the eastbound direction on Ocean Avenue for this intersection. Under Project 5-10, no lane configuration changes are proposed for both Options 1 and 2 and the geometry remains the same as Existing (No Project) conditions. Since Project 5-10 does not result in any lane configuration changes, the LOS analysis for Project 5-9 would be the same as Projects 5-9 and 5-10 combined. The analysis for Projects 5-9 and 5-10 combined is provided for the AM peak hour.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 5-9 and 5-10 combined – AM Analysis

Please see the analysis of impacts for the combined projects under Project 5-9 on p. V.A.3-485.

Existing and Existing plus Project Conditions for Projects 5-9 and 5-10 combined – PM Analysis

Please see the analysis of impacts for the combined projects under Project 5-9 on p. V.A.3-486.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-9 and 5-10 combined – AM Analysis

Please see the analysis of impacts for the combined projects under Project 5-9 on p. V.A.3-486.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-9 and 5-10 combined – PM Analysis

Please see the analysis of impacts for the combined projects under Project 5-9 on p. V.A.3-487.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 5-9 and 5-10 combined – AM Analysis

Please see the analysis of impacts for the combined projects under Project 5-9 on p. V.A.3-489.

Existing and Existing plus Project Conditions for Projects 5-9 and 5-10 combined – PM Analysis

Please see the analysis of impacts for the combined projects under Project 5-9 on p. V.A.3-489.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-9 and 5-10 combined – AM Analysis

Please see the analysis of impacts for the combined projects under Project 5-9 on p. V.A.3-489.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-9 and 5-10 combined – PM Analysis

Please see the analysis of impacts for the combined projects under Project 5-9 on p. V.A.3-489.

TRANSIT

Muni bus lines 36 and 43 operate along Phelan Avenue between Ocean Avenue and Judson Avenue, with approximately nine buses per hour each way during the AM and PM peak periods.

There are currently three northbound and three southbound Muni bus stops between Ocean Avenue and Judson Avenue. The three southbound bus stops on the west side of Phelan Avenue are 80 to 100 feet long within 18 to 19 feet curb lane. The two northbound bus stops between South Cloud Circle and Judson Avenue, which are 100 and 70 feet long, are located on the far side of the crosswalks. Field observations[17] indicate that most buses pull into the far side stops parallel to the curb, but some buses protrude into a portion of the travel lane while boarding passengers. The northbound bus stop on the nearside of South Cloud Circle is 70 feet long, and there is on-street parking before this stop. Buses usually pull in at an angle to the curb encroaching into the travel lane because the length of the bus stop is insufficient for nearside operation. The current dimensions at this bus stop are particularly tight with an approximate nine-foot curb lane next to a nine-foot, six-inch outside lane. Buses sometimes encroach into the travel lane, but bicyclists typically follow behind the buses in slow-moving traffic, especially during the midday and PM peak periods. Transit and bicycle volumes in this corridor are relatively moderate, conflicts between buses and bicyclists are relatively minimal.

The southbound bus stops have similar dimensions and characteristics as those of the northbound bus stops (two far side and one mid-block), and field observation shows that interactions between buses and bicyclists are very similar to those reported in the northbound direction.

Both options would remove one northbound and one southbound bus stop mid-block between South and North Cloud Circle, which would reduce the potential conflict points between buses and bicyclists from three to two per direction. Both options would also relocate the northbound bus stop on the nearside of South Cloud Circle to the far side of the parking lot driveway and the southbound bus stop on the nearside of Judson Avenue to the far side of the parking lot entrance. A benefit for relocating these bus stops to the far side would be the additional

[17] Field surveys were conducted by CHS Consulting on Friday, October 26, 2007 during the PM peak.

transition space at the crosswalks for buses to stop within the bus zone without protruding into the proposed bicycle lane or travel lane.

- **Option 1**

  Existing and Existing plus Project Conditions for Projects 5-9 and 5-10 combined
  Please see the analysis of impacts for the combined projects under Project 5-9 on p. V.A.3-485.

  2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-9 and 5-10 combined
  Please see the analysis of impacts for the combined projects under Project 5-9 on p. V.A.3-486.

- **Option 2**

  Existing and Existing plus Project for Projects 5-9 and 5-10 combined
  Please see the analysis of impacts for the combined projects under Project 5-9 on p. V.A.3-489.

  2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 5-9 and 5-10 combined
  Please see the analysis of impacts for the combined projects under Project 5-9 on p. V.A.3-489.

Project Conditions for Projects 5-10 alone
Option 1 would remove a travel lane in each direction between Ocean Avenue and Judson Avenue. However, at the intersection with Ocean Avenue, the number of approach lanes would be the same. Consequently, additional Muni bus delay at this intersection would be approximately one second under Existing plus Project conditions and approximately two seconds for 2025 Cumulative plus Project conditions for Option 1. The section between Ocean Avenue and Judson Avenue would require buses and other vehicles to share a single travel lane. Phelan Avenue has approximately 630 vehicles in the southbound direction and 480 vehicles in the northbound direction. One travel lane should be able to accommodate this volume without significant backups. In addition, the curb lane adjacent to the two bus stops south of South Cloud Circle would be increased from nine feet to 11 feet wide with the removal of one travel lane, which would allow buses and bicycles to share the road more comfortably. Therefore, there would be not significant transit impacts with implementation of Project 5-10 Option 1.Under Option 2, the number of travel lanes would remain the same (two lanes in each direction), but on-street parking would be removed. Under this option, the proposed bicycle lanes would disappear wherever there are bus stops. Bus stops would be located adjacent to a nine-foot lane in the northbound direction and a 10-foot lane in the southbound direction. If buses do not completely pull into the stop, they would encroach upon the curb lane and make it unusable. To pass stopped buses on the left, bicyclists would use the remaining portion of the

curb lane or use the inside lane. This situation does not differ from Existing conditions. Therefore, there would not be significant transit impacts with implementation of Project 5-10 Option 2.

PARKING

Option 1 would not remove on-street parking spaces; therefore there would be no impact with implementation of Project 5-10 Option 1.

Option 2 would remove a total of approximately 140 parking spaces and 30 motorcycle parking spaces on both sides of Phelan Avenue between Judson and Ocean Avenues. Because on-street parking occupancy in this corridor is generally high when City College of San Francisco is in session, many cars would be forced to find parking in nearby streets and would potentially increase parking occupancy in the neighboring residential area.

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.

In San Francisco, 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, 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."

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 offset 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. Therefore, there would be no significant parking impacts with implementation of Project 5-10 Option 2.

PEDESTRIAN

- **Option 1**
  Option 1 would add sidewalk bulb-outs at the crosswalks at South Cloud Circle on the west side, at the mid-block path on both sides, and at the parking lot entrance on the east side. The bulb-outs would reduce the pedestrian crossing distance, and the higher visibility of pedestrians at the bulb-outs would decrease their potential conflicts with vehicles and bicyclists. Under Option 1, the existing crosswalks at South Cloud Circle and the parking lot entrance would be removed and would be replaced with three raised crosswalks at South Cloud Circle (40 feet wide); the parking lot entrance (50 feet wide), and at North Cloud Circle. Project 5-10 Option 1 would include additional pedestrian crossings. The use of raised crosswalks instead of traditional at-grade crosswalks would provide increased pedestrian visibility and would require motor vehicles to travel at slower speeds. Therefore, Project 5-10 Option 1 would not result in significant impacts to pedestrians, but could have the beneficial effect of increasing pedestrian accessibility and safety.

- **Option 2**
  Under Option 2, there would be no changes to sidewalks, but this option would include a raised crosswalk at North Cloud Circle. The raised crosswalk at this location would improve pedestrian crossing safety for the reasons stated above. Therefore, Project 5-10 Option 2 would not result in significant impacts to pedestrians, but could have the beneficial effect of increasing pedestrian accessibility and safety.

BICYCLE

Under both options, the installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. Under Option 2, bicyclists would have an additional benefit by removing the potential for “” of bicyclists with the removal of on-street parking. Therefore, Project 5-10 with either Option 1 or Option 2 would not result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Phelan Avenue currently has campus buildings on the east side and a surface parking lot on the west side. These land uses do not have an on-street loading demand that would conflict with bicyclists in this area; there were no double-parked trucks or significant loading needs observed[18] on this segment of Phelan Avenue. No changes would occur to loading facilities as a result of either Option 1 or Option2 of Project 5-10; therefore, there would be no loading impacts with implementation of either Option 1 or Option 2 of Project 5-10.

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

The Project would add a southbound Class II bicycle lane between 25th and Cesar Chavez Streets. The proposed bicycle lanes would extend the existing bicycle lanes on Potrero Avenue just south of 25th 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 northbound 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 southbound 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.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

Muni bus line 9 runs in each direction, but only for a short distance in this segment. Line 9 has approximately six 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 northbound and one southbound bus stop on the south side of 25th Street. Transit volumes are moderate in this segment.

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18 Field surveys were conducted by CHS Consulting on Friday, October 26, 2007 during the midday.

The 11-foot wide travel lane for buses adjacent to the proposed bicycle lanes would allow bus operators sufficient space to avoid conflicts with bicyclists especially at the bus stops. Furthermore, as experienced with the implemented bicycle lanes along the section of Potrero Avenue north of 25th Street, the proposed bicycle lanes would not affect transit capacity, transit operation, or travel time. Therefore, there would be no significant transit impacts with implementation of Project 5-11.

PARKING

Project 5-11 would remove approximately 20 on-street parking spaces on the east side of Potrero Avenue between 25th Street and the US 101 off-ramp. On-street parking occupancy in this area is generally moderate; the removal of 20 on-street parking spaces would result in an increase in the occupancy rate.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under CEQA, but rather a social effect. The loss of parking may cause potential indirect physical effects, which would include cars circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers, aware of constrained parking conditions in a given area, shifting travel modes. Hence, any secondary environmental impacts that may result from a shortfall in parking would be minor. Therefore, any net reduction in on-street parking supply would not result in significant parking impacts. Thus, there would not be a significant parking impact with implementation of Project 5-11.

PEDESTRIAN

Pedestrian volumes are generally low, and there would be no change in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of Project 5-11. Therefore, there would be no pedestrian impacts with implementation of Project 5-11.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel functioning as the existing lanes on Potrero Avenue north of 25th Street. Therefore, Project 5-11 would not result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Potrero Avenue has a mix of recreational, residential, and commercial uses; the loading demand is very low and can be accommodated by the available on-street parking spaces. No on-street parking or yellow commercial loading spaces would be removed with implementation of Project 5-11. Therefore, there would be no loading impacts with implementation of Project 5-11.

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.

There are two options for this segment of Sagamore Street/Sickles Avenue.

Both Options 1 and 2 would add a westbound Class II bicycle lane along Sagamore Street between Plymouth Avenue and Brotherhood Way and extend the existing eastbound bicycle lane eastward to the San Jose Avenue intersection. Both options would add a southbound Class II bicycle lane along Sickles Avenue between Sagamore Street and Alemany Boulevard. Both options would also remove eight on-street parking spaces on the south side of Sagamore Street at the eastward approach to Capitol Avenue.

- **Option 1**

  Option 1 would remove an approximately 130-foot section of the eastbound travel lane on Sagamore Street approaching San Jose Avenue and an approximately 250-foot section of the westbound travel lane between Capitol and Orizaba Avenues. This option would convert pull-in angled parking into back-in angled parking on the north side of Sagamore Street between Orizaba and Capitol Avenues but would not result in any parking loss.

- **Option 2**

Option 2 would add westbound Class II bicycle lane from Capitol Avenue to Orizaba Avenue 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

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Modified Option 1 would remove one lane of westbound traffic on Sagamore Street from 250 feet west of Plymouth Avenue to Capitol Avenue, and add a two-way center left turn lane from Plymouth Avenue to Capitol Avenue. The Draft EIR did not analyze lane removal on this portion of Sagamore Street. The Draft EIR did not analyze a two-way center left turn lane from Plymouth Avenue to Capitol Avenue. The proposed lane removal would not affect traffic capacity beyond what was analyzed in the Draft EIR. The traffic volume that merges from three lanes to two lane remains the same whether it merges at the proposed 250 feet west of Plymouth Avenue or at the merger point analyzed in the Draft EIR (one block west between Capitol Avenue and Orizaba Avenue). Capitol Avenue is the only street between these points, and is not a major source of traffic. Therefore there would be no significant traffic impact associated with Project 5-12 Modified Option 1.

The revised project would increase the length of the existing painted median on Sagamore Street west of Capitol Avenue by approximately 270 feet. This would fill-in the excess street space created by removing one westbound lane and adding the two-way center left turn lane east of Capitol Avenue. The extended painted median would be implemented only in conjunction with the lane removals and addition of the two-way center left turn lane discussed above and by itself would not create impacts to traffic. Therefore there would be no significant traffic impact associated with this project revision.

Modified Option 1 would remove one eastbound travel lane on Sagamore Street from Capitol Avenue to 50 feet west of San Jose Avenue. This is an increase of approximately 600 feet from the eastbound lane removal limits analyzed in the Draft EIR, which extended from 130 feet west of San Jose Avenue to San Jose Avenue. The travel lane configuration for eastbound Sagamore Street approaching Capitol Avenue is one through lane and one left turn only lane, and this would not be changed from existing conditions or from what was analyzed in the Draft EIR. This modification would continue that one travel lane east of Capitol Avenue and because it is being fed by one lane, there would be no impact to traffic operations as one lane is sufficient in supplying the capacity to meet the volume from one lane. The lane configuration at the intersection of Plymouth Avenue, Sagamore Street, Sickles Avenue and San Jose Avenue would not be changed from existing conditions or from what was analyzed in the Draft EIR. Therefore, there would be no significant traffic impacts associated with Project 5-12 Modified Option 1.

Intersection LOS calculations were performed for the PM peak hour.

PM Peak Hour

One study intersection is included for the PM Peak Hour for Project 5-12.

Intersection 35: Alemany Boulevard/Sickles Avenue

- **Option 1**

  Existing and Existing plus Project Conditions

  Under Existing conditions, this intersection operates at LOS D with 41.2 seconds of delay. The Alemany Boulevard/Sickles Avenue intersection would operate satisfactorily at LOS D, with 42.1 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration would be modified from one through lane, one shared through-left turn lane, and one shared through-right turn lane to one shared through-left turn lane and one through-right turn lane. Due to the reduction of capacity in the eastbound direction, there would be an increase in delay along this approach. However, the average intersection delay would increase by 0.9 seconds, compared to Existing conditions. Therefore, Project 5-12 Option 1 would not cause a significant traffic impact to the Alemany Boulevard/Sickles Avenue intersection under Existing plus Project conditions. Table V.5-32, p. V.A.3-505, summarizes these results.

TABLE V.5-32
CLUSTER 5 – PROJECT 5-12
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				Existing plus Project			
		Existing		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS	Average Delay[a]	LOS
35.	Alemany Boulevard/Sickles Avenue	41.2	D	42.1	D	41.2	D

Source: Wilbur Smith Associates, October 2008.

Note:

a. Delay in seconds per vehicle.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Alemany Boulevard/Sickles Avenue intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, the Alemany Boulevard/Sickles Avenue intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. However, the southbound critical movements at Alemany Boulevard/Sickles Avenue would not deteriorate; a significant impact would not occur at this intersection with the implementation for Project 5-12 Option 1. Table V.5-33, p. V.A.3-506, summarizes these results.

TABLE V.5-33
CLUSTER 5 – PROJECT 5-12
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

			2025 Cumulative plus Project			
	2025 Cumulative		Option 1		Option 2	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
35. Alemany Boulevard/Sickles Avenue	**>80**	**F**	**>80**	**F**	**>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.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS D with 41.2 seconds of delay. The Alemany Boulevard/Sickles Avenue intersection would operate satisfactorily at LOS D, with 41.2 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Therefore, Project 5-12 Option 2 would not cause a significant impact to the Alemany Boulevard/Sickles Avenue intersection under Existing plus Project conditions. Table V.5-32, p. V.A.3-505, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Alemany Boulevard/Sickles Avenue intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at this intersection with the implementation of Project 5-12 Option 2. Table V.5-33 on p. V.A.3-506 summarizes these results.

TRANSIT

Muni bus line 88 operates along the full length of Project 5-12 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 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.

There is one Muni southbound bus stop on Sickles Avenue between San Jose Avenue and Alemany Boulevard. This Muni bus stop would be in the proposed bicycle lane for both Option 1 and Option 2. When a Muni bus stops, bicyclists would have to wait behind it until it completes loading and unloading passengers or pass the bus to the left using the adjacent travel lane. This maneuver is no different from what currently occurs without the bicycle lane. South-eastbound bus volumes for Muni line 88 are low (three buses every hour), so buses would not frequently interrupt bicycle flow on the proposed bicycle lane.

Therefore, for both Option 1 and Option 2 there would be no significant impacts on transit capacity, transit operation, and travel time, as well as on the interactions between buses and bicyclists with either Option 1 or Option 2 of Project 5-12.

PARKING

● Modified Option 1 would remove one additional parking space on the south side of Sagamore Street, east of Capitol Avenue. The Draft EIR analyzed the removal of approximately eight parking spaces on the south side of Sagamore Street west of Capitol Avenue. Therefore, the revised project would remove approximately nine parking spaces compared to the removal of approximately eight parking spaces analyzed in the Draft EIR. Parking occupancy in this area is generally moderate and the removal of nine parking spaces as a result of the revised project is not expected to exacerbate parking demand within the neighborhood.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact as under the CEQA but rather a social effect. The loss of parking may cause potential, indirect physical effects, which would include cars circling and looking for a parking space on neighboring streets. The secondary effects of drivers searching for parking is typically offset 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 that may result from a shortfall in parking in the vicinity of Project 5-12 would be minor. The changes in on-street parking also would not cause any secondary physical impacts, such as traffic congestion, air quality impacts, or noise impacts caused by congestion. Therefore, there would be no significant parking impacts as a result of the implementation of Project 5-12 Modified Option 1.

- **Option 1**
  Option 1 would remove approximately eight on-street parking spaces on the south side of Sagamore Street at the nearside of Capitol Avenue and convert pull-in angled parking into back-in angled parking between Orizaba and Capitol Avenues. Changing pull-in to back-in angled parking would potentially benefit bicyclists by improving approaching bicyclists' visibility to motor vehicle drivers and other traffic, both when drivers are entering and exiting a parking stall. When entering a parking stall by backing in, drivers would be looking backwards towards oncoming traffic and would be more aware of approaching bicyclists. Bicyclists would also be better able to see vehicles backing into the parking spaces and, therefore, would have ample warning to safely maneuver around these vehicles. When exiting a parking stall, drivers would face the street with a better view of oncoming traffic in comparison to drivers backing out of the pull-in parking stall, whose view of oncoming traffic may be obscured by adjacent parked vehicles.

- **Option 2**
  Option 2 would remove a total of approximately 28 on-street parking spaces on portions of Sagamore Street on the south side approaching Capitol Avenue and San Jose Avenue and on the north side approaching Orizaba Avenue. Approximately seven parking spaces would also be lost as a result of converting pull-in angled parking on the north side of Sagamore between Orizaba Avenue and Capitol Avenue to parallel parking. Parking occupancy in this area is generally moderate. The loss of eight parking spaces under Option 1 and 28 parking spaces under Option 2 can be accommodated with the existing parking supply. Therefore, there would be no significant parking impacts with either Option 1 or Option 2 for Project 5-12. In addition, there may be a reduction in conflicts may result between bicyclists and angle-parkers with the replacement of pull-in angle parking with back-in angle parking.

PEDESTRIAN

Pedestrian volumes in this area are generally low, and there would be no changes in sidewalk width or crosswalk layout under either Option 1 or Option 2. The current interactions between pedestrians and bicyclists would not change as a result of either option. Therefore, there would be no pedestrian impacts with either Option 1 or Option 2 of Project 5-12.

BICYCLE

Under both Option 1 and Option 2, bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. The proposed back-in angled parking under Option 1 would potentially benefit bicyclists by improving the driver's visibility of approaching bicyclists and other vehicles both when entering and exiting the stall. When entering the stall by backing in, the driver would be looking towards oncoming traffic and would be more aware of approaching bicyclists. When exiting the stall, the driver is facing the street with a better view of traffic in the travel lane in comparison to drivers backing out of the pull-in stall, whose view of oncoming traffic may be obscured by an adjacent parked vehicle. Hence, neither Option 1 nor Option 2 of Project 5-12 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Sagamore Street is mostly residential with no on-street loading demands that would conflict with bicycles. No double-parked trucks or significant loading needs were observed on this segment of Sagamore Street, and there would be no changes in on-street or off-street loading spaces under either option. Therefore, there would be no loading impacts with either Option 1 or Option 2 of Project 5-12.

PROJECT 5-13: SAN BRUNO AVENUE BICYCLE 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. Segment I of San Bruno Avenue extends between Paul Avenue and Silver Avenue. There are two options for this segment.

- **Option 1**
  Option 1 would add a Class II bicycle lane in each direction between eight-foot wide parking and a 10-foot wide travel lane.

- **Option 2**
  Option 2 would add a Class II bicycle lane in each direction between seven-foot wide parking and an 11-foot wide travel lane. Both options would remove approximately 21 on-street parking spaces between Silver Avenue and Felton Street.

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.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

Muni bus lines 9, 9X, and 9AX run along this segment of San Bruno Avenue, with approximately 12 buses in each direction per hour during the AM peak period and approximately 14 buses in each direction per hour during the PM peak period. Muni bus lines 9X and 9AX run only in the southbound direction between Silver Avenue and Bacon Street. Transit volumes are relatively high, but bicycle volumes are low along this segment of San Bruno Avenue.

Currently, there are frequent turning movements at intersections and to/from driveways along this section, and the slow speed of traffic and Muni would be expected to continue even after the implementation of either option of Project 5-13. Since there would be no capacity reduction or additional bus/bicycle conflicts, no significant transit impacts would be caused by the implementation of either Option 1 or Option 2 of Project 5-13.

PARKING

- **Option 1**
  Option 1 would remove a total of approximately 22 on-street parking spaces. 12 spaces on the east side of San Bruno Avenue between Silver and Thornton Streets and 10 loading spaces on the west side between Silver and Silliman Streets.

- **Option 2**
  Option 2 would remove 12 spaces on the east side of San Bruno Avenue between Silver and Thornton Streets. Parking occupancy along San Bruno Avenue is high, especially along the northern segment of the street where most commercial uses exist. The loss of 12 on-street parking spaces would cause some vehicles to park further away in the adjacent residential neighborhood, increasing parking occupancy rates along these residential streets. In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under CEQA, but rather a social effect. The loss of parking may cause potential indirect physical effects, which would include cars circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers, aware of constrained parking conditions in a given area, shifting travel modes. Hence, any secondary environmental impacts that may result from a shortfall in parking would be minor. Therefore, any net reduction in on-street parking supply would not result in significant parking impacts. Hence, there would be no significant parking impacts with either Option 1 or Option 2 for Project 5-13.

PEDESTRIAN

Pedestrian activity is generally moderate along the west side of San Bruno Avenue, but instances of pedestrian crossings are minimal. There would be no changes in sidewalk width or crosswalk layout under either option. Therefore, there would be no pedestrian impacts with either Option 1 or Option 2 of Project 5-13.

BICYCLE

Under both options, the installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. Therefore, neither Option 1 nor Option 2 of Project 5-13 would result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

On-street yellow commercial freight loading spaces are available along San Bruno Avenue. However, violations were observed[19] forcing trucks to double-park in the curbside travel lane. The impact on loading from Project 5-13 would result from the removal of 22 on-street parking spaces including 10 yellow commercial freight loading spaces under both Option 1 and Option 2.

The loss of 10 on-street yellow commercial freight loading spaces on the west side of San Bruno Avenue would potentially cause significant impacts on trucks making deliveries to the adjacent businesses. Without available parking for loading, drivers would double-park in the travel lane blocking both traffic and Muni circulation or park in the bicycle lane, blocking bicycle circulation. The City of San Francisco Transportation Code Section 38N allows vehicles to temporarily block a bicycle lane during weekday midday, but not during the AM (7:00 a.m. to 9:00 a.m.) and PM (4:00 p. m. to 6:00 p. m.) peak periods. However, trucks making deliveries during the peak periods would need to park on the side streets and use a hand truck to make deliveries or illegally park in the bicycle lanes. Therefore, there would be a significant loading impact (Significant Impact TR-P5-13a, TR-P5-13b, TR-P5-13c, and TR-P5-13d) with implementation of Project 5-13 with either Option 1 or Option 2 under Existing plus Project and Cumulative plus Project conditions.

Significant Impact TR-P5-13a:

Project 5-13 would result in a significant impact to loading with implementation of Option 1 under Existing plus Project conditions.

Significant Impact TR-P5-13b:

Project 5-13 would result in a significant impact to loading with implementation of Option 2 under Existing plus Project conditions.

Significant Impact TR-P5-13c:

Project 5-13 would result in a significant impact to loading with implementation of Option 1 under 2025 Cumulative plus Project conditions.

19 Field surveys were conducted by CHS Consulting on Friday, October 26, 2007 during the midday.

Significant Impact TR-P5-13d:

Project 5-13 would result in a significant impact to loading with implementation of Option 2 under 2025 Cumulative plus Project conditions.

CLUSTER 5: SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impact TR-P5-4a:

Under Existing conditions, the Bayshore Boulevard /Jerrold Avenue/US 101 Off-Ramp intersection would operate at LOS E with 76.8 seconds of delay. However, under Existing plus Project conditions for Option 1, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the northbound direction on Bayshore Boulevard. Because the northbound critical movement deteriorates for Option 1 from LOS D under 2025 Cumulative conditions to LOS F with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at this intersection with the implementation of Project 5-4.

M-TR-P5-4a:

No feasible mitigation measures have been identified for the Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection under Existing plus Project conditions for Option 1. Hence, a significant impact would occur at the Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection with the implementation of Project 5-4.

Significant Impact TR-P5-4b:

The intersection of Bayshore Boulevard/Oakdale Avenue would operate at LOS E under 2025 Cumulative plus Project conditions for Option 1.

Under 2025 Cumulative conditions, the Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate at LOS D with 42.9 seconds of delay. However, under 2025 Cumulative plus Project conditions for Option 1, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the northbound direction. Because the northbound critical movement deteriorates for Option 1 from LOS D under 2025 Cumulative conditions to LOS F with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at this intersection with the implementation of Project 5-4.

M-TR-P5-4b:

No feasible mitigation measures have been identified for the Bayshore Boulevard/Jerrold Avenue/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 Avenue/US 101 Off-Ramp intersection with the implementation of Project 5-4.

Significant Impact TR-P5-4c:

Under Existing conditions, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate at LOS E with 58.9 seconds of delay. However, under Existing plus Project conditions for Option 1, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the northbound direction. Because the northbound critical movement deteriorates for Option 1 from LOS D under 2025 Cumulative conditions to LOS F with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection with the implementation of Project 5-4.

M-TR-P5-4c:

No feasible mitigation measures have been identified for the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection under Existing plus Project conditions for Option 1. Hence, a significant impact would occur at the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection with the implementation of Project 5-4.

Significant Impact TR-P5-4d:

Under 2025 Cumulative conditions, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate at LOS F with more than 80 seconds of delay. Under 2025 Cumulative plus Project conditions for Option 1, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the northbound direction on Bayshore Boulevard. Because the northbound critical movement deteriorates for Option 1 with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection with the implementation of Project 5-4.

M-TR-P5-4d:

No feasible mitigation measures have been identified for the Bayshore Boulevard/Jerrold Avenue/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 Avenue/US 101 Off-Ramp intersection with the implementation of Project 5-4.

Significant Impact TR-P5-4e:

A significant loading impact would occur as a result of Project 5-4.

Under 2025 Cumulative conditions, the Bayshore Boulevard/Oakdale Avenue intersection would operate at LOS C with a delay of 34.6 seconds. However, under 2025 Cumulative plus Project conditions for Option 1, the Bayshore Boulevard/Oakdale Avenue intersection would operate at LOS E with a delay of 63.1 seconds as a result of the lane configuration changes along the northbound and southbound approaches of Bayshore Boulevard. Because the northbound and southbound critical movements deteriorate for Option 1 from LOS D under 2025 Cumulative conditions to LOS F with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Bayshore Boulevard/Oakdale Avenue intersection with the implementation of Project 5-4.

M-TR-P5-4e:

It is proposed that five seconds of green time be added to the northbound Bayshore Boulevard approach and five seconds of green time be reduced from the westbound Oakdale Avenue approach. This would improve the Bayshore Boulevard/Oakdale Avenue intersection operations from LOS E to LOS D, with 54 seconds of delay (a reduction of 9.1 seconds of average delay). Thus, this mitigation measure would reduce the project impacts on the Bayshore Boulevard/Oakdale Avenue intersection to a less than significant level. Table V.5-34, p. V.A.3-515, summarizes these results.

**TABLE V.5-34
CLUSTER 5 – PROJECT 5-4
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR**

	2025 Cumulative plus Project Option 1		2025 Cumulative plus Project Option 1 with Mitigation Measures	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS
24. Bayshore Boulevard/Oakdale Avenue	**63.1**	**E**	54.0	D

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.

Significant Impact 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 Projects 5-2 and 5-4 combined Option 1.

M-TR-P5-4f (Projects 5-2 and 5-4 combined):

The implementation of Option 1 under 2025 Cumulative plus Project conditions for Projects 5-2 and 5-4 combined would add approximately 417 seconds (7.0 minutes) of total delay for Muni bus lines 9, 9X, 9AX and SamTrans 292. With mitigation as described above in Mitigation Measure 5.4e, transit delay would be reduced to approximately 70 seconds (1.2 minutes) of delay northbound and 13 seconds of delay southbound. The total added delay of approximately 83 seconds (1.4 minutes) would be less than the transit delay threshold of 6 minutes. Therefore, impacts to transit for Muni bus lines 9, 9X, 9AX and SamTrans 292 for Projects 5-2 and 5-4 with Option 1 combined under 2025 Cumulative plus Project conditions would be reduced to a less than significant level.

Significant Impact 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 only with Option 1.

M-TR-P5-4g:

The implementation of Option 1 under 2025 Cumulative plus Project conditions for Project 5-4 only would add approximately 417 seconds (7.0 minutes) of total delay for Muni bus lines 9, 9X, 9AX and SamTrans 292. With mitigation as described above in Mitigation Measure 5.4e, transit delay would be reduced to approximately 70 seconds (1.2 minutes) of delay northbound and 13 seconds of delay southbound. The total added delay of approximately 83 seconds (1.4 minutes) would be less than the transit delay threshold of 6 minutes. Therefore, impacts to transit for Muni bus lines 9, 9X, 9AX and SamTrans 292 for Project 5-4 only with Option 1 combined under 2025 Cumulative plus Project conditions would be reduced to a less than significant level.

Significant Impact TR-P5-4h:

A significant loading impact would occur as a result of Project 5-4 Option 2 under Existing plus Project conditions.

M-TR-P5-4h:

No feasible mitigation measures have been identified. Therefore, a significant loading impact would occur on the Bayshore Boulevard between Cesar Chavez and Industrial Streets with implementation of Project 5-4 Option 2 under Existing plus Project conditions.

Significant Impact TR-P5-4i:

A significant loading impact would occur as a result of Project 5-4 Option 2 under 2025 Cumulative plus Project conditions.

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 Street with implementation of Project 5-4 Option 2 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P5-5a:

The intersection of Evans Street/Cesar Chavez Street would operate at LOS F under Existing plus Project conditions for Option 1.

Under Existing conditions, the Evans Avenue/Cesar Chavez Street intersection would operate at LOS D with 47.4 seconds of delay. However, under Existing plus Project conditions for Option 1, the Evans Avenue/Cesar Chavez Street intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound direction on Cesar Chavez Street. Because the eastbound critical movement deteriorates for Option 1 from LOS D under Existing conditions to LOS F with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at the Evans Street/Cesar Chavez Street intersection with the implementation of Project 5-5.

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.

Significant Impact TR-P5-5b:

The intersection of Evans Street/Cesar Chavez Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1.

Under 2025 Cumulative conditions, the Evans Avenue/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.37. However, under 2025 Cumulative plus Project conditions for Option 1, the Evans Avenue/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.83 as a result of the lane configuration changes in the eastbound direction on Cesar Chavez Street. Because the eastbound critical movement deteriorates for Option 1 with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at the Evans Avenue/Cesar Chavez Street intersection with the implementation of Project 5-5.

M-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.

Significant Impact TR-P5-6a:

The intersection of Mission Street/Cesar Chavez Street would operate at LOS E under 2025 Cumulative plus Project conditions for Option 1.

Under 2025 Cumulative conditions, the Mission Street/Cesar Chavez Street intersection would operate at LOS E with 60.6 seconds of delay. However, under 2025 Cumulative plus Project conditions for Option 1, the Mission Street/Cesar Chavez Street intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound direction on Cesar Chavez Street. Because the southbound critical movement deteriorates for Option 1 under 2025 Cumulative conditions to LOS F with a corresponding deterioration in the V/C ratio for this movement, a significant impact would occur at the Mission Street/Cesar Chavez Street intersection with the implementation of Project 5-6.

M-TR-P5-6a:

Lane configuration adjustments to the eastbound and westbound direction 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 per proposed possible Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, 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. This additional capacity will help reduce the delay and improve the V/C ratio by 9 percent (from 1.31 to 1.18). 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. Table V.5-35, p. V.A.3-518 summarizes these results.

TABLE V.5-35
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY AM PEAK HOUR

		2025 Cumulative plus Project (Option 1)		2025 Cumulative plus Project Option 1 with Mitigation Measures	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS
28.	Mission Street/Cesar Chavez Street	**>80**	F	68.3	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.

Significant Impact TR-P5-6b:

The intersection of Mission Street/Cesar Chavez Street would operate at LOS E under 2025 Cumulative plus Project conditions for Option 2.

The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS E, with 60.6 seconds of average delay under 2025 Cumulative conditions. The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS E, with 73.5 seconds of delay under 2025 Cumulative plus Project conditions with Option 2. Because the westbound critical movements either deteriorate or will operate at an unacceptable LOS E, with more than 55 seconds of average delay under 2025 Cumulative plus Project conditions for Option 2, a significant impact would occur at the Mission Street/Cesar Chavez Street intersection with implementation of Project 5-6.

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 the Mission Street/Cesar Chavez Street intersection. The removal of on-street parking along Cesar Chavez Street (applying either Option 1 or 2 per proposed possible Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, 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. This additional capacity will help reduce the delay and improve the V/C ratio by 23 percent (from 1.17 to 0.90). 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. Table V.5-36, p. V.A.3-519 below summarizes these results.

TABLE V.5-36
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 2		2025 Cumulative plus Project Option 2 with Mitigation Measures	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
28.	Mission Street/Cesar Chavez Street	**>80**	**F**	57.3	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.

Significant Impact TR-P5-6c:

The intersection of Guerrero Street/Cesar Chavez Street would operate at LOS F under Existing plus Project conditions for Option 1.

Under Existing conditions, the Guerrero Street/Cesar Chavez Street intersection operates at LOS D with 52.5 seconds of delay. However, under Existing plus Project conditions for Option 1, the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes along the eastbound and westbound approaches of Cesar Chavez Street. Because the southbound, eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact may occur at the Guerrero Street/Cesar Chavez Street intersection with the implementation of Project 5-6.

M-TR-P5-6c:

Lane configuration adjustments to the westbound direction of Cesar Chavez Street would improve LOS and reduce the delay for the Guerrero Street/Cesar Chavez Street. The removal of on-street parking along Cesar Chavez Street (applying either Option 1 or 2 per proposed possible Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, for which feasibility has not yet been determined) is proposed which would provide an additional through lane along the westbound Cesar Chavez Street approach. This lane adjustment would decrease the delay and improve the V/C ratio by 28 percent (from 1.23 to 0.88) and improve LOS from F to D. However, because of the uncertainty of 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. Table V.5-37, p. V.A.3-522 below summarizes these results.

Significant Impact TR-P5-6d:

The intersection of Guerrero Street/Cesar Chavez Street would operate at LOS F under Existing plus Project conditions for Option 2.

Under Existing conditions, the Guerrero Street/Cesar Chavez Street intersection operates at LOS D with 52.5 seconds of delay. However, under Existing plus Project conditions for Option 2, the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the westbound direction on Cesar Chavez Street. Because the southbound, eastbound and westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Guerrero Street/Cesar Chavez Street intersection with the implementation of Project 5-6.

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.

Significant Impact TR-P5-6e:

The intersection of Guerrero Street/Cesar Chavez Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1.

Under 2025 Cumulative conditions, the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.30. However, under 2025 Cumulative plus Project conditions for Option 1, the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the southbound, eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Guerrero Street/Cesar Chavez Street intersection with the implementation of Project 5-6.

M-TR-P5-6e:

Lane configuration adjustments to the westbound direction along Cesar Chavez Street would improve LOS and reduce the delay for the Guerrero Street/Cesar Chavez Street intersection. The removal of on-street parking along Cesar Chavez Street (applying either Option 1 or 2 per proposed possible Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, for which feasibility has not yet been determined) is proposed which would provide an additional through lane along the westbound approach of Cesar Chavez Street. This lane adjustment would decrease the delay and improve the V/C ratio by 26 percent (from 1.76 to 1.30). Nevertheless, this mitigation measure would not reduce the project impacts at Guerrero Street/Cesar Chavez Street to a less-than-significant level.

Significant Impact TR-P5-6f:

The intersection of Guerrero Street/Cesar Chavez Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 2.

Under 2025 Cumulative conditions, the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.30. However, under 2025 Cumulative plus Project conditions for Option 2, the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the westbound direction on Cesar Chavez Street. Because the southbound, eastbound and westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Guerrero Street/Cesar Chavez Street intersection with the implementation of Project 5-6. Table V.5-38, p. V.A.3-523, summarizes these results.

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.

TABLE V.5-37
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

	Existing plus Project (Option 1)		Existing plus Project Option 1 with Mitigation Measures	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS
27. Guerrero Street/Cesar Chavez Street	**>80**	**F**	52.5	D

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.

TABLE V.5-38
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

	2025 Cumulative plus Project Option 1		2025 Cumulative plus Project Option 1 with Mitigation Measures	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
27. Guerrero Street/Cesar Chavez Street	**>80**	**F**	**>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 are highlighted in bold.

Significant Impact TR-P5-6g:

The intersection of Mission Street/Cesar Chavez Street would operate at LOS F under Existing Project conditions for Option 1.

Under Existing conditions, the Mission Street/Cesar Chavez Street intersection operates at LOS D with 37.5 seconds of delay. The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions as a result of the lane configuration changes in the westbound direction on Cesar Chavez Street. Because the southbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Mission Street/Cesar Chavez Street intersection with the implementation of Project 5-6.

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.

Significant Impact TR-P5-6h:

Under Existing conditions, this intersection operates at LOS D with 37.5 seconds of delay. The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS E, with 55.7 seconds of average delay under Existing plus Project conditions for Option 2 as a result of the lane configuration changes in the eastbound and westbound directions of Cesar Chavez Street. Because the westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Mission Street/Cesar Chavez Street intersection with the implementation of Project 5-6.

M-TR-P5-6h:

Lane configuration adjustments to the eastbound and westbound directions along 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 from Cesar Chavez Street (applying either Option 1 or 2 per proposed possible Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, 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 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 would occur at the Mission Street/Cesar Chavez Street intersection with the implementation of Project 5-6. In addition, bicycle lane discontinuity could occur at this location.

Significant Impact TR-P5-6i:

The intersection of Mission Street/Cesar Chavez Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 2.

Under 2025 Cumulative conditions, the Mission Street/Cesar Chavez Street intersection would operate at LOS E with 64.9 seconds of delay. However, under 2025 Cumulative plus Project conditions for Option 1, the Mission Street/Cesar Chavez Street intersection would operate at LOS F with more than 80 seconds of average delay as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact may occur at the Mission Street/Cesar Chavez Street intersection with the implementation of Project 5-6.

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 may occur at the Mission Street/Cesar Chavez Street intersection with the implementation of Project 5-6.

Significant Impact TR-P5-6j:

Under 2025 Cumulative conditions, the Mission Street/Cesar Chavez Street intersection would operate at LOS E with 64.9 seconds of delay. However, under 2025 Cumulative plus Project conditions for Option 2, the Mission Street/Cesar Chavez Street intersection would operate at LOS F with more than 80 seconds of average delay as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Mission Street/Cesar Chavez Street intersection with the implementation of Project 5-6.

M-TR-P5-6j:

Lane configuration adjustments to the eastbound and westbound directions along 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 from Cesar Chavez Street (applying either Option 1 or 2 per proposed possible Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, 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 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. Table V.5-39, p. V.A.3-526, and Table V.5-40, p. V.A.3-526, summarizes these results.

TABLE V.5-39
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

Intersection	Existing plus Project Option 2		Existing plus Project Option 2 with Mitigation Measures	
	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
28. Mission Street/Cesar Chavez Street	**55.7**	**E**	36.7	D

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.

TABLE V.5-40
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

Intersection	2025 Cumulative plus Project (Option 2)		2025 Cumulative plus Project Option 2 with Mitigation Measures	
	Average Delay[a]	LOS[b]	Average Delay[a]	LOS
28. Mission Street/Cesar Chavez Street	**78.0**	**F**	**57.3**	**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.

Significant Impact TR-P5-6k:

Under Existing conditions, the Cesar Chavez Street/South Van Ness Avenue intersection operates at LOS C with 32.4 seconds of delay. However, under Existing plus Project conditions for Option 1, the South Van Ness Avenue/Cesar Chavez Street intersection would operate at LOS F with more than 80 seconds of average delay as a result of the lane configuration changes to the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Cesar Chavez Street/South Van Ness Avenue intersection with the implementation of Project 5-6.

M-TR-P5-6k:

Lane configuration adjustments to the eastbound and westbound directions along 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 per proposed possible Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, 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 of the feasibility of this mitigation measure, a significant impact may occur at the Cesar Chavez Street/South Van Ness Avenue intersection with the implementation of Project 5-6. Table V.5-41, p. V.A.3-529 below summarizes these results.

Significant Impact TR-P5-6l:

Under Existing conditions, the Cesar Chavez Street/South Van Ness Avenue intersection operates at LOS C with 32.4 seconds of delay. However, under Existing plus Project conditions for Option 2, the South Van Ness Avenue/Cesar Chavez Street intersection would operate at LOS E with 78.5 seconds of average delay as a result of the lane configuration changes to the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Cesar Chavez Street/South Van Ness Avenue intersection with the implementation of Project 5-6.

M-TR-P5-6l:

Lane configuration adjustments to the westbound direction along 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 per proposed possible Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, for which feasibility has not yet been determined) in the westbound direction 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 of the feasibility of this mitigation measure, a significant impact would occur at the Cesar Chavez Street/South Van Ness Avenue intersection with the implementation of Project 5-6. Table V.5-42, p. V.A.3-529, summarizes these results.

Significant Impact TR-P5-6m:

The intersection of South Van Ness Avenue/Cesar Chavez Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 2.

Under 2025 Cumulative conditions, the Cesar Chavez Street/South Van Ness Avenue intersection would operate at LOS F with a V/C ratio of 1.49. However, under 2025 Cumulative plus Project conditions for Option 1, the South Van Ness Avenue/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.91 as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Cesar Chavez Street/South Van Ness Avenue intersection with the implementation of Project 5-6.

M-TR-P5-6m:

Lane configuration adjustments to the eastbound direction and westbound direction on Cesar Chavez Street would improve LOS and reduce the delay at this the Cesar Chavez Street/South Van Ness intersection. It is proposed that on-street parking along Cesar Chavez Street be removed (applying either Option 1 or 2 per proposed possible Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, 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 decrease the amount of average delay and reduce the V/C ratio by 22 percent (from 1.91 to 1.49). Nevertheless, this mitigation measure would not reduce the project impacts to a less-than-significant level. Table V.5-43, p. V.A.3-530, summarizes these results.

Significant Impact TR-P5-6n:

Under 2025 Cumulative conditions, the Cesar Chavez Street/South Van Ness Avenue intersection would operate at LOS F with a V/C ratio of 1.49. However, under 2025 Cumulative plus Project conditions for Option 2, the Cesar Chavez Street/South Van Ness Avenue intersection would operate at LOS F with a V/C ratio of 1.53 as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Cesar Chavez Street/South Van Ness Avenue intersection with the implementation of Project 5-6.

M-TR-P5-6n:

No feasible mitigation measures have been identified for the the Cesar Chavez Street/South Van Ness Avenue intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the Cesar Chavez Street/South Van Ness Avenue intersection with the implementation of Project 5-6.

TABLE V.5-41
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON
EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

	Existing plus Project Option 1		Existing plus Project Option 1 with Mitigation Measures	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS
29. Cesar Chavez Street/South Van Ness Avenue	**>80**	**F**	50.2	D

Source: Wilbur Smith Associates, 2008

Notes:

a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions are highlighted in bold.

TABLE V.5-42
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON
EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

	Existing plus Project Option 1		Existing plus Project Option 1 with Mitigation Measures	
Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS
29. Cesar Chavez Street/South Van Ness Avenue	**78.5**	**E**	36.4	D

Source: Wilbur Smith Associates, 2008

Notes:

a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions are highlighted in bold.

TABLE V.5-43
CLUSTER 5 – PROJECT 5-6 INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1			2025 Cumulative plus Project Option 1 with Mitigation Measures		
	Intersection	Average Delay[a]	LOS[b]	V/C	Average Delay[a]	LOS[b]	V/C
29.	South Van Ness Avenue/Cesar Chavez Street	**>80**	**F**	**1.91**	**>80**	**F**	**1.49**

Source: Wilbur Smith Associates, 2008

Notes:

a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions are highlighted in bold.

Significant Impact TR-P5-6o:

The intersection of Bryant Street/Cesar Chavez Street would operate at LOS F under Existing plus Project conditions for Option 2.

Under Existing conditions, the Bryant Street/Cesar Chavez Street intersection operates at LOS D with 51.4 seconds of delay. However, under Existing plus Project conditions for Option 1, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F with more than 80 seconds of average delay as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound and westbound critical movements on Cesar Chavez Street deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact may occur at the Bryant Street/Cesar Chavez Street intersection with the implementation of Project 5-6.

M-TR-P5-6o:

Lane configuration adjustments to the eastbound direction and westbound direction along 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 along the eastbound and westbound directions on Cesar Chavez Street (applying either Option 1 or 2 per proposed possible Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, for which feasibility has not yet been determined), which would provide an additional through lane in both directions. These lane adjustments would decrease the delay and improve the V/C ratio by 29 percent (from 1.34 to 0.95) and improve LOS from F to D. However, because of the uncertainty of the feasibility of this mitigation measure, a significant impact would occur at the Bryant Street/Cesar Chavez Street intersection with the implementation of Project 5-6. Table V.5-45, p. V.A.3-534, summarizes these results.

Significant Impact TR-P5-6p:

Under Existing conditions, the Bryant Street/Cesar Chavez Street intersection operates at LOS D with 51.4 seconds of delay. However, under Existing plus Project conditions for Option 2, the Bryant Street/Cesar Chavez Street intersection would operate at LOS E with 66.4 seconds of average delay as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the eastbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Bryant Street/Cesar Chavez Street intersection with the implementation of Project 5-6.

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.

Significant Impact TR-P5-6q:

The intersection of Bryant Street/Cesar Chavez Street would operate at LOS F under Cumulative plus Project conditions for Option 2.

Under 2025 Cumulative conditions, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.71. However, under 2025 Cumulative plus Project conditions for Option 1, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 2.27 as a result of the lane configuration changes in the eastbound and westbound directions. Because the northbound, eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 5-6.

M-TR-P5-6q:

Lane configuration adjustments to the eastbound and westbound directions along 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 in the eastbound and westbound directions along Cesar Chavez Street (applying either Option 1 or 2 per proposed possible Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, for which feasibility has not yet been determined), which would provide an additional through lane along both approaches. These lane adjustments would decrease the delay and improve the V/C ratio by 28 percent (from 2.04 to 1.47). Nevertheless, this mitigation measure would not reduce the project impacts to a less than significant level. Hence a significant impact would occur at the Bryant Street/Cesar Chavez Street intersection with the implementation of Project 5-6. Table V.5-44, p. V.A.3-534, summarizes these results.

Significant Impacts TR-P5-6e, TR-P5-6b, TR-P5-6c, TR-P5-6e, TR-P5-6h, TR-P5-6j, TR-P56k, TR-P5-6l, TR-P5-6m, TR-P5-6o, TR-P5-6q:

There would be significant impacts to intersection LOS at the Guerrero Street/Cesar Chavez Street intersection, under Existing plus Project conditions with Option 2 and, under 2025 Cumulative conditions with Options 1 and 2. There would also be significant impacts to intersection LOS at the Mission Street/Cesar Chavez Street intersection under Existing plus Project conditions with Options 1 and 2, and under 2025 Cumulative conditions with Options 1 and 2. There would also be significant impacts to intersection LOS at the South Van Ness Avenue/Cesar Chavez Street intersection under Existing plus Project conditions with Options 1 and 2, and under 2025 Cumulative conditions with Options 1 and 2. There would also be significant impacts to intersection LOS at the Bryant Street/Cesar Chavez Street intersection under Options 1 and 2, and under 2025 Cumulative conditions with Option 1.

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, 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.

Significant Impact TR-P5-6r:

Under 2025 Cumulative conditions, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 1.71. However, under 2025 Cumulative plus Project conditions for Option 2, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F with a V/C ratio of 2.23 as a result of the lane configuration changes in the eastbound and westbound directions along Cesar Chavez Street. Because the northbound, eastbound and westbound critical movements deteriorate for Option 2 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Bryant Street/Cesar Chavez Street intersection with the implementation of Project 5-6.

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.

TABLE V.5-44
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON 2025 CUMULATIVE PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1			2025 Cumulative plus Project Option 1 with Mitigation Measures		
	Intersection	Average Delay[a]	LOS[b]	V/C	Average Delay[a]	LOS[b]	V/C
30.	Bryant Street/Cesar Chavez Street	**>80**	**F**	**2.04**	**>80**	**F**	**1.47**

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.

TABLE V.5-45
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY COMPARISON EXISTING PLUS PROJECT CONDITIONS WITH MITIGATION MEASURES - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1			2025 Cumulative plus Project Option 1 with Mitigation Measures		
	Intersection	Average Delay[a]	LOS[b]	V/C	Average Delay[a]	LOS[b]	V/C
30.	Bryant Street/Cesar Chavez Street	**>80**	**F**	**1.34**	**51.4**	**D**	**0.95**

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.

Significant Impact TR-P5-6s:

Muni bus line 12 would experience significant delays under Existing plus Project conditions for Project 5-6 Option 1.

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 Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-

P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, for which feasibility has not yet been determined, this delay would be reduced to 262 seconds (4.4 minutes) of delay westbound for Muni bus line 12. This would reduce total delay below the transit delay threshold of 6 minutes. However, because of the uncertainty of the feasibility of this mitigation measure, a significant impact would occur to Muni bus line 12 for Project 5-6 Option 1 under Existing plus Project conditions.

Significant Impact TR-P5-6t:

Muni bus line 27 would experience significant delays under Existing plus Project conditions for Project 5-6 Option 1.

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 Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, for which feasibility has not yet been determined, delay in the westbound direction would be reduced to 324 seconds (5.4 minutes) of delay westbound and 29 seconds eastbound for a total added delay of 353 seconds (5.8 minutes). This would reduce total delay below the transit delay threshold of 6 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.

Significant Impact TR-P5-6u:

Muni bus line 12 would experience significant delays under 2025 Cumulative plus Project conditions for Option 1.

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 Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, for which feasibility has not yet been determined. Therefore, a significant transit impact to Muni bus line 12 would occur with implementation of Project 5-6 with Option 1 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P5-6v:

Muni bus line 27 would experience significant delays under 2025 Cumulative plus Project conditions for Option 1.

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 Mitigation Measure M-TR-P5-6w, as described on p. V.A.3-532, in conjunction with proposed possible Mitigation Measures, M-TR-P5-6e, M-TR-P5-6h, and M-TR-P5-6j, M-TR-P5-6k, M-TR-P5-6l, M-TR-P5-6m, M-TR-P5-6o, M-TR-P5-6q, for which feasibility has not yet been determined this delay would not be reduced westbound but would be reduced to 99 seconds (1.6 minutes) of delay eastbound. The total added delay of 1,897 seconds (31.6 minutes) would be greater than the transit delay threshold of 6 minutes. Therefore, a significant transit impact to Muni bus line 27 would occur with implementation of Project 5-6 with Option 1 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P5-13a:

Project 5-13 would result in a significant impact to loading with implementation of Option 1 under Existing plus Project conditions.

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.

Significant Impact TR-P5-13b:

Project 5-13 would result in a significant impact to loading with implementation of Option 2 under Existing plus Project conditions.

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.

Significant Impact TR-P5-13c:

Project 5-13 would result in a significant impact to loading with implementation of Option 1 under 2025 Cumulative plus Project conditions.

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 Option 1 under 2025 Cumulative plus Project conditions.

Significant Impact TR-P5-13d:

Project 5-13 would result in a significant impact to loading with implementation of Option 2 under 2025 Cumulative plus Project conditions.

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 Option 2 under 2025 Cumulative plus Project conditions.

CLUSTER 6: TWIN PEAKS AREA[20]

This section provides a description of the Existing plus Project and 2025 Cumulative and 2025 Cumulative plus Project transportation conditions within the near-term improvements in Cluster 6. 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.

The preferred project design for Cluster 6 near-term improvements are the following options: Project 6-2 Segment I Option 1 and Segment II Option. This is described and analyzed below with no text changes. Project 6-1 Modified Option 1, Project 6-3 Modified Option 2, Project 6-4 Modified Option 1, Modified Project 6-5, and Project 6-6 Modified Option 2 are the modified projects as described and analyzed in this section.

The Existing plus Project, 2025 Cumulative, and 2025 Cumulative plus Project turning movement traffic volumes at the study intersections within Cluster 6, the intersection lane

20 Unless otherwise indicated, all intersection analysis is for PM Peak Hour conditions.

configurations at those intersections, and the level of service and transit delay calculation sheets can be found in the TIS.

Figures showing the turning movement traffic volumes and lane configurations at the study intersections in Cluster 6 for Existing plus Project, 2025 Cumulative, and 2025 Cumulative plus Project conditions may be found within the transportation impact analysis discussion for

Cluster 6 within the Transportation Impact Study. Level of service calculation sheets for those intersections and transit delay calculation sheets for affected transit routes may be found in the appendices of the Transportation Impact Study.[21]

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

Modified Project 6-1 would add southbound sharrows on Claremont Boulevard between Dewey Boulevard to approximately 190 feet south of Ulloa Street and a southbound Class II left-turn bicycle lane between Ulloa Street and Portola Drive by removing the striped median. Modified Project 6-1 would also add a northbound Class II bicycle lane between Ulloa Street and Dewey Boulevard by narrowing the northbound travel lane.

Modified Project 6-1 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.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

There are no transit lines on this segment of Claremont Boulevard. Therefore, there would be no transit impacts as a result of Project 6-1.

PARKING

Modified Project 6-1 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.

Parking occupancy is generally high during midday, but there would be no changes in parking layout or in the number of parking spaces in this segment. Therefore, there would be no parking impacts as a result of Project 6-1. The removal of four parking spaces on Claremont Boulevard may cause some of the vehicles to park on the adjacent neighborhood streets.

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[21] 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.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under CEQA, but rather a social effect. The loss of parking may cause potential indirect physical effects, which would include drivers circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers, aware of constrained parking conditions in a given area, shifting travel modes. Hence, any secondary environmental impacts that may result from a shortfall in parking would be minor. Therefore, any net reduction in on-street parking supply would not result in significant parking impacts. Thus, there would be no significant parking impacts as a result of the implementation of Modified Project 6-1.

PEDESTRIAN

Pedestrian volumes are generally low, and there would be no changes in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of Project 6-1. Therefore, there would be no pedestrian impacts.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. The installation of sharrows would increase the motor vehicle driver's awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone'.[22] Hence, Project 6-1 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This area has mostly residential buildings that typically have low loading demand. There were no double-parked vehicles or significant loading needs observed[23] in the field, and there would be no changes to the on-street loading spaces. Therefore, there would be no loading impacts as a result of Project 6-1.

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

There are two segments for Project 6-2. There is one option for each segment.

On Segment II, Diamond Heights Boulevard between Portola Drive and the intersection of Clipper Street with Diamond Heights Boulevard, sharrows would be implemented in one eastbound left-turn lane and the westbound curb lane.

On Segment I, Clipper Street between Diamond Heights Boulevard and Douglass Street, a westbound Class II bicycle lane and an eastbound Class II bicycle lane would be added. A travel lane would be removed in each direction in this segment, except at the westbound approach to the Diamond Heights Boulevard and Clipper Street intersection. A two-way left-turn center lane would be added between Grandview Avenue and Douglass Street.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the PM peak hour.

One study intersection is included for the PM Peak Hour for Project 6-2.

Intersection 38: Burnett Avenue/Clipper Street/Portola Drive

The Burnett Avenue/Clipper Street/Portola Drive intersection is common to Projects 6-2 and 6-5 within the Cluster 6 area. Both projects have one option. For combined Projects 6-2 and 6-5

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22 See note on San Francisco's Shared Lane Pavement Markings: Improving Bicycle Safety.

23 Field surveys were conducted by CHS Consulting on Wednesday, December 19, 2007 during the midday.

Option 2 has the same lane configuration as Existing (No Project) conditions. Project 6-5 proposes the removal of a westbound through lane relative to Existing (No Project) conditions. The analysis below reflects the combined impact of implementing Projects 6-2 and 6-5 at this intersection. The impacts resulting from the implementation of Project 6-2 alone would follow the discussion of the combined impacts.

- **Option 1**

Existing and Existing plus Project Conditions for Projects 6-2 and 6-5 combined

Project 6-2 has one option, as described above. For the combined Project 6-2 and 6-5, under Existing conditions, this intersection operates at LOS D with 49.6 seconds of delay. The Burnett Avenue/Clipper Street/Portola Drive intersection would continue to operate satisfactorily at LOS D, with 49.6 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to this intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay. Thus, combined Projects 6-2 and 6-5 would not cause a significant impact at the Burnett Avenue/Clipper Street/Portola Drive intersection under Existing plus Project conditions. Table V.6-6, p. V.A.3-541 summarizes these results.

Existing and Existing plus Project Conditions for Project 6-2 alone

Under Existing conditions, this intersection operates at LOS D with 49.6 seconds of delay. The Burnett Avenue/Clipper Street/Portola Drive intersection would continue to operate satisfactorily at LOS D, with 49.6 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to this intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay. Thus, Project 6-2 would not cause a significant impact at the Burnett Avenue/Clipper Street/Portola Drive intersection under Existing plus Project conditions. Table V.6-6, p. V.A.3-541, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-2 and 6-5 combined

For the combined Projects 6-2 and 6-5, the Burnett Avenue/Clipper Street/Portola Drive intersection would operate unsatisfactorily at LOS E, with 70.1 seconds of average delay under 2025 Cumulative conditions. The Burnett Avenue/Clipper Street/Portola Drive intersection would operate unsatisfactorily at LOS E, with 70.1 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for the Burnett Avenue/Clipper Street/Portola Drive intersection. Thus, a significant impact would not occur at this intersection with the implementation of combined Projects 6-2 and 6-5 under 2025 Cumulative plus Project Conditions. Table V.6-7, p. V.A.3-541, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 6-2 alone

The Burnett Avenue/Clipper Street/Portola Drive intersection would operate unsatisfactorily at LOS E, with 70.1 seconds of delay under 2025 Cumulative plus Project conditions in the PM Peak Hour. However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at this intersection with the implementation of Project 6-2 under 2025 Cumulative plus Project Conditions. Table V.6-7, p. V.A.3-541, summarizes these results.

REVISED **TABLE V.6-6**
CLUSTER 6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR BURNETT AVENUE/CLIPPER STREET/PORTOLA DRIVE EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

Existing		Existing plus Project: Project 6-2		Existing plus Project: Combined Projects 6-2 and 6-5	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
49.6	D	49.6	D	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.

REVISED **TABLE V.6-7**
CLUSTER 6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR BURNETT AVENUE/CLIPPER STREET/PORTOLA DRIVE 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

2025 Cumulative		2025 Cumulative plus Project: Project 6-2		2025 Cumulative plus Project: Combined Projects 6-2 and 6-5	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
70.1	**E**	**70.1**	**E**	**70.1**	**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.

TRANSIT

Muni bus line 48 runs in both directions on Diamond Height Boulevard and 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 Diamond Heights Boulevard between Portola Drive and Clipper Street 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.

There are two bus stops along Project 6-2. One stop 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 Diamond Heights Boulevard between Portola Drive and Clipper Street.

No changes would be made to existing bus stops for Muni bus lines 48 and 52 with Project 6-2.

Project 6-2 shares a common intersection (Intersection 38: Burnett Avenue/Clipper Street/Portola Drive) with Project 6-5: Portola Drive Bicycle Lanes, Corbett Avenue to O'Shaughnessy Boulevard. The transit delay analysis below (Projects 6-2 and 6-5 combined) reflects the impact of combined Projects 6-2 and 6-5 to the Burnett Avenue/Clipper Street/Portola Drive intersection on transit delay.

Existing plus Project Conditions (Projects 6-2 and 6-5 Combined)

Project 6-2 has one option. This represents the analysis of combined Project 6-2 and Project 6-5. With the combined projects travel time for Muni bus lines 48 and 52 would be affected for the PM peak hour. For each route, this modification would add 203 seconds (3.4 minutes) of delay per transit vehicle westbound with no change in delay eastbound. The headways for Muni bus lines 48 and 52 in the PM peak period are 12 minutes and 15 minutes, respectively; the total added delay of 203 seconds (3.4 minutes) resulting from combined Projects 6-2 and 6-5 would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with the implementation of combined Projects 6-2 and 6-5 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions (Projects 6-2 and 6-5 Combined)

Project 6-2 has one option. This represents the analysis of combined Project 6-2 and Project 6-5. With the combined projects travel time for Muni bus lines 48 and 52 would be affected. For each route, this modification would add 201 seconds (3.4 minutes) of delay per vehicle westbound with no change in delay eastbound. The headways for Muni bus lines 48 and 52 in the PM peak period are 12 minutes and 15 minutes, respectively; the total added delay of 201 seconds (3.4 minutes) would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with the implementation of combined Projects 6-2 and 6-5 Option 1 under 2025 Cumulative plus Project conditions.

Since combined Projects 6-2 and 6-5 would not result in a significant Transit impact at the intersection of Burnett Avenue/Clipper Street/Portola Drive for the PM peak hour under Existing plus Project conditions and 2025 Cumulative plus Project conditions. There would not be significant transit impact from individual Project 6-2 at the intersection of Burnett Avenue/Clipper Street/Portola Drive for the PM under both Existing plus Project conditions and 2025 Cumulative plus Project conditions.

PARKING

Parking occupancy is generally low, and there would be no changes in parking layout or in the number of parking spaces in this segment. Therefore, there would be no parking impacts as a result of Project 6-2 .

PEDESTRIAN

There is no sidewalk on the south side of Clipper Street and no crosswalks throughout the entire segment of Clipper Street and Diamond Heights Boulevard between Douglass Street and Portola Drive. Pedestrian volumes are generally very low along this hilly street. There would be no changes in existing pedestrian facilities under either option. Therefore, there would be no pedestrian impacts as a result of Project 6-2.

BICYCLE

● The installation of bicycle lanes under Project 6-2 Segment I would provide bicyclists with a designated right-of-way for travel. The installation of sharrows under Project 6-2 Segment II would increase the motor vehicle driver's awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone'.[24] Therefore, Project 6-2 would not result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

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[24] In February 2004, Alta Planning + Design completed a study, *San Francisco's Shared Lane Pavement Markings: Improving Bicycle Safety*, on shared lane markings for Class III bikeways in San Francisco. In this study, a key conclusion was that the pavement markings (also known as sharrow markings) increased the awareness of the bicyclists' and motorists' position on the road. Bicyclists tended to ride further from parked cars, and motorists tended to pass bicyclists at a greater distance from the pavement marking. The report's recommendation was to use the sharrow markings on appropriate shared lanes but not as a substitution for bicycle lanes where feasible.

LOADING

Segment I along Clipper Street has residential use on the north side, and a steep slope on the south side between Douglass Street and Diamond Heights Boulevard. Segment II along Diamond Heights Boulevard has an open space on the east side and only a few residences on the west side. Loading demand is very low and there would be no change to the existing on-street parking spaces. Therefore, there would be no loading impacts as a result of Project 6-2 .

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

Project 6-3 includes two design options 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.

There are two options for this segment of Laguna Honda Boulevard.

- **Option 1**

  Option 1 would add Class II bicycle lanes in both directions on Laguna Honda Boulevard between Plaza Street and Woodside Avenue and a southbound left-turn bicycle lane between the through and the left-turn travel lanes at the approach to the Woodside Avenue intersection. This option would remove one northbound right-turn lane between Woodside Avenue and Dewey Boulevard and one northbound travel lane between Dewey Boulevard and approximately Forest Hill Station. One southbound

Due to major text changes, the following page will be numbered V.A.3-548 to remain consistent with the DEIR's pagination.

travel lane from 115 feet south of Plaza Street to Dewey Boulevard would also be removed to accommodate the southbound Class II bicycle lane.

- **Option 2**

  Option 2 would add Class II bicycle lanes in both directions directions on Laguna Honda Boulevard between Plaza Street and Woodside Avenue. This option would widen the roadway by relocating and rebuilding the sidewalks into the Laguna Honda Hospital and Forest Hill Station property lines on both sides of Laguna Honda Boulevard. This option would maintain the sidewalk widths but narrow the median width by two feet. In addition, Option 2 would modify the southbound approach to the Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue by changing the shared through-left turn lane to a exclusive left-turn lane.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

The new portion of this project is part of the Bicycle Route Network and currently has striped bicycle lanes. This portion of Laguna Honda Boulevard was added to the project so that adjustments could be made to the lane configurations to better match the configuration changes of the project within the original limits on Laguna Honda Boulevard from Plaza Street to Woodside Avenue. Modified Option 2 would not require cutting and rebuilding the sidewalks.

Modified Option 2 would remove one of the southbound lanes on Laguna Honda Boulevard from just south of Forest Hill Station to Woodside Avenue. This lane configuration is the same as the configuration analyzed in Option 1 of the Draft EIR. Proceeding southbound approaching Woodside Avenue, the vehicular lane configuration changes to match both existing conditions and the configuration set forth in Option 2. Therefore there would be no significant traffic impact as a result of this project modification.

Modified Option 2 would remove one southbound lane from Clarendon Avenue to Plaza Street, and one northbound lane from Plaza Street to Clarendon Avenue. For the southbound lane removal, there would be no impact to traffic operations. The existing two southbound lanes on Laguna Honda Boulevard from Clarendon Avenue to Plaza Street are fed by one lane on both southbound Laguna Honda Boulevard and westbound Clarendon Avenue. This intersection is signalized. The traffic signal meters traffic so there is always only one lane of traffic feeding into southbound Laguna Honda Boulevard south of Clarendon Avenue. Therefore, two southbound lanes on Laguna Honda Boulevard south of Clarendon Avenue are unnecessary.

Additionally, the SFMTA developed a traffic simulation of the Laguna Honda Boulevard corridor, from Clarendon Avenue to Woodside Avenue to verify this conclusion. The simulation showed there was no significant impact from the proposed lane configuration change.

For the northbound lane removal, there would be no significant impact to traffic operations. One of the existing northbound through lanes becomes a right-turn only lane approaching Clarendon Avenue. Through traffic is currently forced to merge into the one through lane that continues north past Clarendon Avenue. The proposed lane configuration moves this merge point further south. Additionally, a traffic simulation of the Laguna Honda Boulevard corridor from Clarendon Avenue to Woodside Avenue was developed to verify this conclusion. The simulation showed there was no impact from the proposed lane configuration change. Therefore, there would be no significant impact on traffic as a result of the implementation of Modified Option 2.

Intersection LOS calculations were performed for the PM peak hour.

One study intersection is included for the PM Peak Hour for Project 6-3.

Intersection 39: Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue

- **Option 1**

  Existing and Existing plus Project Conditions
  Under Existing conditions, this intersection operates at LOS B with 18.7 seconds of delay. The Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue intersection would operate satisfactorily at LOS C, with 28.8 seconds of average delay under Existing plus Project conditions. The southbound lane configuration would be modified from one through lane, one shared through-left turn lane, and one exclusive left-turn lane to one through lane and one exclusive left-turn lane. The westbound lane configuration would be modified from two exclusive left-turn lanes and two right-turn lanes to two left-turn lanes and one exclusive right-turn lane. Due to the reduction of capacity in the southbound direction and westbound direction, there would be an increase in delay along these approaches. The average intersection delay would increase by 10.1 seconds; however the intersection would continue to operate at a satisfactory level of service. Therefore, Project 6-3 Option 1 would not cause a significant traffic impact to the Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue intersection under Existing plus Project conditions. Table V.6-8, p. V.A.3-549, summarizes these results.

TABLE V.6-8
CLUSTER 6 – PROJECT 6-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

	Existing		Existing plus Project Option 1		Existing plus Project Option 2	
Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS	Average Delay[a]	LOS
39. Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue	18.7	B	28.8	C	18.9	B

Source: Wilbur Smith Associates, October 2008

Note:
a. Delay in seconds per vehicle.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue intersection would operate satisfactorily at LOS B, with 19.4 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate satisfactorily at LOS D, with 35.5 seconds of delay under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at this intersection with the implementation of Project 6-3 Option 1. Table V.6-9, p. V.A.3-549, summarizes these results.

TABLE V.6-9
CLUSTER 6 – PROJECT 6-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

	2025 Cumulative		2025 Cumulative plus Project Option 1		2025 Cumulative plus Project Option 2	
Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS	Average Delay[a]	LOS
39. Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue	19.4	B	35.5	D	19.6	B

Source: Wilbur Smith Associates, October 2008

Note:
a. Delay in seconds per vehicle.

- **Option 2**

Existing and Existing plus Project Conditions
Under Existing conditions, this intersection operates at LOS B with 18.7 seconds of delay. The Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue intersection would operate satisfactorily at LOS B, with 18.9 seconds of average delay under Existing plus Project conditions. The southbound lane configuration would be modified from one through lane, one shared through-left turn lane, and one exclusive left-turn lane to one through lane and two left-turn lanes. Due to the reduction in capacity in the southbound direction, there would be an increase in delay. The average intersection delay would increase by 0.2 seconds. Therefore, Project 6-3 Option 2 would not cause a significant traffic impact at the Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue intersection under Existing plus Project conditions. Table V.6-8 on p. V.A.3-549, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions
The Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue intersection would operate satisfactorily at LOS B, with 19.6 seconds of delay under 2025 Cumulative plus Project conditions. Therefore, a significant impact would not occur at this intersection with the implementation of Project 6-3 Option 2 under 2025 Cumulative plus Project Conditions. Table V.6-9 on p. V.A.3-549, summarizes these results.

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.

The proposed bicycle improvements would not change bus operations or passenger access.

- **Option 1**

Existing and Existing plus Project Conditions
For Existing conditions, Option 1 would add approximately 54 seconds of delay eastbound and 19 seconds of delay westbound to Muni bus operations in the PM peak hour. The headways for Muni bus lines along Project 6-3 range from 8 to 30 minutes in the PM peak period; the total added delay of 73 seconds (1.2 minutes) resulting from Project 6-3 would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with the implementation of Project 6-3 Option 1 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions

For Cumulative conditions, Option 1 would add approximately 69 seconds of delay eastbound and 43 seconds of delay westbound to Muni bus operations in the PM peak hour. The headways for Muni bus lines along Project 6-3 range from 8 to 30 minutes in the PM peak period; the total added delay of 112 seconds (1.9 minutes) resulting from Project 6-3 would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with the implementation of Project 6-3 Option 1 under 2025 Cumulative plus Project conditions.

- **Option 2**

Existing and Existing plus Project Conditions

For Existing conditions, Option 2 would not change bus operations or passenger access for Muni lines along this segment of Laguna Honda Boulevard and would not cause a substantive change in travel delay; therefore a significant transit impact would not occur with implementation of Project 6-3 Option 2 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions

For Cumulative conditions, Option 2 would add approximately 29 seconds of delay eastbound and 25 seconds of delay westbound to Muni bus operations in the PM peak hour. The headways for Muni bus lines along Project 6-3 range from 8 to 30 minutes in the PM peak period; the total added delay of 54 seconds resulting from Project 6-3 would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with the implementation of Project 6-3 Option 2 under 2025 Cumulative plus Project conditions.

PARKING

Modified Option 2 would remove eight vehicular parking spaces and two motorcycle parking spaces on the southbound side of Laguna Honda Boulevard, from Plaza Street to Forest Hill Station. The parking occupancy in this area is generally high, but the loss of eight parking spaces can be adequately accommodated with the changes proposed by Modified Option 2.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact as under the CEQA but rather a social effect. The loss of parking may cause potential, indirect physical effects, which would include cars circling and looking for a parking space on neighboring streets. The secondary effects of drivers searching for parking is typically offset 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 that may result from a shortfall in parking in the vicinity of Project 6-3 would be minor. The changes in on-street parking also would not cause any secondary physical impacts, such as traffic congestion, air quality impacts, or noise impacts caused by congestion. Therefore, there would be no significant parking impacts as a result of the implementation of Project 6-3 Modified Option 2.

There would be no changes in parking layout or the number of parking spaces with either Option 1 or Option 2 of Project 6-3. Therefore, there would be no parking impacts as a result of Project 6-3 with either Option 1 or Option 2.

PEDESTRIAN

- **Option 1**
  Option 1 would not change sidewalk, crosswalk layout or medians under Option 1. Therefore, there would be no pedestrian impacts under Project 6-3 Option 1.

- **Option 2**
  Option 2 would widen the roadway along Laguna Honda Boulevard by relocating sidewalk and narrowing portions of the median. Two pedestrian crossings would be affected: 1). The crossing distance at the crosswalk across Laguna Honda Boulevard in front of the Forest Hill Muni Station would be increased by three feet through narrowing of the median at the northbound bus stop pull-out. This crossing is not

signalized. 2). The roadway at the Laguna Honda Boulevard/Dewey Boulevard/ Woodside Avenue intersection for the southbound approach of Laguna Honda Boulevard would be widened by approximately eight feet through relocation of the sidewalk on the west side of Laguna Honda Boulevard (6 feet) and by reduction in the width of the center median (2 feet). This would effectively increase the crossing distance of that southbound approach to approximately 45 feet and approximately 86 feet to cross the whole leg of the intersection. For this crossing, there is a green time cycle of 12.9 seconds and a flashing cycle of 9 seconds. With the increased crossing distance under Option 2, pedestrians would still have adequate time to safely make this crossing at a normal speed of 4.0 feet per second. The center median would be used for pedestrians traveling at slower speeds. Potential conflicts between pedestrians and bicyclists in the bicycle lane would not increase over Existing conditions. Therefore, there would be no significant pedestrian impacts under Project 6-3 Option 2.

BICYCLE

Under both Option 1 and Option 2 of Project 6-3, bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. The proposed left-turn bicycle lane under both options at the approach to Woodside Avenue, similar to what SFMTA has implemented at the intersection of Howard and 10th Streets, would provide left-turning cyclists with needed road space to complete their maneuver safely. Hence, Project 6-3 with both Option 1 and Option 2 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

There are no existing on-street loading spaces in this segment, and the land uses in this short segment of Laguna Honda Boulevard do not have a loading demand. Passenger loading activity occurs in the turn-off areas in front of the Forest Hill Station entrance as well as on the east side across the street from the entrance, and neither option would change the layout at this location or any other on-street or off-street parking spaces. Therefore, there would be no loading impacts as a result of Project 6-3 with Option 1 or Option 2.

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

Modified Project 6-4 would add a Class II bicycle lane in the northbound direction on Laguna Honda Boulevard from Ulloa Street to Vasquez Avenue and would add sharrows on northbound Laguna Honda Boulevard from Vasquez Avenue to Woodside Avenue. In the southbound direction, Modified Project 6-4 would add a Class II bicycle lane to the existing Class III bicycle route. To add the Class II bicycle lane four parking spaces would be removed.

Three existing Muni bus stops would be consolidated 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.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection 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 Muni 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. At the pole bus stops, buses stop in the travel lane adjacent to on-street parking to load and unload passengers. Because there is one travel lane in each direction, vehicles and bicyclists must wait behind the bus. Since transit volumes are moderate and traffic and bicycle volumes are generally low, interactions and the potential for conflicts are minimal and would not change as a result of Project 6-4.

Project 6-4 would consolidate two Muni pole stops on each side of Laguna Honda Boulevard at Idora and Balceta Avenues into one bus zone at Hernandez Avenue in each direction. Consolidating Muni bus stops and creating bus zones would reduce the potential for transit and traffic delay in this segment of Laguna Honda Boulevard by designating space at the curb, instead of next to parked cars, in order for buses to load and unload passengers without blocking the proposed bicycle lane or travel lane and impacting travel time or transit operation. Removing two pole stops would also reduce potential conflict points between buses and bicyclists by eliminating the interaction between buses and bicyclists at these stops.

Therefore, there would be no significant impacts on transit capacity, transit operation, and travel time as well as the interactions between buses and bicyclists as a result of Project 6-4.

PARKING

There are a total of approximately 70 existing on-street parking spaces on both sides of Laguna Honda Boulevard between Portola Drive and Woodside Avenue. Due to the conversion of the three existing pole stops into one bus zones along Laguna Honda Boulevard between Portola

Drive and Vasquez Avenue and other modifications, 12 on-street parking spaces would be removed. On-street parking occupancy is less than 50 percent utilized during the midday period between Portola Drive and Woodside Avenue. This is a single-family residential community and residences have off-street parking in driveways and garages. The loss of 12 on-street parking spaces can be adequately accommodated with the changes proposed by Modified Project 6-4. Therefore, there would be no significant parking impacts with implementation of Modified Project 6-4.

PEDESTRIAN

Pedestrian volumes are generally low, and there would be no changes in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of Project 6-4. Therefore, there would be no pedestrian impacts with the implementation of Project 6-4.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. Therefore, Project 6-4 would not result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This area has mostly residential uses, which typically do not have an on-street loading demand that would conflict with bicyclists. There were no double-parked vehicles or significant loading needs observed in the field, and Project 6-4 would not change the on-street and off-street parking spaces. Therefore, there would be no loading impacts as a result of Project 6-4.

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

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.

Modified Project 6-5 and Project 6-6 Modified Option 2 Combined

Modified Project 6-5 would not change lane configuration at the intersection Woodside Avenue/O'shaughnessy Boulevard/Portola Avenue. Similarly, Modified Option 2 for Project 6-6, which is discussed in detail separately later in this document, also would not change the lane configuration at this intersection. Therefore, the existing capacity at this intersection is maintained and there will be no significant traffic impact as a result of the implementation of Modified Project 6-5 and Project 6-6 Modified Option 2 Combined.

Project 6-5 would add a Class II bicycle lane in both directions between Corbett Avenue and O'Shaughnessy Boulevard. In the eastbound direction, a travel lane would be removed from O'Shaughnessy Boulevard to 300 feet westerly and by narrowing travel lanes from 300 feet east of O'Shaughnessy Boulevard to 215 feet west of Corbett Avenue. In the westbound direction, Project 6-5 would narrow travel lanes from Corbett Avenue to Burnet Avenue and remove one travel lane approaching Clipper Street and a westbound left-turn lane approaching O'Shaughnessy Boulevard. Approximately four on-street parking spaces would be removed and 15 spaces would be gained on this segment.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Modified Project 6-5 would retain the existing lane configurations at the intersections of Woodside Avenue/O'Shaughnessy Boulevard/Portola Avenue and Portola Avenue/Burnett Avenue/Diamond Heights Boulevard/Clipper Street, consistent with the option in the Draft EIR. Modified Project 6-5 would add sharrows to the existing Class III bike route in the westbound direction from Burnett Avenue to approximately 272 feet westerly and in the westbound direction approaching Twin Peaks Boulevard, beginning approximately 150 feet easterly. The Draft EIR did not consider sharrows in the westbound direction. The Draft EIR analyzed Class II bicycle lanes in the westbound direction for the entire project length from Corbett Avenue to O'Shaughnessy Boulevard. Modified Project 6-5 would reduce the scope of the project compared to the project analyzed in the Draft EIR. The Draft EIR analyzed the presence of sharrows on the existing bicycle route network, concluding that the installation of sharrows would not significantly impact traffic or transit operations (see p. V.A.4-13 of the Draft EIR). Therefore, there would be no significant traffic impact associated with the implementation of this project revision. Hence, significant traffic impacts TR-6-5c, TR-6-5d, TR-6-5g, TR-6-5h, and TR-6-5i would not occur.

Modified Project 6-5 and Project 6-6 Modified Option 2 Combined

Modified Project 6-5 would not change lane configuration at the intersection Woodside Avenue/O'shaughnessy Boulevard/Portola Avenue. Similarly, Modified Option 2 for Project 6-6, which is discussed in detail separately later in this document, also would not change the lane configuration at this intersection. Therefore, the existing capacity at this intersection is maintained and there will be no significant traffic impact as a result of the implementation of Modified Project 6-5 and Project 6-6 Modified Option 2 Combined.

Therefore, the existing capacity at this intersection is maintained and there will be no significant traffic impact as a result of the implementation of Modified Project 6-5. Therefore, significant traffic impact TR-P6-5a would not occur at this intersection as a result of the implementation of Modified Project 6-5.

Intersection LOS calculations were performed for the AM and PM peak hour.

One study intersection is included in Project 6-5 for the AM peak period.

Intersection 37: Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive

The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection is common to Projects 6-5 and 6-6 within the Cluster 6 area. Only one design option is proposed under Project 6-5. However, two design options are proposed for Project 6-6. For Project 6-5, Option 1 proposes the removal of an exclusive left-turn lane in the westbound direction. For Project 6-6, Option 1 proposes the removal of a through lane in the eastbound direction. Option 2 has the same lane configuration as Existing (No Project) conditions. The analysis below reflects the combined impact of implementing Projects 6-5 and 6-6 at this intersection. The impacts resulting from the implementation of Project 6-5 alone will follow the discussion of the combined impacts.

- **Option 1**

  Existing and Existing plus Project Conditions for Projects 6-5 and 6-6 combined – AM Analysis

  For combined Projects 6-5 and 6-6, under Existing conditions, this intersection operates at LOS E in the AM Peak hour with 60.1 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions. The eastbound lane configuration would be modified from two through lanes, one exclusive left-turn lane, and one shared through-right turn lane to one through lane, one exclusive left-turn lane, and one shared through-right turn lane. The westbound lane configuration would be modified from two exclusive left-turn lanes, two through lanes, and one exclusive right-turn lane to one exclusive left-turn lane, two through lanes, and one exclusive right-turn lane. Due to the reduction of capacity in the eastbound direction and westbound direction, there would be an increase in delay along these approaches. Because the eastbound and westbound critical movements at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P6-5a) would occur at this intersection with implementation of Projects 6-5 and 6-6 combined Option 1. Table V.6-10, p. V.A.3-556, summarizes these results.

TABLE V.6-10
CLUSTER 6 – PROJECTS 6-5 AND 6-6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR WOODSIDE AVENUE/O'SHAUGHNESSY BOULEVARD/PORTOLA DRIVE EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

		Existing plus Project Option 1				Existing plus Project Option 2			
Existing		Project 6-5		Combined Projects 6-5 and 6-6		Project 6-5		Combined Projects 6-5 and 6-6	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
60.1	**E**	**69.8**	**E**	**>80**	**F**	-	-	**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.

Existing and Existing plus Project Conditions for Projects 6-5 and 6-6 combined – PM Analysis

For combined Projects 6-5 and 6-6 in the PM Peak Hour, under Existing conditions, this intersection operates at LOS F with more than 80 seconds of delay. The Woodside Avenue/O’Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions. The eastbound lane configuration would be modified from two through lanes, one exclusive left-turn lane, and one shared through-right turn lane to one through lane, one exclusive left-turn lane, and one shared through-right turn lane. The westbound lane configuration would be modified from two exclusive left-turn lanes, two through lanes, and one exclusive right-turn lane to one exclusive left-turn lane, two through lanes, and one exclusive right-turn lane. Due to the reduction of capacity in the eastbound direction and westbound direction, there would be an increase in delay along these approaches. Because the eastbound critical movements at the Woodside Avenue/O’Shaughnessy Boulevard/Portola Drive intersection either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P6-5e) would occur at this intersection with implementation of Projects 6-5 and 6-6 combined Option 1. Table V.6-11, p. V.A.3-557, summarizes these results.

Existing and Existing plus Project Conditions for Project 6-5 alone – AM Analysis

Under Existing conditions, in the AM Peak hour, this intersection operates at LOS E with 60.1 seconds of delay. The Woodside Avenue/O’Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS E, with 69.8 seconds of average delay under Existing plus Project conditions. The westbound lane configuration would be modified from two exclusive left-turn lanes, two through lanes, and one exclusive right-turn lane to one exclusive left-turn lane, two through lanes, and one exclusive right-turn lane. Due to the reduction of capacity in the westbound direction, there would be an increase in delay along this approach. Because the eastbound and westbound critical movements at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P6-5c) would occur at this intersection with implementation of Project 6-5. Table V.6-10, p. V.A.3-556, summarizes these results.

Existing and Existing plus Project Conditions for Project 6-5 alone – PM Analysis

For Project 6-5 by itself in the PM Peak Hour, under Existing conditions, this intersection operates at LOS F with more than 80 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions. The westbound lane configuration would be modified from two exclusive left-turn lanes, two through lanes, and one exclusive right-turn lane to one exclusive left-turn lane, two through lanes, and one exclusive right-turn lane. Due to the reduction of capacity in the westbound direction, there would be an increase in delay along this approach. Because the eastbound critical movement at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection either deteriorates or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P6-5g) would occur at this intersection with implementation of Project 6-5. Table V.6-11, p. V.A.3-557, summarizes these results.

TABLE V.6-11
CLUSTER 6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR WOODSIDE AVENUE/O'SHAUGHNESSY BOULEVARD/PORTOLA DRIVE EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1				Existing plus Project Option 2			
Existing		Project 6-5		Combined Projects 6-5 and 6-6		Project 6-5		Combined Projects 6-5 and 6-6	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	**>80**	**F**	**>80**	**F**	-	-	**>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.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-5 and 6-6 combined – AM Analysis

For combined Projects 6-5 and 6-6, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F in the AM Peak Hour, with more than 80 seconds of average delay under 2025 Cumulative conditions. This intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Deterioration of the eastbound and westbound critical movements at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive to LOS F, when comparing Existing plus Project to Existing conditions, is deemed a significant impact. As a consequence, a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P6-5b) would occur at this intersection with implementation of Projects 6-5 and 6-6 combined Option 1. Table V.6-12, p. V.A.3-558, summarizes these results.

TABLE V.6-12
CLUSTER 6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR WOODSIDE AVENUE/O'SHAUGHNESSY BOULEVARD/PORTOLA DRIVE 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
2025 Cumulative		Project 6-5		Combined Projects 6-5 and 6-6		Project 6-5		Combined Projects 6-5 and 6-6	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	**>80**	**F**	**>80**	**F**	-	-	**>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.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-5 and 6-6 combined – PM Analysis

For combined Projects 6-5 and 6-6 in the PM Peak Hour, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. This intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. Deterioration of the eastbound critical movement at Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive to LOS F, when comparing Existing plus Project to Existing conditions, is deemed a significant impact. As a consequence, a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P6-5f) would occur at this intersection with the implementation of Projects 6-5 and 6-6 combined Option 1. Table V.6-13, p. V.A.3-559, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 6-5 alone – AM Analysis

For Project 6-5, by itself, in the AM Peak Hour, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. This intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. The westbound lane configuration would be modified from two exclusive left-turn lanes, two through lanes, and one exclusive right-turn lane to one exclusive left-turn lane, two through lanes, and one exclusive right-turn lane. Deterioration of the eastbound and westbound critical movements at the Woodside

Avenue/O'Shaughnessy Boulevard/Portola Drive for Existing plus Project to LOS F relative to Existing conditions is deemed a significant impact. As a consequence, a corresponding LOS deterioration is expected at this intersection, for 2025 Cumulative plus Project conditions, when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P6-5d) would occur at this intersection with the implementation of Projects 6-5. Table V.6-12, p. V.A.3-558, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 6-5 alone – PM Analysis

For Project 6-5 by itself in the PM Peak Hour, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. This intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. The westbound lane configuration would be modified from two exclusive left-turn lanes, two through lanes, and one exclusive right-turn lane to one exclusive left-turn lane, two through lanes, and one exclusive right-turn lane. Deterioration of the eastbound and westbound critical movements at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive to LOS F, when comparing Existing plus Project to Existing conditions, is deemed a significant impact. As a consequence, a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P6-5h) would occur at this intersection with the implementation of Projects 6-5. Table V.6-13, p. V.A.3-559, summarizes these results.

TABLE V.6-13
CLUSTER 6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR WOODSIDE AVENUE/O'SHAUGHNESSY BOULEVARD/PORTOLA DRIVE 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
2025 Cumulative		Project 6-5		Combined Projects 6-5 and 6-6		Project 6-5		Combined Projects 6-5 and 6-6	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	**>80**	**F**	**>80**	**F**	**-**	**-**	**>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.

Option 2

Existing and Existing plus Project Conditions for Projects 6-5 and 6-6 combined – AM Analysis

Under Existing conditions, this intersection operates at LOS E with 60.1 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS E, with 60.1 seconds of delay under Existing plus Project conditions. However, there are no lane configuration adjustments to this intersection under Existing plus Project conditions relative to Existing conditions. Hence, there is no change in LOS or delay at this intersection. Thus, Projects 6-5 and 6-6 combined would not cause a significant impact at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection under Existing plus Project conditions for the AM Peak Hour. Table V.6-10, p. V.A.3-556, summarizes these results.

Existing and Existing plus Project Conditions for Projects 6-5 and 6-6 combined – PM Analysis

For the combined Project 6-5 and 6-6 in the PM Peak Hour, under Existing conditions, this intersection operates at LOS F with more than 80 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions. However, there are no lane configuration adjustments to this intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay at this intersection. Thus, Projects 6-5 and 6-6 combined Option 2 would not cause a significant impact at the Woodside

Avenue/O'Shaughnessy Boulevard/Portola Drive intersection under Existing plus Project conditions for the PM Peak hour. Table V.6-11, p. V.A.3-557, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-5 and 6-6 combined – AM Analysis

For the combined Project 6-5 and 6-6, under 2025 Cumulative conditions, this intersection operates at LOS F with more than 80 seconds of delay in the AM Peak Hour. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to this intersection under 2025 Cumulative plus Project conditions, relative to 2025 Cumulative conditions. Hence, there would be no change in LOS or delay at this intersection. Thus, Projects 6-5 and 6-6 combined Option 2 would not cause a significant impact at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection under 2025 Cumulative plus Project conditions for the AM Peak hour. Table V.6-12, p. V.A.3-558, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-5 and 6-6 combined – PM Analysis

For the combined Project 6-5 and 6-6 in the PM Peak Hour, under 2025 Cumulative conditions, this intersection operates at LOS F with more than 80 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to this intersection under 2025 Cumulative plus Project conditions relative to 2025 Cumulative conditions. Hence, there would be no change in LOS or delay at this intersection. Thus, Projects 6-5 and 6-6 combined Option 2 would not cause a significant impact at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection under 2025 Cumulative plus Project conditions for the PM peak hour. Table V.6-13, p. V.A.3-559, summarizes these results.

Intersection 38: Burnett Street/Clipper Street/Portola Drive

- **Option 1**

Existing and Existing plus Project Conditions for Projects 6-2 and 6-5 combined
Please see Project 6-2 discussion on p. V.A.3-539

Existing and Existing plus Project Conditions for Project 6-5 alone
For Project 6-5 by itself, under Existing conditions, this intersection operates at LOS D with 49.6 seconds of delay. The Burnett Avenue/Clipper Street/Portola Drive intersection would operate satisfactorily at LOS D, with 50.5 seconds of average delay under Existing plus Project conditions. The westbound lane configuration would be modified from one exclusive left-turn lane, two through lanes and a shared through-right lane to one exclusive left-turn lane, two through lanes and one shared through-right lane. No lane configuration changes are proposed for the other approaches relative to Existing conditions. Due to the reduction of capacity in the westbound direction, there would be an increase in delay along this approach. Since the intersection continues to operate at an acceptable LOS under Existing plus Project conditions, no significant impacts would occur at the Burnett Avenue/Clipper Street/Portola Drive with the implementation of Project 6-5. Table V.6-14, p. V.A.3-563, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-2 and 6-5 combined
Please see Project 6-2 discussion on p. V.A.3-539

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 6-5 alone
For Project 6-5 by itself in the PM Peak Hour, the Burnett Avenue/Clipper Street/Portola Drive intersection would operate unsatisfactorily at LOS E, with 70.1 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS E, with 71.4 seconds of delay. The westbound lane configuration would be modified from one exclusive left-turn lane, two through lanes and a shared through-right lane to one exclusive left-turn lane, two through lanes and one shared through-right lane. No lane configuration changes are proposed for the other approaches relative to Existing conditions. Due to the reduction of capacity in the westbound direction, there would be an increase in delay along this approach. Since there is no change in LOS for the westbound critical movements under Existing plus Project conditions, a significant impact (Significant Impact TR-P6-5i) would occur at the Burnett Avenue/Clipper Street/Portola Drive intersection with the implementation of Project 6-5. Table V.6-15, p. V.A.3-564, summarizes these results.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 6-2 and 6-5 combined
Please see Project 6-2 discussion on p. V.A.3-539

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-2 and 6-5 combined
Please see Project 6-2 discussion on p. V.A.3-539

TABLE V.6-14
CLUSTER 6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR BURNETT AVENUE/CLIPPER STREET/PORTOLA DRIVE EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1				Existing plus Project Option 2			
Existing		Project 6-5		Combined Projects 6-2 and 6-5		Project 6-5		Combined Projects 6-2 and 6-5	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
49.6	D	50.5	D	**>80**	**F**	-	-	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.

TABLE V.6-15
CLUSTER 6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR BURNETT AVENUE/CLIPPER STREET/PORTOLA DRIVE 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
2025 Cumulative		Project 6-5		Combined Projects 6-2 and 6-5		Project 6-5		Combined Projects 6-2 and 6-5	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
70.1	**E**	**71.4**	**E**	**>80**	**F**	**-**	**-**	**70.1**	**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.

Significant Impact TR-P6-5a (Projects 6-5 and 6-6 combined):

The intersection of Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive would operate at LOS F under Existing plus Project conditions for Option 1 in the AM peak hour.

Under Existing conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS E with 60.1 seconds of delay for the AM peak hour. However, under Existing plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions on Portola Drive. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 6-5 for the AM peak hour.

Significant Impact TR-P6-5b (Projects 6-5 and 6-6 combined):

The intersection of Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1 in the AM peak hour.

Under 2025 Cumulative conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay for the AM peak hour. However, under 2025 Cumulative plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions on Portola Drive. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 6-5 for the AM peak hour.

Significant Impact TR-P6-5c:

Under Existing conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS E with 60.1 seconds of delay for the AM peak hour. However, under Existing plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions on Portola Drive. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur in the AM peak hour at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-5.

Significant Impact TR-P6-5d:

The intersection of Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1.

Under 2025 Cumulative conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay for the AM peak hour. However, under Existing plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions on Portola Drive. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 6-5.

Significant Impact TR-P6-5e (Projects 6-5 and 6-6 combined):

Under Existing conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay. Under Existing plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions on Portola Drive. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Projects 6-5 and Project 6-6 Option 1 combined.

Significant Impact TR-P6-5f (Projects 6-5 and 6-6 combined):

Under 2025 Cumulative conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay. Under 2025 Cumulative plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions on Portola Drive. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Projects 6-5 and Project 6-6 Option 1 combined

Significant Impact TR-P6-5g:

Under Existing conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay. Under Existing plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the westbound direction on Portola Drive. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 6-5.

Significant Impact TR-P6-5h:

Under 2025 Cumulative conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay. Under 2025 Cumulative plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy

Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the westbound direction on Portola Drive. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 6-5.

Significant Impact TR-P6-5i:

Under Cumulative conditions, the Burnett Avenue/Clipper Street/Portola Avenue intersection operates at LOS E with 70.1 seconds of delay. Under 2025 Cumulative plus Project conditions for Option 1, the Burnett Avenue/Clipper Street/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the westbound direction on Portola Drive. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 6-5.

TRANSIT

As described in the Traffic impact analysis above, Modified Project 6-5 would not remove any traffic lanes on the approach to the Woodside Avenue/O’Shaughnessy Boulevard/Portola Avenue intersection. Therefore, Modified Project 6-5 would not have a significant impact on Transit.

This project would establish bus zones on Portola Drive at the existing pole stop locations listed below.

- 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).

The conversion of existing pole stops to bus zones would not cause a significant impact to traffic or transit operations because transit is currently stopping at each of these locations, and at all but one of the locations (the third item above, north side, east of 110 Portola Drive), parking is already prohibited so these pole stops function currently as de facto bus zones. Therefore, there would be no significant impact to transit operations as a result of the implementation of Modified Project 6-5. However, in taking a conservative approach for 2025 Cumulative plus Project conditions the following transit impacts would still occur with the implementation of Project 6-2 Segment I Option 1 and Segment II Option 2 (now the only option for this segment), Modified Project 6-5 and Project 6-6 Modified Option 2 Combined: Significant Impact TR-P6-5j on Muni bus route 48 and Significant Impact TR-6-5k on Muni bus route 52.

In addition to the above supplemental text for Project 6-5, pages V.A.3-554 to V.A.3-571 of the Draft EIR for Project 6-5 are revised as presented below. Analysis for individual Project 6-5 was placed in an incorrect order with respect to combined project analysis. The text has been reorganized to better present the analysis with respect to the impacts resulting from individual Project 6-5.

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 and PM peak period and eight buses each way during the PM peak period. 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.

Project 6-5 shares common intersections with Project 6-2: Clipper Street Bicycle Lanes, Douglass Street to Portola Drive (Intersection 38: Burnett Avenue/Clipper Street/Portola Drive) and with Project 6-6: Portola Drive Bicycle Lanes, O'Shaughnessy Boulevard/Woodside Avenue to Sloat Boulevard/St. Francis Boulevard (Intersection 37: Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive). The transit delay analysis below (Projects 6-2, 6-5, and 6-6 combined) reflects the combined impact of Projects 6-2, 6-5, and 6-6 modifications to the Burnett Avenue/Clipper Street/Portola Drive and Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersections on transit delay. This analysis is followed by the transit delay analysis for

(Projects 6-5 and 6-6 combined) for the combined impact of Projects 6-5 and 6-6 modifications to the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection on transit delay. The impacts resulting from the implementation of Project 6-5 without Projects 6-2 and 6-6 modifications to the two intersections will follow.

Existing plus Project Conditions (Projects 6-2, 6-5, and 6-6 Combined)

With Projects 6-2, 6-5, and 6-6 combined under Existing plus Project conditions, approximately 31 seconds of delay would be added in the eastbound direction; delay would be decreased in the westbound direction by approximately 132 seconds for each bus line for the PM peak period. The headways for Muni bus lines 37, 48, and 52 in the PM peak period are 15, 12 and 15 minutes, respectively; no total delay would be added with Project 6-5. Therefore, a significant transit impact would not occur with the implementation of Projects 6-2, 6-5, and 6-6 combined under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions (Projects 6-2, 6-5, and 6-6 Combined)

With Projects 6-2, 6-5, and 6-6 combined under 2025 Cumulative plus Project conditions, approximately 202 seconds (3.4 minutes) of delay would be added eastbound and approximately 428 seconds (7.1 minutes) of delay added westbound for the PM peak period. The total added delay for Muni bus line 37, which operates only in the eastbound direction, is 202 seconds (3.4 minutes) and would be less than the transit delay threshold of 6 minutes. For Muni bus lines 48 and 52, the total added delay of 630 seconds (10.5 minutes) would be greater than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would result to Muni bus lines 48 and 52 with implementation of Projects 6-2, 6-5, and 6-6 combined under 2025 Cumulative plus Project conditions.

COMBINED PROJECTS DISCUSSION

The transit delay analysis below (Projects 6-5 and 6-6 combined) reflects the combined impact of Projects 6-5 and 6-6 modifications to the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection on transit delay.

Existing and Existing plus Project Conditions for Projects 6-2 and 6-5 combined
Please see Project 6-2 discussion on p. V.A.3-539

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-2 and 6-5 combined

Please see Project 6-2 discussion on p. V.A.3-539.

- **Option 1**

Existing plus Project Conditions (Projects 6-5 and 6-6 Combined)

With Option 1 under Existing plus Project conditions, approximately 35 seconds of delay would be added in the eastbound direction for the PM peak hour. This added delay would result from the removal of a travel lane in the eastbound direction between Evelyn Way and Woodside/O'Shaughnessy Boulevard and delays caused by eastbound bus line 48 stopping in the travel lane for passenger loading/unloading at the bus stop on the nearside of the Portola Drive/O'Shaughnessy Boulevard intersection. The headways for Muni bus lines 36, 43, and 48 are 20, 10 and 12 minutes, respectively; the total added delay of 35 seconds would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with the implementation of Projects 6-5 and 6-6 combined Option 1 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions (Projects 6-5 and 6-6 Combined)

With Option 1 under 2025 Cumulative plus Project conditions, approximately 212 seconds (3.5 minutes) of delay would be added in the eastbound direction for the PM peak hour. This added delay would result from the removal of a travel lane in the eastbound direction between Evelyn Way and Woodside/O'Shaughnessy Boulevard and delays caused by eastbound bus line 48 stopping in the travel lane for passenger loading/unloading at the bus stop on the nearside of the Portola Drive/O'Shaughnessy Boulevard intersection. The headways for Muni bus lines 36, 43, and 48 are 20, 10 and 12 minutes, respectively; the total added delay of 212 seconds (3.5 minutes) would be less than the transit delay threshold of 6 minutes. Therefore, a significant transit impact would not occur with the implementation of Projects 6-5 and 6-6 combined Option 1 under 2025 Cumulative plus Project conditions.

Existing and Existing plus Project Conditions for Project 6-5 alone

With Project 6-5 under Existing plus Project conditions, approximately 31 seconds of delay would be added in the eastbound direction; delay would be decreased in the westbound direction by approximately 132 seconds for each bus line for the PM Peak hour. The headways for Muni bus lines 37, 48, and 52 in the PM peak period are 15, 12 and 15 minutes, respectively; no total delay would be added with Project 6-5. Therefore, a significant transit impact would not occur with the implementation of Project 6-5 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 6-5 alone

With Project 6-5 under 2025 Cumulative plus Project conditions, approximately 202 seconds (3.4 minutes) of delay would be added eastbound and approximately 428 seconds (7.1 minutes) of delay added westbound for the PM peak period. The total added delay for Muni bus line 37, which operates only in the eastbound direction, would be less than the transit delay threshold of 6 minutes. For Muni bus lines 48 and 52, the total added delay of 630 seconds (10.5 minutes) would be greater than the transit delay threshold of 6 minutes. Therefore, a significant transit impact (Significant Impact TR-P6-5j and TR-P6-5k) would result to Muni bus lines 48 and 52 with implementation of Project 6-5 under 2025 Cumulative plus Project conditions.

- **Option 2**

  Existing and Existing plus Project Conditions for Projects 6-5 and 6-6 combined

  With Option 2 no travel lanes would be removed; impacts on transit service resulting from narrowing of travel lanes would be minor. Therefore, there would be no significant impacts with Projects 6-5 and 6-6 combined Option 2 under Existing plus Project conditions.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-5 and 6-6 combined

With Option 2 no travel lanes would be removed; impacts on transit service resulting from narrowing of travel lanes would be minor. Therefore, there would be no significant impacts with Projects 6-5 and 6-6 combined Option 2 under 2025 Cumulative plus Project conditions.

Since there are no significant transit impacts under Existing plus Project and 2025 Cumulative plus Project conditions for either Option 1 or Option 2 of Projects 6-5 and 6-6 combined, there would be no significant transit impact from individual Project 6-6.

Significant Impact 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, under Option 1.

Significant Impact 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 Projects 6-2, 6-5, and 6-6 combined, under Option 1.

PARKING

Modified Project 6-5 would remove a total of four parking spaces relative to the existing condition. The Draft EIR analyzed a parking gain of 15 parking spaces. This project would not add approximately 15 parking spaces, as analyzed in the Draft EIR, and would therefore have a net total parking loss of four spaces. The revised project would remove approximately four parking spaces on the west side of Portola Drive south of Corbett Avenue, where parking occupancy is relatively moderate. There are approximately 60 parking spaces on both sides of Portola Drive between Corbett and Burnett Avenues as noted on p. V.A.3-571 of the Draft EIR.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact as under the CEQA but rather a social effect. The loss of parking may cause potential, indirect physical effects, which would include cars circling and looking for a parking space on neighboring streets. The secondary effects of drivers searching for parking is typically offset 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 that may result from a shortfall in parking in the vicinity of Project 6-5 would be minor. The changes in on-street parking also would not cause any secondary physical impacts, such as traffic congestion, air quality impacts, or noise impacts caused by congestion. Therefore, there would be no significant parking impacts as a result of the implementation of Modified Project 6-5.

There are a total of approximately 60 on-street parking spaces on both sides of Portola Drive between Corbett and Burnett Avenues. On-street parking is not permitted on either side of the remaining portion of Portola Drive between Burnett Avenue/Diamond Heights Boulevard and O'Shaughnessy Boulevard. Project 6-5 would remove approximately four on-street 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. Project 6-5 would also revoke the Tow-Away No Stopping Anytime zone on the west side of Portola Drive on the nearside of Burnett Avenue and add 15 on-street parking spaces at this location. As a result of Project 6-5, a net total of 11 spaces would be gained. Therefore, there would be no significant parking impacts resulting from the implementation of Project 6-5.

PEDESTRIAN

Pedestrian volumes are generally low, and there would be no changes in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of Project 6-5. Therefore, there would be no pedestrian impacts as a result of Project 6-5.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. Hence, Project 6-5 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of Portola Drive has mostly residential buildings, except near O'Shaughnessy Boulevard where there are commercial uses. On the south side of Portola Drive, retail businesses are located behind a row of metered parking, and loading activities occur within the parking lot area and would not be affected by the proposed bicycle lane. While there are relatively high volumes of vehicular traffic to and from the side streets, their access is regulated by traffic signals and would not conflict with bicycle traffic along Portola Drive. Therefore, there would be no significant loading impacts as a result of Project 6-5.

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

There are two options for the portion of Portola Drive between Sloat and St. Francis Boulevards and O'Shaughnessy Boulevard and Woodside Avenue.

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.

- **Option 1**
  Option 1 would add a bicycle lane between St. Francis and O'Shaughnessy Boulevards in the northeast direction by removing approximately 240 parking spaces between St. Francis Boulevard and Evelyn Way and by removing one travel lane between Evelyn Way and O'Shaughnessy Boulevard. Sharrows would be added in the southwest direction between Evelyn Way and Sloat Boulevard except for the segment between Laguna Honda Boulevard and Waithman Way where a bicycle lane would be added. Also in the southwest direction, a bicycle lane would be added between Woodside Avenue and Sydney Way/Fowler Avenue by removing one left-turn lane approaching Fowler Avenue.

- **Option 2**
  Option 2 would add a bicycle lane in the northeast direction from St. Francis Boulevard to Evelyn Way by narrowing travel lanes. This option would install sharrows in the northeast direction from Evelyn Way to O'Shaughnessy Boulevard. Sharrows would be added in the southwest direction between Woodside Avenue and Sloat Boulevard except for the segment between Laguna Honda Boulevard and Waithman Way where a bicycle lane would be added. There is no parking or lane removal associated with this option.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Modified Option 2 would retain the existing lane configurations at the intersection Woodside Avenue/O'Shaughnessy Boulevard/Portola Avenue. At the eastbound approach to this intersection, a Class II bicycle lane would be provided by narrowing existing traffic lanes, as analyzed under Option 2. Therefore, there would be no significant impact at this intersection with the implementation of Modified Option 2.

Modified Option 2 would remove one southwest left-turn lane on Portola Drive approaching Fowler Avenue. The existing dual left-lane configuration includes one left-turn only lane to Fowler and one U-turn only lane into the adjacent parking area. Although there may be some minor increase in delay, the proposed lane removal would not cause a significant impact to traffic operations because the existing dual turn lanes are fed by only one lane of traffic on Portola Drive and the U-turn volumes are relatively low. A traffic simulation of this intersection was developed to verify this conclusion, and it showed that the left-turn queue would not exceed the length of the proposed single left-turn pocket. Therefore there would be no significant traffic impact with implementation of Modified Option 2.

Intersection LOS calculations were performed for the AM and PM peak hour.

One study intersection is included in Project 6-6 for the AM peak period.

Intersection 37: Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive

The intersection is shared by Project 6-5 and 6-6. There analysis below reflects the impacts resulting from the impacts from the implementation of the combined projects. If no significant impacts would result from the implementation of the combined projects, then there would be no significant impact from the implementation of the individual project.

- **Option 1**

  Existing and Existing plus Project Conditions for Projects 6-5 and 6-6 combined – AM Analysis
  Please see Project 6-5 discussion on p. V.A.3-554

  Existing and Existing plus Project Conditions for Projects 6-5 and 6-6 combined – PM Analysis
  Please see Project 6-5 discussion on p. V.A.3-554

Existing and Existing plus Project Conditions for Project 6-6 alone – AM Analysis

For Project 6-6 by itself in the AM Peak Hour, under Existing conditions, this intersection operates at LOS E with 60.1 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration would be modified from one exclusive left-turn lane, two through lanes, and one shared through-right lane to one exclusive left-turn lane, one through lane, and one shared through-right lane. Due to the reduction of capacity in the eastbound direction, there would be an increase in delay along this approach. Because the eastbound critical movement at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection either deteriorates or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P6-6a) would occur at this intersection with implementation of Project 6-6 Option 1. Table V.6-16 below summarizes these results.

TABLE V.6-16
CLUSTER 6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR WOODSIDE AVENUE/O'SHAUGHNESSY BOULEVARD/PORTOLA DRIVE EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

		Existing plus Project Option 1				Existing plus Project Option 2			
Existing		Project 6-6		Combined Projects 6-5 and 6-6		Project 6-6		Combined Projects 6-5 and 6-6	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
60.1	**E**	**>80**	**F**	**>80**	**F**	**60.1**	**E**	**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.

Existing and Existing plus Project Conditions for Project 6-6 alone – PM Analysis

For Project 6-6 by itself in the PM Peak Hour, under Existing conditions, this intersection operates at LOS F with more than 80 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration would be modified from one exclusive left-turn lane, two through lanes, and one shared through-right lane to one exclusive left-turn lane, one through lane, and one shared through-right lane. Due to the reduction of capacity in the eastbound direction, there would be an increase in delay along this approach. Because the eastbound critical movement at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection either deteriorates or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under Existing plus Project conditions, a significant impact (Significant Impact TR-P6-6c) would occur at this intersection with implementation of Project 6-6 Option 1. Table V.6-17 below summarizes these results.

TABLE V.6-17
CLUSTER 6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR WOODSIDE AVENUE/O'SHAUGHNESSY BOULEVARD/PORTOLA DRIVE EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		Existing plus Project Option 1				Existing plus Project Option 2			
Existing		Project 6-6		Combined Projects 6-5 and 6-6		Project 6-6		Combined Projects 6-5 and 6-6	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	**>80**	**F**	**>80**	**F**	**>80**	**F**	**>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.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-5 and 6-6 combined – AM Analysis

Please see Project 6-5 discussion on p. V.A.3-554

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-5 and 6-6 combined – PM Analysis

Please see Project 6-5 discussion on p. V.A.3-554

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 6-6 alone – AM Analysis

For Project 6-6 by itself in the AM Peak Hour, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. This intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. The eastbound lane configuration would be modified from one exclusive left-turn lane, two through lanes, and one shared through-right lane to one exclusive left-turn lane, one through lane, and one shared through-right lane. Deterioration of the eastbound critical movement at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive to LOS F, when comparing Existing plus Project to Existing conditions, is deemed a significant impact. As a consequence, a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P6-6b) would occur at this intersection with the implementation of Projects 6-6 Option 1. Table V.6-18, p. V.A.3-575, summarizes these results.

TABLE V.6-18
CLUSTER 6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR WOODSIDE AVENUE/O'SHAUGHNESSY BOULEVARD/PORTOLA DRIVE 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY AM PEAK HOUR

		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
2025 Cumulative		Project 6-6		Combined Projects 6-5 and 6-6		Project 6-6		Combined Projects 6-5 and 6-6	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	**>80**	**F**	**>80**	**F**	**>80**	**F**	**>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.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 6-6 alone – PM Analysis

For Project 6-6 by itself in the PM Peak Hour, the Woodside Avenue/O’Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. This intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. The eastbound lane configuration would be modified from one exclusive left-turn lane, two through lanes, and one shared through-right lane to one exclusive left-turn lane, one through lane, and one shared through-right lane. Deterioration of the eastbound critical movement at the Woodside Avenue/O’Shaughnessy Boulevard/Portola Drive to LOS F, when comparing Existing plus Project to Existing conditions, is deemed a significant impact. As a consequence, a corresponding LOS deterioration is expected, at this intersection for 2025 Cumulative plus Project when compared to 2025 Cumulative conditions. Therefore, a significant impact (Significant Impact TR-P6-6d) would occur at this intersection with the implementation of Project 6-6 Option 1. Table V.6-19, p. V.A.3-576, summarizes these results.

TABLE V.6-19
CLUSTER 6
COMPARISON OF LEVEL OF SERVICE (LOS) AND AVERAGE DELAY FOR WOODSIDE AVENUE/O'SHAUGHNESSY BOULEVARD/PORTOLA DRIVE 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative plus Project Option 1				2025 Cumulative plus Project Option 2			
2025 Cumulative		Project 6-6		Combined Projects 6-5 and 6-6		Project 6-6		Combined Projects 6-5 and 6-6	
Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
>80	**F**	**>80**	**F**	**>80**	**F**	**>80**	**F**	**>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.

- **Option 2**

Existing and Existing plus Project Conditions for Projects 6-5 and 6-6 combined – AM Analysis
Please see Project 6-5 discussion.

Existing and Existing plus Project Conditions for Projects 6-5 and 6-6 combined – PM Analysis
Please see Project 6-5 discussion.

Existing and Existing plus Project Conditions for Project 6-6 alone – AM Analysis
For Project 6-6 by itself in the AM Peak Hour, under Existing conditions, this intersection operates at LOS E with 60.1 seconds of delay. The Woodside Avenue/O’Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS E, with 60.1 seconds of delay under Existing plus Project conditions. However, there are no lane configuration adjustments to this intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay at this intersection. Thus, Project 6-6 Option 2 would not cause a significant impact at the Burnett Avenue/Clipper Street/Portola Drive intersection under Existing plus Project conditions. Table V.6-16, p. V.A.3-573, summarizes these results.

Existing and Existing plus Project Conditions for Project 6-6 alone – PM Analysis
For Project 6-6 by itself in the PM Peak Hour, under Existing conditions, this intersection operates at LOS F with more than 80 seconds of delay. The Woodside Avenue/O’Shaughnessy Boulevard/Portola Drive intersection would operate

unsatisfactorily at LOS F, with more than 80 seconds of delay under Existing plus Project conditions. However, there are no lane configuration adjustments to this intersection under Existing plus Project conditions relative to Existing conditions. Hence, there would be no change in LOS or delay at this intersection. Thus, Project 6-6 Option 2 would not cause a significant impact at the Burnett Avenue/Clipper Street/Portola Drive intersection under Existing plus Project conditions. Table V.6-17, p. V.A.3-574, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-5 and 6-6 combined – AM Analysis

Please see Project 6-5 discussion.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 6-5 and 6-6 combined – PM Analysis

Please see Project 6-5 discussion.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 6-6 alone – AM Analysis

For Project 6-6 by itself in the AM Peak Hour, under 2025 Cumulative conditions, this intersection operates at LOS F with more than 80 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to this intersection under 2025 Cumulative plus Project conditions relative to 2025 Cumulative conditions. Hence, there would be no change in LOS or delay at this intersection. Thus, Project 6-6 Option 2 would not cause a significant impact at the Burnett Avenue/Clipper Street/Portola Drive intersection under 2025 Cumulative plus Project conditions. Table V.6-18, p. V.A.3-575, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 6-6 alone – PM Analysis

For Project 6-6 by itself in the PM Peak Hour, under 2025 Cumulative conditions, this intersection operates at LOS F with more than 80 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would continue to operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions. However, there are no lane configuration adjustments to this intersection under 2025 Cumulative plus Project conditions relative to 2025 Cumulative conditions. Hence, there would be no change in LOS or delay at this intersection. Thus, Project 6-6 Option 2 would not cause a significant impact at the Burnett Avenue/Clipper Street/Portola Drive intersection under 2025 Cumulative plus Project conditions. Table V.6-19, p. V.A.3-576, summarizes these results.

Intersection 57: Evelyn Street/Portola Avenue

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 29.3 seconds of delay. The Evelyn Street/Portola Avenue intersection would continue to operate satisfactorily at LOS C, with 29.3 seconds of average delay under Existing plus Project conditions. There are no lane configuration changes at the intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Thus, Project 6-6 Option 1 would not cause a significant impact to this intersection under Existing plus Project conditions. Please see Table V.6-20, p. V.A.3-579, for these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Evelyn Street/Portola Avenue intersection would operate satisfactorily at LOS D in the PM Peak Hour, with 51.8 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate satisfactorily at LOS D, with 51.8 seconds of delay. Since there would be no change in LOS or delay for this intersection, compared to 2025 Cumulative conditions, a significant impact would not result at this intersection with the implementation of Project 6-6 Option 1. Table V.6-21, p. V.A.3-579, summarizes these results.

- **Option 2**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 29.3 seconds of delay The Evelyn Street/Portola Avenue intersection would operate satisfactorily at LOS C, with 29.3 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to the intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Thus, Project 6-6 Option 2 would not cause a significant impact to the Evelyn Street/Portola Avenue intersection under Existing plus Project conditions. Table V.6-20, p. V.A.3-579, below summarizes these results.

TABLE V.6-20
CLUSTER 6 – PROJECT 6-6[c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				Existing plus Project			
		Existing		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
37.	Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive[c]	**>80**	**F**	**>80**	**F**	**>80**	**F**
57.	Evelyn Street/Portola Avenue	29.3	C	29.3	C	29.3	C
58.	Fowler Street/Portola Avenue	20	C	23.6	C	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.
c. Intersection 37 is common to both Projects 6-5 and 6-6.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Evelyn Street/Portola Avenue intersection would operate satisfactorily at LOS D in the PM Peak Hour, with 51.8 seconds of delay under 2025 Cumulative plus Project conditions. Since there would be no change in LOS or delay for this intersection, compared to 2025 Cumulative conditions, a significant impact would not result at this intersection with the implementation of Project 6-6 Option 2. Table V.6-21, p. V.A.3-579, summarizes these results.

TABLE V.6-21
CLUSTER 6 – PROJECT 6-6[c]
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND 2025 CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

				2025 Cumulative plus Project			
		2025 Cumulative		Option 1		Option 2	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
37.	Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive[c]	**>80**	**F**	**>80**	**F**	**>80**	**F**
57.	Evelyn Street/Portola Avenue	51.8	D	51.8	D	51.8	D
58.	Fowler Street/Portola Avenue	**>80**	**F**	**>80**	**F**	**>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.
c. Intersection 37 is common to both Projects 6-5 and 6-6.

Intersection 58: Fowler Street/Portola Avenue

- **Option 1**

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 29.3 seconds of delay. The Fowler Street/Portola Avenue intersection would operate satisfactorily at LOS C, with 23.6 seconds of average delay under Existing plus Project conditions. The eastbound lane configuration would be modified from two through lanes and one shared through-right turn lane to one through lane and one shared through-right turn lane. The westbound lane configuration would be modified from two left-turn lanes, one through lane, and one shared through-right turn lane to one exclusive left-turn lane, one through lane, and one shared through-right turn lane. Due to the reduction of capacity in the eastbound direction and westbound direction, there would be an increase in delay. The average intersection delay would increase by 3.6 seconds. Therefore, Project 6-6 Option 1 would not cause a significant traffic impact at the Fowler Street/Portola Avenue intersection under Existing plus Project conditions. Please see Table V.6-20, p. V.A.3-579, for results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Fowler Street/Portola Avenue intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, this intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay. Because the eastbound and westbound critical movements at the Fowler Street/Portola Avenue intersection either deteriorate or would operate at an unacceptable LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions, a significant impact (Significant Impact TR-P 6-6e) would occur at this intersection with implementation of Project 6-6 Option 1. Table V.6-21, p. V.A.3-579, summarizes these results.

- **Option 2**

Existing and Existing plus Project Conditions

The Fowler Street/Portola Avenue intersection would operate satisfactorily at LOS C, with 20 seconds of average delay under Existing plus Project conditions. There are no lane configuration changes at the intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Thus, Project 6-6 Option 2 would not cause a significant impact to the Fowler Street/Portola Avenue intersection under Existing plus Project conditions. Table V.6-20, p. V.A.3-579, summarizes these results.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The Fowler Street/Portola Avenue intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions.

However, there are no lane configuration adjustments to the study intersection under 2025 Cumulative plus Project conditions; therefore, there would be no change in LOS or delay for this intersection. Thus a significant impact would not occur at this intersection with the implementation of Project 6-6 Option 2. Table V.6-21, p. V.A.3-579, summarizes these results.

Significant Impact TR-P6-6a:

Under Existing conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS E with 60.1 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions as a result of the lane configuration changes in the eastbound direction on Portola Drive. Because the eastbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 6-6.

Significant Impact TR-P6-6b:

The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. This intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions as a result of the lane configuration changes in the eastbound direction on Portola Drive. Because the eastbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 6-6.

Significant Impact TR-P6-6c:

Under Existing conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions as a result of the lane configuration changes in the eastbound direction on Portola Drive. Because the eastbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 6-6.

Significant Impact TR-P6-6d:

Under 2025 Cumulative conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions as a result of the lane configuration changes in the eastbound direction on Portola Drive. Because the eastbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 6-6.

Significant Impact TR-P6-6e:

Under 2025 Cumulative conditions, this intersection would operate at LOS F with a V/C ratio of 0.49. However, under 2025 Cumulative plus Project conditions for Option 1, the Fowler Street/Portola Avenue intersection would operate at LOS F with a V/C ratio of 0.70 as a result of the lane configuration changes to the eastbound and westbound directions. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Project 6-6.

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. Four of the stops are pole stops and approximately half of them have on-street parking at the curb. Thus, the buses have to use the travel lane next to the parking lane to load and unload passengers. Passenger demand is low in this area; consequently not all buses stop at these pole stops. The remaining stops either have an exclusive loading platform (eastbound at

O'Shaughnessy) or have a bus zone. Buses loading passengers at these stops typically operate entirely within the bus zone, and do not encroach upon the adjacent moving lane.

Because overall parking occupancy between Vicente Drive and O'Shaughnessy Boulevard is relatively low and existing curb lanes are 14 feet wide in both directions No bunching of Muni buses was observed.[25] Because both Muni bus and bicycle volumes in this corridor are relatively low and no conflicts were observed between bicyclists and loading/unloading buses. Bicyclists typically use the general traffic lane to pass stopped buses on the right.

Project 6-6 shares a common intersection (Intersection 37: Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive) with Project 6-5: Portola Drive Bicycle Lanes, Corbett Avenue to O'Shaughnessy Boulevard. The transit delay analysis under Projects 6-5 and 6-6 combined, pp. V.A.3-555 and V.A.3-559, reflects the combined impact of Projects 6-5 and 6-6 modifications to the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection on transit delay.

- **Option 1**

  Existing and Existing plus Project Conditions for Projects 6-5 and 6-6 combined
  Please see the discussion of the combined project impacts under Project 6-5 on p. V.A.3-555.

- **Option 2**
  Existing and Existing plus Project Conditions for Projects 6-5 and 6-6 combined
  Please see the discussion of the combined project impacts under Project 6-5 on p. V.A.3-559.

  2025 Cumulative and 2025 Cumulative plus Project Conditions for Project 6-5 and 6-6 combined
  Please see the discussion of the combined project impacts under Project 6-5 on p. V.A.3-560.

Since there are no significant transit impacts under Existing plus Project conditions and 2025 Cumulative plus Project conditions for either Option 1 or Option 2 of Projects 6-5 and 6-6 combined, there would be no significant transit impact from individual Project 6-6.

PARKING

Parking occupancy along the majority of this section of Portola Drive is generally low; however in certain locations it is moderate to high. Therefore the removal of six vehicular parking

[25] Field surveys were conducted by CHS Consulting on Wednesday, December 19, 2007 during the PM peak.

spaces is not expected to exacerbate parking demand areas along Portola Drive. Therefore, there would be no significant parking impacts as a result of the implementation of Project 6-6 Modified Option 2.

- **Option 1**

  Option 1 would remove approximately 240 parking spaces on the south side of Portola Drive between Sloat Boulevard and Evelyn Way. Vehicles that typically park along the south side of Portola Drive primarily belong to local residents, except for commuter parking near the West Portal Muni Metro Station and West Portal Avenue. This section of Portola Drive is more than one mile in length. On-street parking occupancy along the majority of Portola Drive and side streets is low, except in the vicinity of the West Portal Muni Metro Station and West Portal Avenue which is moderate to high.

  Parking loss east of San Pablo Avenue could easily be accommodated by the cross streets or on the north side of the street. Between San Pablo Avenue and Sloat Boulevard, vehicles that currently park along the south side of Portola Drive belong to residents as well as employees and shoppers in the area and parking occupancy on the north side of the street is usually high. The removal of on-street parking in this area may potentially cause some of these vehicles to park on the adjacent neighborhood streets, raising concerns by the residents in the area.

  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.

  In San Francisco, 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, 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."

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 offset 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. There would be a substantial loss of parking. However, there would be no significant parking impacts with the implementation of Project 6-6 Option 1.

- **Option 2**
  Option 2 would not include the removal of on-street parking spaces. Therefore, there would be no parking impacts as a result of Project 6-6.

PEDESTRIAN

Pedestrian volumes along the mid-section of Portola Drive are low, but moderate at O'Shaughnessy Boulevard where retail and commercial uses are located and at the southern end near the West Portal Muni station. Most of the pedestrian activities at the northern end are between the stores and parked vehicles and most of the pedestrian activities at the southern end are to and parked vehicle and businesses along West Portal Avenue. There were no significant conflicts observed between pedestrians and bicyclists and there would be no proposed changes in sidewalk width or crosswalk layout as part of the proposed bicycle improvements. The existing pedestrian overpass over Portola Drive at Kensington Way provides safe crossing for pedestrians without interacting with bicycle movement, and would not be changed as a result of Project 6-6. Therefore, there would be no pedestrian impacts as a result of Project 6-6 with either Option 1 or Option 2.

BICYCLE

Bicycle volumes along Portola Drive are generally low. The installation of sharrows would increase the motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone'. The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. Under Option 2, the segment between Sloat Boulevard and Evelyn Way would have a five-foot eastbound bicycle lane between a seven-foot wide parking lane and a 10-foot wide travel lane. Since the width of typical on-street parking spaces is usually eight feet, eastbound bicyclists would have to be cautious of the suddenly opened car doors in the "door zone." Because the turnover rate of parked vehicles at this location is low, this impact would not be significant. The proposed bicycle facilities under both options would generally benefit bicyclists. Therefore, Project 6-6 with either Option 1 or Option 2 would not result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

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 south side and a gas station on the north side at the intersection with O'Shaughnessy Boulevard. Loading activity for the segment of Portola Drive between Evelyn Way and O'Shaughnessy Boulevard occurs within the surface parking lot in front of the stores, not along Portola Drive. There were no double-parked trucks or significant loading needs observed[26] in the segment of Portola Drive with residential buildings. Project 6-6 would not remove any on-street loading spaces. However, the removal of on-street parking spaces on the south side of Portola Drive between Sloat Boulevard and Evelyn Way would force delivery vehicles to use side streets to make deliveries. Since loading activities in this section of Portola Avenue is associated with residential use, thus, the volumes are low. In addition, loading activity in the bicycle lane is permitted under the Vehicle Code. Therefore, there would be no significant loading impacts as a result of Project 6-6 with Option 1 or Option 2.

CLUSTER 6: SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impact TR-P6-2a (Projects 6-2 and 6-5 combined):

The intersection of Burnett Avenue/Clipper Street/Portola Drive would operate at LOS F under Existing plus Project conditions for Option 1.

Under Existing conditions, the Burnett Avenue/Clipper Street/Portola Drive intersection operates at LOS D with 49.6 seconds of delay. However, under Existing plus Project conditions for Option 1, the Burnett Avenue/Clipper Street/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the northbound Clipper Street and westbound Portola Drive directions. Because the northbound and westbound critical movements deteriorate for Option 1 from LOS D under Existing conditions to LOS F with a corresponding deterioration in the V/C ratio for these movements, a

[26] Field surveys were conducted by CHS Consulting on Wednesday, December 19, 2007 during the midday.

significant impact would occur at this intersection with the implementation of Project 6-2 and 6-5 combined.

M-TR-P6-2a (Projects 6-2 and 6-5 combined):

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 and 6-5 combined for Option 1 for the PM peak hour.

Significant Impact TR-P6-2b (Projects 6-2 and 6-5 combined):

The intersection of Burnett Avenue/Clipper Street/Portola Drive would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1.

Under 2025 Cumulative conditions, the Burnett Avenue/Clipper Street/Portola Drive intersection would operate at LOS E with 70.1 seconds of delay. However, under 2025 Cumulative plus Project conditions for Option 1, the Burnett Avenue/Clipper Street/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration adjustments in the northbound Clipper Street and westbound Portola Drive directions. Because the northbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at this intersection with the implementation of Projects 6-2 and 6-5 combined.

M-TR-P6-2b (Projects 6-2 and 6-5 combined):

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.

Significant Impact TR-P6-5a (Projects 6-5 and 6-6 combined):

The intersection of Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive would operate at LOS F under Existing plus Project conditions for Option 1.

The intersection of Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive would operate at LOS F under Existing plus Project conditions for Option 2.

Under Existing conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS E with 60.1 seconds of delay for the AM peak hour. However, under Existing plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions on Portola Drive. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Projects 6-5 and 6-6 combined for Option 1 for the AM peak hour.

M-TR-P6-5a (Projects 6-5 and 6-6 combined):

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 and 6-6 combined for Option 1 for the AM peak hour.

Significant Impact TR-P6-5b (Projects 6-5 and 6-6 combined):

The intersection of Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1.

Under 2025 Cumulative conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay for the AM peak hour. However, under 2025 Cumulative plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions on Portola Drive. Because the eastbound and westbound critical movements deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Projects 6-5 and 6-6 combined for Option 1 for the AM peak hour.

M-TR-P6-5b (Projects 6-5 and 6-6 combined):

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 and 6-6 for Option 1 for the AM peak hour.

Significant Impact TR-P6-5c:

Under Existing conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS E with 60.1 seconds of delay for the AM peak hour. However, under Existing plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions on Portola Drive. Because the eastbound and westbound critical movements on Portola Drive deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-5.

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 for Option 1 for the AM peak hour.

Significant Impact TR-P6-5d:

The intersection of Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1.

Under 2025 Cumulative conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay for the AM peak hour. However, under Existing plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions on Portola Drive. Because the eastbound and westbound critical movements on Portola Drive deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-5.

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 for Option 1 for the AM peak hour.

Significant Impact TR-P6-5e (Projects 6-5 and 6-6 combined):

Under Existing conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay. Under Existing plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions on Portola Drive. Because the eastbound and westbound critical movements on Portola Drive deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Projects 6-5 and 6-6 combined for Option 1.

M-TR-P6-5e (Projects 6-5 and 6-6 combined):

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 and 6-6 combined for Option 1 for the PM peak hour.

Significant Impact TR-P6-5f (Projects 6-5 and 6-6 combined):

Under 2025 Cumulative conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay. Under 2025 Cumulative plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the eastbound and westbound directions on Portola Drive. Because the eastbound and westbound critical movements on Portola Drive deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Projects 6-5 and 6-6 combined for Option 1.

M-TR-P6-5f (Projects 6-5 and 6-6 combined):

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 and 6-6 for Option 1 for the PM peak hour.

Significant Impact TR-P6-5g:

Under Existing conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay. Under Existing plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the westbound direction on Portola Drive. Because the eastbound and westbound critical movements on Portola Drive deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, 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.

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 for Option 1 for the PM peak hour.

Significant Impact TR-P6-5h:

Under 2025 Cumulative conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay. Under 2025 Cumulative plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the westbound direction on Portola Drive. Because the eastbound and westbound critical movements on Portola Drive deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, 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**.**

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.

Significant Impact TR-P6-5i:

Under Cumulative conditions, the Burnett Avenue/Clipper Street/Portola Drive intersection operates at LOS E with 70.1 seconds of delay. Under 2025 Cumulative plus Project conditions for Option 1, the Burnett Avenue/Clipper Street/Portola Drive intersection would operate at LOS F with a delay of more than 80 seconds as a result of the lane configuration changes in the westbound direction on Portola Drive. Because the eastbound and westbound critical movements deteriorate on Portola Drive for Option 1 with a corresponding deterioration in the V/C ratio for these movements, 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.

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 Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-5 for Option 1 for the PM peak hour.

Significant Impact 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, under Option 1.

M-TR-P6-5j (Projects 6-2, 6-5, and 6-6 combined):

No feasible mitigation measure was identified and therefore the impact on Muni bus line 48 under 2025 Cumulative plus Project conditions would remain significant, under Option 1.

Significant Impact 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 Projects 6-2, 6-5, and 6-6 combined, under Option 1.

M-TR-P6-5k (Projects 6-2, 6-5, and 6-6 combined):

No feasible mitigation measure was identified and therefore the impact on Muni bus line 52 under 2025 Cumulative plus Project conditions would remain significant, for Projects 6-2, 6-5, and 6-6 combined under Option 1.

Significant Impact TR-P6-6a:

Under Existing conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS E with 60.1 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions as a result of the lane configuration changes in the eastbound direction on Portola Drive. Because the eastbound critical movements on Portola Drive deteriorate for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-6 under Option 1.

M-TR-P6-6a (Project 6-6):

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 alone for Option 1 for the AM peak hour.

Significant Impact TR-P6-6b:

The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative conditions. This intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of delay under 2025 Cumulative plus Project conditions as a result of the lane configuration changes in the eastbound direction on Portola Drive. Because the eastbound critical movements deteriorate on Portola Drive for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-6 alone under Option 1.

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.

Significant Impact TR-P6-6c:

Under Existing conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under Existing plus Project conditions as a result of the lane configuration changes in the eastbound direction on Portola Drive. Because the eastbound critical movements deteriorate on Portola Drive for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-6 alone under Option1.

M-TR-P6-6c:

No feasible mitigation measures have been identified for the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive 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.

Significant Impact TR-P6-6d:

Under 2025 Cumulative conditions, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at LOS F with more than 80 seconds of delay. The Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, with more than 80 seconds of average delay under 2025 Cumulative plus Project conditions as a result of the lane configuration changes in the eastbound direction on Portola Drive. Because the eastbound critical movements deteriorate on Portola Drive for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-6 alone under Option 1.

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 for Option 1 for the PM peak hour.

Significant Impact TR-P6-6e:

Under 2025 Cumulative conditions, the Fowler Street/Portola Drive intersection would operate at LOS F with a V/C ratio of 0.49. However, under 2025 Cumulative plus Project conditions for Option 1, the Fowler Street/Portola Drive intersection would operate at LOS F with a V/C ratio of 0.70 as a result of the lane configuration changes to the eastbound and westbound directions of Portola Drive. Because the eastbound and westbound critical movements deteriorate on Portola Drive for Option 1 with a corresponding deterioration in the V/C ratio for these movements, a significant impact would occur at the Fowler Street/Portola Drive intersection with the implementation of Project 6-6 alone under Option 1.

M-TR-P6-6e:

No feasible mitigation measures have been identified for the Fowler Street/Portola Drive intersection under 2025 Cumulative plus Project conditions for Option 1. Hence a significant impact would occur at the Fowler Street/Portola Drive intersection with the implementation of Project 6-6 alone for Option 1 for the PM peak hour.

CLUSTER 7: UPPER SUNSET/RICHMOND/PRESIDIO/MARINA AREA[27]

This section provides a description of the Existing plus Project and 2025 Cumulative and 2025 Cumulative plus Project transportation conditions for the near-term improvements in Cluster 7. Two design options are proposed for Project 7-5; for the remaining near-term improvements in Cluster 7, only one option is proposed.

The preferred project design for Cluster 7 near-term improvements are the following options: Project 7-2 Option 1, Project 7-5 Option 1, and Project 7-6 Option 1. These are described and analyzed below with no text changes. Only one option was analyzed in the Draft EIR for each of the following projects: Project 7-1, Project 7-3, and Project 7-4. Modified Project 7-1,

[27] Unless otherwise indicated, all intersection analysis is for PM Peak Hour conditions.

Modified Project 7-3, and Modified Project 7-4 are the modified project as described and analyzed in this section.

The Existing plus Project, 2025 Cumulative, and 2025 Cumulative plus Project turning movement traffic volumes at the study intersections within Cluster 7, the intersection lane configurations at those intersections, and the level of service and transit delay calculation sheets can be found in the TIS.

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

The implemented portion of Project 7-1 involved the modification of the west side of the raised median at the intersection 7th Avenue and Lincoln Way by cutting back the median from the west crosswalk to 5 feet easterly to allow southbound bicyclists to cross Lincoln Way without riding in the crosswalk.

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 installing a cut-through in the center of the raised median for northbound bicyclists, installing a 40 foot-long northbound bicycle lane to the south of the intersection of 7th Avenue and Lincoln Way, and installing 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 associated with Modified Project 7-1.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the PM peak hour.

One study intersection is included in Modified Project 7-1 for the PM peak period. Table V.7-4, p. V.A.3-598, summarizes these results.

The 7th Avenue/Lincoln Way intersection is common to Projects 7-1 and 7-2 within the Cluster 7 area. 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 installing a cut-through in the center of the raised median for northbound bicyclists, installing a northbound bicycle lane, and installing a bicycle loop detector and a bicycle traffic signal for northbound bicyclists. Project 7-2 would add a Class II bicycle lane in both directions on 7th Avenue between Lawton and Judah Streets, sharrows in both directions between Judah and Hugo Streets, and a center bicycle lane between Hugo Street and Lincoln Way. The analysis below reflects the impacts of the combined projects.

Intersection 61: 7th Avenue/Lincoln Way

The 7th Avenue/Lincoln Way intersection is common to Modified Projects 7-1 and Project 7-2 within the Cluster 7 area. However, there would be no through movement modifications to the southbound and northbound traffic movements for motor vehicles under either project. All northbound and southbound traffic except for bicycles are required to make a right turn onto

Lincoln Way. Since the impacts of both Modified Projects 7-1 and Project 7-2 in combination would not result in a significant traffic impact for the PM peak hour, there would be no significant traffic impact from individual Modified Project 7-1. Therefore, the analysis below reflects the impacts of both projects.

Existing and Existing plus Project Conditions for Projects 7-1 and 7-2 combined

Under Existing conditions, this intersection operates at LOS B with 12.5 seconds of delay. The 7th Avenue/Lincoln Way intersection would operate satisfactorily at LOS C in the PM Peak hour, with 21.2 seconds of average delay under Existing plus Project conditions. There are no lane configuration adjustments to this intersection under Existing plus Project conditions. Hence, there would be no change in LOS or delay for this intersection, compared to Existing conditions. Thus, Projects 7-1 and 7-2 combined would not cause a significant impact to the 7th Avenue/Lincoln Way intersection under Existing plus Project conditions. See Table V.7-4, p. V.A.3-598, for these results.

TABLE V.7-4
CLUSTER 7 – PROJECT 7-1
INTERSECTION LEVEL OF SERVICE AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

Intersection	Existing		Existing Plus Project	
	Average Delay[a]	LOS	Average Delay[a]	LOS
61. 7th Avenue/Lincoln Way	12.5	B	21.2	C

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 7-1 and 7-2 combined

The 7th Avenue/Lincoln Way intersection would operate satisfactorily at LOS B, with an average delay of 15.3 seconds under 2025 Cumulative conditions. Under 2025 Cumulative plus Project conditions, the intersection would operate satisfactorily at LOS C, with 26.5 seconds of average delay. The lane configuration remains the same as under 2025 Cumulative conditions. Hence, there would be no change in LOS or delay at this intersection. Therefore, no significant impacts would occur at this intersection with the implementation of Projects 7-1 and 7-2 under 2025 Cumulative plus Project conditions. See Table V.7-5, below, for these results.

TABLE V.7-5
CLUSTER 7 – PROJECT 7-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative		2025 Cumulative plus Project	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS
61.	7th Avenue/Lincoln Way	15.3	B	26.5	C

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. The buses do not turn onto 7th Avenue from Lincoln Way and thus, do not cross the median. Bicyclists crossing Lincoln Way southward onto 7th Avenue at the location of the median cutback without interacting with the east-west buses or changing transit operation. Therefore, there would be no significant transit impacts with implementation of Project 7-1.

PARKING

Modified Project 7-1 would not change the parking conditions in the project area. Therefore, there would be no significant parking impacts with implementation of Modified Project 7-1.

PEDESTRIAN

Pedestrian volumes are generally low on weekdays and moderate during weekends. With Project 7-1 there would be no changes in sidewalk width or crosswalk layout. Project 7-1 would benefit pedestrians by providing a path that separates them from bicyclists and thus would reduce conflicts between them. Therefore, there would be no significant pedestrian impacts with implementation of Project 7-1.

BICYCLE

The separation of bicycle and pedestrian crossing and the separation of northbound bicycle traffic with the northbound right turn vehicles may result in a beneficial effect by minimizing conflicts between pedestrians, bicyclists and motor vehicles. In addition, Project 7-1 would allow northbound bicycle access to Golden Gate Park from 7th Avenue and provide a northbound bicycle lane. The installation of a bicycle lane would provide a clear right-of-way for use by bicyclists. Therefore, there would be no significant bicycle impacts with implementation of Project 7-1, but Project 7-1 could have the beneficial effect of improving roadway conditions and safety for cyclists.

LOADING

This intersection is located at an entrance to Golden Gate Park where there is no on-street loading demand that would conflict with bicyclists. There were no double-parked vehicles or significant loading needs observed[28] on the field. Therefore, there would be no loading impacts with implementation of Project 7-1.

[28] Field surveys were conducted by CHS Consulting on Monday, November 26, 2007 during the midday.

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

Project 7-2 would add a Class II bicycle lane in both directions on 7th Avenue between Lawton and Judah Streets, sharrows in both directions between Judah and Hugo Streets, and a center bicycle lane between Hugo Street and Lincoln Way. In order to add the Class II bicycle lanes, there would be a reduction of one travel lane in the southbound approach. Project 7-2 would remove one southbound travel lane between Lincoln Way and Lawton Street and add a two-way left-turn center lane between Lincoln Way and Judah Street.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Intersection LOS calculations were performed for the PM peak hour.

Two study intersections are included in Project 7-2 for the PM peak period.

Intersection 55: 7th Avenue/Kirkham Street

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS C with 22.3 seconds of delay. Due to the reduction of capacity in the southbound approach there would be an increase in delay along this approach. The average intersection delay would increase by 4.5 seconds. Overall, the 7th Avenue/Kirkham Street intersection would operate satisfactorily at LOS C, with 26.8 seconds of average delay under Existing plus Project conditions. Therefore, Project 7-2 would not cause a significant traffic impact at the 7th Avenue/Kirkham Street intersection under Existing plus Project conditions. Table V.7-6, p. V.A.3-601, summarizes these results.

TABLE V.7-6
CLUSTER 7 – PROJECT 7-2[b]
INTERSECTION LEVEL OF SERVICE AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS WEEKDAY PM PEAK HOUR

		Existing		Existing plus Project	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS
55.	7th Avenue/Kirkham Street	22.3	C	26.8	C
61.	7th Avenue/Lincoln Way [b]	12.5	B	21.2	C

Source: Wilbur Smith Associates, October 2008.

Notes:

a. Delay in seconds per vehicle.
b. LOS and average delay for 7th Avenue/Lincoln Way for combined impacts of Projects 7-1 and 7-2.

2025 Cumulative and 2025 Cumulative plus Project Conditions

Under 2025 Cumulative conditions, the 7th Avenue/Kirkham Street intersection would operate at LOS F with more than 80 seconds of delay in the PM Peak Hour. The southbound lane configuration with Project 7-2 would be modified from one shared through-left turn lane and one shared through-right turn lane to one shared left-through-right turn lane. Due to the reduction in capacity of the southbound approach, the intersection would continue to operate at LOS F relative to 2025 Cumulative conditions. However, the LOS for the northbound, eastbound, and westbound critical movements improve at this intersection under 2025 Cumulative plus Project conditions. Therefore a significant impact would not result at this intersection with the implementation of Project 7-2. Table V.7-7, p. V.A.3-602 summarizes these results.

TABLE V.7-7
CLUSTER 7 – PROJECT 7-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative		2025 Cumulative plus Project	
	Intersection	Average Delay[a]	LOS[b]	Average Delay[a]	LOS[b]
55.	7th Avenue/Kirkham Street	**>80**	**F**	**>80**	**F**
61.	7th Avenue/Lincoln Way	22.9	C	22.9	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.

Intersection 61: 7th Avenue/Lincoln Way

Modified Project 7-1 and Project 7-2 would modify the intersection of 7th Avenue/Lincoln Way in different ways. Modified Project 7-1 would add a 40-foot long northbound bicycle lane to the south of the intersection by keeping the two southbound lanes and by restriping the existing travel lanes. Project 7-2 would eliminate a southbound traffic lane, would create a center two-way left-turn lane, and would add a northbound bicycle lane, to the south of the intersection. Project 7-2 would create the two-way left turn lane starting approximately 40 feet south of the intersection to make room for the northbound bicycle lane.

There is no through movement modifications to the southbound and northbound traffic movements for motor vehicles under either project. All northbound and southbound traffic except for bicycles are required to make a right turn onto Lincoln Way.

Since the difference in the two proposals under Projects 7-1 and 7-2 is only in the southbound direction to the south of Lincoln Way**,** the LOS calculation for both proposals at the intersection would be the same and the combined impacts of the two projects would be the same as each individual project**.**

Existing and Existing plus Project Conditions for Projects 7-1 and 7-2 combined

Please see Project 7-1 discussion on p. V.A.3-585.

2025 Cumulative and 2025 Cumulative plus Project Conditions for Projects 7-1 and 7-2 combined

Please see Project 7-1 discussion on p. V.A.3-585.

TRANSIT

There are no transit lines on this segment of 7th Avenue. Therefore, there would be no transit impacts with implementation of Project 7-2.

PARKING

There would be no changes in parking layout or in the number of parking spaces in this segment. Therefore, there would be no parking impacts with implementation of Project 7-2.

PEDESTRIAN

Pedestrian volumes are generally low along 7th Avenue, and there would be no changes in sidewalk width or crosswalk layout. The interactions between pedestrians and bicyclists would not change as a result of Project 7-2. Therefore, there would be no pedestrian impacts with implementation of Project 7-2.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. In addition, the installation of sharrows would increase the motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone'.[29] The separation of northbound bicycle traffic from the northbound right turn vehicles would reduce the potential conflict between right-turning vehicles and through bicyclists. Hence, Project 7-2 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This segment of 7th Avenue has mostly residential and some retail uses. While on-street parking occupancy in the project area is relatively high, there were no double-parked vehicles or significant loading needs observed[30] in the field; loading activity is generally accommodated in the on-street parking spaces. There would be no changes in on-street loading spaces. Therefore, there would be no loading impacts.

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.

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[29] In February 2004, Alta Planning + Design completed a study, *San Francisco's Shared Lane Pavement Markings: Improving Bicycle Safety*, on shared lane markings for Class III bikeways in San Francisco. In this study, a key conclusion was that the pavement markings (also known as sharrow markings) increased the awareness of the bicyclists' and motorists' position on the road. Bicyclists tended to ride further from parked cars, and motorists tended to pass bicyclists at a greater distance from the pavement marking. The report's recommendation was to use the sharrow markings on appropriate shared lanes but not as a substitution for bicycle lanes where feasible.

[30] Field surveys were conducted by CHS Consulting on Monday, November 26, 2007 during the midday.

Project 7-3 would add a Class II bicycle lane and remove one travel lane in both directions on Point Lobos Avenue between 48th Avenue/El Camino Del Mar and Balboa Street, except for the addition of sharrows on the south-eastbound segment of Point Lobos Avenue between the crosswalk at the Sutro Heights Park parking lot and Balboa Street. Project 7-3 would also add a striped median from approximately the Cliff House to the Sutro Heights Park parking lot. With a separate project proposed by the National Park Service, the existing parking lot on the north side of Point Lobos Avenue would be expanded and relocated eastward by approximately 200 feet by the Park Service to accommodate approximately 135 parking spaces. As part of Project 7-3, approximately 10 on-street parking spaces would be removed on the north side of Point Lobos Avenue, from the 48th Avenue intersection westward by approximately 200 feet to provide space for a right-turn lane into the proposed new parking lot.

Project 7-3 would also add a Class II bicycle lanes in both directions along the Great Highway between Balboa and Cabrillo Streets by narrowing the travel lanes. There would be no parking removal in this segment.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

The northbound bicycle lane on Great Highway from Fulton Street to Cabrillo Street is part of the existing Bicycle Route Network and would be installed in the existing shoulder of the roadway. There are no lane reductions or parking removals required therefore there would be no significant impact as a result of this project revision.

The addition of the right-turn only lane on northbound Point Lobos Avenue approaching the parking lot next to Sutro Heights Park would not remove any parking or change the through travel lane configuration from what was analyzed in the Draft EIR. Therefore, there would be no significant traffic impact associated with the implementation of this project revision.

The addition of the southbound bicycle lane on Great Highway from 600 feet north of Balboa Street to Balboa Street would not require a travel lane reconfiguration or parking removal. Therefore, there would be no significant traffic impact associated with this project revision.

The modified project would establish a new Class III bicycle route, with sharrows, on Balboa Street between Great Highway and La Playa Street and on La Playa Street between Balboa and Cabrillo Streets, closing a gap in the existing bicycle route network between the Class II bicycle lanes on Cabrillo Street and the proposed Class II bicycle lanes on Great Highway. The Draft EIR analyzed the presence of sharrows on the existing bicycle route network, concluding that the installation of sharrows would not significantly impact traffic or transit operations (see p. V.A.4-13 of the Draft EIR). The proposed roadway segments of Balboa Street and Cabrillo Street are low-speed, low-volume, two-lane streets with manageable grades, criterion that was used in the past to establish the existing bicycle route network. Consequently the Draft EIR analysis of sharrows on existing bicycle network streets also would apply to sharrows on new bicycle network streets that are chosen in a similar manner and intended for the same purpose. In summary, there would be no significant traffic impact as a result of the implementation of Modified Project 7-3.

Intersection LOS calculations were performed for the PM peak hour.

One study intersection is included in Project 7-3 for the PM peak period.

Intersection 56: 48th Avenue/Point Lobos Avenue

Existing and Existing plus Project Conditions

Under Existing conditions, this intersection operates at LOS B with 10.7 seconds of delay. Due to the reduction of capacity in the southbound and westbound approaches and the lane configuration adjustment in the eastbound approach, there would be an increase in delay along these approaches. The intersection at 48th Avenue/Point Lobos Avenue would operate satisfactorily at LOS B, with 11.5 seconds of average delay (an increase by 0.8 seconds) under Existing plus Project conditions. Therefore, Project 7-3 would not cause a significant traffic impact to the intersection at 48th Avenue/Point Lobos Avenue under Existing plus Project conditions. Table V.7-8 below summarizes these results.

TABLE V.7-8
CLUSTER 7 – PROJECT 7-3
INTERSECTION LEVEL OF SERVICE AND AVERAGE DELAY – EXISTING AND EXISTING PLUS PROJECT CONDITIONS WEEKDAY PM PEAK HOUR

Intersection	Existing		Existing Plus Project	
	Average Delay[a]	LOS	Average Delay[a]	LOS
56. 48th Avenue/Point Lobos Avenue	10.7	B	11.5	B

Source: Wilbur Smith Associates, October 2008.

Note:
a. Delay in seconds per vehicle.

2025 Cumulative and 2025 Cumulative plus Project Conditions

The 48th Avenue/Point Lobos Avenue intersection would operate satisfactorily at LOS B in the PM Peak Hour, with 11.4 seconds of average delay under 2025 Cumulative conditions. Due to the reduction of capacity in the southbound and westbound approaches and the lane configuration adjustment in the eastbound approach being proposed by the project, there would be an increase in delay along these approaches. In spite of these changes, the 48th Avenue/Point Lobos Avenue intersection would operate satisfactorily at LOS B, with 13 seconds of delay under 2025 Cumulative plus Project conditions. Therefore, there would not be a significant impact at this intersection resulting from the implementation of Project 7-3. Table V.7-9, p. V.A.3-606, summarizes these results.

TABLE V.7-9
CLUSTER 7 – PROJECT 7-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – 2025 CUMULATIVE AND CUMULATIVE PLUS PROJECT CONDITIONS - WEEKDAY PM PEAK HOUR

		2025 Cumulative		2025 Cumulative plus Project	
	Intersection	Average Delay[a]	LOS	Average Delay[a]	LOS
56.	48th Avenue/Point Lobos Avenue	11.4	B	13.0	B

Source: Wilbur Smith Associates, October 2008.

Note:

a. Delay in seconds per vehicle.

TRANSIT

Muni bus line 18 operates in both directions along Point Lobos Avenue between the Great Highway and El Camino Del Mar, with approximately four buses per hour each way during the AM and PM peak periods. There are two westbound Muni bus stops, one on the far side of 48th Avenue/El Camino Del Mar and one located in front of the Golden Gate National Recreation Area west of Merrie Way. There are two eastbound bus stops, one on the nearside of the Sutro Heights Park parking lot entrance and one on the nearside of 48th Avenue/El Camino del Mar.

Project 7-3 would remove on-street parking on the north side of Point Lobos Avenue between El Camino Del Mar Avenue and approximately 200 feet westward; the parking lane would be changed to a right-turn only lane. This right-turn lane would lead into the new access driveway of the parking lot, which is a part of a separate project being proposed by the National Park Service. Buses would stop in the right-turn lane to load and unload passengers. Because bus volumes are low (one bus every 15 minutes) and the parking lot occupancy during the weekdays would be low, there would be no significant conflict between buses and right-turning vehicles. While parking demand at the new parking lot on some weekends would be high, it is not expected that the right turn lane would cause significant delays to Muni service.

The proposed eastbound bicycle lane would be striped along the curb on the south side of Point Lobos Avenue. When buses stop at the two eastbound Muni bus stops to board passengers, they would completely obstruct the bicycle lane and force bicyclists to pass to the left in the travel lane. This interaction between bicyclists and buses would not be different from current conditions, and would not affect transit capacity, transit operation, or travel time. Therefore, there would be no significant transit impacts with implementation of Project 7-3.

PARKING

Project 7-3 would remove approximately 10 on-street parking spaces on the north side of Point Lobos Avenue between 48th Avenue and approximately 200 feet westward. On-street parking occupancy in this area is generally low to moderate during the weekday midday, but substantially higher during weekends and in the evening. The proposed parking lot on the north side of Point Lobos Avenue would provide approximately 135 parking spaces that could accommodate the loss of on-street parking as a result of Project 7-3. There is occasional tour bus loading near the Cliff House although most tour buses travel slowly through the area without stopping, while others stop for a few minutes to allow passengers to disembark to take pictures. There is no designated tour bus parking in the area. Tour bus parking would be included in the new National Park Service parking lot with five saw tooth-type bus parking bays. This change would reduce conflicts between buses and bicyclists along Point Lobos Avenue. The loss of 10 on-street parking spaces would not cause a significant change in parking occupancy in the area particularly with the proposed National Park Service parking lot coming soon. Therefore, there would be no significant parking impacts with implementation of Project 7-3.

PEDESTRIAN

Pedestrian volumes are low during weekday midday and high during weekends and pedestrians generally stay on the north side of Point Lobos and typically do not walk on the south side. The reduction of travel lanes from two to one each way would increase pedestrian crossing safety at the crosswalks by reducing the number of potential conflict points between pedestrians and moving vehicles. The project proposed by the Park Service includes bulb-outs on the northwest, northeast, and southeast corners at the 48th Street/Point Lobos Avenue intersection. These corner bulb-outs would benefit pedestrians by decreasing the total crossing distance. The proposed bulb-out at the mid-block intersection would also decrease the crossing distance, and the raised center median would provide a refuge area for pedestrians crossing Point Lobos Avenue. Therefore, there would be no significant pedestrian impacts with implementation of Project 7-3.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. The eastbound bicycle lane would be interrupted by a Muni bus stop on the nearside of the existing Sutro Heights Park parking lot, but this would not represent a change from existing conditions. The installation of sharrows would increase the motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the "door zone". Hence, Project 7-3 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

Freight loading demand in this segment of the Great Highway/Point Lobos generally occurs during early morning hours when deliveries are made to the Cliff House Restaurant and the adjacent retail uses. They usually rely on the on-street parking spaces for loading needs, and there would be no changes to on-street or off-street parking in the vicinity of the Cliff House and nearby businesses. Passenger loading and tour bus activities would also not be affected by the changes proposed by Project 7-3. Therefore, there would be no significant loading impacts with implementation of Project 7-3.

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

Modified Project 7-4 would add a Class II bicycle lane in both directions on John F. Kennedy Drive between Kezar Drive and Transverse Drive. 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 going through a separate environmental review process and certification of an EIR on July 23, 2003.

Project 7-4 would also add an eastbound Class II bicycle lane on Kezar Drive between John F. Kennedy Drive and Stanyan Street by converting the shoulder on the left side of the eastbound travel lanes adjacent to the raised median.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

There are no transit lines on John F. Kennedy Drive. Therefore, there would be no transit impacts with implementation of Project 7-4.

PARKING

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 and certification of an EIR on July 23, 2003.

Modified Project 7-4 would not change the parking conditions in the project area. Therefore, there would be no parking impacts with implementation of Modified Project 7-4.

PEDESTRIAN

Pedestrian volumes are generally low during the weekday midday, but high on the weekend midday. Pedestrians in Golden Park tend to stroll slowly; when sidewalks are crowded and the street is closed to motor vehicle traffic, many pedestrians would walk in the roadway. While bicyclists and skaters would also be using the roadway, there is sufficient curb-to-curb width to safely accommodate all expected non-motorized traffic. Project 7-4 would not change sidewalk widths or crosswalks. Therefore, there would be no significant pedestrian impacts with implementation of Project 7-4.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. Therefore, Modified Project 7-4 would not result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This area is for recreational use only, and there is no freight loading demand. Therefore, there would be no significant loading impacts with implementation of Project 7-4.

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 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:

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.

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:

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.

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:

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.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

There are no transit lines on this segment of Kirkham Street. Therefore, there would be no transit impacts with implementation of Project 7-5 under either Option 1 or Option 2.

PARKING

- **Option 1**
  Option 1 would remove a total of 30 on-street parking spaces, with approximately 14 spaces on the north side of Kirkham Street between 18th and 19th Avenues and between 36th Avenue and Sunset Boulevard, and approximately 16 spaces on the south side between 19th and 20th Avenues and between Sunset Boulevard and 37th Avenue. On-street parking occupancy along this corridor is generally low, so motorists would still be able to find a parking space in the area, although they may have to walk a farther distance. Therefore, there would be no significant parking impacts with implementation of Project 7-5 Option 1.

- **Option 2**
  There would be no parking removal under Option 2. Therefore, there would be no parking impacts with implementation of Project 7-5 Option 2.

PEDESTRIAN

Pedestrian volumes are generally low, though slightly higher at the school crossings during the morning and midday periods for approximately 30 minutes before school starts and after school ends. However, there would be no changes in sidewalk width or crosswalk layout under either Option 1 or Option 2, and the interactions between pedestrians and bicyclists would not change as a result of Project 7-5. Therefore, there would be no significant pedestrian impacts with implementation of Project 7-5 with either Option 1 or Option 2.

BICYCLE

Bicyclists would benefit from the installation of bicycle lanes with the designation of a clear right-of-way for their use. The installation of sharrows would increase the motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone'. Hence, the implementation of Project 7-5 with implementation of either Option 1 or Option 2 would not have a significant impact on cyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This area has mostly residential uses, and loading demand is typically very low. The available on-street parking spaces would accommodate any need for deliveries, and the removal of on-street parking does not include any on-street yellow commercial freight loading spaces. Therefore, there would be no significant loading impacts with implementation of Project 7-5 with either Option 1 or Option 2.

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

Project 7-6 would signalize the Page and Stanyan Street intersection and add pedestrian push buttons in the westbound and eastbound approaches. The existing curb ramp at the entrance to Golden Gate Park would be reconstructed to allow easier access for pedestrians and bicyclists.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

Muni bus line 33 runs along Stanyan Street, with approximately four buses per hour each way during the AM and PM peak periods. The new signal at Page Street/Stanyan Street is proposed to operate as a fixed time signal. This signal would be coordinated with the Haight Street/Stanyan Street intersection along Stanyan Street. At most Muni buses would experience an additional 20 seconds of delay each way in the AM peak hour and 28 seconds of delay each way in the PM peak hour due to the signalization. Since the total added delay for Muni bus line 33 (40 seconds for AM peak hour and 56 seconds for PM peak hour) would not exceed the Muni bus line's headway of 15 minutes, a significant transit impact would not occur with implementation of Project 7-6.

PARKING

There would be no changes in parking layout or number of parking spaces in this segment. Therefore, there would be no parking impacts with Project 7-6.

PEDESTRIAN

Pedestrian volumes in this area are generally low to moderate. Project 7-6 would add a pedestrian signal phase activated by a push button that would provide a safer passage for pedestrians crossing Stanyan Street, which currently does not have a signal. Therefore, there would be no significant pedestrian impacts with implementation of Project 7-6.

BICYCLE

Similar to pedestrians, the proposed signal would provide bicyclists safer access from the bicycle path when exiting Golden Gate Park onto Page and Stanyan Streets. Therefore, Project 7-6 would not result in a significant impact to bicyclists but could have the beneficial effect of improving access and safety for bicyclists.

LOADING

Project 7-6 would not change existing on-street parking layout or affect any off-street loading facilities. Therefore, there would be no loading impacts with implementation of Project 7-6.

CLUSTER 7: SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

No significant impacts were identified in Cluster 7.

CLUSTER 8: LOWER SUNSET/INGLESIDE AREA[31]

This section provides a description of the Existing plus Project and 2025 Cumulative and 2025 Cumulative plus Project transportation conditions within Cluster 8. Two design options are proposed for Projects 8-1 and 8-3; the remaining projects have only one proposed option. No study intersections are included within Cluster 8. Transit delay calculations sheets can be found in the TIS.

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[31] Unless otherwise indicated, all intersection analysis is for PM Peak Hour conditions.

The preferred project design for Cluster 8 near-term improvements are: Project 8-1 Option 2 and Option 1 of Project 8-3, Project 8-4 and Project 8-5. These are described and analyzed below with no text changes. For Project 8-2, only one option was analyzed in the Draft EIR. Project 8-2 Modified Option 1 is the modified project as described and analyzed in this section.

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

There are two options for this segment of 19th Avenue.

- **Option 1**
  Option 1 would add a 12-foot wide, two-way, Class I bicycle path on the west side of 19th Avenue between Buckingham Way and Holloway Avenue. North of the bus stop, the existing parking lane would be removed, the sidewalk and curb would be moved eight feet eastward to the edge of the existing parking lane, and a two-way 12-foot bicycle path would be placed immediately to the west of the 10-foot sidewalk. This change would require permits from Caltrans because the sidewalk and curb would encroach into Caltrans' right-of-way along 19th Avenue and would also require taking of 4-feet of right-of-way from SFSU.

- **Option 2**
  Option 2 would construct a new mixed-used pedestrian/bicycle pathway within the SFSU campus between Buckingham Way and Holloway Avenue and a mixed-use pedestrian/bicycle bridge extending between the student housing complex at University Park North and the north side of Thornton Hall.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection 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 Muni bus stop on 19th Avenue between Buckingham Way and Holloway, located on the nearside of Holloway Avenue. The bus stop is located in a 10-foot wide bay, so that buses have sufficient space to pull into the bus zone without encroaching into a travel lane or obstructing bicycle traffic.

M-Oceanview light rail runs in the center lane with approximately seven trains per hour each way during the AM and PM peak periods. The SFSU Station for the M-Oceanview LRT is located in the median on the north side of the 19th Avenue and Holloway Avenue intersection.

Because both Options 1 and 2 would add Class I bicycle paths that are separated from traffic, there would be no interaction between light rail trains and bicyclists in the median or between buses and bicyclists on the west side of 19th Avenue.

- **Option 1**

  Under Option 1, the removal of on-street parking on the west side of 19th Avenue would benefit Muni bus operation by eliminating interactions between vehicles, ingress and egress on-street parking spaces, and southbound Muni buses operating along the curb right lane. In addition, the proposed bicycle path would remove most bicycle traffic from the roadway eliminating potential transit/bicycle conflicts. Therefore, there would be no significant transit impacts with implementation of Project 8-1 Option 1.

- **Option 2**

  Option 2 would benefit Muni bus operation by diverting bicyclist movement from the roadway onto the pathway within the SFSU campus thereby eliminating conflicts between transit and bicyclists. Under this option, there would be no changes to the existing southbound bus stop bay on the far side of Holloway Avenue. Therefore, there would be no significant transit impacts with implementation of Project 8-1 Option 2.

PARKING

- **Option 1**

  Option 1 would remove approximately 45 on-street parking spaces and 35 motorcycle spaces on the west side of 19th Avenue between Buckingham Way and Holloway Avenue. Neighborhoods adjacent to SFSU, including Stonestown Galleria Shopping Center, have been opposed to SFSU students parking in their neighborhood. To this end, the residential neighborhoods in the area have implemented on-street residential parking permit (RPP) zones. The area east of SFSU has been designated as RPP zone H and the area south of SFSU is in RPP zone E.

  Parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact as under the CEQA but rather a social effect. The loss of parking may cause potential social effects, which would include cars circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset 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 that may result from a shortfall in parking in the vicinity of the proposed project would be minor. The changes in on-street parking also would not cause any secondary physical impacts, such as traffic congestion, air quality impacts, or noise impacts cause by congestion. Therefore, there would be no significant parking impacts with implementation of Project 8-1 Option 1.

- **Option 2**

  There would be no parking removal under Option 2. Therefore, there would be no parking impacts with implementation of Project 8-1 Option 2.

PEDESTRIAN

Pedestrian volumes in this area are relatively low to moderate during non-school hours, but high when SFSU classes are in session. There would be no changes in sidewalk width along 19th Avenue. Both proposed options would have separated paths for pedestrians and bicycles, but would be adjacent to each other.

- **Option 1**
  For Option 1, the proposed Class I bicycle path next to a pedestrian sidewalk (Option 1) would be a relatively new experience for both pedestrians and bicyclists in this area. The design of the proposed pathways must use striping and signage to clearly delineate right-of-way between pedestrians and bicyclists. With such delineations, no significant pedestrian impacts would result with implementation of Project 8-1 Option 1.

- **Option 2**
  For Option 2, the mixed-use pedestrian and bicycle lane under Option 2 is a relatively common feature in a university setting, thus, would not be a new experience. Therefore, no significant pedestrian impacts would result with implementation of Project 8-1 Option 2.

BICYCLE

Bicyclists would benefit from having a dedicated Class I bicycle path under both Options 1 and 2 because they would be physically separated from the movement of motor vehicles. Therefore, there would be no significant bicycle impacts with implementation of Project 8-1 with either Option 1 or Option 2.

LOADING

This segment of 19th Avenue has the SFSU campus on the west side. SFSU has available off-street loading zones and does not depend on on-street parking spaces along 19th Avenue for loading. Therefore, there would be no significant loading impacts with implementation of either Option 1 or Option 2 of Project 8-1.

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

Modified Project 8-2 would add sharrows to the existing Class III bicycle route in the westbound direction s on Buckingham between 19th and 20th Avenues.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

There are no Muni bus stops in this segment of Buckingham Way, and therefore there would be little chance of conflicts between bicycles and buses. In addition, there would be no changes in transit maneuvering. Therefore, there would be no significant impacts on transit as a result of Modified Project 8-2.

PARKING

Modified Project 8-2 would not change the parking conditions in the project area. Therefore, there would be no parking impacts with implementation of Modified Project 8-2.

PEDESTRIAN

Pedestrian volumes are generally moderate to high, especially at the crosswalk crossing Buckingham Way at the 19th Avenue intersection. SFSU students frequently use this route to reach bus stops, parking spaces, or the Stonestown Galleria Shopping Center. However, the current interactions and potential for conflicts between pedestrians and bicyclists would not change as a result of the proposed bicycle improvements. Therefore, there would be no significant pedestrian impacts with implementation of Project 8-2.

BICYCLE

The installation of sharrows would increase the motor vehicle drivers' awareness that bicyclists may be on the road as well as identify for bicyclists the pathway outside the 'door zone' . The Draft EIR analyzes the physical environmental effects of the implementation of sharrows in Section V, pp. V.A.4-1 to V.A.4-31. There would be no significant impact as a result of installing sharrows on the bicycle route network. Therefore, Modified Project 8-2 would not result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and bicycling safety.

LOADING

This short segment of Buckingham Way has no loading activity or needs. The north side of this road has the Stonestown Galleria Shopping Center parking lot and Stonestown has off-street loading docks along Buckingham Way farther west of 20th Avenue. The south side of this road has residential apartments that do not rely on this segment of Buckingham Way for loading. Therefore, there would be no loading impacts with implementation of Project 8-2.

PROJECT 8-3: HOLLOWAY AVENUE BICYCLE LANES, JUNIPERO SERRA BOULEVARD TO VARELA AVENUE

Project 8-3 would add Class II bicycle lanes in both directions on Holloway Avenue between Junipero Serra Boulevard and Varela Avenues. There are two design options:

- **Option 1**

  Option 1 would remove one travel lane in each direction between Junipero Serra Boulevard and Varela Avenue. There would be no on-street parking removal.

- **Option 2**

  Option 2 would remove approximately 50 on-street parking spaces on Holloway Avenue between Junipero Serra Boulevard and 19th Avenue and approximately seven on-street parking spaces on the south side of Holloway Avenue between 19th and Varela Avenues. There would be no travel lane reduction.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

Muni bus line 29 runs 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 Muni bus stop located on the far side of Junipero Serra

Boulevard within a 17-foot wide westbound travel lane. Field observations[32] indicate that buses stopping at this location usually have adequate transition distance at the intersection to pull parallel to the curb, but sometimes encroach onto the travel lane. Because transit and bicycle volumes are relatively low to moderate in this segment of Holloway Avenue, buses and bicyclists yield to one another at this bus stop without apparent conflicts.

- **Option 1**
  Under Option 1, the removal of one travel lane in each direction would allow the striping of a bicycle lane between an eight-foot wide bus stop and a 13-foot wide travel lane; this configuration would allow bicyclists to pass to the left of buses without conflict at the westbound far side bus stop at Junipero Serra Boulevard. With the lane removal, buses and other vehicles would be forced to use the same travel lane, but because bus volumes are relatively low to moderate, bus operation or traffic flow would not be significantly affected. Therefore, there would be no significant transit impacts with implementation of Project 8-3 Option 1.

- **Option 2**
  Under Option 2, the westbound far side bus stop at Junipero Serra Boulevard would be in the bicycle lane. When a bus occupies the stop, bicyclists would have to either wait behind it until it completes loading and unloading passengers or pass to the left of the bus using the adjacent 12-foot wide general travel lane. This would be the same as under Existing conditions. Therefore, there would be no significant transit impacts with implementation of Project 8-3 Option 2.

PARKING

There are approximately 50 on-street parking spaces on both sides of Holloway Avenue between Junipero Serra Boulevard and Varela Avenue.

- **Option 1**
  Option 1 would not involve any removal of on-street parking; therefore there would be no parking impacts with implementation of Project 8-3 Option 1.

- **Option 2**
  Option 2 would remove 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. With the parking removal, there would be approximately eight parking spaces remaining on this segment of Holloway Avenue. Parking occupancy on Holloway Avenue is generally very high when SFSU is in session. The area east of 19th Avenue is within Residential

[32] Field surveys were conducted by CHS Consulting on Tuesday, November 27, 2007 during the PM peak.

Permit Parking (RPP) zone H, and the area west of 19th Avenue and south of Holloway within Parkmerced is contained in RPP Zone E. Some SFSU students also park in the RPP on-street parking area along Holloway Avenue within the 1-hour limit that is often not strictly enforced.

Field observations[33] show that there are spaces available in neighborhoods north and south of Holloway Avenue, so residents should not have significant difficulty finding a parking space within a block or two of their destination.

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.

In San Francisco, 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, 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."

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 offset 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

33 Field surveys were conducted by CHS Consulting on Tuesday, November 27, 2007 during the midday.

vicinity of the proposed project would be minor. Therefore, there would be no significant parking impacts with implementation of Project 8-3 Option 2.

PEDESTRIAN

Pedestrian volumes in this area are generally low to moderate, but higher during the morning and midday because of student activity near the SFSU campus on the northwest corner of 19th Avenue and Holloway Avenue. Though pedestrian volumes are moderate, bicycle volumes are generally low and bicycles do not often make rights turns in this segment; therefore potential conflicts between pedestrians and bicycles would be minimal. There would be no changes to the existing sidewalk or crosswalk layout as a result of either Option 1 or Option 2. Therefore, there would be no significant pedestrian impacts with implementation of either Option 1 or Option 2 of Project 8-3.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel for both Options 1 and 2. An additional benefit under Option 2 would remove the hazard of ‘dooring’ with the removal of on-street parking adjacent to the bicycle lanes. Therefore, neither Option 1 nor Option 2 of Project 8-3 would not result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and bicyclist safety.

LOADING

This segment of Holloway Avenue has the SFSU campus west of 19th Avenue and north of Holloway Anvenue, and residential buildings east of 19th Avenue and south of Holloway Avenue. Loading needs for SFSU are accommodated by on-campus loading facilities. There are no existing on-street yellow commercial freight loading spaces located on this segment of Holloway Avenue. Loading demand for the residential uses is generally associated with mail delivery or infrequent home deliveries. This demand is typically low and is usually accommodated by the on-street parking spaces. No double parking by delivery vehicles was observed.

- **Option 1**
  With Option 1 no changes would be made to on-street parking facilities; loading activities along Holloway Avenue would not change. Therefore, there would be no loading impacts with implementation of Option 1 of Project 8-3.

- **Option 2**
  Option 2 would remove the major portion of on-street parking along this segment of Holloway Avenue. The infrequent loading demands would be accommodated on adjacent streets or by temporary double parking in the bicycle lane. Under these circumstances, there is adequate road width for bicyclists to safely pass double-parked vehicles in the general travel lane. Therefore, there would be no significant loading impact with implementation of Option 2 of Project 8-3.

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

Project 8-4 would add Class II bicycle lanes in both directions on John Muir Drive between Lake Merced Boulevard and Skyline Boulevard. Project 8-4 would convert the pull-in angled on-street parking in front of the Lakewood Apartments into back-in angled parking.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

Muni bus lines 18 and 88 run along John Muir Drive. There are approximately four northbound buses and seven southbound buses per hour during the AM peak period. During the PM peak period there are approximately 10 northbound buses and four southbound buses per hour. There are three northbound and three southbound bus stops at the pedestrian crosswalks. Because there is on-street parking at these bus stops, buses stop in the travel lane adjacent to the parked vehicles. Bicyclists typically wait behind buses or pass to the left in the travel lane without conflict.

Traffic and bicycle volumes are generally low in this area on weekdays, and the proposed bicycle lanes would not affect transit operation. Bicycle volumes are generally higher during the weekend, but transit volumes are lower; therefore the potential for conflicts between buses and bicyclists remain relatively low. The proposed bicycle lanes disappear at the approaches to the bus stops. The interaction between buses and bicyclists after implementation of this near term improvement is expected to be similar to existing conditions. Therefore, there would be no significant transit impacts with implementation of Project 8-4.

PARKING

Project 8-4 would convert the existing pull-in 45-degree angled parking on the south side of John Muir Drive in front of the Lakewood Apartments into back-in 45-degree angled parking.

Changing the parking orientation would not remove any parking spaces. Therefore, there would be no significant parking impacts with implementation of Project 8-4.

PEDESTRIAN

Pedestrian volumes are generally low, though moderate to high during the weekend for recreational activity. There would be no changes in sidewalk width or crosswalk layout, and the interactions between pedestrians and bicyclists would not change as a result Project 8-4. Therefore, there would be no pedestrian impacts with implementation of Project 8-4.

BICYCLE

The proposed Class II bicycle lanes would provide bicyclists with a designated right-of-way for travel. In addition, changing pull-in to back-in angled parking would potentially benefit bicyclists by increasing the drivers' visibility of oncoming bicyclists and other vehicles both when entering and exiting a parking stall. When entering a stall by backing in, drivers would be looking towards oncoming traffic and more aware of bicyclists. When exiting a stall, drivers would be facing the street with a better view of traffic in the travel lane in comparison to drivers backing out of the pull-in stall, whose view of oncoming traffic may be obscured by an adjacent parked vehicle. Therefore, implementation of Project 8-4 would not result in a significant impact to bicyclists, but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

This area is mostly for recreational use, and there is no loading demand. Therefore, there would be no loading impacts with implementation of Project 8-4.

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

Project 8-5 would add Class II bicycle lanes in both directions on Sloat Boulevard between the Great Highway and Skyline Boulevard by removing a westbound travel lane between Skyline Boulevard and the Great Highway and an eastbound travel lane between the Great Highway and 41st Avenue. Project 8-5 would also add a bicycle box on westbound Sloat Boulevard on the nearside of the Great Highway.

TRAFFIC: INTERSECTION LEVEL OF SERVICE (LOS)

Please see discussion under Setting: Study Intersection on p. V.A.3-3 of this EIR.

TRANSIT

Muni bus lines 23 and 18 run along this segment with approximately eight buses per hour each way during the AM and PM peak periods. Line 18 makes a left turn from Skyline Boulevard onto Sloat Boulevard, but because there is no bus stop for this line on the north side of the intersection, buses would not conflict with the westbound bicycle lane. There are five westbound Muni bus stops and four eastbound stops that are generally nine feet wide, which are sufficiently wide for buses to make stops at the curb without protruding into the adjacent travel lane.

With the proposed bicycle lanes, bicyclists would have sufficient right-of-way to travel comfortably alongside buses at the bus stops. Project 8-5 would establish a westbound “Right Lane Must Turn Right Except for Muni” lanes for the westbound direction between 37th and 39th Avenues and for the eastbound direction on the nearside of Skyline Boulevard. This designated lane for buses would benefit transit operation. Project 8-5 would also convert an eastbound Muni pole stop on the nearside of Skyline Boulevard into a bus zone and relocate the westbound bus zone on the nearside of the Great Highway to 47th Avenue.

Transit volumes are moderate and bicycle volumes are generally low, therefore interactions and potential for conflicts between bicyclists and buses would be minimal. Hence, there would be no significant transit impacts with implementation of Project 8-5.

PARKING

Parking occupancy is generally low on a typical weekday and high on weekends when the San Francisco Zoo attracts its most visitors. Since there would be no changes in parking layout or in the number of parking spaces in this segment, there would be no parking impacts with implementation of Project 8-5.

PEDESTRIAN

Pedestrian volumes are generally very low on a weekday and relatively high during the weekend and summertime in the vicinity of the San Francisco Zoo. Pedestrian activity mostly occurs on the south side of Sloat Boulevard when the zoo is heavily attended. With the increased volume of pedestrians, there are more potential interactions with bicyclists at the crosswalks. However, there would be no changes in sidewalk width or crosswalk layout, and the interactions between pedestrians and bicyclists would not change as a result of Project 8-5. Therefore, there would be no pedestrian impacts with implementation of Project 8-5.

BICYCLE

The installation of bicycle lanes would provide bicyclists with a designated right-of-way for travel. The proposed bicycle box would allow bicyclists a safer through or left-turn movement by providing an area to queue at the intersection in front of motor vehicles to minimize conflicts. Therefore, Project 8-5 would not result in a significant impact to bicyclists but could have the beneficial effect of improving roadway conditions and safety for bicyclists.

LOADING

There were no double-parked vehicles or significant loading needs observed in the field, and there are usually plenty of on-street parking spaces to accommodate loading demand for commercial vehicles. There would be no changes in on-street and off-street layout of loading spaces. Therefore, there would be no loading impacts with implementation of Project 8-5.

CLUSTER 8: SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

No significant impacts were identified in Cluster 8.

MATRIX 1.2 SUMMARY OF PROJECT LEVEL IMPACTS

KEY: NI = No Impact; LTS = Less Than Significant Impact; PSUI = Potentially Significant and Unavoidable Impact;

PSI-FMA = Potential Significant Impact - Feasible Mitigation Available

The shaded options indicate the preferred project design if one has been determined. Where no option is indicated, only one option was developed and analyzed in the Draft EIR.

		Thresholds of Significance					
Projects		**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Project 1-1: Broadway Bicycle Lanes, Polk Street to Webster Street		LTS	LTS	LTS	NI	LTS	PSI-FMA
Project 1-2: Broadway Tunnel Signage Improvements		LTS	NI	LTS	NI	LTS	NI
Project 1-3: North Point Street Bicycle Lanes, The Embarcadero to Van Ness Avenue		PSI-FMA	LTS	LTS	NI	LTS	PSUI
	Modified	PSI-FMA	LTS	LTS	NI	LTS	PSUI
Project 2-1: 2nd Street Bicycle Lanes, King Street to Market Street	Option 1	PSUI	LTS	PSUI	NI	LTS	PSUI
	Modified Option 1	PSUI	LTS	PSUI	NI	LTS	PSUI
	Option 2	PSUI	LTS	PSUI	NI	LTS	PSUI
Project 2-2: 5th Street Bicycle Lanes, Market Street to Townsend Street	Option 1	PSUI	LTS	LTS	NI	LTS	NI
	Option 2	PSUI	LTS	LTS	NI	LTS	LTS
	Modified Option 2	PSUI	LTS	LTS	NI	LTS	LTS
Project 2-3: 14th Street Bicycle Lanes, Dolores Street	Option 1	LTS	NI	NI	LTS	LTS	LTS

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		Thresholds of Significance					
Projects		**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
to Market Street	Option 2	LTS	NI	NI	LTS	LTS	LTS
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 16th Street and to Division Street via Potrero Avenue	Option 1	LTS	LTS	LTS	LTS	LTS	LTS
	Modified Option 1	LTS	LTS	LTS	LTS	LTS	LTS
	Option 2	PSUI	LTS	PSUI	NI	LTS	LTS
Project 2-5: Beale Street Bicycle Lane, Bryant Street to Folsom Street		LTS	NI	NI	NI	LTS	LTS
Project 2-6: Division Street Bicycle Lanes, 9th Street to 11th Street	Option 1	PSUI	LTS	LTS	NI	LTS	LTS
	Option 2	LTS	LTS	LTS	NI	LTS	LTS
Project 2-7: Fremont Street Bicycle Lane, Harrison Street to Howard Street		LTS	NI	LTS	LTS	LTS	LTS
Project 2-8: Howard Street Bicycle Lane, Extension at 9th Street		LTS	LTS	NI	NI	LTS	LTS

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		Thresholds of Significance					
Projects		**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Project 2-9: Howard Street Bicycle Lane, The Embarcadero to Fremont Street		PSUI	LTS	LTS	NI	LTS	NI
Project 2-10: Market Street and Valencia Street Intersection Improvements		LTS	LTS	LTS	LTS	LTS	NI
	Modified	LTS	LTS	LTS	LTS	LTS	NI
Project 2-11: Market Street Bicycle Lanes, 17th Street to Octavia Boulevard	Option 1	PSUI	LTS	LTS	LTS	LTS	PSUI
	Modified Option 1	PSUI	LTS	LTS	LTS	LTS	PSUI
	Option 2	LTS	LTS	LTS	LTS	LTS	NI
Project 2-12: Market Street Bicycle Lanes, Octavia Boulevard to Van Ness Avenue		LTS	LTS	LTS	LTS	LTS	LTS
Project 2-13: McCoppin Street Bicycle Path, Market Street to Valencia Street		LTS	LTS	NI	NI	LTS	NI
Project 2-14: McCoppin Street Bicycle Lane, Gough Street to Valencia Street		LTS	LTS	LTS	NI	LTS	NI
	Modified	LTS	LTS	LTS	NI	LTS	NI
Project 2-15: Otis Street Bicycle Lane, Gough Street to South Van Ness Avenue		LTS	NI	LTS	NI	LTS	NI

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		Thresholds of Significance					
Projects		**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Project 2-16: Townsend Street Bicycle Lanes, 8th Street to The Embarcadero	Option 1	PSUI	LTS	PSUI	LTS	LTS	LTS
	Modified Option 1	PSUI	LTS	PSUI	LTS	LTS	LTS
	Option 2	PSUI	LTS	PSUI	LTS	LTS	LTS
Project 3-1: Fell Street and Masonic Avenue Intersection Improvements		LTS	LTS	LTS	LTS	LTS	NI
Project 3-2: Masonic Avenue Bicycle Lanes, Fell Street to Geary Boulevard	Option 1	PSUI	LTS	PSUI	NI	LTS	LTS
	Option 2	PSUI	LTS	LTS	LTS	LTS	LTS
Project 3-3: McAllister Street Bicycle Lane, Market Street to Masonic Avenue		LTS	NI	LTS	NI	LTS	NI
Project 3-4: Polk Street Bicycle Lane, Market Street to McAllister Street	Option 1	LTS	LTS	LTS	NI	LTS	LTS
	Option 2	LTS	LTS	LTS	LTS	LTS	LTS
Project 3-5: Scott Street Bicycle Lane, Fell Street to Oak Street	Option 1	LTS	NI	NI	NI	LTS	LTS
	Option 2	LTS	LTS	NI	NI	LTS	LTS

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		Thresholds of Significance					
Projects		**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
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		LTS	NI	LTS	NI	LTS	NI
Project 4-1: 16th Street Bicycle Lanes, 3rd Street to Terry François Boulevard		LTS	NI	NI	LTS	LTS	NI
Project 4-2: Cargo Way Bicycle Lanes, 3rd Street to Jennings Street	Option 1	LTS	LTS	NI	LTS	LTS	LTS
	Option 2	LTS	NI	NI	LTS	LTS	LTS
Project 4-3: Illinois Street Bicycle Lanes, 16th Street to Cargo Way		LTS	LTS	LTS	NI	LTS	LTS
Project 4-4: Innes Avenue Bicycle Lanes, Donahue Street to Hunters Point Boulevard	Option 1	LTS	LTS	LTS	NI	LTS	LTS
	Option 2	LTS	LTS	LTS	NI	LTS	LTS
Project 4-5: Mississippi Street Bicycle Lanes, 16th Street to Mariposa Street		LTS	NI	NI	NI	LTS	LTS

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		Thresholds of Significance					
Projects		**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Project 5-1: 23rd Street Bicycle Lanes, Kansas Street to Potrero Avenue		LTS	LTS	LTS	NI	LTS	LTS
	Modified	LTS	LTS	LTS	NI	LTS	LTS
Project 5-2: Alemany Boulevard Bicycle Lanes, Bayshore Boulevard to Rousseau Street		LTS	LTS	LTS	NI	LTS	NI
	Modified	LTS	LTS	LTS	NI	LTS	NI
Project 5-3: Alemany Boulevard Bicycle Lanes, Rousseau Street to San Jose Avenue		LTS	LTS	LTS	LTS	LTS	LTS
Project 5-4: Bayshore Boulevard Bicycle Lanes, Cesar Chavez Street to Silver Avenue	Option 1	PSUI	LTS	PSI-FMA	LTS	LTS	LTS
	Option 2	LTS	LTS	LTS	LTS	LTS	PSUI
	Modified Option 2	LTS	LTS	LTS	LTS	LTS	PSUI
Project 5-5: Cesar Chavez Street Bicycle Lanes, I-280 to US 101 Freeways	Option 1	PSUI	LTS	LTS	NI	LTS	LTS
	Option 2	LTS	LTS	LTS	NI	LTS	LTS

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The shaded options indicate the preferred project design if one has been determined. Where no option is indicated, only one option was developed and analyzed in the Draft EIR.

		Thresholds of Significance					
Projects		**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Project 5-6: Cesar Chavez Street/26th Street Bicycle Lanes, Sanchez Street to US 101	Option 1	PSUI	LTS	PSUI	LTS	LTS	LTS
	Option 2	PSUI	LTS	LTS	NI	LTS	LTS
Project 5-7a: Glen Park Area Bicycle Lanes, a. Connection between Alemany Boulevard and San Jose Avenue	Option 1	LTS	LTS	LTS	NI	LTS	LTS
	Option 2	LTS	LTS	NI	NI	LTS	LTS
	Modified Option 2	LTS	LTS	NI	NI	LTS	LTS
Project 5-7b: Glen Park Area Bicycle Lanes, b. Connection between Monterey Boulevard and San Jose Avenue	Option 1	LTS	NI	NI	NI	LTS	NI
Project 5-8: Kansas Street Bicycle Lanes, 23rd Street to 26th Street		LTS	NI	LTS	LTS	LTS	LTS
	Modified	LTS	NI	LTS	LTS	LTS	LTS
Project 5-9: Ocean Avenue Bicycle Lanes, Alemany Boulevard to Lee Avenue	Option 1	LTS	LTS	LTS	NI	LTS	NI
	Option 2	LTS	LTS	LTS	NI	LTS	NI
	Modified Option 2	LTS	LTS	LTS	NI	LTS	NI

MATRIX 1.2 SUMMARY OF PROJECT LEVEL IMPACTS

KEY: NI = No Impact; LTS = Less Than Significant Impact; PSUI = Potentially Significant and Unavoidable Impact;

PSI-FMA = Potential Significant Impact - Feasible Mitigation Available

The shaded options indicate the preferred project design if one has been determined. Where no option is indicated, only one option was developed and analyzed in the Draft EIR.

		Thresholds of Significance					
Projects		**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Project 5-10: Phelan Avenue Bicycle Lanes, Judson Avenue to Ocean Avenue	Option 1	LTS	NI	LTS	LTS	LTS	NI
	Option 2	LTS	LTS	LTS	LTS	LTS	NI
Project 5-11: Potrero Avenue and Bayshore Boulevard Bicycle Lanes, 25th to Cesar Chavez Streets		LTS	LTS	LTS	NI	LTS	NI
Project 5-12: Sagamore Street and Sickles Avenue Bicycle Lanes, Alemany Boulevard to Brotherhood Way	Option 1	LTS	LTS	LTS	NI	LTS	NI
	Modified Option 1	LTS	LTS	LTS	NI	LTS	NI
	Option 2	LTS	LTS	LTS	NI	LTS	NI
Project 5-13: San Bruno Avenue Bicycles Lanes, Paul Avenue to Silver Avenue	Option 1	LTS	LTS	LTS	NI	LTS	PSUI
	Option 2	LTS	LTS	LTS	NI	LTS	PSUI
Project 6-1: Claremont Boulevard Bicycle Lanes, Dewey Boulevard to Ulloa Street		LTS	NI	NI	NI	LTS	NI
	Modified	LTS	NI	NI	NI	LTS	NI
Project 6-2: Clipper Street/Diamond Heights							

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The shaded options indicate the preferred project design if one has been determined. Where no option is indicated, only one option was developed and analyzed in the Draft EIR.

		Thresholds of Significance					
Projects		**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Boulevard Bicycle Lanes, Douglass Street to Portola Drive (One design option is proposed for both Segment I and Segment II)		LTS	NI	LTS	NI	LTS	NI
Project 6-3: Laguna Honda Boulevard Bicycle Lanes, Plaza Street to Woodside Avenue	Option 1	LTS	NI	LTS	NI	LTS	NI
	Option 2	LTS	NI	LTS	LTS	LTS	NI
	Modified Option 2	LTS	NI	LTS	LTS	LTS	NI
Project 6-4: Laguna Honda Boulevard Bicycle Lanes, Portola Drive to Woodside Avenue		LTS	LTS	LTS	NI	LTS	NI
	Modified	LTS	LTS	LTS	NI	LTS	NI
Project 6-5: Portola Drive Bicycle Lanes, Corbett Avenue to O'Shaughnessy Boulevard		PSUI	LTS	LTS	NI	LTS	LTS
	Modified	PSUI	LTS	LTS	NI	LTS	LTS
Project 6-6: Portola Drive Bicycle Lanes, O'Shaughnessy Boulevard/Woodside Avenue to Sloat Boulevard/St. Francis Boulevard	Option 1	PSUI	LTS	LTS	NI	LTS	LTS
	Option 2	LTS	LTS	LTS	NI	LTS	LTS

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The shaded options indicate the preferred project design if one has been determined. Where no option is indicated, only one option was developed and analyzed in the Draft EIR.

		Thresholds of Significance					
Projects		**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
	Modified Option 2	LTS	LTS	LTS	NI	LTS	LTS
Project 7-1: Intersection Improvements at 7th Avenue and Lincoln Way		LTS	LTS	LTS	LTS	LTS	NI
	Modified	LTS	NI	LTS	LTS	LTS	NI
Project 7-2: 7th Avenue Bicycle Lanes, Lawton Street to Lincoln Way		LTS	NI	NI	NI	LTS	NI
Project 7-3: Great Highway and Point Lobos Avenue Bicycle Lanes, El Camino Del Mar to Fulton Street		LTS	LTS	LTS	LTS	LTS	LTS
	Modified	LTS	LTS	LTS	LTS	LTS	LTS
Project 7-4: John F. Kennedy Drive and Kezar Drive Bicycle Lanes, Stanyan Street to Transverse Drive		LTS	LTS	NI	LTS	LTS	LTS
	Modified	LTS	NI	NI	LTS	LTS	LTS
Project 7-5: Kirkham Street Bicycle Lanes, 9th Avenue to Great Highway	Option 1	LTS	LTS	NI	NI	LTS	LTS
	Option 2	LTS	NI	NI	NI	LTS	LTS
Project 7-6: Page and Stanyan Streets Intersection Traffic Signal Improvements		LTS	NI	LTS	LTS	LTS	NI

MATRIX 1.2 SUMMARY OF PROJECT LEVEL IMPACTS

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PSI-FMA = Potential Significant Impact - Feasible Mitigation Available

The shaded options indicate the preferred project design if one has been determined. Where no option is indicated, only one option was developed and analyzed in the Draft EIR.

		Thresholds of Significance					
Projects		**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Project 8-1: 19th Avenue mixed-use path, Buckingham Way to Holloway Avenue	Option 1	LTS	LTS	LTS	LTS	LTS	LTS
	Option 2	LTS	NI	LTS	LTS	LTS	LTS
Project 8-2: Buckingham Way Bicycle Lanes, 19th Avenue to 20th Avenue		LTS	LTS	LTS	LTS	LTS	NI
	Modified	LTS	LTS	LTS	LTS	LTS	NI
Project 8-3: Holloway Avenue Bicycle Lanes, Junipero Serra Boulevard to Varela Avenue	Option 1	LTS	NI	LTS	LTS	LTS	NI
	Option 2	LTS	LTS	LTS	LTS	LTS	LTS
Project 8-4: John Muir Drive Bicycle Lanes, Lake Merced Boulevard to Skyline Boulevard		LTS	LTS	LTS	NI	LTS	NI
Project 8-5: Sloat Boulevard Bicycle Lanes, Great Highway to Skyline Boulevard		LTS	NI	LTS	NI	LTS	NI

4. MINOR IMPROVEMENTS

INTRODUCTION

This section presents the program-level review of minor improvements that would be implemented as part of the ongoing activities of the Bicycle Program. There are nine treatments included as part of the minor improvements that may be implemented, as necessary, to improve conditions for bicycle use within the City.[1] These include sharrows (shared roadway bicycle markings), bicycle racks on sidewalks, on-street bicycle parking, bicycle boxes, minor pavement markings, colored pavement materials, signage changes, traffic signal changes and on-street vehicle parking changes. Each treatment is described, and potential impacts on traffic, transit, pedestrians, bicyclists, and loading are discussed. Impacts are based the significance criteria established in Chapter 3 of the Wilbur Smith Associates, *San Francisco Bicycle Plan Update Transportation Impact Study* (TIS), October 28, 2008. A summary of all of the impacts and mitigation measures, associated with the minor improvements described in this section, is located at the end of this section.

PROJECT LOCATION/PROJECT DESCRIPTION

Minor improvements include treatments to the City's roadway and sidewalk network and infrastructure to improve conditions for bicycle use within the city. These treatments are often design elements included as part of Class II and Class III bicycle routes, and would therefore be located within the existing and proposed bicycle route network. These treatments would be implemented as warranted. Bicycle parking, either on-street or on the sidewalk, also would be implemented on streets not included as part of the bicycle route network.

Each of the nine treatments assessed as minor improvements is described in this section. As appropriate, examples of existing treatments, or treatments proposed as part of near-term improvements, are noted.

MINOR IMPROVEMENT 4.1-1: SHARROWS (SHARED ROADWAY BICYCLE MARKINGS)

Sharrows are pavement markings within the travel lane that are intended to help bicyclists better position themselves in a shared travel lane and to alert drivers to the presence of

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[1] The technical information contained in this section is based on the *San Francisco Bicycle Plan Update Transportation Impact Study*, Wilbur Smith Associates, October 28, 2008. This document is on file and available for public review by appointment at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, 94103, as part of Case File No. 2007.0347E.

bicyclists. Sharrows are generally installed on roadways that are part of Class III bicycle routes, where bicycle lanes cannot be striped for varying reasons. Figure V.A.4-1 on p. V.A.4-3 presents an example of a sharrow on Market Street in San Francisco.

Sharrows were developed in response to concerns related to bicyclists riding too close to parked vehicles (within the "door zone" where motorists leaving parked cars may open their car's door into a cyclist's path of travel), motorists attempting to pass bicyclists too closely or intimidate bicyclists legally in a travel lane, bicyclists riding on the sidewalk illegally, and bicyclists riding on the wrong side of the street.

Specifications for sharrows are included in the California Manual on Uniform Traffic Control Devices (California MUTCD).[2] The SFMTA has drafted internal specifications, consistent with the California MUTCD, for design and typical placement of sharrows. Figure V.A.4-1 on p. V.A.4-3 presents the draft specifications developed by SFMTA.[3]

MINOR IMPROVEMENT 4.1-2: BICYCLE RACKS ON SIDEWALKS

Bicycle parking within the public right-of-way consists of bicycle racks installed on sidewalks, to provide bicyclists with secure short-term parking spaces conveniently located near the cyclist's destination. SFMTA developed *Bicycle Rack Placement Criteria*[4] in 1993 to encourage the use of bicycles for transportation by providing places to secure bicycles, and to ensure that sidewalks are not unreasonably obstructed. Interdepartmental Staff Committee on Traffic and Transportation (ISCOTT) approved these criteria, which address the needs of all persons using the sidewalk (the criteria indicate that all bicycle rack installations must address accessibility and path of travel requirements for persons with disabilities based upon the California Building Code Title 24, Uniform Federal Access Standards, and the Americans with Disabilities Act), in 1993. SFMTA has drafted a new *Bicycle Parking Guidelines* as part of the Bicycle Plan that address the design issues associated with on-street and off-street bicycle parking.[5]

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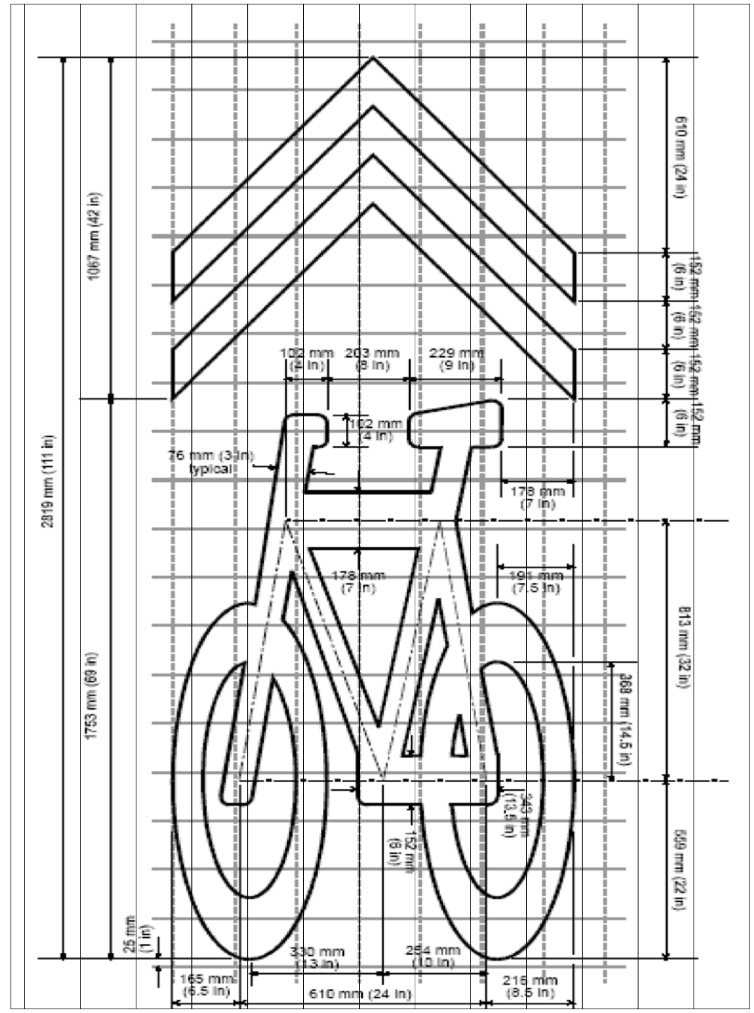
2 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2003 Edition, as amended for use in California), Part 9 Traffic Control for Bicycle Facilities.

3 The technical information contained in this section is based on the *San Francisco Bicycle Plan Update Transportation Impact Study*, Wilbur Smith Associates, October 28, 2008, Appendix F. This document is on file and available for public review by appointment at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, 94103, as part of Case File No. 2007.0347E.

4 The technical information contained in this section is based on the *San Francisco Bicycle Plan Update Transportation Impact Study*, Wilbur Smith Associates, October 28, 2008, Appendix F. This document is on file and available for public review by appointment at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, 94103, as part of Case File No. 2007.0347E.

5 Ibid.

SOURCE: San Francisco Municipal Transportation Agency, 2008.



SOURCE: City and County of San Francisco, August 6, 2007.

FIGURE V.A.4-1: SHARROWS

The inverted "U" rack, as shown on Figure V.A.4-2 on p. V.A.4-5 has been determined by SFMTA to be the most practical rack type for the majority of locations within San Francisco. Key elements related to placement of bicycle racks on sidewalks include:

- Racks should have a minimum height of 33 inches. A standard inverted "U" bicycle rack accommodates two bicycles.
- In popular retail areas, two or more racks should be installed on each side of each block.
- Racks should be placed in close proximity to Muni stops where there is a demand for short-term parking. The location must conform to SFMTA's *Bicycle Rack Placement Criteria*, guidelines approved through ISCOTT stating that a bicycle rack may be located only within the last five feet of a bus stop, and at least five feet from a crosswalk.
- Racks should be placed where there is at least a minimum six-foot width for a clear path of pedestrian travel to ensure parked bicycles don't interfere with pedestrian circulation.

Bicycle racks on sidewalks are installed either at the request of the public or based on SFMTA-observed need for more racks than are provided on a particular block.

MINOR IMPROVEMENT 4.1-3: ON-STREET BICYCLE PARKING

On-street bicycle parking consists of placing bicycle racks on the roadway within the area adjacent to the curb typically designated for motor vehicle parking. On-street bicycle parking would be considered for areas where there is no space for sidewalk racks, or if all rack spaces available on the sidewalk are fully utilized. On-street bicycle parking is currently provided on Grove Street near the entrance to the Main Library, as shown on Figure V.A.4-2 on p. V.A.4-5.

SFMTA has developed draft design guidelines for on-street parking as part of the *Bicycle Parking Guidelines* (see Appendix F of the TIS). On-street bicycle parking areas would typically require the removal of one curbside automobile parking space to accommodate six to seven bicycle racks, providing 12 to 14 bicycle parking spaces. In addition to bicycle racks, appropriate signage (e.g., No Parking Except Bicycles) and barriers, such as bollards, are typically installed.

On-street bicycle parking areas typically would be located along heavily-traveled bicycle routes or at locations where a large volume of bicycle trips terminate and the resulting bicycle parking demand is greater than can be accommodated with bicycle racks installed on sidewalks due to space limitations. The locations of on-street bicycle parking areas are generally identified by merchant or community requests and are subject to the consensus of fronting property owners.

SOURCE: San Francisco Municipal Transportation Agency, 2008.

FIGURE V.A.4-2: EXAMPLE "U" RACK AND ON-STREET BICYCLE PARKING

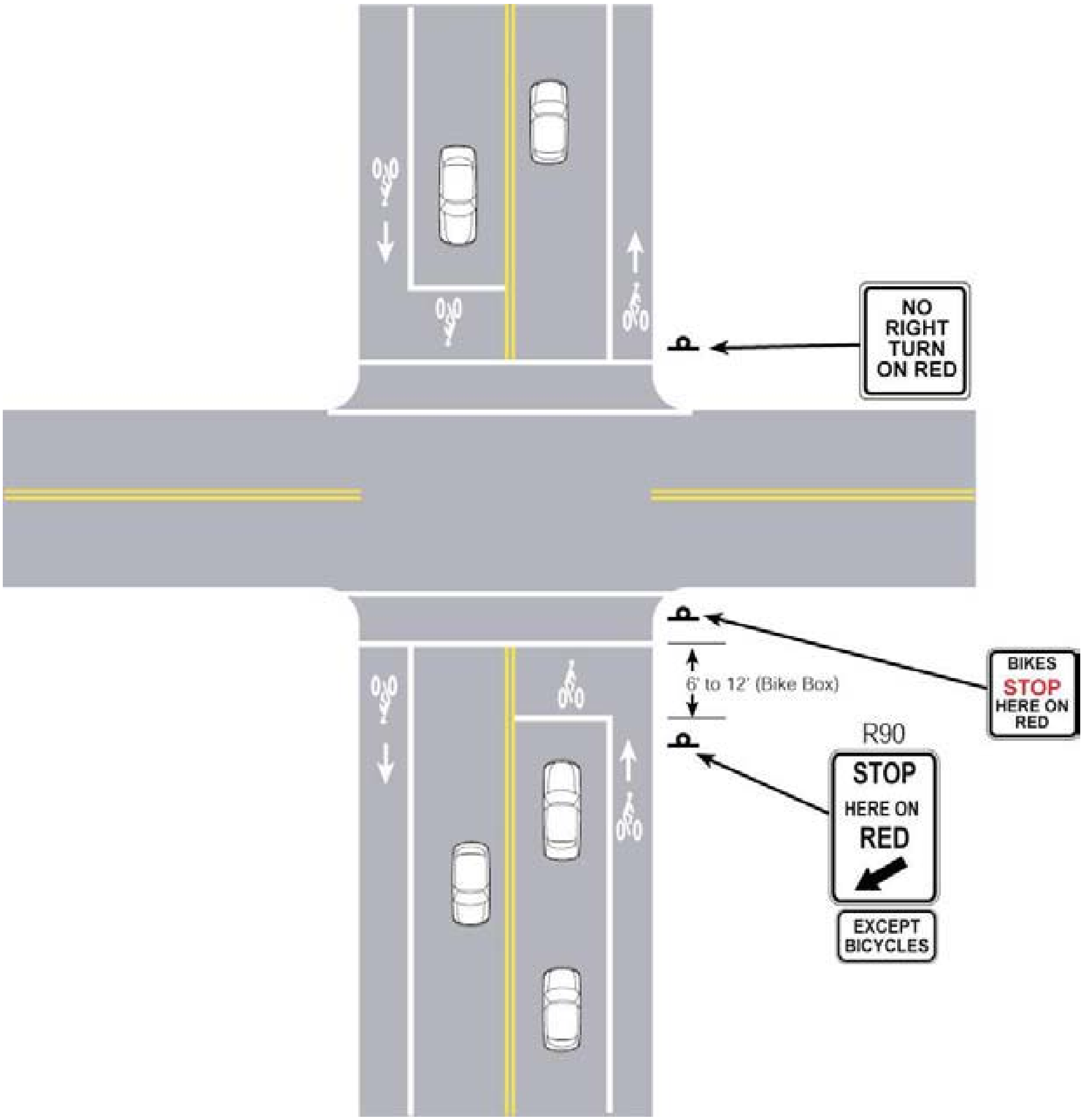
A public hearing would be required to approve the removal of any on-street parking spaces associated with on-street bicycle parking.

MINOR IMPROVEMENT 4.1-4: BICYCLE BOXES

Bicycle boxes are striped waiting areas for bicyclists situated behind a crosswalk and in front of a motor vehicle stop bar. The motor vehicle stop bar is moved back 6 to 12 feet from the crosswalk to accommodate the bicycle box. Bicycle boxes allow bicyclists approaching an intersection in a bicycle lane to move to the front of a queue of motor vehicles during the red traffic signal indication, and position themselves for turning movements at the intersection. When the traffic signal for the approach changes to green, bicyclists proceed first. Being in the bicycle box, and thus at the front of the traffic queue, tends to make bicyclists more visible to motorists.

Bicycle boxes include a stenciled bicycle marking and are generally accompanied by signs communicating where bicycles and motor vehicles should stop. Bicycle boxes would include vehicle "No Turn on red" restrictions. A bicycle signal, allocating a portion of the signal cycle exclusively to bicycle movements could also be included as part of a bicycle boxes. Figure V.A.4-3 on p. V.A.4-7 presents a schematic of a bicycle box and associated signs. Bicycle boxes would not be implemented at intersections operating at LOS E or LOS F

Candidate locations for bicycle boxes include intersections with high volumes of bicycles and motor vehicles, and at intersections where there are high volumes of turn movements. There currently are two bicycle boxes in San Francisco: one on eastbound 14th Street at the approach to Folsom Street, and one on northbound Scott Street at the approach to Oak Street. Figure V.A.4-4 on p. V.A.4-8 illustrates the bicycle box on the eastbound 14th Street approach to Folsom Street.



SOURCE: San Francisco Municipal Transportation Agency, 2008.

FIGURE V.A.4-3: BICYCLE BOX SCHEMATIC

SOURCE: San Francisco Municipal Transportation Agency, 2008.

FIGURE V.A.4-4: BICYCLE BOX (ON 14TH STREET)

MINOR IMPROVEMENT 4.1-5: MINOR PAVEMENT MARKING CHANGES

The design and use of pavement markings are specified by State statute and must be consistent with the national standard of the California MUTCD. As a minor improvement, pavement markings are proposed to be used:

- to indicate the separation of parking, bicycle, and mixed-flow travel lanes;
- to highlight potential conflict areas;
- to assist bicyclists by indicating assigned travel path;
- to provide advance information for signals and for turning and crossing maneuvers;
- to narrow travel lanes; and
- to provide guidance for floating bicycle lanes.[6]

The minor pavement marking changes would be associated with improvements along the bicycle route network, as well as locations not within the network, where special attention to accommodating bicycle travel is warranted.

MINOR IMPROVEMENT 4.1-6: COLORED PAVEMENT MATERIALS

Colored pavement materials, when used for guidance and regulation of traffic, are considered traffic control devices by the California MUTCD. Currently only yellow, white, red, and blue pavement materials are approved for use as traffic control devices. The *City of San Francisco Bicycle Plan Update: Supplemental Design Guidelines* include the use of colored bicycle lanes to further enhance the bicycle environment and improve safety. Recent Federal Highway Administration (FHWA)-approved studies by the cities of Chicago and New York and by the State of Vermont have all used the color green for experimental colored bicycle facilities. The Bicycle Technical Committee (BTC) and the Pavement Markings Technical Committee (PMTC) of the National Committee on Uniform Traffic Control Devices (NCUTCD) have suggested the use of the color green for experimental colored bicycle facilities.

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[6] A floating bicycle lane is provided on streets where on-street parking is desired during non-peak traffic periods. During peak periods there would be a tow-away restriction to provide an additional travel lane. The bicycle lane shifts locations when the tow-away restriction is in effect. When parking is allowed, bicyclists use the bicycle lane space between the parked vehicles and the solid white stripe indicating the bicycle lane. When parking is not allowed, bicyclists move to the right and use the shoulder bicycle lane. There is a floating bicycle lane northbound on The Embarcadero between Harrison Street and Howard Street.

FHWA has recently approved a study proposed by SFMTA of solid and dashed green pavement for bicycle lanes. Solid green colored pavement is proposed along portions of bicycle lanes demarcated by solid white lines to emphasize proper lane placement and discourage motorist encroachment, and dashed green colored pavement is proposed along dashed portions of bicycle lanes to encourage safe merging behavior between bicyclists and motorists. Results of the study, which would include before and after data collection at a number of locations throughout San Francisco, would be submitted to FHWA and California Traffic Control Device Committee (CTCDC). Based on the results of the various studies, the FHWA and the CTCDC would determine if changes to the MUTCD and/or the California MUTCD to incorporate colored pavement materials are warranted. Once the experiment is completed, and if the use of colored pavement materials is approved by FHWA and CTCDC, San Francisco may add colored pavement materials to selected bicycle lanes.

MINOR IMPROVEMENT 4.1-7: SIGNAGE CHANGES

The design and use of signs are specified by State statute and must be consistent with the national standards of the MUTCD. Bicycle facility signs include regulatory (e.g., No Parking Bike Lane), warning (e.g., Bikeway Narrows), and guidance (e.g., Bicycle Route number) signs. The *City of San Francisco Bicycle Plan Update: Supplemental Design Guidelines* identifies signs currently used by SFMTA to supplement the signs included in the California MUTCD and the Caltrans Traffic Manual. While most signs used in San Francisco are consistent with the California MUTCD, a number of non-standard signs also are used to address unique signs not included in the California MUTCD. An example of a non-standard sign is the “Bicycles Allowed Use of Full Lane” sign. Signage changes would include development of new signs for the Bicycle Program to meet specifications in the California MUTCD.

Bicycle-Route number signs have been placed on existing poles installed for other purposes. As part of the signage change minor improvement, new poles may be installed to relocate existing signs and signs may be placed on new poles along proposed bicycle routes identified in Chapter 3 of the TIS.

MINOR IMPROVEMENT 4.1-8: TRAFFIC SIGNAL CHANGES

Traffic signal changes are sometimes implemented along bicycle routes and at intersections with high volumes of bicyclists and motor vehicles. Traffic signal changes typically associated with implementation of bicycle improvements include:

- Changing the signal cycle length and/or redistributing the available green time to optimize traffic operations when geometric changes (e.g., travel lane removals) are made to accommodate bicycle lanes.
- Changing the duration of the yellow or all-red phase to provide an adequate clearance interval for bicyclists who enter the intersection at the end of the green phase.
- Installing bicycle signals to provide an exclusive phase for bicyclists, or to provide bicyclists with an advance green indication at locations where an identified safety or operational problem involving bicycles exists.
- Signalizing 2-way STOP sign or all-way STOP sign-controlled intersections to better accommodate pedestrians and bicyclists at high volume intersections.

Traffic signal changes would only be made at intersections currently operating at a level of service operating condition of LOS D or better. Traffic signal changes at intersections operating poorly, at LOS E or LOS F, would be subject to additional environmental analysis.

Changes to traffic signals at intersections that would result from the Bicycle Plan Project would occur primarily on streets within the existing or proposed bicycle network. For example, near-term improvement Project 7-6: Page Street and Stanyan Street Intersection Traffic Signal Improvements would facilitate pedestrian and bicycle access between the existing Class I pedestrian and bicycle multi-use path in Golden Gate Park, and the existing Bicycle Route 32 on Page Street.

Traffic signals in San Francisco are designed to meet the requirements and specifications contained within the California MUTCD. The California MUTCD also includes a bicycle signal warrant[7] that provides guidance on when a bicycle signal should be considered (based on vehicle and bicycle volumes, collision history, and geometric warrants).

MINOR IMPROVEMENT 4.1-9 ON-STREET VEHICLE PARKING

On-street vehicle parking changes are occasionally needed in order to accommodate Class II and Class III bicycle facilities within the existing right-of-way. On-street parking changes typically associated with implementation of bicycle improvements include:

7 In order to ensure that the advantages outweigh the disadvantages of installing a signal, and to provide some consistency in the application of signals, a series of signal warrants for traffic and bicycle signals have been developed to define the minimum conditions under which further consideration of a signal is appropriate.

- Removing parking spaces on one or both sides of the street to provide for a bicycle lane(s).
- Removing parking spaces to lengthen existing bus stops, or relocate bus stops, to more fully accommodate buses on streets with existing or proposed bicycle lanes.
- Removing parking spaces to create peak-period or permanent tow-away zones on streets with proposed bicycle lanes.
- Removing parking spaces to provide for exclusive right-turn or left-turn lanes on streets with proposed bicycle lanes.
- Reconfiguring parking spaces on streets adjacent to a bicycle route to accommodate commercial vehicle freight loading spaces displaced along the route.
- Reconfiguring angled or perpendicular parking with parallel parking to provide a bicycle lane or wider traffic lanes.
- Reconfiguring parking spaces from parallel, perpendicular, or front-in angles spaces, to back-in/head-out angled parking spaces where conventional parking restricts line of sight for drivers leaving a parking stall on streets along the bicycle route network.
- Adding parking spaces by reconfiguring parallel to angled parking or by removal of tow-away restrictions.

Changes to on-street parking would occur primarily on streets within the existing or proposed bicycle route network. However, in some instances, parking would need to be removed or reconfigured (e.g., changed from unmetered parking to metered yellow commercial freight loading spaces) on streets adjacent to the bicycle route network. A number of near-term improvements analyzed in Chapter 3 of the TIS include net increases or decreases in parking supply.

While there are no current locations in San Francisco where back-in/head-out angled parking exists, five near-term improvements include modifying existing parking stalls to back-in/head-out angled parking (Project 2-16: Townsend Street, Project 3-4: Polk Street, Project 4-3: Illinois Street, Project 5-12: Sagamore Street and Sickles Avenue, and Project 8-4: John Muir Drive).

IMPACT ANALYSIS

This section provides an assessment of the various treatments included as part of the minor improvements. The determination of impacts associated with the minor improvements is based on the significance criteria presented in Chapter 3 of the TIS.

MINOR IMPROVEMENT 4.4-1: SHARROWS

Shared lane pavement markings, also referred to as sharrows help bicyclists better position themselves in a shared travel lane and alert drivers to the presence of bicyclists. Sharrows are generally indicated on roadways that are part of Class III bicycle routes.

Traffic

The presence of sharrows within a travel lane does not substantially affect the capacity of the travel lane in which they are located, and therefore, the intersection level of service would not change with implementation of sharrows.

Implementation of new bicycle routes and closure of gaps in the existing bicycle route network would likely result in an increase in the number of bicyclists on streets that have Class III facilities, such as sharrows. The increased presence of bicyclists on these street segments may result in slower vehicle travel speeds when bicyclists ride in the middle of the travel lane and when drivers wait for an opportunity to pass bicyclists. The impact of the increased presence of bicyclists would depend on a number of factors such as the number of travel lanes, the lane widths, the vehicle and bicycle volumes (including if there is oncoming traffic), and speed of bicyclists and vehicles. The increase in delay would generally be minimal, and would occur only when both bicyclists and vehicles are present. Because drivers would be able to pass the bicyclists, the capacity of the street segment would not be substantially affected and intersection LOS would not substantially change. Sharrows, therefore would not significantly impact traffic operations.

Transit

As indicated above, the presence of sharrows would not substantially affect the capacity of a travel lane, and therefore, transit operations along a street where sharrows are indicated would not experience substantially increased travel times due to their presence. Wider vehicles, such as buses, may be more affected by sharrows than passenger vehicles depending on factors such as the travel lane widths, whether they can change lanes, whether there is opposing traffic, and volume and speed of vehicle and bicycle traffic. Buses traveling behind a bicyclist riding in the middle of the travel lane may experience somewhat slower speeds, as would buses waiting for an opportunity to pass bicyclists.

Bus stop access and egress also would not be substantially affected by the presence of sharrows; however, with the increased presence of bicyclists, bus drivers would need to ensure that they look for bicyclists at the edge of the travel lane when pulling out of a bus stop and merging back into the traffic flow. If a bicyclist is present in the travel lane, the bus driver would need to wait until the bicyclist has passed. The generally slower speeds of bicyclist may delay the merging by a few seconds, which would not be considered a substantial increase in delay. Sharrows would not therefore result in a significant impact on transit operations.

Parking

Because sharrows are indicated within a travel lane, they would not affect on-street parking at the curb. Sharrows may increase the driver's awareness that bicyclists may be on the road, and drivers parking may be more aware of the presence of bicyclists. Implementation of sharrows would not significantly impact parking conditions.

Pedestrian

Because sharrows are indicated within a travel lane, implementation of sharrows would not have an effect on pedestrian travel on sidewalks or within crosswalks. Pedestrians may benefit from the installation of sharrows, as some studies have found that sharrows may result in fewer bicyclists riding illegally on the sidewalk. Therefore, sharrows would not significantly impact pedestrians.

Bicycle

Bicyclists would benefit from the installation of sharrows, as sharrows would increase the motor vehicle drivers' awareness that bicyclists may be on the road as well as denote to the bicyclists the pathway outside the parking lane's 'door zone'. Because the implementation of sharrows would have a beneficial effect of improving conditions and safety for bicyclists, they would not result in significant impacts on bicyclists.

Loading

Because sharrows are indicated within a travel lane, implementation of sharrows would not have an effect on loading/unloading activity occurring at the curb. On streets where commercial vehicles double-park to conduct loading/unloading activities, double-parking would likely continue to occur even with implementation of sharrows. Therefore, sharrows would not significantly impact loading operations.

MINOR IMPROVEMENT 4.1-2: BICYCLE RACKS ON SIDEWALKS

SFMTA's *Bicycle Rack Placement Criteria* identify the criteria used in determining whether bicycle racks are appropriate at a selected location. The guidelines indicate that a minimum of six feet of width for a clear path of pedestrian travel, free of obstacles, including bicycles parked at the rack, must be maintained on the sidewalk at all times. In addition, SFMTA's *Bicycle Rack Placement Criteria* also identify pedestrian flows and the minimum effective sidewalk width required to maintain LOS C[8] pedestrian operating conditions.

Traffic

Because bicycle racks would be located within the sidewalk, implementation of bicycle racks would not affect travel lane operations. Therefore, bicycle racks would not significantly impact traffic operations.

Transit

Because bicycle racks would be located within the sidewalk, implementation of bicycle racks would not affect transit operations within travel lanes. SFMTA's *Bicycle Rack Placement Criteria* identify conditions under which bicycle racks could be placed on the sidewalk within a bus stop zone without impeding bus stop operations, such as passengers waiting at the bus stop or getting off the bus. Bicycle rack placement must conform to the ISCOTT guidelines stating that a bicycle rack may be located only within the last five feet of a bus stop and at least five feet from a crosswalk. Therefore, bicycle racks would not significantly impact transit operations.

Parking

Because bicycle racks would be located within the sidewalk, implementation of bicycle racks would not affect parking lane operations. Therefore, bicycle racks would not result in a significant impact on parking.

Pedestrian

As indicated above, SFMTA's *Bicycle Rack Placement Criteria* (see Appendix F of the TIS) indicate that a minimum of 6 feet of width for a clear path of pedestrian travel, free of obstacles, including bicycles parked at the rack, must be maintained on the sidewalk at all times.[9] In addition, as noted above, walkway operating conditions of LOS C or better need to be

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8 Pedestrian operating conditions at LOS C pedestrian walkway space is sufficient for normal walking speeds, and for bypassing other pedestrians in primarily unidirectional streams. Reverse-direction or crossing maneuvers can cause minor conflicts, and walking speeds are somewhat lower than LOS A and LOS B conditions.

9 The technical information contained in this section is based on the *San Francisco Bicycle Plan Update Transportation Impact Study*, Wilbur Smith Associates, October 28, 2008, Appendix F. This document is on file and available for public review by appointment at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, 94103, as part of Case File No. 2007.0347E.

maintained (within San Francisco, walkway operating conditions of LOS C or better are desirable). Therefore, implementation of bicycle racks within the sidewalk, per the identified criteria, would not result in significant pedestrian impacts.

Bicycle

Bicyclists would benefit from the installation of bicycle racks on sidewalks. Bicycle Racks would provide bicyclists with secure short-term parking spaces conveniently located near the cyclist's destination. Bicycle racks would not result in a significant impact on bicyclists.

Loading

Because bicycle racks would be located within the sidewalk, implementation of bicycle racks would not affect loading/unloading operations occurring within the parking lane. However, in some instances, racks and locked bicycles could impede delivery access between the parking lane and the sidewalk, and may result in deliveries being carted around the bicycle. However, this condition would be temporary and would not result in a significant impact on curb loading/unloading operations. Bicycle racks are generally located to provide access between parked vehicles and the sidewalk. They are generally not located within the last 5 feet of yellow commercial freight loading spaces to reduce the potential of bicycles impeding loading/unloading activities. Therefore, bicycle racks would not result in significant impacts on loading operations.

MINOR IMPROVEMENT 4.1-3: ON-STREET BICYCLE PARKING

On-street bicycle parking consists of placing bicycle racks within the roadway area adjacent to the curb typically designated for motor vehicles. Typically one vehicle parking space would be removed to accommodate on-street bicycle parking. At some locations two vehicle parking spaces may be affected.

Traffic

Because the on-street bicycle racks would be located within the curb parking lane, implementation of bicycle racks would not affect traffic operating conditions. Therefore, on-street bicycle racks would not result in a significant impact on traffic operations.

Transit

Because the on-street bicycle racks would be located within the curb parking lane, implementation of bicycle racks would not affect transit operations. Therefore, on-street bicycle racks would not result in a significant impact on transit operations.

Parking

On-street bicycle racks would be located within the curb parking lane at these locations and would displace one or two vehicle parking spaces. The number of locations for such racks has not been determined, and the loss of one to two vehicle parking spaces at these locations would not be a noticeable change in the on-street vehicle parking supply. Therefore, on-street bicycle racks would not result in a significant impact on parking conditions.

Pedestrian

Because the on-street bicycle racks would be located within the curb parking lane, implementation of bicycle racks would not affect pedestrian walkway conditions on sidewalks or within crosswalks. Therefore, on-street bicycle racks would not result in a significant impact on pedestrian conditions.

Bicycle

Bicyclists would benefit from the installation of bicycle racks on sidewalks. The bicycle racks would provide bicyclists with secure short-term parking spaces conveniently located near cyclists' destinations. On-street bicycle parking would not result in a significant impact on bicyclists.

Loading

On-street bicycle racks would be located within the curb parking lane and would displace up to two vehicle parking spaces. Placement of on-street bicycle parking would take into consideration existing yellow commercial vehicle freight loading zones, and would typically not displace yellow commercial freight loading zones, although the location of the loading zones may be modified to accommodate both bicycle parking and yellow commercial freight loading zones**.** Therefore, on-street bicycle parking would not result in a significant impact on loading conditions.

MINOR IMPROVEMENT 4.1-4: BICYCLE BOXES

Bicycle boxes are striped waiting areas for bicyclists situated behind a crosswalk and in front of a motor vehicle stop bar. Bicycle boxes allow bicyclists approaching an intersection in a bicycle lane to move to the front of a queue of motor vehicles during the red signal phase, and position themselves for turning movements at the intersection. Bicycle boxes generally include a vehicle "No Turn on Red" restriction.

Traffic

Placement of bicycle boxes at intersections would not substantially affect the capacity of the travel lane(s) in which they are located, although they would delay vehicle start-up by a few seconds when bicyclists are present in the bicycle box. The slight reduction in available green time for vehicles would not substantially change the intersection level of service operating conditions for vehicles. Implementation of "No Turn on Red" restrictions would not substantially affect vehicle delays at intersections, or overall intersection level of service operating conditions. Bicycle boxes would not be implemented at intersections operating at LOS E or LOS F conditions. Observations[10] of the two existing bicycle boxes in San Francisco did not identify substantial increases in vehicular travel times due to utilization of the bicycle box. Therefore, bicycle boxes would not result in significant impacts on intersection operations.

Transit

As indicated above, bicycle boxes would not substantially affect the capacity of the travel lane(s), and therefore, transit operations at intersections where bicycle boxes are implemented would not experience substantial increases in travel times due to their presence. Because bicycle boxes would be within the travel lane, implementation of bicycle boxes would not affect bus stop operations. Overall, bicycle boxes would not result in significant impacts on transit.

Parking

Because bicycle boxes would be within the travel lane, implementation of bicycle boxes would not affect parking lane operations. Therefore, bicycle boxes would not result in significant impacts on parking.

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[10] Field observations conducted by Luba Wyznyckyj, LCW Consulting, August 2008.

Pedestrian

Because bicycle boxes would be within the travel lane, implementation of bicycle boxes would not affect pedestrian conditions on sidewalks. Pedestrian crosswalks also would not be affected by placement of bicycle boxes at intersections. Therefore, bicycle boxes would not result in significant impacts on pedestrians.

Bicycle

Bicyclists would benefit from the installation of bicycle boxes, by making bicyclists more visible to motorists, allowing bicycles to be at the front of the traffic queue during the red signal indication, and providing bicyclist a safer way to position themselves for turning movements. Therefore, bicycle boxes would not result in significant impacts on bicyclists.

Loading

Because bicycle boxes would be located within the travel lane(s) at the approach to intersections, implementation of bicycle boxes would not affect loading/unloading operations occurring within the parking lane. Therefore, bicycle boxes would not result in significant impacts on loading operations.

MINOR IMPROVEMENT 4.1-5: MINOR PAVEMENT MARKING CHANGES

Minor pavement marking changes are proposed to be used to indicate the separation of parking, bicycle, and mixed-flow travel lanes, to highlight potential conflict areas, to assist the bicyclists by indicating assigned travel path, to provide advance information for signals and for turning and crossing maneuvers, to narrow travel lanes, and to provide guidance for floating bicycle lanes.

Traffic

Minor pavement marking changes would not substantially affect the capacity of the travel lanes, and therefore, the intersection level of service would not change with implementation of changes to pavement markings. The design and use of pavement markings would be consistent with the California MUTCD. Therefore, minor pavement marking changes would not result in significant impacts on traffic operations.

Transit

As indicated above, minor pavement marking changes would not affect travel lane operations, and therefore transit operations along a street or at bus stops would not be affected. Minor pavement marking changes would therefore not result in significant impacts on transit.

Parking

Minor pavement marking changes would generally not affect the on-street parking supply. Therefore, minor pavement marking changes would not result in significant impacts on parking.

Pedestrian

Minor pavement marking changes would not affect pedestrian conditions on sidewalks or within crosswalks. Therefore, minor pavement marking changes would not result in significant impacts on pedestrians.

Bicycle

Bicyclists would generally benefit from minor pavement marking changes, which would serve to increase motor vehicle drivers' awareness that bicyclists may be on the road and to provide guidance for bicyclists. Therefore, minor pavement marking changes would not result in significant impacts on bicyclists.

Loading

Minor pavement marking changes would generally not affect the on-street yellow commercial freight loading spaces. Therefore, minor pavement marking changes would not result in significant impacts on loading.

MINOR IMPROVEMENT 4.1-6: COLORED PAVEMENT MATERIALS

Colored pavement materials would be used for designation of selected existing bicycle lanes or selected bicycles lanes approved in the future with an appropriate level of environmental review. This design feature would encourage safe merging behavior by motorists and bicyclists, proper lane placement, and to discourage motorists from encroaching into space designated for bicyclists. This minor improvement entails only the method of marking bicycle lanes. Implementation of specific bicycle lanes would be subject to environmental review. The use of colored pavement materials is pending completion of an FHWA-approved study by

SFMTA, and, if warranted, incorporation of the use of colored pavement materials into the California MUTCD.

Traffic

The use of colored pavement materials for designation of bicycle lanes would not affect the capacity of the adjacent travel lanes, and therefore, the intersection level of service would not change with colored pavement materials. Therefore, colored pavement materials would not result in significant impacts on traffic operations.

Transit

Colored pavement materials for bicycle lanes would not affect travel lane operations, and therefore transit operations along a street or at bus stops would not be affected. The use of colored pavement materials would therefore not result in significant impacts on transit operations.

Parking

Colored pavement materials for bicycle lanes would not affect the on-street parking supply. Therefore, colored pavement materials would not result in significant impacts on parking.

Pedestrian

Colored pavement materials would not affect pedestrian conditions on sidewalks or within crosswalks. Therefore, colored pavement materials would not result in significant impacts on pedestrians.

Bicycle

As noted above, the intent of the use of colored pavement materials would be to encourage safe merging behavior by motorists and bicyclists, allow for proper lane placement, and to discourage motorists from encroaching into space designated for bicyclists. The use of colored pavement materials is pending completion of the FHWA-approved study by SFMTA, which would determine if colored pavement materials should be incorporated into the California MUTCD. The use of colored pavement materials would be included in the California MUTCD only if benefits to bicyclists and motorists are demonstrated. Therefore, if incorporated into the California MUTCD and if used on a more permanent basis in San Francisco, colored pavement materials would not result in significant impacts on bicyclists.

Loading

Colored pavement materials for bicycle lanes would not affect on-street yellow commercial freight loading spaces. Therefore, colored pavement materials would not result in significant impacts on loading.

MINOR IMPROVEMENT 4.1-7: SIGNAGE CHANGES

Signage changes would include development of new signs for the Bicycle Program to meet specifications in the California MUTCD. In addition, new poles may be installed to relocate existing signs, and signs may be placed on new poles along proposed bicycle routes identified in Chapter 3 of the TIS as well as the routes identified in the long-term improvements below.

Traffic

Signage changes would not affect the capacity of the adjacent travel lanes, and therefore, the intersection level of service would not change. Placement of signs, in accordance with the California MUTCD, would provide guidance for motorists and bicyclists to allow for free and safe flow of vehicles. Therefore, signage changes would not result in significant impacts on traffic operations.

Transit

Signage changes would not affect travel lane operations, and therefore, transit operations along a street or at bus stops would not be affected. Signage changes therefore would not result in significant impacts on transit operations.

Parking

Signage changes would not affect the on-street parking supply. Therefore, signage changes would not result in significant impacts on parking.

Pedestrian

Signage changes would not affect pedestrian conditions on sidewalks or within crosswalks. New poles would be installed within the area near the curb designated for meters, light poles, and signs. Therefore, the minimum dimensions for walkway clear paths of travel would not be affected. Consequently, signage changes would not result in significant impacts on pedestrians.

Bicycle

As noted above, signage changes would be made to meet specifications in the MUTCD. Therefore, signage changes would provide positive benefits to bicyclists and would not result in significant impacts on bicyclists.

Loading

Signage changes would not affect on-street yellow commercial freight loading spaces. Therefore, signage changes would not result in significant impacts on loading.

MINOR IMPROVEMENT 4.1-8: TRAFFIC SIGNAL CHANGES

Traffic signal changes are sometimes implemented along bicycle routes and at intersections with high volumes of bicyclists and motor vehicles. Traffic signals in San Francisco are designed to meet the requirements and specifications contained within the California MUTCD.

Traffic

Traffic signals regulate the movement of traffic, including pedestrians, bicyclists, motor vehicles, and streetcars through an intersection. They assign the right-of-way to the various traffic movements and thereby influence traffic flow. Traffic signals are designed to accommodate pedestrian crossings and generally to minimize vehicle and transit delays for both directions of travel (i.e., for the east/west and north/south movements). In addition, traffic signals often are coordinated to maximize transit or vehicle throughput along corridors. As noted above, traffic signals are designed to meet the requirements and specifications within the California MUTCD to accommodate the competing pedestrian, bicycle and motor vehicle traffic flows.

Traffic signal changes would only be made at intersections operating at a level of service operating condition of LOS D or better. Traffic signal changes at intersections operating poorly, at LOS E or LOS F, would be subject to additional environmental analysis.

Traffic signal changes would be implemented to accommodate geometric changes (e.g., travel lane removals) associated with bicycle facilities, to provide for additional clearance time for bicycles, to provide new bicycle and pedestrian signals, and to upgrade unsignalized intersections. The traffic signal change would involve a redistribution of the green time allocated to the various movements. Traffic signal changes would be made to improve the overall intersection operations, although they may result in increased delays to motor vehicles. Traffic signal timing changes would not be made if changes would substantially impede traffic flow. Therefore, minor traffic signal changes would not result in significant impacts on traffic operations.

Transit

Traffic signal changes as described above would not substantially affect travel lane operations, and therefore transit operations along a street, or at bus stops, would not be affected. As described above, traffic signal changes would only be made at intersections operating at LOS D or better, and additional environmental analysis would be required to implement traffic signal changes at intersections operating at LOS E or LOS F. Traffic signal changes would not result in significant impacts on transit operation.

Parking

Traffic signal changes as described above would not affect the on-street parking supply or parking maneuvers. Therefore, traffic signal changes would not result in significant impacts on parking.

Pedestrian

Traffic signal changes as described above would not affect pedestrian conditions on sidewalks. At intersections, minimum pedestrian crossing times are required to be maintained to ensure that pedestrians can cross streets safely. Therefore, signal timing changes would not result in significant impacts on pedestrians.

Bicycle

Traffic signal changes as described above would be implemented to accommodate the needs of pedestrians, bicyclists, motor vehicles, and streetcars. Bicyclists would benefit from exclusive bicycle phases and additional yellow and all-red phases that would provide bicyclists with additional time to cross intersections. Because traffic signal timing changes would meet the requirements and specifications within the California MUTCD to accommodate competing pedestrian, bicycle and motor vehicle traffic flows, they would not result in significant impacts on bicycles.

Loading

Signal timing changes as described above would not affect on-street yellow commercial freight loading spaces. Therefore, signal timing changes would not result in significant impacts on loading.

MINOR IMPROVEMENT 4.1-9 ON-STREET VEHICLE PARKING CHANGES

Implementation of on-street parking changes include adding parking spaces or reconfiguring or removing existing parking spaces, could result in a net increase or decrease in the number of parking spaces, the type of parking spaces, and/or the location of parking spaces. In general, this minor improvement refers to reconfiguring existing parking.

Traffic

Implementation of on-street parking changes would not substantially change traffic operations along a street segment or at an intersection. Therefore, parking changes would not significantly impact traffic operating conditions.

Transit

Implementation of on-street parking changes would not substantially change traffic operations along a street segment or at an intersection. Therefore, parking changes would not significantly impact transit operating conditions.

Parking

The impact of a decrease in on-street parking supply would depend on the number of parking spaces that would be eliminated, the location of the spaces, and the overall parking occupancy in the area. The loss of a few parking spaces would generally not be noticeable within an area where on-street parking is not fully occupied, and available parking supply exists to accommodate the displaced vehicles. However, the loss of a few parking spaces in an area where parking supply is constrained and generally fully occupied, would result in an increased competition for on-street, and potentially off-street, parking spaces.

On-street vehicle parking changes also could include implementation of back-in/head-out angled parking. Back-in/head-out angled parking is similar to parallel and standard angled parking. As with parallel parking, the driver enters the stall by stopping and backing in, but need not maneuver the front of the vehicle against the curb. When leaving the stall, the driver pulls out of the stall and has a better view of the oncoming traffic than with parallel or standard angled parking. The back-in/head-out angled parking provides a safer environment for bicyclists, as the vehicle driver is able to see the bicyclist when leaving the parking space. Replacement of standard angled parking spaces with back-in/head-out parking would not change the number of parking spaces. Replacement of parallel parking spaces with back-in/head-out angled parking spaces would generally result in an increase in the number of parking spaces, while replacement of perpendicular spaces with back-in/head-out angled parking spaces would generally result in a reduction in the number of parking spaces. The actual increase or decrease in the number of parking spaces would depend on a number of factors, including block length, and location of driveways, hydrants and bus stops.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under CEQA, but rather a social effect. The loss of parking may cause potential indirect physical effects, which would include cars circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers, who are aware of constrained parking conditions in a given area, shifting to other modes. Hence, any secondary environmental impacts that may result from a shortfall in parking would be minor. Therefore, any net reduction in on-street parking supply would not result in significant parking impacts.

Pedestrian

Implementation of on-street parking changes would not change crosswalk operations or affect pedestrian operations on sidewalks or crosswalks. Therefore, parking changes would not significantly impact pedestrians.

Bicycle

Bicyclists would generally benefit from on-street parking changes. Because these changes would be made primarily to accommodate bicycle facilities such as bicycle lanes and bicycle parking. Therefore, on-street vehicle parking changes would not result in significant impacts on bicyclists.

Loading

The impact of a loss of on-street parking, including on-street white zone passenger loading/unloading and yellow commercial freight loading zones, would depend on the number of spaces that would be eliminated, the location of the spaces, and the provision of alternate accommodations for loading/unloading activities. The loss of yellow commercial and white zone passenger loading/unloading could result in double parking within the travel lane or the bicycle lane if a practical alternative to accommodate the need for passenger or commercial vehicle loading/unloading is not included as part of on-street vehicle parking changes. Double-parking would not necessarily result in an impact on loading activities or impact vehicle and bicycle flow, if traffic volumes are low and/or adjacent travel lanes are available for traffic to bypass the vehicles parked in the travel or bicycle lane. In situations where on-street parking is removed, the loading demand cannot be reasonably accommodated within existing adjacent locations, and roadway right-of-way is constrained, loading operations may result in increased interference with vehicular and bicycle flows; however, would not result in significant loading impacts.

CUMULATIVE CONDITIONS

The nine minor improvements include various treatments that would be implemented on the City's roadway and sidewalk network to improve conditions for bicycle use in the City. These improvements would serve to help bicyclists better position themselves in the travel lanes, discourage motor vehicle encroachment on bicycle lanes, and alert drivers in travel and parking lanes to the presence of bicyclists. In many instances, two or more minor improvements could be implemented along a particular street segment. This section provides an assessment of the cumulative impacts of the minor improvements.

Traffic

Minor improvements that could potentially affect traffic operations include sharrows, bicycle boxes, and traffic signal changes. Combined, these treatments may result in slower travel speeds for motor vehicles when bicyclists are present in the travel lane and within the bicycle boxes. Minor pavement markings, colored pavement materials, and signage changes would serve to alert drivers to the presence of bicyclists, and would not affect traffic operations. The remaining minor improvements (i.e., bicycle racks on sidewalks, on-street bicycle parking, and on-street vehicle parking changes) would not affect travel lane operations and therefore traffic operations along a street or at an intersection would not be affected.

The impact of the increased presence of bicyclists would depend on a number of factors such as the number of travel lanes, the lane widths, the vehicle and bicycle volumes (including if there is oncoming traffic), and speed of bicyclists and vehicles. The increase in delay would generally be minimal, and would only occur when both bicyclists and vehicles are present. However, the overall capacity of the street segment would not be substantially affected and intersection LOS would not substantially change. Overall, the minor improvements would not result in significant cumulative traffic impacts.

Transit

Minor improvements that could potentially affect transit operations primarily include sharrows, bicycle boxes, and signal timing changes. The remaining minor improvements would not affect travel lane operations, and therefore, transit operations along a street or at bus stops would not be affected. The cumulative effect of sharrows, bicycle boxes, and signal timing changes would not result in substantial change in capacity of the travel lane or substantial increase in transit travel times. The magnitude of the cumulative effect would vary, depending on factors such as the travel lane widths, whether buses can change lanes, whether there is opposing traffic, and volume and speed of vehicle and bicycle traffic. Buses traveling behind a bicyclist riding in the middle of the travel lane may experience somewhat slower speeds, as would buses waiting for an opportunity to pass bicyclists. However, the minor improvements would not result in significant cumulative transit impacts.

Parking

Most of the minor improvements would not affect parking supply or parking lane operations. Only on-street bicycle parking and minor on-street parking changes would affect the parking supply. On-street bicycle racks at the levels assumed would displace one to two vehicle parking spaces at each location. This would not be a noticeable change in the on-street parking supply. On-street vehicle parking changes could result in an increase or decrease in parking supply, which would occur along the bicycle network. The impact of a decrease in on-street parking supply would depend on the number of parking spaces that would be eliminated, the location of the spaces, and the overall parking occupancy in the area. The loss of a few parking spaces would generally not be noticeable within an area where on-street parking is not fully occupied, and available parking supply exists to accommodate the displaced vehicles. However, the loss of a few parking spaces in an area where parking supply is constrained and generally fully occupied, would result in an increased competition for on-street, and potentially off-street, parking spaces. Overall, any net reduction in on-street parking supply would be distributed over the bicycle route network and not result in significant cumulative parking impacts.

Pedestrian

Most of the minor improvements would not affect pedestrian travel on sidewalks or within crosswalks, as treatments would occur within the travel or parking lanes. Treatments such as signage changes and placement of bicycle racks on sidewalks would be required to ensure that a clear path of pedestrian travel is maintained, and that walkway operating conditions of LOS C or better are maintained. Therefore, implementation of the minor improvements would not result in significant cumulative pedestrian impacts.

Bicycle

Bicyclists would benefit from the installation of the minor improvements, as the impact would increase the motor vehicle drivers' awareness that bicyclists may be on the road. Because implementation of the minor improvements would have a beneficial effect of improving riding conditions, bicycle parking, and safety for bicyclists, they would not result in significant cumulative impacts on bicyclists.

Loading

Most of the minor improvements would not affect curb lane operations and would not impact loading operations. Minor on-street parking changes would affect the parking supply and potentially displace white passenger loading/unloading and yellow commercial freight loading zones. The loss of yellow commercial and white passenger loading/unloading zones could result in double parking within the travel lane or the bicycle lane. Double-parking would not necessarily result in an impact on loading activities, or impact vehicle and bicycle flow, if traffic volumes are low and/or adjacent travel lanes are available for traffic to bypass the vehicles parked in the travel or bicycle lane. In situations where on-street loading is removed where the roadway right-of-way is constrained and the loading demand cannot be reasonably accommodated within existing adjacent locations, loading operations may result in increased interference with vehicular and bicycle flows, however, they would not result in significant cumulative loading impacts.

MITIGATION MEASURES

As described above, the Minor Improvements described and analyzed in this section would not result in a significant impact to traffic, transit, parking, pedestrian or bicycle circulation. Therefore no mitigation measures are required.

IMPROVEMENT MEASURES

Additional improvements may be warranted at some locations, to accommodate loading demand; improvement measures could include:

- Modifying on-street parking layouts to accommodate additional yellow commercial freight loading zones.
- Developing and implementing traffic management strategies to accommodate short-term passenger loading/unloading activities.

SUMMARY OF IMPACTS OF MINOR IMPROVEMENTS

This section summarizes impacts described in detail, above.

Traffic

Sharrows, bicycle boxes, signage changes, traffic signal changes and on-street vehicle parking would all have minor impacts to vehicular circulation in travel lanes. However, none of these minor improvements would result in a reduction in travel lane capacity or a decrease in roadway or intersection LOS, therefore impacts would be less-than-significant. The addition of bicycle parking and changes to pavement markings and materials would have no impact.

Transit

Sharrows could slow bus merging since vehicles, buses and bicyclists would be sharing the lanes. On-street bicycle racks located within the curb parking lane, and changes to on-street vehicle parking could also slightly affect bus merging operations, however impacts would be less than significant.

Bicycle rack designs would be required comply with ISCOTT regulations so as not interfere with buses or bus stops. Bicycle boxes and traffic signal changes would occur in travel lanes and would not affect bus stop operations. Pavement marking changes, colored pavement materials, and signage changes would not affect travel lanes, so transit operations would not be affected, and no impact would occur.

Parking

Since sharrows are indicated within the travel lane, no impact to on-street parking would occur. Similarly, bicycle boxes, pavement markings changes, colored pavement materials, signage changes and traffic signal changes would all occur in the travel lanes, so no impact to parking would occur.

On-street bicycle racks could each displace one or two parking spaces. On-street vehicle parking changes could also result in the loss of a few parking spaces. However, in San Francisco, a loss of parking spaces is not considered a significant impact under CEQA, therefore impacts would be less than significant.

Pedestrian

Generally, impacts to pedestrians would result from changes to sidewalk LOS or crosswalk operations. Sharrows, on-street bicycle parking, bicycle boxes, minor pavement markings changes, colored pavement materials, and on-street vehicle parking changes would all occur in the vehicular right-of-way and would not affect pedestrian circulation on sidewalks or in crosswalks.

Bicycle racks on the sidewalks would be required to comply with SFMTA's *Bicycle Rack Placement Criteria* to preserve a clear path of pedestrian travel that is free of obstacles. Walkway operating conditions of LOS C or better would be maintained, and impacts would be less than significant. In terms of signage changes, new poles would be installed within the area near the curb designated for meters, light poles, and signs. Therefore, minimum dimensions for walkway clear paths of travel would not be affected and impacts to pedestrians would be less than significant.

At intersections, minimum pedestrian crossing times are required to be maintained for safe crossing, therefore changes to traffic signals would have no impact to crosswalk operations.

Bicycle

The use of colored pavement materials is pending completion of a FHWA-approved study by SFMTA. The study will determine if colored pavement markings should be incorporated into the California MUTCD. Colored pavement markings will only be included if beneficial to bicyclists and motorists. All of the other minor improvements would have beneficial effects to bicyclists, therefore no impact would occur.

Loading

Sharrows, bicycle boxes, minor pavement marking changes, colored pavement materials, and signal timing changes would occur or be located in travel lanes and would not affect yellow commercial freight loading spaces, so no impact to loading would occur. Signage changes would not conflict with loading activities or change commercial freight loading spaces, so no impact would occur.

Bicycle racks on sidewalks could impede delivery access between the parking lane and the sidewalk, but are generally not located within the last 5 feet of yellow commercial freight loading zones. On-street bicycle parking would typically not displace yellow commercial vehicle freight loading zones. To the extent that curbside loading/unloading opportunities are reduced with the reduction of on-street parking, loading/unloading for passengers and freight, double parking could occur. However, impacts would be considered less than significant.

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5. LONG-TERM IMPROVEMENTS

INTRODUCTION

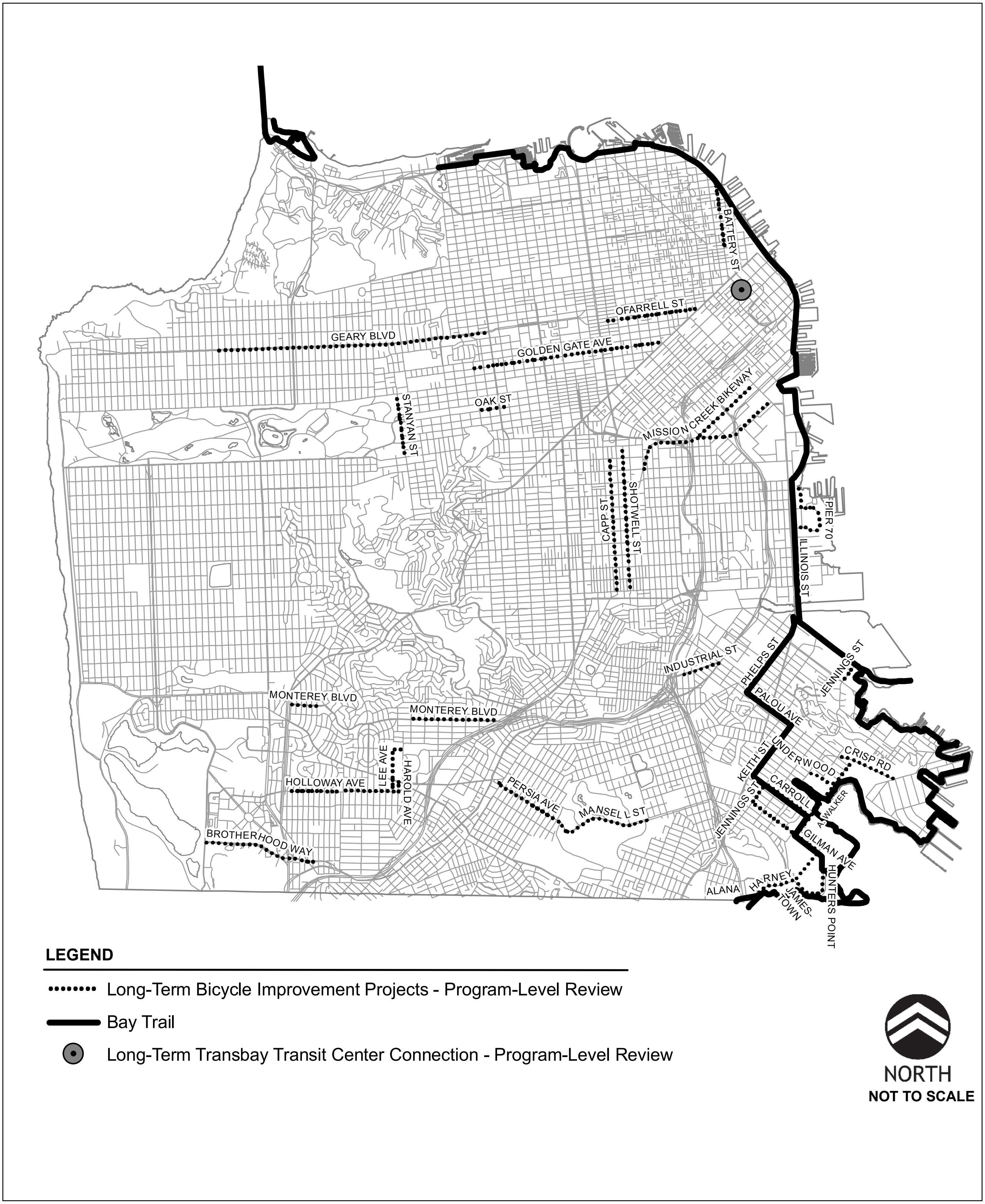
This section presents an assessment of the 24 long-term improvements that are proposed to be designed and implemented at some point in the future to complete the bicycle route network within San Francisco. These improvements would: complete the bicycle route network envisioned in the Bicycle Plan, close network gaps, refine and rationalize the bicycle route network, and improve safety and the bicyclist's experience. The long-term improvements are assessed on a program level because details of the long-term improvements have not been developed (as is the case for the near-term improvements presented in Subsection V.A.3 on p. V.A.3-1. This Subsection provides information about the potentially-significant environmental effects of the long-term impacts and identifies possible ways to minimize the potentially-significant impacts.

In addition, this Subsection provides a foundation for any necessary future environmental review documents that focus on the individual long-term improvements. As required by CEQA, and where necessary, project-level CEQA review would be conducted separately for the individual long-term improvements. The separate environmental review would evaluate site-specific impacts of the improvement project and may incorporate mitigation measures, as appropriate. The impact discussion and mitigation measures provided at the end of this Subsection apply to all of the long-term improvements, generally.

PROJECT LOCATION/PROJECT DESCRIPTION

Figure V.A.5-1 on p. V.A.5-2 presents the location of the proposed long-term improvements with respect to the existing bicycle route network and proposed near-term improvements. The long-term improvements, combined with the existing bicycle route network and proposed near-term improvements, would result in a comprehensive network of bicycle facilities linking the various neighborhoods within the City. Proposed long-term improvements are located throughout the City and are focused on:

- Improving existing and providing new east-west routes in the southern portion of San Francisco;
- Consolidating and rationalizing east-west routes in the northern portion of San Francisco connecting the Civic Center Area with the Haight-Ashbury and Richmond neighborhoods;



SOURCE: Wilbur Smith Associates, 2008.

REVISED FIGURE V.A.5-1: LONG-TERM IMPROVEMENTS

- Providing bicycle-friendly options for north-south travel within the Mission neighborhood;
- Filling in gaps in the system throughout San Francisco;
- Providing local connections between the new Transbay Transit Center and the existing bicycle route network;
- Completing portions of the Bay Trail within the northeast waterfront and the Bayview; and
- Developing a Mission Creek Bikeway to connect the Mission District with the China Basin and Mission Bay neighborhoods.

As indicated above, the details of the long-term improvements are currently undefined. The anticipated long-term improvements may include, but are not limited to, the following design elements to improve bicycle travel:

- Installation of bicycle lanes, pathways or other bicycle facilities, including and in conjunction with the narrowing or removal of travel lanes;
- Pavement marking changes such as installation of colored pavement materials and the installation of sharrows;
- Signage changes;
- Modifications to bus zones;
- Modifications to 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;
- Widening of roadways and narrowing of sidewalks;
- Reconfiguration of intersections to improve bicycle crossings, including installation of bicycle boxes and bicycle traffic signals;
- 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.

LONG-TERM IMPROVEMENT L-1: BATTERY STREET BETWEEN CLAY STREET AND THE EMBARCADERO

Battery Street, between Clay Street and The Embarcadero, is a moderate volume street in the northern waterfront area of San Francisco. This 10-block (0.64 mile) section of Battery Street is not currently part of the bicycle route network. Battery Street is one-way southbound, and generally has three travel lanes, with parking on both sides of the street. The 10-Townsend Muni bus line runs along Battery Street (as well as Golden Gate Transit buses during the AM peak period).

Long-term improvements on this section would involve installation of Class II and/or Class III bicycle facilities in the southbound direction. Bicycle improvements to Battery Street would provide a southbound connection between existing Bicycle Route 5 on The Embarcadero and existing Bicycle Route 11 on Battery Street south of Clay Street (Existing Bicycle Route 11 runs as a one-way couplet northbound on Sansome Street and southbound on Battery Street and in both directions on Columbus Avenue). Design and implementation of long-term improvements on Battery Street would include coordination with the Golden Gate Transit to accommodate and minimize impacts on Golden Gate Transit bus operations.

LONG-TERM IMPROVEMENT L-2: BAY TRAIL IMPROVEMENTS IN THE VICINITY OF FISHERMAN'S WHARF

This long-term improvement would involve improvements to the San Francisco Bay Trail within the northeast portion of San Francisco. The current Bay Trail alignment through Fisherman's Wharf is on The Embarcadero and on Jefferson Street as an unimproved on-street trail. It is not part of the bicycle route network. The Bay Trail runs for a 0.2-mile segment of The Embarcadero between Powell Street and Taylor Street, for one block on Taylor Street between The Embarcadero and Jefferson Street, and for a 0.28-mile segment on Jefferson Street between Taylor Street and Hyde Street. Within the Fisherman's Wharf area, both The Embarcadero, and Jefferson Streets are one-way and serve only westbound traffic. The Bay Trail connects with existing Bicycle Route 5 on The Embarcadero south of North Point Street. The F-Market & Wharves Muni historic streetcar runs westbound on Jefferson Street between The Embarcadero and Jones Street.

LONG-TERM IMPROVEMENT L-3: BAY TRAIL IMPROVEMENTS IN THE VICINITY OF HUNTERS POINT

This long-term improvement would involve improvements to the San Francisco Bay Trail within the southeast portion of San Francisco. The Bay Trail alignment through the Bayview

Hunters Point area runs as an unimproved on-street trail north/south on Keith Street between Carroll and Palou Avenues, east-west on Palou Avenue between Keith and Phelps Streets and north-south on Phelps Street between Palou Avenue and Third Street, which is the same alignment as Bicycle Route 7. Improvements could involve new bicycle facilities along these routes.

LONG-TERM IMPROVEMENT L-4: BAYVIEW TRANSPORTATION IMPROVEMENTS PROJECT

The Bayview Transportation Improvements Project (BTIP) includes eight build alternatives that would include changes to the existing bicycle route network in the South Basin area on streets proposed to be designated as access routes. The purpose of the BTIP is to develop a more direct access route between US 101 and the existing South Basin industrial area, as well as to the north and south gateways of Hunters Point Shipyard, and to reduce truck traffic on 3rd Street and on residential streets in the Bayview Hunters Point area. The BTIP is a traffic routing project, rather than a project that would increase roadway capacity along the route. The project is currently undergoing environmental review, and a Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) is expected to be published in Fall 2008. Following publication of the Draft EIS/EIR, and a public review and comment period, the San Francisco Board of Supervisors (BOS) would identify one alternative as the locally preferred alternative. A Final EIS/EIR, revised to include comments made by the public and regulating agencies and responses, and to identify the locally preferred alternative would be issued.

- For all BTIP 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).
- 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.

LONG-TERM IMPROVEMENT L-5: BROTHERHOOD WAY BETWEEN ARCH STREET AND LAKE MERCED BOULEVARD

Brotherhood Way between Arch Street and Lake Merced Boulevard is a high volume east-west arterial[1] in the Park Merced neighborhood. This one-mile segment of Brotherhood Way is not currently part of the bicycle route network, although the section between Arch Street and the signalized crosswalk at St. Charles Street has a Class II bicycle lane in both directions of travel.

Brotherhood Way is a two-way divided arterial. Parking is permitted on either side of the street. The 88-BART Shuttle Muni bus line runs along Brotherhood Way east of Chumasero Drive during the AM and PM peak commute periods.

Long-term improvements on this section of Brotherhood Way may involve installation of Class II/or Class III bicycle facilities in both direction of travel. Bicycle improvements on this segment would close the gap between existing Bicycle Route 85 running north-south on Lake Merced Boulevard, and existing Bicycle Route 45 running on north-south on San Jose Avenue/Alemany Boulevard (see Subsection V.A.3 for near-term improvement Project 5-12: Sagamore Street and Sickles Avenue Bicycle Lanes, Alemany Boulevard to Brotherhood Way, and near-term improvement Project 5-3: Alemany Boulevard Bicycle Lanes, Rousseau Street to San Jose Avenue).

LONG-TERM IMPROVEMENT L-6: CAPP STREET BETWEEN 15TH STREET AND 26TH STREET

Capp Street between 15th Street and 26th Street is a low-volume residential street in the Mission District. This 11-block (1.23-mile) segment of Capp Street is not currently part of the bicycle route network. Capp Street is a north-south roadway, with one travel lane in each direction, and parking on both sides of the street. Intersections of Capp Street with east-west cross-streets are generally 2-way or all-way STOP sign-controlled; however, the intersections of Capp Street with 18th Street and 24th Street are signalized.

Long-term improvements on this segment of Capp Street may involve installation of Class II or Class III bicycle facilities. Bicycle improvements on Capp Street would facilitate north-south

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[1] In San Francisco arterials are classified as Major and Secondary Arterials. Major arterials are cross-town thoroughfares whose primary function is to link districts within the city and to distribute traffic to and from the freeways. Secondary arterials are primarily intra-district routes serving as collectors for the major thoroughfares. See Appendix F of the Wilbur Smith Associates *San Francisco Bicycle Plan Project Transportation Impact Study*, October 28, 2008 (TIS), for a description of various San Francisco General Plan roadway classifications.

bicycle travel within the Mission District. This new route would run parallel to existing Bicycle Route 45 on Valencia Street to the west, and existing Bicycle Route 33 on Harrison Street to the east. It would also connect with existing Bicycle Route 44 on 22nd Street, and existing Bicycle Route 60 on Cesar Chavez Street (see Subsection V.A.3 for near-term improvement Project 5-6: Cesar Chavez Street/26th Street Bicycle Lanes, Sanchez Street to US 101).

LONG-TERM IMPROVEMENT L-7: GEARY BOULEVARD BETWEEN 25TH AVENUE AND DIVISADERO STREET

Geary Boulevard between 25th Avenue and Divisadero Street is a high volume arterial in the Richmond and Western Addition neighborhoods. It is the primary east-west roadway and has two to three travel lanes in each direction and on-street parking on both sides of the street. The 38-Geary, 38L-Geary Limited, and the 31AX-Balboa "A" Express, 38AX and 38BX-Geary Express Muni bus lines run in this segment. Golden Gate Transit Runs on Geary Boulevard between Webster Street and Park Presidio Boulevard. Adjacent streets to the north and south of Geary Boulevard are generally local low to moderate volume residential/neighborhood-commercial streets, with one travel lane in each direction and parking on both sides of the street. Neither Geary Boulevard, nor Clement Street to the north, nor Anza Street to the south are part of the existing bicycle route network. In the eastern segment of this proposed long-term improvement corridor, existing Bicycle Route 16 runs in both directions (Class II facility) on Post Street.

Long-term improvements would be implemented within the corridor. These improvements would be either a Class II bicycle facility and/or Class III signed-route on one or more streets in the corridor. These improvements would be planned in conjunction with the ongoing Geary Corridor BRT project and may result in bicycle facility improvements on multiple streets north or south of Geary Boulevard. Design and implementation of long-term improvements on Geary Boulevard would include coordination with Golden Gate Transit to accommodate and minimize impacts on Golden Gate Transit bus operations.

Bicycle improvements within this 39-block (2.5-mile) corridor would facilitate bicycle travel within the core of the Geary Boulevard commercial corridor. Parallel east-west bicycle routes are on Lake Street (existing Bicycle Route 10) to the north of Geary Boulevard, and on Cabrillo Street (existing Bicycle Route 20) to the south of Geary Boulevard.

LONG-TERM IMPROVEMENT L-8: GOLDEN GATE AVENUE BETWEEN BAKER STREET AND MARKET STREET

Golden Gate Avenue between Baker Street and Market Street is a low to moderate volume arterial that runs through the Civic Center and the Western Addition neighborhood. This 19-block (1.7-mile) segment of Golden Gate Avenue is not currently part of the bicycle route network.

East of Divisadero Street, Golden Gate Avenue runs one-way eastbound with three travel lanes and parking on both sides of the street. West of Divisadero Street, Golden Gate Avenue is two-way, generally with one travel lane in each direction. Between Baker Street and midblock between Broderick Street and Divisadero Street, there is an eastbound bicycle lane on the south side of the street. The 16AX-Noreiga “A” Express and 16BX-Noriega “B” Express Muni bus lines run on Golden Gate Avenue between Franklin Street and Market Street during the morning peak period. Golden Gate Transit runs on Golden Gate Avenue between Webster and Hyde Street during the morning peak period.

Long-term improvements on this segment of Golden Gate Avenue would involve installation of Class II or Class III bicycle facilities. These improvements would extend the existing Bicycle Route 20 on Golden Gate Avenue west of Baker Street to the east and consolidate east-west bicycle travel routes between the Civic Center area and the University of San Francisco. This improvement would create a couplet with the westbound bicycle lanes proposed on McAllister Street as part of near-term improvement Project 3.3: McAllister Street Bicycle Lane, Market Street to Masonic Avenue. Design and implementation of long-term improvements on Golden Gate Avenue would include coordination with Golden Gate Transit to accommodate and minimize impacts on Golden Gate Transit bus operations.

The route would connect with north/south routes on Polk Street (existing Bicycle Route 345) and on Steiner Street (existing Bicycle Route 45). Also see near-term improvement Project 3.4: Polk Street Bicycle Lane, Market Street to McAllister Street, and near-term improvement Project 3-5: Scott Street Bicycle Lane, Fell Street to Oak Street.

LONG-TERM IMPROVEMENT L-9: HAROLD AVENUE BETWEEN HOLLOWAY AVENUE AND OCEAN AVENUE

Harold Avenue between Holloway Avenue and Ocean Avenue is a low-volume residential street in the Ingleside neighborhood. This one-block segment is not part of the existing bicycle route network, and would be improved in conjunction with long-term improvement L-10: Holloway Avenue between Harold Avenue and Junipero Serra Boulevard. Harold Avenue is two-way, with one travel lane in each direction and parking on both sides of the street. The intersections of Harold Avenue with Ocean Avenue and with Holloway Avenue are unsignalized.

Long-term improvements on Harold Avenue would involve a Class II or Class III facility, with treatments to facilitate turns to and from Ocean Avenue (existing Bicycle Route 84). Existing Bicycle Route 90 runs east-west on Ocean Avenue, as a Class III (signed route only, with sharrows) facility. As noted above, the bicycle facility on Harold Avenue would provide a connection between existing Bicycle Route 84 on Ocean Avenue, and the existing Bicycle Route 90 which currently runs on Holloway Avenue between Font Street and Plymouth Avenue, but which would be extended to Harold Avenue as part of Long-Term Improvement L-10: Holloway Avenue between Harold Avenue and Junipero Serra Boulevard. Also see near-term improvement Project 8-3: Holloway Avenue Bicycle Lanes: Junipero Serra Boulevard to Varela Avenue.

LONG-TERM IMPROVEMENT L-10: HOLLOWAY AVENUE BETWEEN HAROLD AVENUE AND JUNIPERO SERRA BOULEVARD

Holloway Avenue between Harold Avenue and Junipero Serra Boulevard is a low to moderate volume street that connects Ocean Avenue with Lake Merced Boulevard in the Ingleside and Lake Merced neighborhoods. Between Plymouth Street and Junipero Serra Boulevard, Holloway Avenue is part of the existing Bicycle Route 90, a Class III wide curb lane facility. Existing Bicycle Route 90 is the primary east-west route in the Ingleside and Lake Merced neighborhoods, and provides a connection between the Balboa Park BART and Muni Metro stations and San Francisco State University. Within the 21-block segment of Holloway Avenue between Harold Avenue and Junipero Serra Boulevard, the 29-Sunset Muni bus line runs on the block between Beverly Street and Junipero Serra Boulevard.

Long-term improvements on this segment of Holloway Avenue would involve installation of Class II bicycle lanes, or sharrows as a Class III facility. This long-term improvement would extend bicycle route improvements associated with the near-term improvement Project 8-3: Holloway Avenue Bicycle Lanes, Junipero Serra Boulevard to Varela Avenue. Long-term improvements on this segment would be developed following completion of the ongoing traffic calming study being conducted as part of SFMTA's Livable Streets program. The traffic calming study area is bounded by Holloway Avenue between Junipero Serra Boulevard and Ashton Street, and Garfield Avenue between Junipero Serra Boulevard and Ashton Street.

LONG-TERM IMPROVEMENT L-11: INDUSTRIAL STREET BETWEEN LOOMIS STREET AND OAKDALE AVENUE

Industrial Street, between Loomis Street and Oakdale Avenue is a moderate volume arterial in the Bayview. Industrial Street connects Bayshore Boulevard with Oakdale Avenue. It has two travel lanes in each direction and parking on both sides of the street. The 24-Divisadero Muni bus line runs in both directions on Industrial Street. This 0.32-mile segment of Industrial Street is not currently part of the bicycle route network.

Long-term improvements on this section may involve implementation of Class II or Class III bicycle facilities in both directions. A new bicycle facility on this segment of Industrial Street would provide an alternative route to connect existing Bicycle Route 25 on Bayshore Boulevard south of Industrial Street with existing Bicycle Route 170 on Oakdale Avenue, via a lower-volume street than Bayshore Boulevard. Also see near-term improvement Project 5-4: Bayshore Boulevard Bicycle Lanes, Cesar Chavez Street to Silver Avenue.

LONG-TERM IMPROVEMENT L-12: JENNINGS STREET BETWEEN CARGO WAY AND EVANS AVENUE

Jennings Street, which extends about 1,100 feet between Cargo Way and Evans Avenue, is a low volume street in the Hunters Point neighborhood. Jennings Street connects Evans Avenue with the Port of San Francisco's Intermodal Container Terminals along Cargo Way. It has one travel lane in each direction and parking on both sides of the street. Jennings Street is not currently part of the bicycle route network.

Long-term improvements on this section may involve implementation of bicycle facilities in both directions. A new bicycle facility on Jennings Street would connect existing Bicycle Route 68 on Evans Avenue, with the bicycle route on Cargo Way proposed as part of near-term improvement Project 4-2: Cargo Way Bicycle Lanes, 3rd Street to Jennings Street, and would connect to the existing Bay Trail at the eastern terminus of Cargo Way at Heron's Head Park. Also see near-term improvement Project 4-3: Illinois Street Bicycle Lanes, 16th Street to Cargo Way.

LONG-TERM IMPROVEMENT L-13: LEE AVENUE BETWEEN HOLLOWAY AVENUE AND PHELAN AVENUE

Lee Avenue between Holloway Avenue and Phelan Avenue is a low-volume residential street in the Ingleside neighborhood. The Balboa Park Area Plan includes the proposed extension of Lee Avenue north of Ocean Avenue to connect with Phelan Avenue as part of the future development of San Francisco City College. This segment is not part of the existing bicycle route network and would be improved in conjunction with long-term improvement L-10: Holloway Avenue between Harold Avenue and Junipero Serra Boulevard. Lee Avenue is two-way, with one travel lane in each direction and parking on both sides of the street. The intersection of Lee Avenue with Ocean Avenue is signalized, and the intersection with Holloway Avenue is unsignalized.

Long-term improvements on Lee Avenue would involve a Class II or Class III facility, with treatments to facilitate turns to and from Ocean Avenue. Existing Bicycle Route 84 runs east-west on Ocean Avenue, as a Class III (signed route only, with sharrows) facility. This improvement would provide a connection between existing Bicycle Route 84 on Ocean Avenue and the existing Bicycle Route 90 which currently runs on Holloway Avenue between Font Street and Plymouth Avenue, but which would be extended to Harold Avenue as part of long-term improvement Project L-10: Holloway Avenue between Harold Avenue and Junipero Serra Boulevard.

LONG-TERM IMPROVEMENT L-14: MANSELL STREET/PERSIA AVENUE BETWEEN OCEAN AVENUE AND UNIVERSITY STREET

Mansell Street between University Avenue and Dublin Street, and Persia Avenue between Dublin Street and Ocean Avenue are low to moderate-volume streets in the Excelsior neighborhood. This one-block segment is not part of the existing bicycle route network and would complement near-term improvement Project 5-9: Ocean Avenue Bicycle Lanes, Alemany Boulevard to Lee Avenue, near-term improvement Project 8-3: Holloway Avenue Bicycle Lanes, and long-term improvement L-10: Holloway Avenue between Harold Avenue and Junipero Serra Boulevard. Mansell Street has one to two travel lanes in each direction, while Persia Avenue has one travel lane in each direction. The 29-Sunset Muni bus line runs the length of Mansell Street and Persia Avenue between San Bruno Avenue and Mission Street.

Long-term improvements on Mansell Street and Persia Avenue would involve Class II and/or Class III facilities. A new bicycle route on Mansell Street and Persia Avenue would provide a connection between existing Bicycle Route 705 on Mansell Street that runs between San Bruno Avenue and University Street and existing Bicycle Route 84 that runs on Ocean Avenue between Alemany Boulevard and 19th Avenue. Completion of the near-term and long-term improvements would provide for a continuous east-west route between the Bayview and Lake Merced neighborhoods.

LONG-TERM IMPROVEMENT L-15: MENDELL STREET BETWEEN OAKDALE AVENUE AND PALOU AVENUE

Mendell Street between Oakdale Avenue and Palou Avenue is a pedestrian plaza in the Bayview neighborhood (on the block south of the Bayview Opera House). This one-block segment is not part of the existing bicycle network. Bicycling is not permitted within the plaza.

Long-term improvements on Mendell Street would involve bicycle facilities to permit bicyclists to use this segment to connect between existing Bicycle Route 170 on Oakdale Avenue and existing Bicycle Route 7 on Palou Avenue.

Long-Term Improvement L-16: Mission Creek Bikeway between Fourth Street and Harrison Street

The Mission Creek Bikeway, as currently envisioned, would include four major segments: Treat Avenue (between Harrison and Bryant Streets), Division Street (between Bryant and Vermont Streets), Eighth Street and Townsend Circle (between Vermont and Berry Streets), and the crossing to Mission Bay (Berry Street to Mission Creek Park bicycle path). Near-term improvement Project 2-6: Division Street Bicycle Lanes, 9th Street to 11th Street would be incorporated into the Mission Creek Bikeway.

The long-term improvement would provide a continuous bicycle route linking the corner of 16th and Harrison Streets to the bikeway planned along the south side of the Mission Creek Channel. To the extent possible, the bikeway would utilize the abandoned Mission Creek line of the Southern Pacific Railroad. The bikeway would provide a non-motorized access through the vehicle-oriented area under the Central Freeway.

The bikeway would consist of a combination of bicycle facilities along low volume streets. The Mission Creek Bikeway would connect to existing Bicycle Route 33 on Harrison Street, existing Bicycle Route 36 on 7th and 8th Streets, and existing Bicycle Route 123 on Henry Adams Street. The bikeway also would provide a connection between existing Mission and Potrero Hill neighborhoods and the Caltrain train station at 4th and Townsend Streets.

LONG-TERM IMPROVEMENT L-17: MONTEREY BOULEVARD CORRIDOR BETWEEN CIRCULAR AVENUE AND GENNESSEE STREET

Monterey Boulevard between Circular Avenue and Gennessee Street is a high volume arterial street in the Sunnyside neighborhood. It is the primary east-west roadway and has two travel lanes in each direction and on-street parking on both sides of the street. The 23-Monterey Muni bus line runs along this segment of Monterey Boulevard, and the 36-Terasita and 43-Masonic

Muni bus lines run on Monterey Boulevard between Gennessee Street and Foerester Street. Adjacent streets to the north and south of Monterey Boulevard are generally low to moderate volume residential streets, with one travel lane in each direction and parking on both sides of the street. Monterey Boulevard between Circular Avenue and Gennessee Street is not part of the existing bicycle route network, although west of Gennessee Street existing Bicycle Route 70 runs on Monterey Boulevard as a Class III facility. Between Circular Avenue and Gennessee Street, existing Bicycle Route 70 runs on Hearst Street.

Long-term improvements within the Monterey Boulevard corridor could include Class II bicycle facility and/or Class III signed-route along Monterey Boulevard, or on other streets in the corridor. Bicycle improvements within this 6-block (0.8-mile) corridor would rationalize the east-west bicycle route network in this area.

LONG-TERM IMPROVEMENT L-18: MONTEREY BOULEVARD CORRIDOR BETWEEN JUNIPERO SERRA BOULEVARD AND SAN BENITO WAY

Monterey Boulevard between Junipero Serra Boulevard and San Benito Way is a low volume local street in the St. Francis Wood neighborhood. This segment of Monterey Boulevard has one travel lane in each direction and on-street parking on both sides of the street. Monterey Boulevard between Junipero Serra Boulevard and San Benito Way is not part of the existing bicycle network. The segment of Monterey Boulevard between San Benito Way and Santa Clara Avenue is part of existing Bicycle Route 65 which runs north-south on San Benito Way between Ocean Avenue and Monterey Boulevard.

Long-term improvements within this 5-block (0.25-mile) segment of Monterey Boulevard could include Class II bicycle facility and/or Class III signed-route along Monterey Boulevard, or on other streets in the corridor.

LONG-TERM IMPROVEMENT L-19: OAK STREET BETWEEN BAKER STREET AND SCOTT STREET

Oak Street between Baker Street and Scott Street is a three-block segment of a high volume arterial that extends between Stanyan Street and Market Street. This three-block segment is not part of the existing bicycle network. Oak Street runs one-way eastbound with three travel lanes, and parking on both sides of the street. The 16AX/16BX-Noriega Express Muni buses run on Oak Street during the morning peak commute period.

Long-term improvements on this segment of Oak Street could involve installation of Class II or Class III bicycle facilities. This improvement would provide a connection between existing

Bicycle Route 51 on Baker Street, and the existing Bicycle Route 47 on Scott Street. This improvement would create the eastbound couplet to the bicycle lane that currently exists in the westbound direction on Fell Street, and would move the eastbound portion of existing Bicycle Route 30 from Hayes Street to Oak Street.

LONG-TERM IMPROVEMENT L-20: O'FARRELL STREET BETWEEN MARKET STREET AND POLK STREET

O'Farrell Street between Market Street and Polk Street is a moderate to high volume arterial that runs through the Union Square and Civic Center areas. This 9-block (0.8-mile) segment of O'Farrell Street is not currently part of the existing bicycle route network. O'Farrell Street runs one-way eastbound with two to three travel lanes and parking on both sides of the street. Between Polk Street and Mason Street the south travel lane is a Bus Only lane. The 38-Geary and 38-Geary Limited Muni bus lines run the length of the segment and the 27-Bryant Muni bus line runs on O'Farrell Street between Jones Street and Mason Street.

Long-term improvements on this segment of O'Farrell Street could involve the installation of Class II and/or Class III bicycle facilities. These improvements would create a new east-west connection in the southern portion of Union Square area. It would connect with the north/south route on Polk Street (existing Bicycle Route 345) and the northeast-southwest route on Market Street (existing Bicycle Route 50).

LONG-TERM IMPROVEMENT L-21: PIER 70 BETWEEN 18TH STREET AND 22ND STREET

Pier 70 is located within San Francisco's Central Waterfront, on an approximately 65-acre Port of San Francisco-owned site, generally between 18th and 22nd Streets, and east of Illinois Street. The site currently contains generally industrial uses, including ship repair, tow-away auto storage, artist studios, recyclers and storage facilities. The Port of San Francisco is conducting a public planning process to develop a master plan for the entire site. Development of this area would require extension of the existing city grid eastward into the site to provide an accessible framework of city streets. Current planning efforts envision the creation of walkable and bikeable streets, linked to the waterfront and to open space areas.

Long-term improvements at Pier 70 would likely include a combination of bicycle facilities, depending on the final street network and type and location of land uses and open space. Development of the site would include the completion of the San Francisco Bay Trail as close as possible to the perimeter of the site (without affecting maritime operations) as a Class I facility, as well as a network of new Class II bicycle lanes and Class III bicycle route designations on new streets. The new facilities would connect with the existing Bicycle Route 5 on Illinois Street.

LONG-TERM IMPROVEMENT L-22: SHOTWELL STREET BETWEEN 14TH STREET AND 26TH STREET

Shotwell Street between 14th Street and 26th Street is a low-volume residential street in the Mission District. This 12-block (1.3-mile) segment of Shotwell Street is not currently part of the bicycle route network. Shotwell Street is a north-south roadway, with one travel lane in each direction and parking on both sides of the street. Intersections of Shotwell Street with east-west cross-streets are 2-way or all-way STOP sign-controlled.

Long-term improvements on this segment of Shotwell Street would facilitate north-south bicycling within the Mission District. This new route would run parallel to existing Bicycle Route 45 on Valencia Street to the west and existing Bicycle Route 33 on Harrison Street to the east. It would also connect with east-west routes, including the existing Bicycle Route 40 on 14th Street, existing Bicycle Route 44 on 22nd Street and existing Bicycle Route 60 on Cesar Chavez Street (see near-term improvement Project 5-6: Cesar Chavez Street/26th Street Bicycle Lanes, Sanchez Street to US 101).

LONG-TERM IMPROVEMENT L-23: STANYAN STREET BETWEEN FREDERICK STREET AND FULTON STREET

Stanyan Street, between Frederick Street and Fulton Street, is a moderate to high volume street in the Haight Ashbury neighborhood and forms the eastern edge of Golden Gate Park. This 9-block (0.6-mile) section of Stanyan Street is not currently part of the bicycle route network; however, between Frederick Street and Waller Street the travel lanes have sharrow indications. Stanyan Street is a north-south roadway and has one to two travel lanes in each direction with parking on both sides of the street. During peak periods, portions of Stanyan Street have tow-away restrictions. The 21-Hayes, 33-Stanyan, 7-Haight and 71/71L-Haight-Noriega Muni bus lines run along portions of Stanyan Street.

Long-term improvements on this section would involve installation of Class II and/or Class III bicycle facilities. Bicycle improvements on Stanyan Street would provide a north-south route adjacent to Golden Gate Park for bicyclists to connect to neighborhoods to the north, south and east of Golden Gate Park, and to connect with existing bicycle routes in the area, including the existing Bicycle Route 30 within the Panhandle, existing Bicycle Route 32 on Page Street, as well as existing bicycle routes within Golden Gate Park.

LONG-TERM IMPROVEMENT L-24: TRANSBAY TRANSIT CENTER CONNECTION

A new, multimodal Transbay Transit center is proposed to be constructed on the site of the existing Transbay Terminal on the blocks bounded by Beale, Mission, Second and Folsom Streets. The existing Transbay Terminal is located on Mission Street between First and Fremont Streets. The Project would provide a centralized location for public and private bus (AC Transit, Muni, Golden Gate Transit, Greyhound), paratransit, and rail (Caltrain) services in San Francisco's Financial District/South of Market Area and would enhance transit access for passengers arriving and departing from San Francisco. It would also improve connections to other local and regional transit providers and facilitate future expansion of regional express train service and the implementation of statewide high-speed rail service.[2]

Four existing designated bicycle routes are within the Transbay Transit Center area:

- Existing Bicycle Route 30 on Folsom Street (eastbound) and Howard Street (westbound);
- Existing Bicycle Route 50 on Market Street;
- Existing Bicycle Route 11 on Second Street; and,
- Existing Bicycle Route 5 on The Embarcadero

As part of Long-Term Improvement L-24, the street right-of-way may be reconfigured within the Transbay Transit Center area and the Transbay Redevelopment Project area. Phase I of the Transbay Transit Center is expected to be completed by 2014. Phase II, including completion of the Downtown rail connection, is anticipated to be completed by 2019.[3] The Transit Center District Plan is anticipated to complete environmental review in the fall of 2009, and to proceed through the city's decision making process thereafter. In the future, long-term improvements to the bicycle route network would be developed in this area, to provide both local connections between the new Transit Center and the existing bicycle route network, as well as regional connections. These improvements could be implemented on one or more streets in the area. Design and implementation of long-term improvements in the Transbay Transit Center Area would include coordination with Golden Gate Transit, AC Transit, Muni, Caltrain, and other transit providers to accommodate and minimize impacts on transit operations.

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[2] Transbay Joint Power Association, 2006. Transit Center. Available online at *http://www.transbay center. org/TransBay/content.aspx?id=40*[Accessed September 25, 2008.]

[3] Transbay Joint Power Association. 2006. Timeline. Available online at http://www.transbay center.org/TransBay/content.aspx?id=58 [Accessed September 25, 2008].

IMPACT ANALYSIS

Impacts associated with the long-term improvements would vary, depending on the type of improvement, the number of existing travel lanes, traffic volumes, and transit operations. Treatments included as part of the long-term improvements could include installation of bicycle lanes, pathways or other bicycle facilities; pavement marking changes such as installation of colored pavement materials and the installation of sharrows; signage changes; modifications to bus zones; modifications to parking configuration; changes to the locations and configurations of curbs, sidewalks and medians; widening of roadways and narrowing of sidewalks; reconfiguration of intersections; installation of bicycle boxes and bicycle traffic signals; installation of traffic calming devices; and, designation of shared bicycle and transit lanes.

Impacts associated with the long-term improvements would be expected to be similar to those described in Subsection V.A.3 of this EIR, namely, project-level analysis for the near-term improvements, since similar design elements would be utilized. This Subsection describes the range of potential impacts associated with the long-term improvements.

Traffic

Long-term improvements affecting travel lanes to provide for Class II bicycle lanes or Class III shared facilities, would include minor narrowing of travel lanes, sharrow pavement markings on existing travel lanes, and travel lane reductions to provide for a bicycle lane. Implementation of sharrows and minor narrowing of travel lanes would not substantially change the capacity of the roadway. The increased presence of bicyclists on these street segments may result in slower vehicle travel speeds and would depend on a number of factors such as the number of travel lanes, the lane widths, the vehicle and bicycle volumes (including if there is oncoming traffic), and the speed of bicyclists and vehicles. The increase in delay would generally be minimal and would only occur when both bicyclists and vehicles are present. Because drivers would be able to pass the bicyclists, the capacity of the street segment would not be substantially affected and intersection LOS would not substantially change. Traffic impacts associated with sharrow and minor narrowing of travel lanes would be less-than-significant. Implementation of long-term improvements could result in a reduction in roadway capacity and increased traffic delays, primarily if there is a reduction in the number of travel lanes required to accommodate a bicycle lane. 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. The actual impact of a long-term improvement on roadway capacity and traffic operations would depend on the length of the affected roadway segment, the number of travel lanes that would be available for vehicular flow, and the available green time for each movement.

The operational impact on signalized intersections would be considered significant when an improvement causes the intersection level of service to deteriorate from LOS D or better to LOS E or F, or from LOS E to LOS F. The operational impacts on unsignalized intersections are considered potentially significant if the improvement results in the level of service at the worst approach to deteriorate from LOS D or better to LOS E or F and Caltrans signal warrants would be met, or would cause Caltrans signal warrants to be met when the worst approach is already operating at LOS E or F.[4] In addition, the improvement may result in significant adverse impacts at intersections that operate at LOS E or F under existing conditions depending upon the magnitude of the improvement's contribution to the worsening of the average delay per vehicle.

Implementation of mitigation measures could reduce any long-term improvement's impacts to a less-than-significant level (potential mitigation measures that could be implemented to reduce potential impacts are presented on p. V.A.5-26). However, in some instances where intersections remain at LOS E or F conditions even with mitigation, impacts may not be reduced to a less-than-significant level. In some instances, the right-of-way geometry may not permit implementation of mitigation. Therefore, as a whole, the long-term improvements project impacts may be considered potentially significant and unavoidable.

Transit

Potential impacts on transit operations associated with the long-term improvements include:

- Increased travel times for transit vehicles on streets where long-term improvements reduce capacity of roadways and result in significant increases in delay.
- Increased difficulty for buses to pull into and out of curb bus stops due to reconfiguration of bus stops to accommodate bicycle lanes.

The operational impact on transit would be considered significant if an improvement project results in an increase in transit delay equal to or greater than the scheduled peak period

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[4] In order to ensure that the advantages outweigh the disadvantages of installing a signal, and to provide some consistency in the application of signals, a series of signal warrants for the traffic and bicycle signals have been developed to define the minimum conditions (e.g., the minimum hourly traffic volumes at approaches to intersection) under which further consideration of a signal is appropriate.

headway. Implementation of mitigation measures could reduce any particular long-term improvement's impacts to a less-than-significant level (potential mitigation measures that could be implemented to reduce potential impacts are presented on p. V.A.5-26). However, in some instances where intersections remain at LOS E or F conditions even with mitigation, impacts may not be reduced to a less-than-significant level. In some instances, the right-of-way may not permit implementation of mitigation. Therefore, as a whole, the long-term improvements project impacts may be considered potentially significant and unavoidable.

Parking

Implementation of long-term improvements could result in a net increase or decrease in the number of on-street parking spaces. The impact of a decrease in on-street parking supply would depend on the number of parking spaces that would be eliminated, the location of the spaces, and the overall parking occupancy in the area. The loss of a few parking spaces would generally not be noticeable within an area where on-street parking is not fully occupied, and available parking supply exists to accommodate the displaced vehicles. However, the loss of a few parking spaces in an area where parking supply is constrained and generally fully occupied, would result in an increased competition for on-street, and potentially off-street, parking spaces.

In San Francisco, parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under CEQA but rather a social effect. The loss of parking may cause potential indirect physical effects, which would include cars circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers, aware of constrained parking conditions in a given area, shifting travel modes. Hence, any secondary environmental impacts that may result from a shortfall in parking would be minor. Therefore, any net reduction in on-street parking supply would not result in significant parking impacts.

Pedestrian

In general, impacts on pedestrian operations would occur if projects included sidewalk narrowing which resulted in inadequate clear walkway width to accommodate the pedestrian demand, or roadway widening or removal of center medians that which resulted in insufficient green time for pedestrians to cross the roadway. However, these conditions would not occur, as the design of the long-term improvements would be required to safely accommodate pedestrian travel. The amount of green time provided for pedestrian crossing at intersections is based on the requirements of the California MUTCD to ensure that sufficient green time would always be available to safely accommodate pedestrian crossings at signalized intersections. The design for roadway widening that would reduce sidewalk widths would be required to provide for a minimum clear walkway area to accommodate persons traveling in wheelchairs and to maintain LOS C walkway conditions. If sidewalk narrowing is proposed under any of the bicycle projects, the sidewalk width would be consistent with SFMTA's minimum clear walkway zone guidelines, such as those contained in the *Bicycle Route Placement Criteria*.[5] In addition, in June 2008 the Planning Department and SFMTA published the draft *San Francisco Better Streets Plan*, which provides guidance on sidewalk design.[6] Therefore, long-term improvements would be required to be designed to maintain acceptable pedestrian operating conditions, and would not result in significant pedestrian impacts.

Bicycle

Overall, implementation of the long-term improvements would have a beneficial effect of improving conditions and safety for bicyclists by addressing deficiencies and gaps within the bicycle route network. Implementation of long-term improvements would not result in significant bicycle impacts.

Loading

Implementation of the long-term improvements to accommodate bicycle lanes could result in elimination of curb parking areas currently dedicated to yellow commercial vehicle freight loading zones or active passenger loading/unloading zones. The impact of a loss of on-street parking, including on-street white passenger loading/unloading and yellow commercial freight loading zones, would depend on the number of spaces that would be eliminated and the location of the spaces and the availability of alternate accommodations for loading/unloading activities. The loss of yellow commercial and white passenger loading/unloading zones could result in double-parking within the travel lane or the bicycle lane. Double-parking would not

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5 The technical information contained in this section is based on the Wilbur Smith Associates *San Francisco Bicycle Plan Project Transportation Impact Study*, October 28, 2008, Appendix F. This document is on file and available for public review by appointment at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, 94103, as part of Case File No. 2007.0347E.

6 The draft Better Streets Plan, June 2008, provides guidance in accommodating the competing needs for street space, and prioritizing the needs of walking, bicycling and transit use. Chapter 4 of the draft Better Streets Plan includes guidance on recommended and standard minimum sidewalk widths. The draft Better Streets Plan is currently out for public review and comments, and is available online at: http://www.sfgov.org/site/uploadedfiles/planning/Citywide/Better_*Streets*/Draft_BSP_4_Approac.pdf

necessarily impact loading activities or impact vehicle and bicycle flow, if traffic volumes are low and/or adjacent travel lanes are available for traffic to bypass the vehicles parked in the travel or bicycle lane. In situations where on-street parking is removed and the loading demand cannot be reasonably accommodated within existing adjacent locations, and roadway right-of-way is constrained, loading operations may result in a potential significant impacts.

Implementation of mitigation measures could reduce the long-term improvement's impacts to a less-than-significant level (potential mitigation measures that could be implemented to reduce potential impacts are presented on page V.A.4-24). However, in some locations with a high volume of loading demand, impacts may not be reduced to a less-than-significant level if the mitigation cannot be implemented. Therefore, the long-term improvements project loading impacts may be considered potentially significant and unavoidable.

CUMULATIVE CONDITIONS

This assessment evaluates the potential for multiple long-term improvements to result in cumulative impacts when viewed in connection with the effects of other past, present, and reasonable foreseeable future projects, including the near-term improvements analyzed in Subsection V.A.3, and the Bicycle Plan Actions analyzed at a programmatic level in Subsection V.A.2. The potential for cumulative impacts would depend on the geographic location of the near-term and long-term improvements, and the distribution and intensity of development projects throughout the City and their travel demand characteristics.

Cumulative impacts would be expected to be similar to those described in Subsection V.A.3, project-level analysis for the near-term improvements. This Subsection describes the potential cumulative impacts associated with the long-term improvements. Potential mitigation measures that could be implemented to reduce potential impacts are presented beginning on p. V.A.5-26.

Traffic

Implementation of long-term improvements could result in a reduction in roadway capacity and increased traffic delays, primarily if there is a reduction in the number of travel lanes required to accommodate a bicycle lane. 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. The actual impact of a long-term improvement on roadway capacity and traffic operations would depend on the length of the affected roadway segment, the number of travel lanes that would be available for vehicular flow, whether intersections are signalized or STOP-sign controlled, and the available green time for each movement at signalized intersections.

As indicated in Subsection V.A.3 of this EIR, as a result of increases in background traffic volumes, numerous intersections within San Francisco are projected to operate poorly under future year 2025 Cumulative conditions. At some locations, implementation of improvements would result in significant cumulative impacts (i.e., cause LOS operating conditions to change from LOS D or better to LOS E or LOS F, or from LOS E to LOS F), while at other locations that would operate at LOS E or F without the improvements. The improvements may be determined to represent a significant contribution to the cumulative impacts. Implementation of mitigation measures could reduce the cumulative impacts of the long-term improvements to a less-than-significant level. However, in some instances where intersections remain at LOS E or F conditions even with mitigation, mitigation is incompatible with the proposed improvement, or roadway geometry precludes implementation of mitigation, impacts may not be reduced to a less-than-significant level. Therefore, the long-term improvement projects would result in significant cumulative impacts, and traffic impacts may be considered potentially significant and unavoidable.

Transit

Under cumulative conditions, transit operations would be substantially affected by the intersection operating conditions. As described above for traffic impacts, due to background traffic volume increases, numerous intersections within San Francisco are projected to operate poorly under future year 2025 Cumulative conditions. If implementation of long-term improvements results in an increase in transit delay in both directions equal to or greater than six minutes, increases in overall vehicle delays at intersections could result in significant operational impacts on transit routes. Implementation of mitigation measures could reduce the long-term improvements’ impacts to a less-than-significant level. However, in some instances where either existing or future cumulative conditions where intersections remain at LOS E or F conditions even with mitigation, mitigation is incompatible with the proposed improvement, or roadway geometry precludes implementation of mitigation, transit delays may not be reduced to a less-than-significant level. Therefore, the long-term improvements would result in significant cumulative impacts on transit operations, and transit impacts would be considered potentially significant and unavoidable.

Parking

The projected growth in residential housing units and employment within San Francisco would result in increased parking supply and demand. The extent to which new parking demand would be accommodated would depend on the parking supply that new development would provide and intensity of uses, however, in-general on-street parking utilization is anticipated to increase. Implementation of long-term improvements could result in a net increase or decrease in the number of on-street parking spaces. The impact of a decrease in on-street parking supply would depend on the number of parking spaces that would be eliminated, the location of the spaces, and the overall future parking occupancy in the area. The loss of a few parking spaces would generally not be noticeable within an area where on-street parking is not fully occupied and available parking supply exists to accommodate the displaced vehicles. However, the loss of a few parking spaces in an area where parking supply is constrained and generally fully occupied would result in an increased competition for on-street, and potentially off-street, parking spaces.

Parking supply is not considered a permanent physical condition, and changes in the parking supply would not be a significant environmental impact under CEQA, but rather a social effect. The loss of parking may cause potential indirect physical effects, which would include cars circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to some drivers, aware of constrained parking conditions in a given area, shifting travel modes. Hence, any secondary environmental impacts that may result from a shortfall in parking would be minor. Therefore, any net reduction in on-street parking supply would not result in significant cumulative parking impacts.

Pedestrian

In general, impacts on pedestrian operations would occur if projects included sidewalk narrowing which resulted in inadequate clear walkway width to accommodate the pedestrian demand, or roadway widening or removal of center medians that which resulted in insufficient green time for pedestrians to cross the roadway. However, these conditions would not occur, as the design of the long-term improvements would be required to safely accommodate pedestrian travel. The amount of green time provided for pedestrian crossing at intersections is based on the requirements of the California MUTCD to ensure that sufficient green time would always be available to safely accommodate pedestrian crossings at signalized intersections. The design for roadway widening that would reduce sidewalk widths would be required to provide for a minimum clear walkway area to accommodate persons traveling in wheelchairs and to maintain LOS C walkway conditions. Therefore, long-term improvements would be required to be designed to maintain acceptable pedestrian operating conditions, and would not result in significant cumulative pedestrian impacts.

Bicycle

Implementation of the long-term and near-term improvements, and the actions within the Bicycle Plan would have a beneficial effect of improving conditions and safety for bicyclists by addressing deficiencies and gaps within the bicycle route network, and encouraging bicycling as an alternative mode. Implementation of long-term improvements would not result in significant cumulative bicycle impacts.

Loading

The projected cumulative growth in commercial activities within San Francisco would result in increased commercial vehicle loading/unloading activities. Implementation of the long-term improvements to accommodate bicycle lanes could result in elimination of curb parking areas currently dedicated to yellow commercial vehicle freight loading zones, or active passenger loading/unloading zones. The impact of a loss of on-street parking, including on-street white passenger loading/unloading and yellow commercial freight loading zones, would depend on the number of spaces that would be eliminated and the location of the spaces, and the availability of alternate accommodations for loading/unloading activities. Double-parking of vehicles within the travel or bicycle lanes would not necessarily impact loading activities or impact vehicle and bicycle flow, if traffic volumes are low and/or adjacent travel lanes are available for traffic to bypass the vehicles parked in the travel or bicycle lane. In situations where on-street parking is removed and the loading demand cannot be reasonably accommodated within existing adjacent locations, and roadway right-of-way is constrained, loading operations may result in a potential significant cumulative impacts to loading.

Implementation of mitigation measures could reduce the long-term improvements' impacts to a less-than-significant level (potential mitigation measures that could be implemented to reduce potential impacts are presented on p. V.A.5-26). However, in some locations with a high volume of loading demand, at locations where mitigation is incompatible with the proposed improvement, or where roadway geometry precludes implementation of mitigation, impacts may not be reduced to a less-than-significant level; therefore, the long-term improvements would result in significant cumulative impacts, and loading impacts would be considered to be significant and unavoidable.

MITIGATION MEASURES

This section presents the transportation mitigation measures that could be implemented to reduce the significant impacts of long-term improvements and significant cumulative impacts. In some instances, feasible mitigation measures would not be available, and impacts would remain significant and unavoidable. The potential impacts for the long-term improvements are identified as TR-LTx. The corresponding mitigation measures are identified as M-TR-LTx.x, where x is an identifier for different treatments to address one type of impact such as Traffic.

Traffic

Significant Impact 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.

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.

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[7] 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

Significant Impact 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.

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.

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[7] A floating bicycle lane is provided on streets where on-street parking is desired during non-peak traffic periods, and during peak periods there would be a tow-away restriction to provide an additional travel lane. The bicycle lane shifts locations when the tow-away restriction is in effect. When parking is allowed, bicyclists use the bicycle lane space between the parked vehicles and the solid white stripe indicating the bicycle lane. When parking is not allowed, bicyclists move to the right and use the shoulder bicycle lane.

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.

Parking

No mitigation measures are required.

Pedestrian

No mitigation measures are required.

Bicycle

No mitigation measures are required.

Loading

Significant Impact 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.

The following mitigation measures could reduce potentially 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.

SUMMARY OF PROGRAM LEVEL REVIEW OF LONG-TERM IMPROVEMENTS

As described under ‘Impact Analysis,’ above, impacts associated with the long-term improvements would vary depending on the type and location of the improvement. To the extent that the long-term improvements are similar to the near-term improvements described in Subsection V.A.3 of this EIR, the impacts of specific improvements would be similar as well. The range of impacts associated with the long-term improvements is summarized, below.

Traffic

Implementation of sharrows and minor narrowing of travel lanes would be less than significant. Where vehicular travel lanes are converted to bike lanes, the loss of a travel lane could result in increased traffic congestion and delays. To the extent that increased traffic and delays result in operational impacts such that intersection LOS drops below LOS D, these impacts would be considered potentially significant. In cases where roadway geometry precludes mitigation, or where intersection LOS remains at E or F conditions with mitigation, impacts would be potentially significant and unavoidable.

Transit

If long-term improvements result in decreased roadway capacity and corresponding delay, transit could be affected. If transit delays drop below the scheduled peak period headway, impacts would be considered significant. In some locations roadway geometry may preclude mitigation, in others mitigation may not be sufficient. In locations where intersections remain at LOS E or F, impacts would be potentially significant and unavoidable.

Parking

Some long-term improvements could result in the gain or loss of on-street parking. However, in San Francisco changes in the parking supply are not considered significant under CEQA, therefore impacts would be less than significant.

Pedestrian

To the extent that sidewalk narrowing is proposed, long-term improvements would be required to be designed to maintain acceptable pedestrian operating conditions, and would not result in significant pedestrian impacts.

Bicycle

Overall, the implementation of long-term improvements would have a beneficial effect for bicycles; therefore no impacts would occur.

Loading

Implementation of long-term improvements could result in elimination of existing loading zones which could result in double-parking within travel or bicycle lanes. In some locations mitigation measures could reduce impacts to a less than significant level, in other locations mitigation measures are not feasible and impacts would be potentially significant and unavoidable.

Long-Term Improvement Measure – 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.

6. CONCLUSION

The Bicycle Program is an ongoing program for the City of San Francisco. At its foundation is the San Francisco Bicycle Plan (Bicycle Plan), which consists of goals and objectives that reflect the City's commitment to improve the quality of life of its residents and to expand the role and importance of bicycle transportation in the City. Furthermore, the Bicycle Plan provides an overview of the components for a successful bicycle program including the bicycle route network; other bicycle-related facilities and programs such as bicycle parking; education; outreach; enforcement; and the implementation of citywide policies, including amendments to the *San Francisco General Plan*, *Planning Code* and *Transportation Code*, which support the ongoing program. Together these enable the City to provide the safe and attractive environment needed to promote bicycling as a transportation mode.

In order to facilitate travel by bicycle within San Francisco, the City adopted its first bicycle plan in 1997. An update of the existing 1997 San Francisco 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 April 2005 draft NID identified many potential improvements for the bicycle route network and included specific design treatments for 18 network improvement projects to address gaps within the bicycle route network. The April 2005 draft NID presented information regarding the opportunities and constraints with respect to implementation of improvements to the network. With the refinement of project designs for the 60 near-term improvements, the April 2005 draft NID has been superseded. Relevant sections of the April 2005 draft NID have been incorporated into Chapter 1 of the 2008 updated Bicycle Plan[2] (a policy document) regarding the existing bicycle

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[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.

[2] This document is referred to herein as the San Francisco Bicycle Plan.

route network. Other sections of the April 2005 draft NID are manifest in the near-term, long-term, and minor improvements, which are being analyzed as part of the environmental review process for the Bicycle Plan Project. In this Chapter, all of these proposed improvements and policy goals, objectives, and actions have been reviewed and analyzed for their potential to cause significant impacts to the physical environment.

None of the policy goals, objectives, and actions would, in themselves, have a direct 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 improvements which are presented in the 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 discussed in Subsections V.A.3 (p V.A.3-1), V.A.4 (p V.A.4-1), and V.A.5 (p V.A.5-1). These potential indirect effects include both significant, and significant and unavoidable impacts. These impacts are enumerated and discussed in detail in Subsections V.A.3 (p V.A.3-1), V.A.4 (p V.A.4-1), and V.A.5 (p V.A.5-1). The implementation of the policy goals, objectives, and actions proposed under the Bicycle Plan would have no other potentially-significant impacts on the physical environment.

Subsection V.A.3, p V.A.3-1, reviews the impacts resulting from implementation of the 60 near-term improvement projects. These projects include design elements such as the reconfiguration or reduction in lanes in a section of roadway, a relocation of an existing passenger loading zone, and an elimination of parking spaces to allow space for placement of a bicycle lane. These are the Bicycle Plan projects with the most obvious implications for bicycle and other traffic circulation in the City of San Francisco. This section identifies project-level impacts including both potentially-significant impacts, and significant and unavoidable impacts. Specifically, there would be 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 truck loading spaces in specific locations within the project area. Of the remaining elements reviewed in the Subsection V.A.3, p V.A.3-1, project level review (pedestrians, bicycles, and parking), all impacts were identified as being less-than-significant or as having no potential to impact the physical environment.

Subsection V.A.4, p V.A.4-1, studies the impacts resulting from implementation of nine minor improvements proposed for use on an as needed basis by the Bicycle Program to improve conditions for bicyclists. Minor improvement projects include the installation of sharrows, installation of bicycle parking within the street right of way, the installation of bicycle boxes at intersections, minor pavement marking changes, the installation of colored pavement materials for bicycle facilities, minor signage, minor traffic signal changes, and on-street vehicle parking changes. These treatments would be implemented on an as needed basis to address deficiencies for the bicycle route network or further the goals of the Bicycle Plan. No significant program-level impacts would arise from these minor improvements, either as a result of the individual improvements, or reviewing the improvements in a cumulative context.

Subsection V.A.5, p V.A.5-1, studies the impacts resulting from implementation of long-term improvements under the Bicycle Plan. These improvements include area-specific changes in circulation patterns, and includes projects with fairly broad goals such as developing a given intersection/block area as a safe bicycle-friendly area. This section identifies four potentially-significant and unavoidable impacts that could result from long-term improvements. These potential program-level impacts include (a) a potential to increase traffic delays in some areas of the City; (b) a potential to cause a significant adverse impact to intersection levels-of-service; (c) a potential to slow transit vehicle movement in some locations; and (d) a potential to eliminate some curb space, currently used for passenger loading/unloading or commercial loading/unloading. All of these potential impacts were identified as being potentially significant and unavoidable. Aside from these potential areas of impact, no significant environmental impacts were identified.

Taken as a whole, the transportation analyses identify several potentially-significant but potentially-mitigable impacts. Minor improvements would not substantially change the capacity of the roadways, and would not result in significant impacts on traffic, transit, pedestrian, bicycle, parking and loading conditions. The long-term improvements would not result in significant impacts on pedestrian, bicycles, and parking conditions. However, because the long-term improvements may include reduction in the travel lanes, there may be significant impacts on traffic and transit operations in both the program-level and cumulative analyses. In addition, removal of on-street passenger and commercial vehicle loading/unloading zones as part of on-street parking removals could result in potentially-significant impacts at locations where there may be high loading demand and nearby on-street facilities to accommodate the demand not available. This finding applies to both the program-level and cumulative analyses. Potential measures to reduce impacts on traffic, transit, and loading have been identified. However, no determination may be made as to the feasibility of any of these measures in a particular location until the specific location and project designs are known.

The long-term improvements would be composed of design elements similar to those for the near-term improvements and therefore, the proposed mitigations measures may reduce significant impacts to less-than-significant levels as demonstrated by the development of mitigation measures for some of the near-term improvements. However, in some instances impacts may not be reduced to less-than-significant levels and impacts may be considered significant and unavoidable. Also, in some instances, where either existing or projected cumulative conditions at intersections already operate or will operate at LOS E or LOS F conditions without the potential long-term projects, feasible mitigation measures may not be available. In these instances impacts may remain significant and unavoidable.

The aforementioned potentially-significant impacts were identified, and mitigation measures were proposed for the near-term improvements, and mitigation measures were proposed for each impact to reduce the given impact to less than significant. However, the mitigation measures proposed for some impacts would require further study and analysis to determine how effective the proposed mitigation measure actually would be. Under CEQA, mitigation measures cannot be predicated on future studies and analysis. Therefore, this report has taken the conservative position of presuming that these impacts will not be effectively mitigated by the proposed mitigation measure, and has identified these impacts as remaining significant after mitigation.

The potential transportation-related impacts of the Bicycle Plan Project include a number of potentially-significant and unavoidable impacts. These significant and unavoidable impacts are listed below and are grouped by impact category and geographic cluster:

Traffic

- The long-term potential and cumulative potential 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 long-term potential and the 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 some intersection levels-of-service.
- The near-term and long-term potential, and the 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:

Cluster 2

- 2nd Street/Bryant Street
- 2nd Street/Harrison Street
- 2nd Street/Folsom Street

- 2nd Street/Howard Street
- 2nd Street/Townsend Street
- 5th Street/Bryant Street
- 5th Street/Howard Street
- 5th Street/Brannan Street
- 7th Street/Townsend Street
- 10th Street/Brannan Street/Potrero Avenue/Division Street
- 11th Street/Bryant Street/Division Street
- Church Street/Market Street/14th Street
- Potrero Avenue/16th Street
- Fremont Street/Howard Street

Cluster 3

- Masonic Avenue/Fell Street
- Masonic Avenue/Turk Street
- Masonic Avenue/Fulton Street
- Masonic Avenue/Geary Boulevard

Cluster 5

- Bayshore Boulevard/Jerrold Avenue/U.S. 101 Off-ramp
- Bryant Street/Cesar Chavez Street
- Evans Avenue/Cesar Chavez Street
- Guerrero Street/Cesar Chavez Street
- Mission Street/Cesar Chavez Street
- South Van Ness Avenue/Cesar Chavez Street

Cluster 6

- Burnett Avenue/Clipper Street/Portola Drive
- Fowler Street/Portola Avenue

- Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive

Transit

- The long-term potential to slow some transit movement in some locations.
- The near-term potential and cumulative potential to slow some transit movement in some locations:

  Cluster 2

  - Muni bus line 9
  - Muni bus line 10
  - Muni bus line 30
  - Muni bus line 45
  - SamTrans bus line 292

  Cluster 3

  - Muni bus line 43

  Cluster 5

  - Muni bus line 12
  - Muni bus line 27

  Cluster 6

  - Muni bus line 48
  - Muni bus line 52

Loading

- The long-term potential to eliminate some curb space currently used for passenger loading/unloading or commercial freight loading/unloading.
- 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

Cluster 2

- Along 2nd Street between Market and Bryant Streets
- Along the north side of Market Street near Noe Street

Cluster 5

- Along Bayshore Boulevard between Cesar Chavez and Industrial Street
- Along the west side of San Bruno Avenue between Paul Avenue and Silver Avenue

The action-by-action, project-by-project, and improvement-by-improvement analysis of the San Francisco Bicycle Plan would have no other transportation-related potentially-significant, significant, or significant and unavoidable impacts. All other impacts that could occur, through implementation of the Bicycle Plan, have been found less than significant, or no impacts have been identified for the given action or improvement project considered.

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