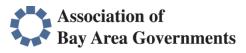


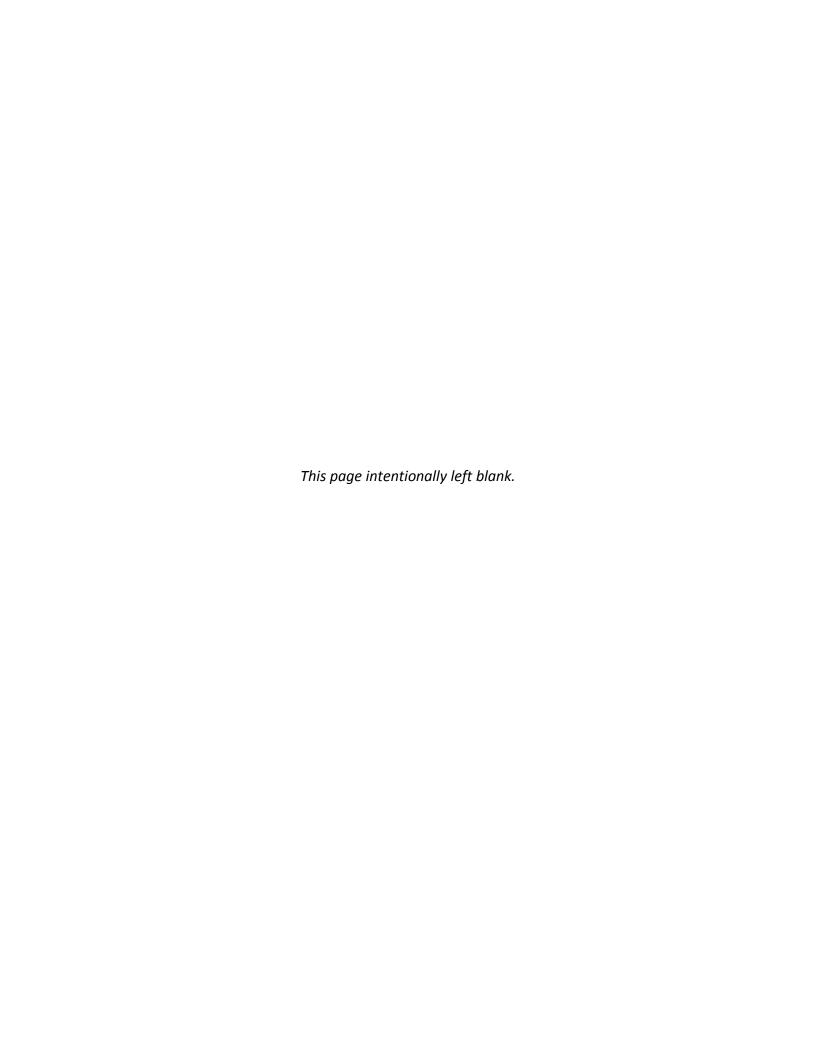
# Final Addendum to the Final Environmental Impact Report Plan Bay Area

(State Clearinghouse No. 2012062029)

September 2015







## **Table of Contents**

1 Introd	uction	 1
2 Revision	ons to the Draft Addendum	 1
2.1	Introduction	 1
2.2	Project Description	 3
2.3	CEQA Checklist and Impact Analysis	 6
2.4	Technical Revisions	 44
2.5	Conclusion	 59
3 Respo	nse to Comments	 62

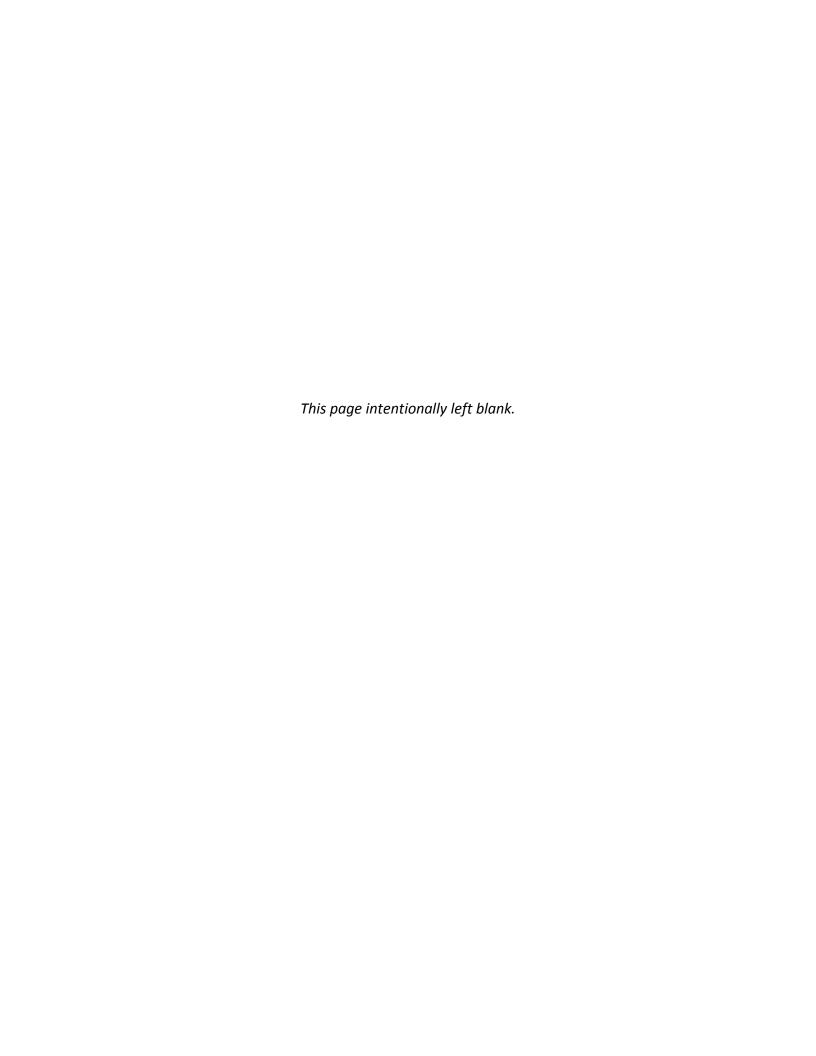
## **List of Tables**

Table 1 Summary of Impacts and Mitigation	8
Table 2 Revised FEIR Table 2.1-12, Bay Area Tra	vel Behavior, 2010-204045
Table 3 Revised FEIR Table 2.1-13, Typical Weel	kday Daily Person Trips, By Mode47
Table 4 Revised FEIR Table 2.1-14, Per-Trip Com	nmute Travel Time, by Mode (in minutes)47
Table 5 Revised FEIR Table 2.1-15, Per-Trip Non	n-Commute Travel Time, by Mode (in minutes).48
Table 6 Revised FEIR Table 2.1-16, Per-Capita D (LOS) (2010-2040)	raily Vehicle Miles of Travel by Level of Service
Table 7 Revised FEIR Table 2.1-17, Daily Vehicle	e Miles of Travel Per Capita (2010-2040)50
Table 8 Revised FEIR Table 2.1-11, Transportati	on System Capacity (2010-2040)50
Table 9 Revised FEIR Table 2.1-18, Utilization of	f Public Transit Systems, by Mode (2010-2040).52
Table 10 Revised FEIR Table 2.2-5, Travel Data	54
Table 11 Revised FEIR Table 2.2-7, Emission Est Emission Rates (tons per day)	imates for Criteria Pollutants Using EMFAC201154
Table 12 Revised FEIR Table 2.2-8, Emission Est Emission Rates (tons per day)	imates for Criteria Pollutants Using EMFAC2011
Table 13 Revised FEIR Table 2.2-9, Emission Est	imates for TAC Pollutants (kilograms per day)55
Table 14 Revised FEIR Table 2.2-11, Percent Charlesions (2010-2040)	ange in On-Road Mobile Source Exhaust55
Table 15 Revised FEIR Table 2.2-12, Percent Cha	ange in On-Road Total PM Emissions (2010-2040)
Table 16 Revised FEIR Table 2.5-9, Existing and Emissions (MTCO₂e)	Forecasted Annual Transportation GHG58
Table 17 Revised FEIR Table 2.5-10, Total Regio	nal Annual GHG Emissions59
Table 18 Index of Comments	63

## **List of Figures**

Figure 1 Project Location

Figure 2 Project Overview



#### 1 Introduction

The Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), acting as Lead Agencies under the California Environmental Quality Act (CEQA), prepared an Addendum to the Final Environmental Impact Report (EIR) for Plan Bay Area pursuant to CEQA guidelines Section 15164. The Final EIR for Plan Bay Area (State Clearinghouse No. 2012062029) was certified by MTC and ABAG on July 18, 2013.

On June 19, 2015, MTC and ABAG released the Draft Addendum to Plan Bay Area Final EIR for public review and comment. MTC and ABAG made the Draft Addendum available for public review online (<a href="http://www.mtc.ca.gov/planning/plan\_bay\_area/">http://www.mtc.ca.gov/planning/plan\_bay\_area/</a>). MTC and ABAG received over 220 comments in response pertaining to the addition of the Richmond-San Rafael Bridge Access Improvement Project into Plan Bay Area and the 2015 Transportation Improvement Program (Revision 2015-18). Of the 220 comments, 2 comment letters raised specific issues from the Draft Addendum.

This Final Addendum to the Plan Bay Area EIR includes response to comments and technical revisions to the Draft Addendum.

#### 2 Revisions to the Draft Addendum

#### 2.1 INTRODUCTION

The Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), acting as Lead Agencies' under the California Environmental Quality Act (CEQA), have prepared this Addendum to the Draft Environmental Impact Report (DEIR) and Final Environmental Impact Report (FEIR) for Plan Bay Area. The FEIR (State Clearinghouse No. 2012062029) was certified by MTC and ABAG on July 18, 2013.

Since July 2013 and the approval of the FEIR, the Bay Area Toll Authority (BATA), in cooperation with the California Department of Transportation (Caltrans) District 4, have initiated the Richmond-San Rafael (RSR) Bridge Access Improvement Project (project), which was not identified at the time of the adoption of Plan Bay Area and certification of the FEIR. The project proposes to convert the existing shoulders on the RSR Bridge to accommodate bicycle and pedestrian access on the upper bridge deck (westbound), and a new automobile travel lane on the lower deck (eastbound). Refer to **Figure 1** for the location of the proposed project and **Figure 2** for an overview of the specific improvements proposed.

Accordingly, this Addendum evaluates the potential impacts of inclusion of the project in Plan Bay Area relative to the conclusions reached in the FEIR prepared for Plan Bay Area. This Addendum has been prepared to conform to the requirements of CEQA and CEQA Guidelines §15164. This Addendum also includes some technical revisions that are the result of updated air quality and transportation modeling completed by MTC in 2015. These revisions are minor and are noted as such, and do not change the conclusions that were made in the 2013 FEIR.

This revised Addendum contains text changes to the Draft Addendum that reflect additions, corrections, and clarifications resulting from preparing responses to comments on the Draft Addendum. These changes are incorporated as part of the Final Addendum. Strikethrough text (i.e., strikethrough) indicates text removed and underlined text indicates text added to the Draft Addendum.

#### 2.1.1 PURPOSE OF AN ADDENDUM

CEQA Guidelines § 15164(a) provides that the lead agency or a responsible agency shall prepare an addendum to a previously certified EIR or Negative Declaration ("ND") if some changes or additions are necessary but none of the conditions described in CEQA Guidelines § 15162 calling for preparation of a subsequent EIR or ND have occurred (CEQA Guidelines, § 15164(a)).

An addendum need not be circulated for public review but can be included in or attached to the FEIR or ND (CEQA Guidelines § 15164(c)). The decision-making body shall consider the addendum with the FEIR prior to making a decision on the project (CEQA Guidelines § 15164(d)). An agency must also include a brief explanation of the decision not to prepare a subsequent EIR or ND pursuant to § 15162 (CEQA Guidelines § 15164(e)).

Once an EIR or ND has been certified for a project, no subsequent EIR or ND is required under CEQA unless, based on substantial evidence:<sup>1</sup>

- substantial changes are proposed in the project which will require major revisions of the
  previous EIR or ND due to the involvement of new significant environmental effects or a
  substantial increase in the severity of previously identified significant effects;
- substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- 3. new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the ND was adopted, shows any of the following:
  - a. the project will have one or more significant effects not discussed in the previous EIR or ND;
  - b. significant effects previously examined will be substantially more severe than shown in the previous EIR;
  - mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
  - d. mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but he project proponents decline to adopt the mitigation measure or alternative.

2

<sup>&</sup>lt;sup>1</sup> (CEQA Guidelines, § 15162, subd. (a); see also Pub. Resources Code, Section 21166).

There are no substantial changes proposed by the project or in the circumstances in which the project would be undertaken that require major revisions of the existing FEIR, or preparation of a new, subsequent or supplemental EIR or ND, due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. As illustrated herein, the project is consistent with the 2013 DEIR and FEIR and would involve only minor changes.

#### 2.1.2 INTENDED USES OF THIS ADDENDUM

An Addendum to a FEIR is an informational document used in the planning and decision-making process. The intent of this Addendum to the FEIR is to provide MTC and ABAG with additional information regarding the potential environmental impacts resulting from Plan Bay Area resulting from the inclusion of the project that was not available at the time of the certification of the FEIR. MTC and ABAG may approve the amendment to add this project into Plan Bay Area based on this Addendum. The impacts of the project remain within the impacts previously analyzed in the DEIR and FEIR (CEQA Guidelines § 15061(b)(3)).

The project does not require any revisions to the DEIR or FEIR. No new significant information or significant changes in circumstances surrounding the project have occurred since the certification of the FEIR. The previous analysis included in the DEIR and FEIR therefore remains adequate under CEQA. However, MTC and ABAG remain obligated to comply with all applicable mitigation measures and conditions of approval contained within the DEIR and FEIR.

#### 2.1.3 INCORPORATION BY REFERENCE

In compliance with CEQA Guidelines § 15150, this Addendum has incorporated by reference:

 The 2013 DEIR and FEIR (SCH No. 2012062029) and all technical studies, analyses, and technical reports that were prepared as part of the 2013 DEIR and FEIR or for this Addendum.

Relevant information from documents incorporated by reference into this Addendum have been briefly summarized in the following section, and the relationship between the incorporated part of the referenced document and this Addendum has been described.

#### 2.2 PROJECT DESCRIPTION

This section provides a description of Plan Bay Area that was evaluated in the FEIR and the new project proposed by BATA for inclusion in Plan Bay Area.

#### 2.2.1 OVERVIEW OF PLAN BAY AREA

Plan Bay Area (the Plan) reinforces land use and transportation integration per Senate Bill (SB) 375 and presents a vision of what the San Francisco Bay Area's (Bay Area) land use patterns and transportation networks might look like in 2040. **Figure 1.2-1** included in the DEIR illustrates the regional location of the Bay Area.

The Plan serves as the 2013 Regional Transportation Plan (RTP) for the Bay Area region and includes the region's Sustainable Communities Strategy (SCS) as required under SB 375. The Plan is by definition the combined land use and transportation plan, serving as a blueprint of how the Bay Area addresses its transportation mobility and accessibility needs, land development, and greenhouse gas (GHG) emissions reduction requirements through the year 2040. The Plan

document presents its purpose and goals, tracks trends and evaluates project performance, details financial assumptions and expenditures, profiles key investments, and sets forth actions that the region would advocate and pursue over the next several years. See Plan Bay Area and supplementary reports for full details. These documents can be found at:

http://www.mtc.ca.gov/planning/plan\_bay\_area/

As a programmatic document, the 2013 DEIR and FEIR present a region-wide assessment of the potential impacts of the Plan and included mitigation measures to offset potentially significant effects. It focused on the entire set of projects and programs contained in the Plan (see **Section 1.1** of the DEIR for a list of projects included in the Plan). Specific analysis of localized impacts in the vicinity of individual projects was not included in the program level DEIR; all impacts of individual projects will be evaluated in future environmental review, as relevant, by the appropriate implementing agency as required under CEQA and/or NEPA prior to each project being considered for approval, as applicable.

#### 2.2.2 RICHMOND-SAN RAFAEL BRIDGE ACCESS IMPROVEMENT PROJECT

The project proposes to convert the existing shoulders on the RSR Bridge to accommodate bicycle and pedestrian access on the upper bridge deck (westbound), and a new automobile travel lane on the lower deck (eastbound). Bicycle and pedestrian access on the upper deck of the RSR Bridge would be provided by installing a barrier to separate bicyclists and pedestrians from motorists (see **Figure 1**).

The total length of this project is approximately 6 miles [Contra Costa County post mile (PM) R4.98 to Marin County PM 3.16]. Within the project limits there are six existing structures; San Quentin Undercrossing (Main Street) (Br. No. 27-0070), the RSR Bridge (Br. No. 28-0100), Western Drive Undercrossing (Stenmark Drive) (Br. No. 28-0141R), Scofield Avenue Undercrossing (Br. No. 28-0140 L/R), Marine Street Undercrossing (Br. No. 28-0139), and the Castro Street Undercrossing (Br. No. 28-0290 L/R). All proposed improvements are anticipated to be within existing highway and local street rights-of way, except as noted below in Project Element 3.

The project consists of three major components that are interrelated:

- Element 1: Eastbound I-580 travel lane between Marin County and Contra Costa County
- Element 2: Bicycle/Pedestrian Path in Contra Costa County
- Element 3: Bicycle/Pedestrian Path on the RSR Bridge and connections to bridge

All project elements are currently under study and subject to (a) changes as the project proceeds into project development and (b) approvals by Caltrans.

#### **Purpose**

The purpose of the proposed project is to:

- Reduce congestion and travel time on eastbound I-580/RSR Bridge
- Provide pedestrian and bicycle travel along the I-580/RSR Bridge corridor

#### Need

Congestion and Delay - Regional growth and local development in Marin County has resulted in significant traffic increases on eastbound I-580 and the RSR Bridge approach during evening peak commute periods. During evening peak periods, this results in significant traffic delays along I-580 eastbound, eastbound Sir Francis Drake Boulevard, and US 101 northbound south of Sir Francis Drake exit, with unacceptable level of service conditions occurring at the intersections of Bellam Boulevard/I-580 eastbound ramps, US 101 northbound ramps/Sir Francis Drake Boulevard, Larkspur Landing Circle (east)/Sir Francis Drake Boulevard, San Quentin Gates/Sir Francis Drake Boulevard, Anderson Anderson Drive/Sir Francis Drake Boulevard, and Main Street/I-580 eastbound ramps. Additional evening traffic congestion occurs on northbound US 101, from the Tamalpais Drive interchange to the Sir Francis Drake Boulevard off-ramp, and continues onto eastbound I-580. Because substantial growth is projected to occur in this region, there is a need to improve and expand eastbound bridge capacity to reduce and avoid additional traffic congestion and delay during peak commute hours.

Accessibility for Bicyclists and Pedestrians – The current lack of bicycle and pedestrian facilities across the RSR Bridge represents a major gap in the planned 500-mile Bay Trail. Overall, an estimated 37.9 million annual trips were made on the existing Bay Trail in 2005, making it one of the most heavily used recreational and non-motorized transportation corridors in the region, but no access was available over the RSR Bridge. Sections of the Bay Trail adjoin the bridge on both sides and this gap prevents non-motorized access across a major transportation corridor linking Marin and Contra Costa County.

#### **Description of Work**

#### Project Element 1 - Eastbound I-580 Third Lane (including RSR Bridge Pilot Project)

Element 1 of the proposed project would construct a new third travel lane by converting the existing shoulder of the eastbound direction of I-580 across the lower deck of the RSR Bridge to a travel lane. The new lane will begin immediately downstream from the eastbound Main Street off-ramp in Marin County and terminate on the Contra Costa County side of the bridge, slightly downstream of the Marine Street/East Standard Avenue eastbound off-ramp in Richmond. The Bridge portion of the third lane on the lower deck will operate during peak hours only. The exact hours of operation of the lane will be outlined in the Project Report. The off-Bridge portion of the third lane will operate 24 hours a day, 7 days per week.

Electronic and static signs will be used to operate and manage the lane during the hours of operations (refer to **Figure 2**). The third travel lane on the RSR Bridge is part of a pilot project (along with Element 3) that will run for a duration of four years, intended to test and evaluate the performance and use of the third travel lane. After 4 years, the third lane on the RSR Bridge will be evaluated to determine if it is to remain a peak period use lane (PPUL), be converted to a full-time use lane or return to function as a shoulder during the off-peak hours. may be made permanent, or will return to function as a shoulder during the off peak hours. All other constructed components of this element would be permanent. All improvements for this element will be within existing state and local right-of-way.

#### Project Element 2 - Bicycle/Pedestrian Path in Contra Costa County

The proposed bi-directional bicycle/pedestrian path (bi-directional path) in Contra Costa County would be constructed along the north side of westbound I-580 from the Marine Street interchange in Contra Costa County to Stenmark Drive (formerly Western Drive) and the Toll Plaza where it would then connect to Project Element 3, discussed below. The bi-directional path would continuebe implemented along the existing westbound I-580 shoulder and would replace the existing one-way Class III bicycle lanes in both eastbound and westbound directions of I-580 between Marine Street and the Toll Plaza. The proposed bi-directional path would be separated from vehicle traffic by a continuous concrete barrier. At the Marine Street interchange an existing Class 1 path crosses underneath I-580 and terminates at the Marine Street/I-580 off-ramp/Standard Avenue intersection. The barrier separated bi-directional path will also be extended east from that intersection to the Castro Street/Standard Avenue intersection (on the south side of Standard Avenue). All improvements for this element will be within existing state and local right-of-way.

# Project Element 3 – Bicycle/Pedestrian Path on RSR Bridge and Related Connections to RSR Bridge (Pilot Project)

Project Element 3 includes the continuation of the proposed bi-directional path between the Stenmark Drive off-ramp at the eastern end of the RSR Bridge, continuing onto and across the RSR Bridge to the Main Street (San Quentin) interchange at the western end of the bridge. This portion of the bi-directional path would be part of the pilot project that would run for four years, intended to test and evaluate the performance and use of bicycle/pedestrian path on the RSR Bridge. After the 4 years, the bi-directional path on the RSR Bridge may be made permanent, or will return to functioning as a shoulder. Pedestrian/bicycle access improvements are also included in this project element to improve multimodal circulation and connections to the RSR Bridge. With the exception of the segment of the bicycle and pedestrian path adjacent to the maintenance facility (on an easement to be provided by Chevron), all improvements for this element will be located within state and local right-of-way.

#### 2.3 CEQA CHECKLIST AND IMPACT ANALYSIS

#### 2.3.1 SCOPE OF ANALYSIS

This Addendum considers whether the inclusion of the project in Plan Bay Area could result in any significant effects on the environments that were not already described in the 2013 DEIR and FEIR.

The level of significance of impacts resulting from the inclusion of the proposed project in the Plan would not result in any new impacts that were not previously disclosed, nor has the environmental baseline in the Bay Area changed since the 2013 FEIR, such that new impacts would be created. This addendum evaluates potential environmental impacts resulting only from the addition of the proposed project to the Plan, in comparison to what was evaluated in the 2013 DEIR and FEIR.

The following environmental categories were specifically examined in the context of the modification to the Plan discussed above:

- Transportation
- Air Quality
- Land Use and Physical Development
- Energy
- Climate Change and GHGs
- Noise
- Geology and Seismicity

- Water Resources
- Biological Resources
- Visual Resources
- Cultural Resources
- Public Utilities and Facilities
- Hazards
- Public Services and Recreation

#### 2.3.2 ANALYSIS

Additional analysis has been conducted for the environmental topics listed above and the results are discussed below in **Table 1**. All of the environmental topics examined in the FEIR have been assessed and found not to have anylt can be concluded that no new project impacts would result with the addition of the project in Plan Bay Area, and thus, there would be no material change from what has already been presented in the 2013 FEIR. This conclusion for each environmental topic is explained in the column labeled "Substantial Increase in the Severity of Previously Identified Significant Effects." No new or revised mitigation measures are necessary as a result of this Addendum. All mitigation measures adopted in the 2013 DEIR/FEIR continue to remain in effect and are incorporated by reference in this Addendum.

 Table 1
 Summary of Impacts and Mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Transportation					
Impact 2.1-1: Implementation of the proposed Plan could result in a substantial increase in per trip travel time for commute travel by any mode over existing conditions. A substantial increase in per trip travel time is defined as greater than 5 percent.	Less than significant	No. Implementation of the proposed project would not substantially increase (greater than 5%) per trip travel time for commute travel by any mode (see <b>Table 4</b> ). The potential impacts or the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. There would not be a substantial Increase in the severity of any previously Identified effects.	NA	No	Less than significant
Impact 2.12: Implementation of the proposed Plan could result in a substantial increase in per trip travel time for noncommute travel by any mode over existing conditions. A substantial increase in per trip travel time is defined as greater than 5 percent.	Less than significant	No. Implementation of the proposed project would decrease travel time for non-commute travel by all modes (see <b>Table 5</b> ). The potential impacts or the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. There would not be a substantial Increase in the severity of any previously Identified effects.	NA	No	Less than significant

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.1-3: Implementation of the proposed Plan could result in a substantial increase in per capita VMT on facilities experiencing level of service (LOS) F compared to existing conditions during AM peak periods, PM peak periods, or during the day as a whole (LOS F defines a condition on roads where traffic substantially exceeds capacity, resulting in stop-and-go conditions for extended periods of time). A substantial increase in LOS F-impacted per capita VMT is defined as greater than 5 percent.	Significant and Unavoidable	No. With inclusion of the proposed project in the Plan, VMT on facilities experiencing LOS F would be reduced during all periods compared to what was reported in the 2013 FEIR (see <b>Table 6</b> ). The potential impacts or the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The project would not substantially increase the severity of previously identified significant effects.	MM 2.1(a) – MM 2.1(c)	No	Significant and Unavoidable
Impact 2.1-4: Implementation of the proposed Plan could result in a substantial increase in per capita VMT compared to existing conditions. A substantial increase in per capita VMT is defined as greater than 5 percent.	No adverse impact	No. Implementation of the proposed project with the Plan would reduce per capita VMT by 6% (see <b>Table 7</b> ). The potential impacts or the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area.	None required	No	No adverse impact

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.1-5: Implementation of the proposed Plan could result in increased percent utilization of regional transit supply resulting in an exceedance of transit capacity at AM peak hours, at PM peak hours, or for the day. An exceedance is defined as passenger seat-mile demand for any transit technology being greater than 80 percent of passenger seat-miles supplied by transit operators.	No adverse impact	No. Implementation of the proposed project would not substantially increase the percent utilization (over 80%) of the regional transit supply (see <b>Table 9</b> ). The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area.	NA	No	No adverse impact
Air Quality					
Impact 2.2-1(a): Implementation of the proposed Plan could conflict with or obstruct implementation of the primary goals of an applicable air quality plan.	Less than significant	conflict with or obstruct implementation of the primary goals or control measures of an applicable air quality plan. The project is intended to reduce existing and future traffic congestion and offer non-motorized alternatives to	NA	No	Less than significant
Impact 2.2-1(b): Implementation of the proposed Plan could conflict with or obstruct implementation of applicable control measures of an applicable air quality plan.	Less than significant		NA	No	Less than significant

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.2-1(c): Implementation of the proposed Plan could conflict with or obstruct implementation of any control measures in an applicable air quality plan.	Less than significant		NA	No	Less than significant
Impact 2.2-2: Implementation of the proposed Plan could result in a substantial net increase in construction-related emissions.	Significant and Unavoidable *Less than significant with mitigation	No. Implementation of the proposed project would result in construction-related emissions. However, the potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially	MM 2.2(a)	No	Significant and Unavoidable *Less than significant with mitigation
		increase. The project would incorporate the mitigation measures/standard best management practices identified in the FEIR as applicable.			

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.2-3(a): Implementation of the proposed Plan could cause a net increase in emissions of criteria pollutants ROG, NOx, CO, and PM <sub>2.5</sub> from on-road mobile sources compared to existing conditions.	No adverse impact	No. Revised emissions estimates conducted for the Plan with inclusion of the project concluded that emissions of criteria air pollutants and toxic air contaminants (TACs) would be reduced compared to existing conditions (see <b>Tables 11</b> and <b>13</b> ). However, as shown in <b>Table 12</b> , emissions of PM <sub>10</sub> are expected to increase compared to existing conditions. The identified increase would be 12% under the 2013 Plan with inclusion of the project. Therefore, potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase. The project would incorporate the mitigation measures/standard best management practices identified in the FEIR as applicable.	NA	No	No adverse impact
Impact 2.2-3(b): Implementation of the proposed Plan could cause a net increase in emissions of PM <sub>10</sub> from on-road mobile sources compared to existing conditions.	Significant and unavoidable	See response for impact for 2.2-3(a). The increase in PM <sub>10</sub> emission under the amended Plan would be 12% less than under the 2013 Plan with inclusion of the project. Therefore, potential impacts of the proposed project are covered within the	MM 2.2(b) – MM 2.2(e) MM 2.1(a) – 2.1(c)	No	Significant and unavoidable

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
		parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase.			
Impact 2.2-4: Implementation of the proposed Plan could cause a cumulative net increase in emissions of diesel PM, 1,3-butadiene, and benzene (TACs) from on-road mobile sources compared to existing conditions.	No adverse impact	See response for impact for 2.2-3(a). Emissions of criteria air pollutants and toxic air contaminants (TACs) would be reduced with the inclusion of the project compared to existing conditions (see Tables 11 and 13). There would be no adverse impact or any increase in the severity of previously identified impacts.	NA	No	No adverse impact
Impact 2.2-5(a): Implementation of the proposed Plan could cause a localized net increase in sensitive receptors located in Transit Priority Project (TPP) corridors where TACs or fine particulate matter (PM <sub>2.5</sub> ) concentrations result in a cancer risk greater than 100/million or a concentration of PM <sub>2.5</sub> greater than 0.8 µg/m.	Significant and unavoidable	No. The majority of the project is outside of a TPP corridor, only a very small portion of the east end of the project in Point Richmond is within a TPP-eligible area; therefore, the proposed project would not substantially increase the number of sensitive receptors in TPP corridors. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase.	MM 2.2(d)	No	Significant and unavoidable

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.2-5(b): Implementation of the proposed Plan could cause a localized net increase in sensitive receptors located in Transit Priority Project (TPP) corridors within set distances (Table 2.2-10 in the DEIR) to mobile or stationary sources of TAC or PM <sub>2.5</sub> emissions.	Significant and unavoidable	See impact 2.2-5(a) above. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase.	MM 2.2(d)	No	Significant and unavoidable
Impact 2.2-5(c): Implementation of the proposed Plan could cause a localized net increase in sensitive receptors located in Transit Priority Project (TPP) corridors where TACs or fine particulate matter (PM2.5) concentrations result in noncompliance with an adopted Community Risk Reduction Plan or adopted Article 38 regulation that incorporates findings from a completed Community Risk Reduction Plan.	Less than significant	See impact 2.2-5(a) above. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase.	NA .	No	Less than significant
Impact 2.2-6: Implementation of the proposed Plan could result in a localized larger increase or smaller decrease of TACs and or PM <sub>2.5</sub> emissions in	Significant and unavoidable	No. The proposed project would not substantially affect disproportionately impacted communities in the Bay Area compared with the remainder of the	MM 2.2(d) – MM 2.2(f) MM 2.1(a) – MM 2.1(c)	No	Significant and unavoidable

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
disproportionally impacted communities compared to the remainder of the Bay Area communities.		Bay Area (see <b>Table 14</b> ). The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and would not result in a substantial increase in the severity of any previously identified impacts. The project would also incorporate the mitigation measures/standard best management practices identified in the DEIR as applicable.			
Land Use and Physical Developm	nent				
Impact 2.3-1: Implementation of the proposed Plan could	result in any substantial residential	MM 2.3(a) - MM 2.3(c) MM 2.2(a) in Chapter 2.2: of the DEIR	No	Significant and Unavoidable	
result in residential or business disruption or displacement of substantial numbers of existing population and housing.	Unavoidable  *Less than significant with mitigation	or business disruption or displacement. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and would incorporate the mitigation measures identified in the DEIR as applicable.	includes additional applicable measures related to this impact, and is included here by reference.		*Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.3-2: Implementation of the proposed Plan could result in permanent alterations to an existing neighborhood or community by separating residences from community facilities and services, restricting access to commercial or residential areas, or eliminating community amenities.	Significant and Unavoidable *Less than significant with mitigation	No. The proposed project would primarily occur within existing street and highway right-of-way and not result in any substantial alterations to an existing neighborhood or community. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and would incorporate the mitigation measures identified in the DEIR as applicable.	MM 2.3(d) – MM 2.3(f)  MM 2.3(a) - 2.3(c) in Impact 2.3- 1 would further reduce community separation impacts	No	Significant and Unavoidable *Less than significant with mitigation
Impact 2.3-3: Implementation of the proposed Plan could conflict substantially with the land use portion of adopted local general plans or other applicable land use plans, including specific plans, existing zoning, or regional plans such as coastal plans or the Bay Plan.	Less than significant	No. The proposed project would not substantially conflict with the land use portion of adopted local general plans or other applicable land use plans. The potential impacts or the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area.	NA	No	Less than significant
Impact 2.3-4: Implementation of the proposed Plan could convert substantial amounts of important agricultural lands and open space or lands under Williamson Act contract to non-agricultural use.	Significant and Unavoidable	No. The proposed project would not convert any agricultural lands, open space, or lands under Williamson Act contract to non-agricultural use. The project would not increase the severity of previously identified significant effects.	MM 2.3(g) and MM 2.3(h)	No	Significant and Unavoidable

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.3-5: Implementation of the proposed Plan could result in the loss of forest land, conversion of forest land to non-forest use, or conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.	Significant and Unavoidable	No. The proposed project would not result in the loss of any forest land or conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. The project would not increase the severity of previously identified significant effects.	MM 2.3(i)	No	Significant and Unavoidable
Energy					
Impact 2.4-1: Implementation of the proposed Plan could result in an increase in percapita direct and indirect energy consumption compared to existing conditions.	Less than significant	No. The proposed project would not result in a substantial increase in per-capita direct and indirect energy consumption compared to existing conditions. The potential impacts or the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area.	NA	No	Less than significant
Impact 2.4-2: Implementation of the proposed Plan could be inconsistent with adopted plans or policies related to energy conservation.	No adverse impact	No. The proposed project would encourage alternative modes of transportation with implementation of the new bi-directional path and would not be inconsistent with adopted plans or policies related to energy conservation. The potential impacts or the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area.	NA	No	No adverse impact

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Climate Change and Greenhouse	e Gases				
Impact 2.5-1: Implementation of the proposed Plan could fail to reduce per capita passenger vehicle and light duty truck CO <sub>2</sub> emissions by 7 percent by 2020 and by 15 percent by 2035 as compared to 2005 baseline, per SB 375.	No adverse impact	No. The proposed project would help to reduce per capita passenger vehicle CO <sub>2</sub> emissions and are estimated to be reduced by 25% by 2040 (see <b>Table 16</b> ). The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area.	NA	No	No adverse impact
Impact 2.5-2: Implementation of the proposed Plan could result in a net increase in direct and indirect GHG emissions in 2040 when compared to existing conditions.	No adverse impact	No. The proposed project would help to reduce indirect and direct GHG emissions. Total regional GHG emissions are expected to be reduced by 18% by 2040 with implementation of the Plan (see <b>Table 17</b> ). The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area.	NA	No	No adverse impact
Impact 2.5-3: Implementation of the proposed Plan could substantially impede attainment of goals set forth in Executive Order (EO) S-3-05 and Executive Order B-16-2012.	Less than significant	No. The proposed project would help to reduce GHG emissions in the Plan area and help reach the goals set forth in EO S-3-05 and B-16-2012. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area.	NA	No	Less than significant

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.5-4: Implementation of the proposed Plan could substantially conflict with any other applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.	No adverse impact	No. The proposed project would help to reach goals aimed at reducing GHG emissions. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area.	NA	No	No adverse impact
Impact 2.5-5: Implementation of the proposed Plan may	Significant and	No. A small portion of the proposed project is within low lying areas that could be potentially affected by	MM 2.5(a) – MM 2.5(d)	No	Significant and unavoidable
result in a net increase in transportation investments within areas regularly inundated by sea level rise by midcentury.	unavoidable *Less than significant with mitigation	future sea level rise. However, the potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase The project would incorporate the mitigation measures identified in the DEIR as applicable.			*Less than significant with mitigation
Impact 2.5-6: Implementation of the proposed Plan may result in a net increase in the number of people residing within areas regularly inundated by sea level rise by midcentury.	Significant and unavoidable	No. The proposed project would not result in the creation of any new residences. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase.	MM 2.5(b) and MM 2.5(d)	No	Significant and unavoidable

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.5-7: Implementation of the proposed Plan may result in an increase in land use development within areas regularly inundated by sea level rise by midcentury.	Significant and unavoidable	No. The proposed project would not result in any new land use developments. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase.	MM 2.5(b) and MM 2.5(d)	No	Significant and unavoidable
Noise					
Impact 2.6-1: Implementation of the proposed Plan could	Significant and	No. The proposed project would result in temporary construction-	MM 2.6(a) – MM 2.6(c)	No	Significant and unavoidable
result in exposure of persons to or generation of temporary construction noise levels and/or groundborne vibration levels in excess of standards established by local jurisdictions or transportation agencies.	unavoidable *Less than significant with mitigation	period noise and groundborne vibration. However, the potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase The project would incorporate the mitigation measures identified in the DEIR as applicable.			*Less than significant with mitigation
Impact 2.6-2: Implementation of the proposed Plan could	Significant and	No. The proposed project could result in increased traffic volumes	MM 2.6(d)	No	Significant and unavoidable
result in increased traffic volumes that could result in roadside noise levels that	unavoidable *Less than	and roadside noise. However, the potential impacts of the proposed project are covered within the			*Less than significant with

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
approach or exceed the FHWA Noise Abatement Criteria.	significant with mitigation	parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase. The project would incorporate the mitigation measures identified in the DEIR as applicable.			mitigation
Impact 2.6-3: Implementation of the proposed Plan could result in increased noise exposure from transit sources that exceed FTA exposure thresholds.	Significant and unavoidable	No. The proposed project would not result in increased noise exposure from transit sources that would exceed FTA exposure thresholds. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase.	MM 2.6(e) – MM 2.6(g)	No	Significant and unavoidable
Impact 2.6-4: Implementation of the proposed Plan could result in increased vibration exposure from transit sources that exceed FTA exposure thresholds.	Significant and unavoidable	No. The proposed project would not result in increased vibration exposure from transit sources that would exceed FTA exposure thresholds. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase.	MM 2.6(h) – MM 2.6(i)	No	Significant and unavoidable

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.6-5: Implementation of the proposed Plan could result in increased noise exposure from aircraft or airports.	Less than significant	No. The proposed project would not result in increased noise exposure from aircraft or airports. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area.	NA	No	Less than significant
Geology and Seismicity					
Impact 2.7-1: Implementation of the proposed Plan may expose people or structures to substantial risk of property loss, injury or death related to fault rupture.	Less than significant with mitigation	No. The proposed project is located within a seismically active region. However, the project limits do not fall on any active fault lines and potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The project would not substantially increase the severity of any previously identified significant effects. The project would incorporate the mitigation and design measures identified in the DEIR as applicable.	MM 2.7(a)	No	Less than significant with mitigation
Impact 2.7-2: Implementation of the proposed Plan may expose people or structures to substantial risk related to ground shaking.	Less than significant with mitigation	No. The proposed project is located within a seismically active region and would likely experience ground shaking in the event of nearby fault rupture. However, the potential impacts of the proposed project are covered within the parameters of	MM 2.7(b)	No	Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
		the previous environmental analysis conducted for Plan Bay Area and design measures to mitigate seismic and soil-related risks would be included. The project would not substantially increase the severity of any previously identified significant effects.			
Impact 2.7-3: Implementation of the proposed Plan may expose people or structures to substantial risk from seismicrelated ground failure, including liquefaction.	Less than significant with mitigation	No. The proposed project is located within an area with high risk for liquefaction. However, the potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and design measures to mitigate seismic and soil-related risks would be included. The project would not substantially increase the severity of any previously identified significant effects.	MM 2.7(b)	No	Less than significant with mitigation
Impact 2.7-4: Implementation of the proposed Plan may expose people or structures to substantial risk related to landslides.	Less than significant with mitigation	No. The proposed project is not in an area at high risk for landslides. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The project would not substantially increase the severity of any previously identified significant effects.	MM 2.7(b)	No	Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.7-5: Implementation of the proposed Plan may result in substantial soil erosion or the loss of topsoil.	Less than significant with mitigation	No. Implementation of the proposed project may result in some soil erosion. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and the project would comply with NPDES permit requirements and mitigation measures identified in the DEIR, as applicable. The project would not substantially increase the severity of any previously identified significant effects.	MM 2.7(c)	No	Less than significant with mitigation
Impact 2.7-6: Implementation of the proposed Plan may locate a subsequent development project on a geologic unit or soil that is unstable, contains expansive properties, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Less than significant with mitigation	No. The proposed project would not create any new developments; however, the project is located within an area with high risk for liquefaction. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and would incorporate design and mitigation measures identified in the DEIR, as applicable. The project would not substantially increase the severity of any previously identified significant effects.	MM 2.7(b)	No	Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Water Resources					
Impact 2.8-1: Implementation of the proposed Plan may violate water quality standards or waste or stormwater discharge requirements.	Less than significant with mitigation	No. The proposed project would contribute to stormwater runoff and alter drainage patterns in the immediate area. However, the potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and the project would comply with NPDES permit requirements and other construction BMPs. The project would not substantially increase the severity of any previously identified significant effects.	MM 2.8(a)	No	Less than significant with mitigation
Impact 2.8-2: Implementation of the proposed Plan may substantially interfere with or reduce rates of groundwater recharge due to the increased amount of impervious surfaces, such that there would be a net deficit in aquifer volume or a lowering of the groundwater table.	Less than significant	No. The proposed project would result in a small increase in impervious surfaces. However, the potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The project would not substantially increase the severity of any previously identified significant effects.	NA	No	Less than significant

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.8-3: Implementation of the proposed Plan may increase erosion by altering the existing drainage patterns of a site, contributing to sediment loads of streams and drainage facilities, and thereby affecting water quality.	Less than significant with mitigation	No. The proposed project may alter drainage patterns in the immediate area. However, the potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and the project would comply with NPDES permit requirements and other construction BMPs. The project would not substantially increase the severity of any previously identified significant effects.	MM 2.8(a)	No	Less than significant with mitigation
Impact 2.8-4: Implementation of the proposed Plan may increase non-point pollution of stormwater runoff due to litter, fallout from airborne particulate emissions, or discharges of vehicle residues, including petroleum hydrocarbons and metals that would impact the quality of receiving waters.	Less than significant with mitigation	No. The proposed project may increase non-point pollution of stormwater runoff. However, the potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and the project would comply with NPDES permit requirements and other construction BMPs. The project would not	MM 2.8(a)	No	Less than significant with mitigation
Impact 2.8-5: Implementation of the proposed Plan may increase non-point-source pollution of stormwater runoff from construction sites due to discharges of sediment, chemicals, and wastes to nearby storm drains and creeks.	Less than significant with mitigation	substantially increase the severity of any previously identified significant effects.	MM 2.8(a)	No	Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.8-6: Implementation of the proposed Plan may increase rates and amounts of runoff due to additional impervious surfaces, higher runoff values for cut-and-fill slopes, or alterations to drainage systems that could cause potential flood hazards and effects on water quality.	Less than significant with mitigation	No. The proposed project may increase impervious surfaces and rates of runoff. However, the potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and the project would comply with NPDES permit requirements and other construction BMPs. The project would not substantially increase the severity of any previously identified significant effects.	MM 2.8(a)	No	Less than significant with mitigation
Impact 2.8-7: Implementation of the proposed Plan may place within a 100-year flood hazard area structures which would impede or redirect flows.	Less than significant with mitigation	No. A small portion of the proposed project is within a 100-year flood hazard area. However, the potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase. The project would incorporate the mitigation measures identified in the DEIR as applicable.	MM 2.8(b)	No	Less than significant with mitigation
Impact 2.8-8: Implementation of the proposed Plan may expose people to a significant risk of loss, injury, or death involving flooding (including flooding as a result of the	Less than significant	No. The project would not expose people to significant risks involving flooding, sieche, tsunami, or mud flow. The potential impacts of the proposed project are covered within the parameters of the previous	NA	No	Less than significant

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
failure of a levee or dam), seiche, tsunami, or mudflow.		environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase.			
Biological Resources					
Impact 2.9-1(a): Implementation of the proposed Plan could have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special- status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Significant and unavoidable	No. Due to the high degree of disturbance in the project area, it is unlikely that the proposed project would have a substantial adverse effect on special-status species or designated critical habitat. Implementation of the proposed project could affect non-listed nesting raptor species and nesting birds. The potential impacts of the proposed project are covered within the parameters of the previous	MM 2.9(a)	No	Significant and unavoidable
Impact 2.9-1(b): Implementation of the proposed Plan could have substantial adverse impacts on designated critical habitat for federally listed plant and wildlife species.	Significant and unavoidable	environmental analysis conducted —	MM 2.9(b)	No	Significant and unavoidable
Impact 2.9-1(c): Implementation of the proposed Plan could result in	Significant and unavoidable	See Impact 2.9-1(a)/(b).	MM 2.9(c)	No	Significant and unavoidable
construction activities that could adversely affect non- listed nesting raptor species considered special-status by	*Less than significant with mitigation				*Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
CDFW under CDFW Code 3503.5 and non-listed nesting bird species considered special-status by the USFWS under the federal Migratory Bird Treaty Act, and by CDFW under CDFW Code 3503 and 3513.					
Impact 2.9-2: Implementation of the proposed Plan could have a substantial adverse effect on riparian habitat, federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.), or other sensitive natural communities identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service, through direct removal, filling, hydrological interruption, or other means.	Significant and unavoidable	No. There are potential wetlands and a channelized drainage present within and immediately adjacent to the project area. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the project would comply with the mitigation requirements set forth in the DEIR as applicable. The severity of previously identified impacts would not substantially increase.	MM 2.9(d)	No	Significant and unavoidable
Impact 2.9-3: Implementation of the proposed Plan could interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or	Significant and unavoidable	No. Due to the urban nature of the project limits, it is unlikely that the proposed project would interfere with a wildlife corridor or nursery site. The potential impacts of the proposed project are covered within the parameters of the previous	MM 2.9(d)	No	Significant and unavoidable

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
migratory wildlife corridor, or impede the use of native wildlife nursery sites.		environmental analysis conducted for Plan Bay Area, and the project would comply with the mitigation requirements set forth in the DEIR as applicable. The severity of previously identified impacts would not substantially increase.			
Impact 2.9-4: Implementation of the proposed Plan could conflict with adopted local conservation policies, such as a tree protection ordinance, or resource protection and conservation plans, such as a Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other adopted local, regional, or state habitat conservation plan.	Less than significant with mitigation	No. Due to the urban nature of the project limits, it is unlikely that the proposed project would conflict with local conservation policies. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the project would comply with the mitigation requirements set forth in the DEIR as applicable. The severity of previously identified impacts would not substantially increase.	MM 2.9(f) – MM 2.9(h)	No	Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Visual Resources					
Impact 2.10-1: Implementation of the proposed Plan could affect visual resources by blocking panoramic views or views of significant landscape features or landforms (mountains, oceans, rivers, or significant man-made structures) as seen from a transportation facility or from public viewing areas.	Significant and unavoidable *Less than significant with mitigation	No. The proposed project would introduce new electronic and static signs; however, the new signs would not substantially degrade the visual quality of the area. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the project would comply with the mitigation requirements set forth in the DEIR as applicable. The severity of previously identified impacts would not substantially increase.	MM 2.10 (a)	No	Significant and unavoidable  *Less than significant with mitigation
Impact 2.10-2: Implementation of the proposed Plan could affect visual resources by substantially damaging scenic resources (such as trees, rock outcroppings, and historic buildings) that would alter the appearance of or from state- or county- designated or eligible scenic highways.	Significant and unavoidable	No. The proposed project area is located in a predominately industrial area and is not within any designated scenic highway route. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The severity of previously identified impacts would not substantially increase.	MM 2.10 (b)	No	Significant and unavoidable

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.10-3: Implementation of the proposed Plan could affect visual resources by creating significant contrasts with the scale, form, line, color, and/or overall visual character of the existing community.	Significant and unavoidable *Less than significant with mitigation	No. The proposed project would be implemented along preexisting transportation infrastructure, and thus would not contrast with the visual character in the area. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The severity of previously identified impacts would not substantially increase.	MM 2.10(c)	No	Significant and unavoidable  *Less than significant with mitigation
Impact 2.10-4: Implementation of the proposed Plan could affect visual resources by adding a visual element of urban character to an existing rural or open space area or adding a modern element to a historic area.	Significant and unavoidable *Less than significant with mitigation	No. The proposed project would be implemented along preexisting transportation infrastructure that is urban in character. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The severity of previously identified impacts would not substantially increase.	MM 2.10(d)	No	Significant and unavoidable  *Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.10-5: Implementation of the proposed Plan could adversely affect visual resources by creating new substantial sources of light and glare.	Significant and unavoidable *Less than significant with mitigation	No. The proposed project would introduce new sources of light on the RSR Bridge; however, it would not be substantial and would be consistent with the existing transportation infrastructure. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The severity of previously identified impacts would not substantially increase.	MM 2.10(e)	No	Significant and unavoidable  *Less than significant with mitigation
Impact 2.10-6: Implementation of the proposed Plan could cast a substantial shadow in such a way as to cause a public hazard or substantially degrade the existing visual/aesthetic character or quality of a public place for a sustained period of time.	Significant and unavoidable *Less than significant with mitigation	No. The proposed project would not create a significant shadow that would cause a public hazard or degrade the existing visual character of the area. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The severity of previously identified impacts would not substantially increase.	MM 2.10(f)	No	Significant and unavoidable  *Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
<b>Cultural Resources</b>					
Impact 2.11-1: The proposed Plan could have the potential to cause a substantial adverse change in the significance of a historic resource such that the significance of the resource would be materially impaired.	Significant and unavoidable *Less than significant with mitigation	No. The historic significance of the RSR has yet to be determined. The proposed project could have an adverse effect if the bridge is found to be historic. However, this potential impact is within the parameters of the previous environmental analysis conducted for Plan Bay Area. The proposed project would incorporate the mitigation measures presented in the DEIR as applicable and the severity of previously identified impacts would not substantially	MM 2.11(a)	No	Significant and unavoidable  *Less than significant with mitigation
Impact 2.11-2: The proposed Plan could have the potential to cause a substantial adverse change in the significance of a unique archaeological resource.	Significant and unavoidable *Less than significant with mitigation	No. Native soils in the area have a potentially high sensitivity for encountering archaeological resources, given the close proximity to the San Francisco Bay. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. Standard measures to protect sensitive archaeological resources would be incorporated into the project specifications to minimize and avoid any significant or adverse effect.	MM 2.11(b)	No	Significant and unavoidable  *Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
		The severity of previously identified impacts would not substantially increase.			
Impact 2.11-3: The proposed Plan could have the potential	Significant and	No. No known fossil localities exist in close proximity to the project area. The potential impacts of the	MM 2.11(c)	No	Significant and unavoidable
to destroy, directly or indirectly, a unique paleontological resource or site or unique geologic feature.	unavoidable *Less than significant with mitigation	proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. Standard measures to protect unknown paleontological resources would be incorporated into the project specifications to minimize and avoid any significant or adverse effect. The severity of previously identified impacts would not substantially increase.			*Less than significant with mitigation
Impact 2.11-4: The proposed Plan could have the potential to disturb human remains, including those interred outside formal cemeteries.	Less than significant with mitigation	No. The proposed project has the potential to encounter human remains; however, the project would comply with standard measures protecting human remains in the event of discovery. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The severity of previously identified impacts would not substantially increase.	MM 2.11(d)	No	Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Public Utilities and Facilities					
Impact 2.12-1: The proposed Plan could result in insufficient water supplies from existing entitlements and resources to serve expected development.	Significant and unavoidable	No. The proposed project would not include any new development nor substantially affect water supplies. The potential impacts of the	MM 2.12(a) – MM 2.12(c)	No	Significant and unavoidable  *Less than
	*Less than significant with mitigation	proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase.			significant with mitigation
Impact 2.12-2: The proposed Plan could result in inadequate	Significant and	No. The proposed project would not include any new development nor	MM 2.12(a) – MM 2.12(d)	No	Significant and unavoidable
Plan could result in inadequate wastewater treatment capacity to serve new development.	unavoidable *Less than significant with mitigation	substantially affect wastewater treatment capacity. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area, and the severity of previously identified impacts would not substantially increase.			*Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.12-3: Development under the proposed Plan could require and result in the construction of new or expanded stormwater drainage facilities, which could cause significant environmental impacts.	Significant and unavoidable *Less than significant with mitigation	No. The construction of new or expanded stormwater drainage facilities is not anticipated. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and the proposed project would adhere with the mitigation measures presented in the DEIR as applicable. The severity of previously identified impacts would not substantially increase.	MM 2.12(e) – MM 2.12(g)	No	Significant and unavoidable  *Less than significant with mitigation
Impact 2.12-4: Development under the proposed Plan could require and result in the construction of new or expanded water and wastewater treatment facilities, which could cause significant environmental impacts.	Significant and unavoidable *Less than significant with mitigation	No. The construction of new or expanded water or wastewater treatment facilities is not anticipated. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and the proposed project would adhere with the mitigation measures presented in the DEIR as applicable. The	MM 2.12(a) – MM 2.12(h)	No	Significant and unavoidable  *Less than significant with mitigation
		severity of previously identified impacts would not substantially increase.			

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.12-5: Development under the proposed Plan could exceed wastewater treatment requirements of the RWQCBs.	Less than significant	No. The proposed project would not exceed wastewater treatment requirements of the RWQCB as very little wastewater would be created. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and the severity of previously identified impacts would not substantially increase.	NA	No	Less than significant
Impact 2.12-6: The proposed Plan could result in insufficient landfill capacity to serve new development while complying with applicable regulations.	Significant and unavoidable *Less than significant with mitigation	No. The proposed project would not generate substantial quantities of waste requiring landfill capacity. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and the severity of previously identified impacts would not substantially increase.	MM 2.12(i) – MM 2.12(j)	No	Significant and unavoidable  *Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Hazards					
Impact 2.13-1: Implementation of the proposed Plan could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less than significant with mitigation	No. The proposed project would not result in the routine transport, use, or disposal of hazardous materials. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and would comply with the mitigation measures identified in the DEIR, as appropriate. The severity of previously identified impacts would not substantially increase.	MM 2.13(a)	No	Less than significant with mitigation
Impact 2.13-2: Implementation of the proposed Plan may create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Less than significant with mitigation	No. Existing industrial land uses known to use, generate, store, and/or dispose of hazardous materials are present within the project area. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and would comply with the mitigation measures identified in the DEIR, as appropriate. The severity of previously identified impacts would not substantially increase.	MM 2.13(b)	No	Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.13-3: Implementation of the proposed Plan could result in hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Less than significant with mitigation	No. There are no existing or proposed schools within one-quarter mile of the proposed project. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and the severity of previously identified impacts would not substantially increase.	MM 2.13(c)	No	Less than significant with mitigation
Impact 2.13-4: Implementation of the	Significant and	No. There are several known soil and groundwater contaminated sites	MM 2.13(d)	No	Significant and unavoidable
proposed Plan could result in projects located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.	unavoidable *Less than significant with mitigation	within 0.25-mile of the eastern terminus of the project limits, in Point Richmond. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area and would comply with the mitigation measures identified in the DEIR, as appropriate. The severity of previously identified impacts would not substantially increase.			*Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.13-5: Implementation of the proposed Plan could result in a safety hazard for people residing or working in the planning area for projects located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport.	Less than significant with mitigation	No. The proposed project is not within an adopted airport land use plan nor within two miles of a public airport. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The severity of previously identified impacts would not substantially increase.	MM 2.13(e)	No	Less than significant with mitigation
Impact 2.13-6: Implementation of the proposed Plan could result in a safety hazard for people residing or working in the planning area for projects within the vicinity of a private airstrip.	Less than significant with mitigation	No. The proposed project is not within the vicinity of a private airstrip. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The severity of previously identified impacts would not substantially increase.	MM 2.13(f)	No	Less than significant with mitigation
Impact 2.13-7: Implementation of the proposed Plan could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than significant	No. The proposed project involves transportation improvements and would not interfere with an adopted emergency response or evacuation plan. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area.	NA	No	Less than significant

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.13-8: Implementation of the proposed Plan could expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	Less than significant with mitigation	No. The proposed project is not in an area at significant risk for wildfires. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. The severity of previously identified impacts would not substantially increase.	MM 2.13(g)	No	Less than significant with mitigation
Public Services and Recreation					
Impact 2.14-1: Implementation of the	Significant and	No. The proposed project involves transportation improvements and	MM 2.14(a)	No	Significant and unavoidable
proposed Plan could result in the need for expanded facilities, the construction of which causes significant environmental impacts, in order to maintain adequate schools, emergency services, police, fire, and park and recreation services.	unavoidable *Less than significant with mitigation	would not result in the need for expanded public or recreational facilities. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay and the severity of previously identified impacts would not substantially increase.			*Less than significant with mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Impact 2.14-2: Implementation of the proposed Plan could result in increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	Significant and unavoidable *Less than significant with mitigation	No. The proposed project involves transportation improvements and would not result in the need for expanded public or recreational facilities. The potential impacts of the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay and the severity of previously identified impacts would not substantially increase.	MM 2.14(b)	No	Significant and unavoidable  *Less than significant with mitigation

**Notes:** \*CEQA streamlining projects under SB 375 that implement all feasible mitigation measures conclude with a Less than Significant with Mitigation designation in the DEIR.

**Source:** DEIR/FEIR Plan Bay Area, 2013; Circlepoint, 2015.

#### 2.4 TECHNICAL REVISIONS

Technical revisions have been made to key tables in the 2013 FEIR Transportation, Air Quality, and Climate Change and GHGs chapters that reflect the incorporation of the project into the Plan, as presented below. This data informed the analysis presented above in **Table 1**. Technical revisions that are the result of updated air quality and transportation modeling completed by MTC in 2015 are noted as such.<sup>2</sup> Where helpful, 2013 FEIR findings are included in many of the tables for comparative purposes, particularly where it differs from the findings of the amended 2040 Plan Bay Area.<sup>3</sup> If data is not specifically provided from the 2013 FEIR, individuals may review the FEIR using the original table numbers as provided below within each table name.

#### 2.4.1 TRANSPORTATION

Several tables included in the Transportation section of the 2013 DEIR/FEIR have been revised to reflect changes as a result of the inclusion of the project into the Plan <u>as well as to include 2013 FEIR data</u>. The revised tables are presented below.

-

<sup>&</sup>lt;sup>2</sup> Technical revisions reflected in the tables below would also replace the 2013 FEIR accompanying text related to this data.

<sup>&</sup>lt;sup>3</sup> In many instances the findings in the 2013 FEIR are identical to the updated modeling results. 2013 FEIR data is sometimes shown in parenthesis where it differs from the revised data.

Table 2 Revised FEIR Table 2.1-12, Bay Area Travel Behavior, 2010-2040

	2240	2040 Plan Bay	Percent Change 2010 to 2040	2040 Plan Bay		o 2040 Plan Bay Area <u>(As</u> Amended <u>)</u>
	2010	Area (Original)	Plan Bay Area (Original)	Area <u>(As</u> <u>Amended)</u>	Numerical	Percent <del>(2013Plan Bay</del> <del>Area)*</del>
Daily <sup>1</sup> Transit Boardings	1,581,000	3,032,000	<u>+92%</u>	3,094,000	1,513,000	+96% <del>(+92%)</del>
Daily Vehicle Trips <sup>2</sup>	16,912,000	20,674,000	<u>+22%</u>	20,646,000	3,734,000	+22%
Daily Vehicle Miles of Travel (VMT) <sup>2</sup>	149,046,000	179,397,000	<u>+20%</u>	179,318,000	30,272,000	+20%
Daily <sup>1</sup> Vehicle Miles of Travel <sup>2</sup> per Capita <sup>3</sup>	20.8	<u>19.6</u>	<u>-6%</u>	19.6	-1.2	-6%
Daily Vehicle Hours of <u>Recurring</u> Delay (overall)	266,000	409,000	<u>+54%</u>	407,000	141,000	+53% <del>(+54%)</del>
Daily Vehicle Hours of Recurring Delay (Freeways)	141,000	208,000	<u>+48%</u>	207,000	66,000	+47% <del>(+48%)</del>
Daily Vehicle Hours of Recurring Delay (Expressways and Arterials)	58,000	<u>104,000</u>	<u>+79%</u>	103,000	45,000	+78% <del>(+79%)</del>
Daily Vehicle Hours of Recurring Delay (Other Facilities)	67,000	97,000	<u>+45%</u>	98,000	31,000	+46% <del>(+45%)</del>
Daily Vehicle Hours of <u>Non-Recurrent</u> Delay <sup>4</sup>	108,000	146,000	<u>+35%</u>	145,000	37,000	+34% <del>(+35%)</del>

	2010	2040 Plan Bay	Percent Change 2010 to 2040	2040 Plan Bay Area (As		o 2040 Plan Bay Area <u>(As</u> <u>Amended)</u>
	2010	<u>Area (Original)</u>			Numerical	Percent <del>(2013Plan Bay</del> <del>Area)*</del>
Total Daily Vehicle Hours of Delay	374,000	<u>555,000</u>	<u>+48%</u>	552,000	178,000	+48%
Average Delay per Vehicle (Minutes)	4.6	<u>5.6</u>	<u>+21%</u>	5.7	1.1	+23% <del>(+21%)</del>

- 1. Daily metrics are measured for a typical weekday.
- 2. Only reflects interzonal trips (assigned directly to the highway network); includes intraregional, interregional, airport-bound, and commercial vehicle trips.
- 3. Total daily VMT is calculated using Travel Model One; therefore, to calculate per-capita VMT, it is essential to use simulated population levels to ensure consistency. Simulated population may be slightly different than overall population forecasts for Plan Bay Area EIR alternatives due to slight variability in modeling tools. Further clarification on this issue is found in the Plan Bay Area EIR technical appendices.
- 4. Only includes non-recurrent delay on freeway facilities.

Table 3 Revised FEIR Table 2.1-13, Typical Weekday Daily Person Trips, By Mode

D	20	010	2040 Plan Bay A	2040 Plan Bay Area (As Amended)		
Purpose	Trips	% of Total	Trips	% of Total		
Drive Alone	11,717,000	50%	13,996,000	48%		
Carpool	8,052,000	34%	9,414,000	32%		
Transit	1,186,000	5%	2,194,000	7%		
Walk	2,383,000	10%	3,428,000	12%		
Bike	254,000	1%	389,000	1%		
Total Trips	23,592,000	100%	29,421,000	100%		

**Note:** Total trips exclude commercial and interregional trips. The percent of total under the 2040 Plan Bay Area is the identical with or without inclusion of the project.

**Source:** Metropolitan Transportation Commission Travel Demand Forecasts, 2013 and 2015.

Table 4 Revised FEIR Table 2.1-14, Per-Trip Commute Travel Time, by Mode (in minutes)

		2040 Plan	Percent Change 2010	2040 Plan	Change 2010 to 2040 Plan Bay Area <u>(As Amended)</u>		
Mode	e 2010 <u>Bay Area</u> <u>to 204</u> (Original) <u>Bay</u>		to 2040 Plan Bay Area (Original)	Bay Area <u>(As</u> <u>Amended)</u>	Numerical	Percent <del>(2013 Plan</del> Bay Area)*	
Drive Alone	18.7	<u>18.1</u>	<u>-3%</u>	18.1	-0.6	-3% <del>-4% ( 3%)</del>	
Carpool	14.2	<u>13.7</u>	<u>-4%</u>	13.7	-0.5	-4%	
Transit	44.0	44.3	+1%	44.2	0.2	0% <del>(+1%)</del>	
Walk	19.5	<u>19.3</u>	<u>-1%</u>	19.3	-0.2	-1%	
Bike	12.5	<u>12.8</u>	<u>+2%</u>	12.8	0.3	+2%	
All Modes	19.8	<u>20.4</u>	<u>+3%</u>	20.5	0.7	+3%	

**Note:** \* Where there is no change in percentage between the 2013 Plan Bay Area and Plan Bay Area with the project included, the 2013 Plan Bay Area percentage is not provided.

Table 5 Revised FEIR Table 2.1-15, Per-Trip Non-Commute Travel Time, by Mode (in minutes)

	2242		Percent Change 2010	2040 Plan	Change 2010 to 2040 Plan Bay Area <u>(As Amended)</u>		
	2010	<u>Bay Area</u> (Original)	to 2040 Plan Bay Area (Original)	Bay Area <u>(As</u> <u>Amended)</u>	Numerical	Percent ( <del>2013</del> <del>Plan Bay Area)</del>	
Drive Alone	11.6	<u>11.4</u>	<u>-1%</u>	11.4	-0.2	-1% - <del>2% (-1%)</del>	
Carpool	11.4	<u>11.3</u>	<u>-1%</u>	9.1	-2.3	-20% <del>(-1%)</del>	
Transit	36.2	<u>35.3</u>	<u>-2%</u>	35.0	-1.2	-3% <del>( 2%)</del>	
Walk	18.3	<u>18.1</u>	<u>-1%</u>	17.4	-0.9	-5% <del>(-1%)</del>	
Bike	11.0	<u>11.1</u>	<u>+1%</u>	11.0	0.0	0% <del>(+1%)</del>	
All Modes	12.7	<u>12.9</u>	<u>+2%</u>	12.0	-0.7	-5% <del>(+2%)</del>	

**Note:** The changes to carpool per-trip non-commute travel times compared to the Plan Bay Area FEIR is due to normal travel demand forecast model variation, and is not related to the project.

Table 6 Revised FEIR Table 2.1-16, Per-Capita Daily Vehicle Miles of Travel by Level of Service (LOS) (2010-2040)

LOS (V/C	os (V/C		Percent Change 2010	2040 Plan	Change 2010 to 2040 Plan Bay Area <u>(As Amended)</u>	
Ratio) <sup>1</sup>	2010	Bay Area (Original)	to 2040 Plan <u>Bay Area</u> (Original)	Bay Area <u>(As</u> <u>Amended)</u>	Numerical	Percent ( <del>2013 Plan</del> <del>Bay Area)*</del>
AM Peak Period (6 A	M to 10 AM)					
A-C (< 0.75)	4.19	<u>3.69</u>	<u>%-12</u>	3.72	-0.47	-11% <del>(-12%)</del>
D-E (0.75-1.00)	1.05	<u>1.15</u>	<u>%+10</u>	1.14	0.09	+9% <del>(+10%)</del>
F (> 1.00)	0.06	0.09	<u>%+38</u>	0.08	0.02	+33% <del>(+38%)</del>
Total	5.31	4.93	<u>%-7</u>	4.94	-0.37	-7%
PM Peak Period (3 P	M to 7 PM)					
A-C (< 0.75)	4.68	4.11	<u>%-12</u>	4.14	-0.54	-12%
D-E (0.75-1.00)	1.20	<u>1.35</u>	<u>%+12</u>	1.32	0.12	+10% <del>(+12%)</del>

LOS MIC	.OS (V/C 2010 Ratio) <sup>1</sup>		Percent Change 2010	2040 Plan	Change 2010 to 2040 Plan Bay Area <u>(As Amended)</u>	
Ratio) <sup>1</sup>			to 2040 Plan Bay Area (Original)	Bay Area <u>(As</u> <u>Amended)</u>	Numerical	Percent ( <del>2013 Plan</del> <del>Bay Area)*</del>
F (> 1.00)	0.06	<u>0.10</u>	<u>%+69</u>	0.09	0.03	+50% <del>(+69%)</del>
Total	5.94	<u>5.56</u>	<u>%-6</u>	5.55	-0.39	-7% <del>(-6%)</del>
Daily						
A-C (< 0.75)	18.27	<u>16.57</u>	<u>%-9</u>	16.63	-1.64	-9%
D-E (0.75- 1.00)	2.45	<u>2.86</u>	<u>%+17</u>	2.82	0.37	+15% <del>(+17%)</del>
F (> 1.00)	0.12	0.20	<u>%+57</u>	0.18	0.06	+50% <del>(+57%)</del>
Total	20.84	<u>19.63</u>	<u>%-6</u>	19.63	-1.21	-6%

<sup>1.</sup> LOS measures traffic density with a range of A to F. LOS A-C reflect free-flow conditions with minimal delay. LOS D-E reflect somewhat congested conditions with some possible delays. LOS F reflects very congested conditions with significant volumes greater than roadway capacity, leading to significant delays.

Table 7 Revised FEIR Table 2.1-17, Daily Vehicle Miles of Travel Per Capita (2010-2040)

	2010	2040 Plan Bay Area	Change 2010 to 2040 Plan Bay Area <u>(As Amended)</u>	
		(As Amended)	Numerical	Percent <sup>4</sup>
Daily <sup>1</sup> Vehicle Miles of Travel (VMT) <sup>2</sup>	149,046,000	179,318,000	30,272,000	+20%
Daily <sup>1</sup> Vehicle Miles of Travel <sup>2</sup> per Capita <sup>3</sup>	20.8	19.6	-1.2	-6%

**Notes:** The change in per capita daily VMT from 2010 to 2040 is nearly identical between the original Plan Bay Area and the amended Plan Bay Area, as such, the percent change is identical. Thus the original Plan Bay Area data is not provided in this table.

- 1. Daily metrics are measured for a typical weekday.
- 2. Only reflects interzonal trips (assigned directly to the highway network); includes intraregional, interregional, airport-bound, and commercial vehicle trips.
- 3. Total daily VMT is calculated using Travel Model One; therefore, to calculate per-capita VMT, it is essential to use simulated population levels to ensure consistency. Simulated population may be slightly different than overall population forecasts for Plan Bay Area EIR alternatives due to slight variability in modeling tools. Further clarification on this issue is found in the Plan Bay Area EIR technical appendices.
- 4. The percent of total under the 2040 Plan Bay Area is the identical with or without inclusion of the project. **Source:** Metropolitan Transportation Commission Travel Demand Forecasts, 2013 and 2015.

Additional technical revisions have been made to tables from **Chapter 2.1, Transportation**, from the DEIR/FEIR (included below). These changes are indirectly related to the project and the proposed added capacity on the RSR Bridge.

Table 8 Revised FEIR Table 2.1-11, Transportation System Capacity (2010-2040)

		2040 Plan	Percent Change 2010	2040 Plan Bay	Change 2010 to 2040 Plan Bay Area (As Amended)	
	2010	Bay Area (Original)	to 2040 Plan Bay Area (Original)	Area <u>(As</u> <u>Amended)</u>	Numerical	Percent <del>(2013 Plan</del> <del>Bay Area)*</del>
Freeway Lane- Miles	5,495	<u>6,056</u>	<u>+10%</u>	6,061	566	+10%
Expressway Lane- Miles	1,019	<u>1,150</u>	<u>+13%</u>	1,138	119	+12% <del>(+11%)</del>
Arterial Lane- Miles	8,710	<u>8,801</u>	<u>+1%</u>	8,755	45	1% <del>(0%)</del>
Collector Lane- Miles	5,528	<u>5,536</u>	<u>0%</u>	5,511	-17 <sup>1</sup>	0%
Total Roadway Lane-Miles	20,751	<u>21,542</u>	<u>4%</u>	21,465	713	+3%

		<u>2040 Plan</u>	Percent Change 2010	2040 Plan Bay	Change 2010 to 2040 Plan Bay Area (As Amended)	
	2010	Bay Area (Original)	to 2040 Plan Bay Area (Original)	Area <u>(As</u> <u>Amended)</u>	Numerical	Percent <del>(2013 Plan</del> <del>Bay Area)*</del>
Daily <sup>1</sup> Local Bus Seat-Miles	13,647,000	<u>14,971,000</u>	<u>+10%</u>	14,980,000	1,333,000	+10%
Daily Express Bus Seat-Miles	2,993,000	<u>3,582,000</u>	<u>+20%</u>	3,582,000	589,000	+20%
Daily Light Rail Seat-Miles	3,212,000	<u>4,268,000</u>	<u>+33%</u>	5,240,000	2,028,000	+63%² <del>(+33%)</del>
Daily Heavy Rail Seat-Miles	17,470,000	22,461,000	<u>+29%</u>	22,461,000	4,991,000	+29%
Daily Commuter Rail Seat-Miles	5,725,000	9,042,000	<u>+58%</u>	9,042,000	3,317,000	+58%
Daily Ferry Seat- Miles	1,826,000	2,810,000	<u>+54%</u>	2,810,000	984,000	+54%
Total Daily Transit Seat- Miles	44,872,000	<u>57,133,000</u>	<u>+27%</u>	58,115,000	13,243,000	+30% <del>(+27%)</del>

Source: Metropolitan Transportation Commission, 2012 and 2015.

<sup>1.</sup> Daily metrics are measured for a typical weekday.

<sup>2.</sup> The increase in 2040 Plan daily transit seat miles compared to the 2013 Plan Bay Area FEIR is due to a technical correction related to Santa Clara VTA's light rail system reconfiguration, and is not related to the project.

Table 9 Revised FEIR Table 2.1-18, Utilization of Public Transit Systems, by Mode (2010-2040)

Public Transit	2010 Percent	Original 2040 Plan Bay	<u>Amended 2040 Plan Bay Area</u> Percent Utilization¹ <del>(2013 Plan</del>
System	Utilization <sup>1</sup>	Area Percent Utilization <sup>1</sup>	Bay Area)
AM Peak Period (6 A	AM to 10 AM)		
Local bus	24%	<u>42%</u>	42%
Light rail <sup>2</sup>	35%	<u>58%</u>	55% <del>(58%)</del>
Ferry	19%	<u>24%</u>	24%
Express bus	30%	<u>43%</u>	44% <del>(43%)</del>
Heavy rail <sup>3</sup>	40%	<u>57%</u>	57%
Commuter rail <sup>4</sup>	7%	<u>22%</u>	23% <del>(22%)</del>
All Modes	28%	<u>44%</u>	44%
PM Peak Period (3 P	PM to 7 PM)		
Local bus	25%	<u>43%</u>	42% <del>(43%)</del>
Light rail <sup>2</sup>	34%	<u>59%</u>	57% <del>(59%)</del>
Ferry	9%	<u>12%</u>	12%
Express bus	26%	<u>38%</u>	38%
Heavy rail <sup>3</sup>	36%	<u>47%</u>	47%
Commuter rail <sup>4</sup>	5%	<u>20%</u>	20%
All Modes	25%	<u>39%</u>	39%
Daily			
Local bus	19%	<u>34%</u>	34%
Light rail <sup>2</sup>	27%	<u>49%</u>	45% <del>(49%)</del>
Ferry	8%	<u>13%</u>	13%
Express bus	25%	<u>38%</u>	37% <del>(38%)</del>
Heavy rail <sup>3</sup>	27%	<u>37%</u>	36% <del>(37%)</del>

Public Transit System	2010 Percent Utilization <sup>1</sup>	<u>Original</u> 2040 Plan Bay Area Percent Utilization <sup>1</sup>	Amended 2040 Plan Bay Area Percent Utilization <sup>1</sup> (2013 Plan Bay Area)
Commuter rail <sup>4</sup>	6%	<u>18%</u>	18%
All Modes	21%	<u>33%</u>	33%

- 1. Percent utilization measures the passenger seat-miles required by forecasted transit patrons as a percentage of total passenger seat-miles provided by transit operators (i.e. the percentage of seats on transit vehicles filled with passengers). Utilization levels greater than 80 percent reflect conditions where passengers either would have difficulty finding a seat or would have to stand during all or part of their ride.
- 2. Reflects utilization of Muni Metro and VTA light rail systems. The increase in 2040 Plan daily transit seat miles compared to the 2013 Plan Bay Area FEIR is due to a technical correction related to Santa Clara VTA's light rail system reconfiguration, and is not related to the project.
- 3. Reflects utilization of BART heavy rail system.
- 4. Reflects utilization of Caltrain, SMART, Capitol Corridor, and ACE commuter rail systems.

Source: Metropolitan Transportation Commission Travel Demand Forecasts, 2012 and 2015.

As discussed in **Table 2**, and shown above in **Table 3** through **Table 10**, there would be no new significant impacts related to transportation from inclusion of the project into the Plan, nor would the severity of any previously identified significant impacts increase. Furthermore, the revised data shown above is very similar to the findings of the 2013 FEIR. The largest difference between the 2013 and revised 2015 data occur in **Table 7**, which presents per-capita daily VMT by LOS. With the project, there would be less per-capita daily VMT on facilities experiencing LOS D or lower during all peak periods relative to the Plan without the project. The inclusion of the project into the Plan would slightly reduce the severity of this impact identified in the 2013 FEIR. The project would also incorporate the same mitigation measures/standard best management practices identified in the DEIR/FEIR as applicable.

### 2.4.2 AIR QUALITY

Several tables within the Air Quality section of the 2013 DEIR/FEIR (**Chapter 2.2**) have been updated to include the project, as presented below.

Table 10 Revised FEIR Table 2.2-5, Travel Data

			Change 2010 to 2040 Plan Bay Area (As Amended)	
	2010	2040 Plan Bay Area <u>(As</u> <u>Amended)</u>	Numerical	Percent ( <u>Original</u> <del>2013</del> Plan Bay Area)*
Vehicles in Use	4,608,722	5,461,210	852,489	18% (19%)
Daily Vehicle Miles Traveled	163,903,095	196,853,624	32,950,529	20%
Engine Starts	30,834,375	34,431,849	5,047,024	17%

**Note:** \*Where there is <u>a no</u> change in percentage between the <u>original 2013</u> Plan Bay Area and Plan Bay Area <u>as amended</u> with the project included, the <u>original 2013</u> Plan Bay Area percentage is provided <u>in parenthesis for comparison</u>.

Source: Metropolitan Transportation Commission, 2012 and 2015.

Table 11 Revised FEIR Table 2.2-7, Emission Estimates for Criteria Pollutants Using EMFAC2011 Emission Rates (tons per day)

	2010	2040 Plan Bay Area <u>(As</u>	Change 2010 to 2040 Plan Bay Area (As Amended)	
		<u>Amended)</u>	Numerical	Percent *
ROG	85.0	30.2	-54.8	-64%
NOx (summertime)	163.5	47.8	-115.7	-71%
NOx (wintertime)	184.4	52.9	-131.5	-71%
СО	857.7	240.9	-616.9	-72%
PM <sub>2.5</sub>	10.4	9.9	-0.5	-5%

**Note:** \*There is no change in percentage between the <u>original 2013-</u>Plan Bay Area and Plan Bay Area <u>as amended</u> with the project included.

Source: Metropolitan Transportation Commission, 2012 and 2015.

Table 12 Revised FEIR Table 2.2-8, Emission Estimates for Criteria Pollutants Using EMFAC2011 Emission Rates (tons per day)

	2010	2040 Plan Bay Area (As	Change 2010 to 204 (As Amer	
		<u>Amended)</u>	Numerical	Percent *
PM <sub>10</sub>	36.4	40.9	4.5	12%

**Notes:** \*There is no change in percentage between the <u>original 2013-</u>Plan Bay Area and Plan Bay Area <u>as amended.</u> with the project included.

**Source:** Metropolitan Transportation Commission, 2012 and 2015.

Table 13 Revised FEIR Table 2.2-9, Emission Estimates for TAC Pollutants (kilograms per day)

	2010	2040 Plan (As Amended)	Change 2010 to 2040 Plan Bay Area (As Amended)	
			Numerical	Percent *
Diesel PM	2,599.6	755.5	-1,844.1	-71%
1,3-Butadiene	162.4	48.2	-114.2	-70%
Benzene	731.2	219.9	-511.3	-70%

**Notes:** \* There is no change in percentage between the <u>original</u> <del>2013</del> Plan Bay Area and amended Plan Bay Area <u>as amended.</u> with the project included.

Source: Metropolitan Transportation Commission, 2012 and 2015.

Table 14 Revised FEIR Table 2.2-11, Percent Change in On-Road Mobile Source Exhaust Emissions (2010-2040)

Community	Exhaust Only PM <sub>2.5</sub>	Diesel PM	Benzene	1,3 Butadiene	VMT
Alameda CARE Community	-56.13%	-69.27%	-71.25%	-71.65%	18.33%
Remainder of County	-55.00%	-67.21%	-69.25%	-69.55%	24.78%
Contra Costa CARE Community	-56.92%	-68.88%	-71.51%	-71.84%	15.86%
Remainder of County	-57.64%	-68.75%	-70.64%	-70.90%	16.21%

Community	Exhaust Only PM <sub>2.5</sub>	Diesel PM	Benzene	1,3 Butadiene	VMT
San Francisco CARE Community	-53.01%	-70.01%	-73.95%	-74.41%	11.67%
Remainder of County	-46.14%	-69.76%	-75.60%	-75.86%	7.65%
San Mateo CARE Community	-57.09%	-70.05%	-70.89%	-71.40%	18.21%
Remainder of County	-57.63%	-69.19%	-71.24%	-71.55%	15.35%
Santa Clara CARE Community	-51.04%	-66.30%	-67.78%	-68.28%	30.86%
Remainder of County	-54.19%	-67.29%	-69.66%	-70.03%	22.55%
Regionwide CARE Community	-54.44%	-68.42%	-70.60%	-71.04%	20.93%
Remainder of Region	-55.58%	-67.68%	-70.01%	-70.30%	20.13%

**Note:** To address community risk from air toxics, the Bay Area Air Quality Management District (BAAQMD) initiated the Community Air Risk Evaluation (CARE) program in 2004 to evaluate and reduce health risks associated with exposure to outdoor TACs.

Source: BAAQMD, 2013; Metropolitan Transportation Commission, 2015.

Table 15 Revised FEIR Table 2.2-12, Percent Change in On-Road Total PM Emissions (2010-2040)

Community	Amended Plan Bay Area Percent Change in PM Emissions ( <u>Original <del>2013</del></u> Plan Bay Area)*
Alameda CARE Community	-1.55%
Remainder of County	2.62%
Contra Costa CARE Community	-2.48%
Remainder of County	-3.44%
San Francisco CARE Community	-3.46%
Remainder of County	-2.49%
San Mateo CARE Community	-2.11%
Remainder of County	-4.90%
Santa Clara CARE Community	9.95% (10.51%)
Remainder of County	2.57% (2.80%)

Community	<u>Amended Plan Bay Area</u> Percent Change in PM Emissions ( <u>Original <mark>2013</mark></u> Plan Bay Area)*
Regionwide CARE Community	1.57% (1.66%)
Remainder of Region	-0.24% (-0.18%)

Note: Total PM<sub>2.5</sub> includes vehicle exhaust, re-entrained road dust, and tire and brake wear.

**Source:** BAAQMD, 2013; Metropolitan Transportation Commission, 2015.

The project is intended to reduce existing and future traffic congestion and offer non-motorized alternatives to travelling on the RSR Bridge, which in turn should result in improved regional air quality. As shown in **Tables 12** and **14**, emissions estimates for criteria pollutants and TACs would be the same with the inclusion of the project in the Plan as were estimated for the Plan in the 2013 DEIR/FEIR.

As shown in **Table 13**, the original 2013 Plan Bay area found that there would be a 12 percent increase in the emissions of PM<sub>10</sub>; however, this impact was identified as significant and unavoidable in the <u>original</u> 2013 FEIR. This increase would occur with or without the project included in Plan Bay Area and The amended Plan Bay Area (including the project) would result in the same overall increase in PM<sub>10</sub> emissions; therefore, this would not represent a new impact. Additionally, as shown in **Tables 15** and **16**, the CARE community in Santa Clara County, as well as regionwide CARE communities, will experience higher total PM<sub>2.5</sub> emissions between 2010 and 2040 in comparison with non-CARE portions of the County, and the region as a whole. This was also identified as a significant and unavoidable impact in the 2013 FEIR. With inclusion of the project in Plan Bay Area there would be a slight decrease in the on-road emissions of PM<sub>2.5</sub> in the Santa Clara and regionwide CARE communities; however, the impact would remain significant and unavoidable.

Therefore, inclusion of the project in the Plan would not result in a substantial increase in the severity of any previously identified impacts or any new impacts not previously identified. The project would also incorporate the mitigation measures/standard best management practices identified in the DEIR/FEIR as applicable and shown in **Table 2**.

<sup>\*</sup>Percent change in PM emissions is reported for the <u>original 2013</u> FEIR only for CARE communities where significant unavoidable impacts were identified.

#### 2.4.3 CLIMATE CHANGE AND GREENHOUSE GASES

Several tables included in the Climate Change and GHGs section of the 2013 DEIR/FEIR have been revised to reflect changes as a result of the inclusion of the project into the Plan. The revised tables are presented below.

Table 16 Revised FEIR Table 2.5-9, Existing and Forecasted Annual Transportation GHG Emissions (MTCO₂e)

	2010 Baseline MTCO₂e	2040 <del>Proposed</del> Plan <u>Bay Area (As</u> <u>Amended)</u> MTCO₂e	Change from Existing 2010	Percent Change from <u>Existing2010</u> *	
Vehicle GHG Emissions (N	lo Reductions)				
Passenger Vehicles	19,457,000	22,908,000	3,451,000	18%	
Trucks	4,447,000	6,906,000	2,459,000	55%	
Buses	615,000	633,000	18,000	3%	
Other Vehicles	114,000	154,000	40,000	35%	
Airports	1,634,000	2,809,000	1,175,000	72%	
MTC Climate Policy Initiative		-1,582,000	-1,582,000		
Total (No Reductions)	26,267,000	31,828,000	5,561,000	21%	
Vehicle GHG Emissions (Pavley + LCFS)					
Passenger Vehicles	19,383,000	14,624,000	-4,759,000	-25%	
Trucks	4,447,000	6,215,000	1,768,000	40%	
Buses	615,000	570,000	-45,000	-7%	
Other Vehicles	114,000	138,000	24,000	21%	
Airports	1,634,000	2,809,000	1,175,000	72%	
MTC Climate Policy Initiative		-1,582,000	-1,582,000		
Total (Pavley + LCFS)	26,193,000	22,774,000	-3,419,000	<u>-</u> 13%	

**Notes:** \*There is no change in percentage between the <u>original 2013</u> Plan Bay Area and Plan Bay Area <u>as amended with</u> the project included. Figures may not sum due to independent rounding.

Source: Metropolitan Transportation Commission, 2013 and 2015; Dyett & Bhatia, 2013; BAAQMD, 2013.

Table 17 Revised FEIR Table 2.5-10, Total Regional Annual GHG Emissions

	2010 Baseline MTCO₂e	2040 Proposed Plan <u>(As Amended)</u> MTCO₂e	Change from <del>Existing</del> 2010	Percent Change from Existing 2010* (2013 Plan Bay Area)
Land Use Emissions Subtotal	24,266,000	21,402,000	-2,864,000	-12%
Transportation Emissions Subtotal	26,193,000	22,774,000 <del>19,912,202</del>	- <u>3,419,000<del>4</del>,668,798</u>	-13% <del>-19%</del> <del>(-13%)</del>
Regional Emissions Total	50,459,000	<u>44,176,000 <del>41,314,202</del></u>	<u>-6,283,000</u> <del>-9,144,798</del>	-12% <del>- 18%</del> <del>(- 12%)</del>

**Notes:** \*There is no change in percentage between the <u>original 2013</u> Plan Bay Area and Plan Bay Area <u>as amended with</u> the project included. Figures may not sum due to independent rounding.

Source: Metropolitan Transportation Commission, 2013 and 2015; Dyett & Bhatia, 2013.

The project is intended to reduce existing and future traffic congestion and offer non-motorized alternatives to travelling on the RSR Bridge, which in turn should result in reduced GHG emissions. Forecasted annual GHG emissions estimates would be the same with inclusion of the project in the Plan as were estimated with Plan implementation in the 2013 DEIR/FEIR (refer to **Table 16**). Furthermore, as shown in **Table 17**, the total regional annual GHG emissions would be reduced by 612 percent with inclusion of the project in the Plan relative to 2010 estimates, which is the same reduction as identified under the original 2013 Plan that was assessed in the FEIR.

Therefore, inclusion of the project in the Plan would not result in a substantial increase in the severity of any previously identified impacts or result in any new impacts not previously identified. The project would also incorporate the mitigation measures/standard best management practices identified in the DEIR/FEIR as applicable.

#### 2.5 CONCLUSION

The addition of the proposed project would not result in any new significant environmental effects or substantial increases in the severity of the previously identified significant effects presented in the 2013 DEIR and certified FEIR completed for Plan Bay Area.

None of the conditions described in §15162 of the CEQA Guidelines requiring the preparation of a subsequent FEIR have occurred. Therefore, this Addendum to the 2013 FEIR is an appropriate level of environmental review for the inclusion of the proposed project in Plan Bay Area as identified in §15164 of the CEQA Guidelines.

If commenters and interested individuals would like additional project information and graphical representations (such as **Figure 2**), please visit our website at: <a href="http://mtc.ca.gov/projects/rsr">http://mtc.ca.gov/projects/rsr</a> bridge/.

### I-580 Access Improvement Project





**Project Location** 

igure

4

Source: HNTB and Circlepoint, 2015



## 3 Response to Comments

The purpose of the Response to Comments section of the Final Addendum is to respond to all significant environmental issues raised in comments on the Draft Addendum and to incorporate appropriate changes, additions, clarifications, or corrections to the information presented in the Draft Addendum (CEQA Guidelines § 15088).

During the public review period, MTC and ABAG received two comment letters on the Draft Addendum to the EIR for Plan Bay Area that pertained to environmental issues or the analysis contained in the Addendum. Table 1 summarizes the public agencies and individuals that provided a comment letter. Commenters are organized by type and in the order the letters were received.

Comment letters are organized by commenter type (agencies first, organizations second). An alpha-numeric indicator was assigned to each comment letter. The alpha indicator describes the commenter's organization (i.e., L = local agency, O=organization) and the numeric indicator reflects the order the comment letter was received. Each individual comment (within a comment letter) is numbered to correspond to the alpha-numeric indicator (i.e., L-1.1, L-1.2, L-1.3, etc.). Accordingly, each response within this chapter corresponds to comment letter's alpha-numeric indicator. For example, Letter L-1, Comment L-1.1 is addressed in response L-1.1.

**Table 18** Index of Comments

Date of Comment	Commenter
July 20, 2015	County of Marin Department of Public Works
July 18, 2015	Transportation Solutions Defense and Education Fund
	July 20, 2015

Source: Circlepoint, 2015.

# Letter L-1



# DEPARTMENT OF PUBLIC WORKS

Quality, Excellence, Innovation

Raul M. Rojas DIRECTOR

July 20, 2015

Administration PO Box 4186 San Rafael, CA 94913-4186 415 473 6528 T

415 473 3799 F 4.15 473 3232 TTY

CRS Dial 711

www.marincounty.org/pw

Accounting

Ashley Nguyen, Project Manager

Metropolitan Transportation Commission 101 Eighth Street, Oakland, CA 94607

Email: info@mtc.ca.gov

Fax: 510.817.5848

Airport

**Building Maintenance** 

SUBJECT: Richmond-San Rafael Bridge

**Access Improvement Project** 

Capital Projects

Dear Ms. Nguyen:

Certified Unified Program Agency (CUPA)

Communications Maintenance

County Garage

Disability Access

**Engineering & Survey** 

Flood Control & Water Resources

L-1.1

Land Development

Purchasing

Real Estate

Reprographic Services L-2.2

Road Maintenance

Stormwater Program

Transportation & Traffic Operations Marin County Public Works supports the proposal to add the Richmond-San Rafael Bridge Access Improvement Project to Plan Bay Area and to the 2015 Transportation Improvement Program (TIP). We would also like to thank Metropolitan Transportation Commission (MTC) staff for coordinating with Marin County and Caltrans staff regarding the overlaps between our San Quentin- Main Street Sidewalk Improvement Project and the proposed Richmond-San Rafael Bridge Access Improvement Project. We want to express our appreciation for including the portion of the Main Street sidewalk that is located in Caltrans right of way in the Richmond-San Rafael Bridge Access Improvement Project Description. In a previous meeting, the addition of a bus shelter at the transit stop located in Caltrans right of way was also discussed, but no decision was made. We would appreciate further discussions and coordination to see if the bus stop can also be added to the Richmond-San Rafael Bridge Access Improvement Project Description.

In reviewing the documents that were provided on-line, we have one additional comment. The FEIR Addendum project location map (at the end) does include Main Street connections, but it looks like it falls short of connecting to E. Sir Francis Drake Blvd. (by way of an added 3rd EB lane or a proposed Bay Trail), which is contrary to the following Project Overview Figure 2 and the map shown on the attached Fact Sheet.

If you have any questions or need additional information, please contact me at (415) 473-3076 or rgoralka@marincounty.org

Respectfully,

Bob Goralka

Principal Civil Engineer

Attachment: Project Fact Sheet

Bay Area Plan Draft Addendum

c: Bill Whitney, Project Manager, Transportation Authority of Marin Ernest Klock, Principal Civil Engineer, County of Marin Raul Rojas, Director of Public Works, County of Marin Craig Tackabery, Chief Assistant Director of Public Works, County of Marin



# PROJECT FACT SHEET

# Richmond-San Rafael Bridge Access Improvement Project

# PROJECT OVERVIEW

The project will reduce congestion on the Richmond-San Rafael Bridge by converting the existing shoulder on eastbound I-580 to a peak-period use lane between Sir Francis Drake Boulevard (Marin County) and Marine Street (Contra Costa County). To allow for the peak-period use lane and maintain bicycle access to Point Molate in Richmond, the project will upgrade the current bicycle access that relies on the I-580 shoulder with a separate bicycle/pedestrian path on the north side of I-580 adjacent to westbound traffic.

The project also will install a concrete barrier system on the upper deck of the Richmond-San Rafael Bridge to convert the existing freeway shoulder to a barrier-separated path for bicycles and pedestrians.

# Peak-Period Use Lane on I-580 Freeway

The peak-period use lane will be open to motorists during the weekday evening commute hours, when eastbound traffic is highly congested. To accommodate the additional traffic, the lane will require reconstruction of some components of the freeway. These include:

- Reconstruct the Main Street on-ramp (Marin County) with a retaining wall to improve the traffic merge with the new lane.
- Replace pavement on the bridge approach to accommodate traffic loads.
- Reconstruct a retaining wall in Richmond to achieve a safe sight distance for vehicles traveling in the new lane.
- Provide a barrier-separated bicycle and pedestrian path to Point Molate.

## **Bicycle/Pedestrian Path**

To complete the path across San Francisco Bay, the westbound shoulder on the Richmond-San Rafael Bridge may be converted with a movable barrier-separated bicycle/pedestrian path. The movable barrier would allow Caltrans and BATA to complete bridge maintenance activities during short duration closures of the path. These closures will typically occur at night. The path will be 10-feet wide and will comply with standards outlined by the Americans with Disabilities Act.

#### PROJECT BENEFITS

- Reduces traffic congestion in eastbound direction of 1-580 in Marin County
- Provides bicycle and pedestrian access between Contra Costa and Marin counties

#### **COST ESTIMATE**

(May 2015)

Cost estimate by major project element		
3rd 1-580 Eastbound Lane	\$32 M	
R-SR Bridge — Bicycle Path	\$30 M	
Contingency	\$12 M	
Total	\$74 M	



Eastbound I-580 requires widening in Contra Costa County to accommodate the third eastbound lane. The retaining wall shown must be removed and replaced with a wall set further back from I-580.

# PROJECT SCHEDULE (as of May 2015)



For more information visit www.mtc.ca.gov or contact MTC Public Information at 510.817.5757

# Richmond-San Rafael Bridge Access Improvement Project

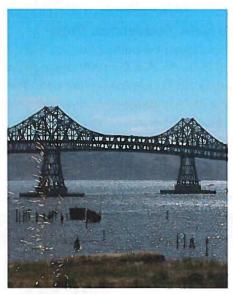


# Going Green! Connecting Marin and Contra Costa Counties for Bicyclists and Pedestrians

For the first time ever the Richmond-San Rafael Bridge will connect the Bay Trail between Contra Costa and Marin counties for bicyclists and pedestrians. Adding another link to the future 500-mile bicycle and hiking network benefits residents in both counties. The proposed path will begin in Richmond at Marine Street and continue adjacent to westbound I-580 to Main Street in San Rafael. A mix of permanent and moveable barriers will separate bicyclists from vehicle traffic.















L.1-6



# Draft Addendum to the Final Environmental Impact Report Plan Bay Area

(State Clearinghouse No. 2012062029)

Draft Issued: June 19, 2015





**June 2015** 

# **Table of Contents**

1 Introduction	
2 Project Description	3
3 CEQA Checklist and Impact Analysis	6
4 Technical Revisions	45
5 Conclusion	58

# **Figures**

- Figure 1: Project Location
- Figure 2: Project Overview

#### **Tables**

- Table 1: Summary of Impacts and Mitigation
- Table 2: Revised FEIR Table 2.1-12, Bay Area Travel Behavior, 2010-2040
- Table 3: Revised FEIR Table 2.1-13, Typical Weekday Daily Person Trips, By Mode
- Table 4: Revised FEIR Table 2.1-14, Per-Trip Commute Travel Time, by Mode (in minutes)
- Table 5: Revised FEIR Table 2.1-15, Per-Trip Non-Commute Travel Time, by Mode (in minutes)
- **Table 6:** Revised FEIR Table 2.1-16, Per-Capita Daily Vehicle Miles of Travel by Level of Service (LOS) (2010-2040)
- Table 7: Revised FEIR Table 2.1-17, Daily Vehicle Miles of Travel Per Capita (2010-2040)
- **Table 8:** Revised FEIR Table 2.1-11, Transportation System Capacity (2010-2040)
- Table 9: Revised FEIR Table 2.1-18, Utilization of Public Transit Systems, by Mode (2010-2040)
- Table 10: Revised FEIR Table 2.2-5, Travel Data
- **Table 11:** Revised FEIR Table 2.2-7, Emission Estimates for Criteria Pollutants Using EMFAC2011 Emission Rates (tons per day)
- **Table 12:** Revised FEIR Table 2.2-8, Emission Estimates for Criteria Pollutants Using EMFAC2011 Emission Rates (tons per day)
- **Table 13:** Revised DEIR Table 2.2-9, Emission Estimates for Toxic Air Contaminants Pollutants (kilograms per day)
- **Table 14:** Revised FEIR Table 2.2-11, Percent Change in On-Road Mobile Source Exhaust Emissions (2010-2040)
- Table 15:
   Revised FEIR Table 2.2-12, Percent Change in On-Road Total PM Emissions (2010-2040)
- **Table 16:** Revised FEIR Table 2.5-9, Existing and Forecasted Annual Transportation GHG Emissions (MTCO₂e)
- Table 17: Revised FEIR Table 2.5-10, Total Regional Annual GHG Emissions

#### 1 Introduction

The Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), acting as Lead Agencies' under the California Environmental Quality Act (CEQA), have prepared this Addendum to the Draft Environmental Impact Report (DEIR) and Final Environmental Impact Report (FEIR) for Plan Bay Area. The FEIR (State Clearinghouse No. 2012062029) was certified by MTC and ABAG on July 18, 2013.

Since July 2013 and the approval of the FEIR, the Bay Area Toll Authority (BATA), in cooperation with the California Department of Transportation (Caltrans) District 4, have initiated the Richmond-San Rafael (RSR) Bridge Access Improvement Project (project), which was not identified at the time of the adoption of Plan Bay Area and certification of the FEIR. The project proposes to convert the existing shoulders on the RSR Bridge to accommodate bicycle and pedestrian access on the upper bridge deck (westbound), and a new automobile travel lane on the lower deck (eastbound). Refer to Figure 1 for the location of the proposed project and Figure 2 for an overview of the specific improvements proposed.

Accordingly, this Addendum evaluates the potential impacts of inclusion of the project in Plan Bay Area relative to the conclusions reached in the FEIR prepared for Plan Bay Area. This Addendum has been prepared to conform to the requirements of CEQA and CEQA Guidelines §15164.

This addendum also includes some technical revisions that are the result of updated air quality and transportation modeling completed by MTC in 2015. These revisions are minor and are noted as such, and do not change the conclusions that were made in the 2013 FEIR.

## 1.1 PURPOSE OF AN ADDENDUM

CEQA Guidelines § 15164(a) provides that the lead agency or a responsible agency shall prepare an addendum to a previously certified EIR or Negative Declaration ("ND") if some changes or additions are necessary but none of the conditions described in CEQA Guidelines § 15162 calling for preparation of a subsequent EIR or ND have occurred (CEQA Guidelines, § 15164(a)).

An addendum need not be circulated for public review but can be included in or attached to the FEIR or ND (CEQA Guidelines § 15164(c)). The decision-making body shall consider the addendum with the FEIR prior to making a decision on the project (CEQA Guidelines § 15164(d)). An agency must also include a brief explanation of the decision not to prepare a subsequent EIR or ND pursuant to § 15162 (CEQA Guidelines § 15164(e)).

Once an EIR or ND has been certified for a project, no subsequent EIR or ND is required under CEQA unless, based on substantial evidence:<sup>1</sup>

 substantial changes are proposed in the project which will require major revisions of the previous EIR or ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

<sup>&</sup>lt;sup>1</sup> (CEQA Guidelines, § 15162, subd. (a); see also Pub. Resources Code, Section 21166).

- substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- 3. new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the ND was adopted, shows any of the following:
  - a. the project will have one or more significant effects not discussed in the previous EIR or ND;
  - b. significant effects previously examined will be substantially more severe than shown in the previous EIR;
  - mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
  - d. mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but he project proponents decline to adopt the mitigation measure or alternative.

There are no substantial changes proposed by the project or in the circumstances in which the project would be undertaken that require major revisions of the existing FEIR, or preparation of a new, subsequent or supplemental EIR or ND, due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. As illustrated herein, the project is consistent with the 2013 DEIR and FEIR and would involve only minor changes.

#### 1.2 INTENDED USES OF THIS ADDENDUM

An Addendum to a FEIR is an informational document used in the planning and decision-making process. The intent of this Addendum to the FEIR is to provide MTC and ABAG with additional information regarding the potential environmental impacts resulting from Plan Bay Area resulting from the inclusion of the project that was not available at the time of the certification of the FEIR. MTC and ABAG may approve the amendment to add this project into Plan Bay Area based on this Addendum. The impacts of the project remain within the impacts previously analyzed in the DEIR and FEIR (CEQA Guidelines § 15061(b)(3)).

The project does not require any revisions to the DEIR or FEIR. No new significant information or significant changes in circumstances surrounding the project have occurred since the certification of the FEIR. The previous analysis included in the DEIR and FEIR therefore remains adequate under CEQA. However, MTC and ABAG remain obligated to comply with all applicable mitigation measures and conditions of approval contained within the DEIR and FEIR.

#### 1.3 INCORPORATION BY REFERENCE

In compliance with CEQA Guidelines § 15150, this Addendum has incorporated by reference:

 The 2013 DEIR and FEIR (SCH No. 2012062029) and all technical studies, analyses, and technical reports that were prepared as part of the 2013 DEIR and FEIR or for this Addendum.

Relevant information from documents incorporated by reference into this Addendum have been briefly summarized in the following section, and the relationship between the incorporated part of the referenced document and this Addendum has been described.

## 2 Project Description

This section provides a description of Plan Bay Area that was evaluated in the FEIR and the new project proposed by BATA for inclusion in Plan Bay Area.

#### 2.1 OVERVIEW OF PLAN BAY AREA

Plan Bay Area (the Plan) reinforces land use and transportation integration per Senate Bill (SB) 375 and presents a vision of what the San Francisco Bay Area's (Bay Area) land use patterns and transportation networks might look like in 2040. **Figure 1.2-1** included in the DEIR illustrates the regional location of the Bay Area.

The Plan serves as the 2013 Regional Transportation Plan (RTP) for the Bay Area region and includes the region's Sustainable Communities Strategy (SCS) as required under SB 375. The Plan is by definition the combined land use and transportation plan, serving as a blueprint of how the Bay Area addresses its transportation mobility and accessibility needs, land development, and greenhouse gas (GHG) emissions reduction requirements through the year 2040. The Plan document presents its purpose and goals, tracks trends and evaluates project performance, details financial assumptions and expenditures, profiles key investments, and sets forth actions that the region would advocate and pursue over the next several years. See Plan Bay Area and supplementary reports for full details. These documents can be found at:

#### http://www.mtc.ca.gov/planning/plan\_bay\_area/

As a programmatic document, the 2013 DEIR and FEIR present a region-wide assessment of the potential impacts of the Plan and included mitigation measures to offset potentially significant effects. It focused on the entire set of projects and programs contained in the Plan (see Section 1.1 of the DEIR for a list of projects included in the Plan). Specific analysis of localized impacts in the vicinity of individual projects was not included in the program level DEIR; all impacts of individual projects will be evaluated in future environmental review, as relevant, by the appropriate implementing agency as required under CEQA and/or NEPA prior to each project being considered for approval, as applicable.

#### 2.2 RICHMOND-SAN RAFAEL BRIDGE ACCESS IMPROVEMENT PROJECT

The project proposes to convert the existing shoulders on the RSR Bridge to accommodate bicycle and pedestrian access on the upper bridge deck (westbound), and a new automobile travel lane on the lower deck (eastbound). Bicycle and pedestrian access on the upper deck of the RSR Bridge would be provided by installing a barrier to separate bicyclists and pedestrians from motorists (see **Figure 1**).

The total length of this project is approximately 6 miles [Contra Costa County post mile (PM) R4.98 to Marin County PM 3.16]. Within the project limits there are six existing structures; San Quentin Undercrossing (Main Street) (Br. No. 27-0070), the RSR Bridge (Br. No. 28-0100), Western Drive Undercrossing (Stenmark Drive) (Br. No. 28-0141R), Scofield Avenue Undercrossing (Br. No. 28-0140 L/R), Marine Street Undercrossing (Br. No. 28-0139), and the Castro Street Undercrossing (Br. No. 28-0290 L/R). All proposed improvements are anticipated to be within existing highway and local street rights-of way, except as noted below in Project Element 3.

The project consists of three major components that are interrelated:

- Element 1: Eastbound I-580 travel lane between Marin County and Contra Costa County
- Element 2: Bicycle/Pedestrian Path in Contra Costa County
- Element 3: Bicycle/Pedestrian Path on the RSR Bridge and connections to bridge

#### **Purpose**

The purpose of the proposed project is to:

- Reduce congestion and travel time on eastbound I-580/RSR Bridge
- Provide pedestrian and bicycle travel along the I-580/RSR Bridge corridor

#### Need

Congestion and Delay - Regional growth and local development in Marin County has resulted in significant traffic increases on eastbound I-580 and the RSR Bridge approach during evening peak commute periods. During evening peak periods, this results in significant traffic delays along I-580 eastbound, eastbound Sir Francis Drake Boulevard, and US 101 northbound south of Sir Francis Drake exit, with unacceptable level of service conditions occurring at the intersections of Bellam Boulevard/I-580 eastbound ramps, US 101 northbound ramps/Sir Francis Drake Boulevard, Larkspur Landing Circle (west)/Sir Francis Drake Boulevard, Larkspur Landing Circle (east)/Sir Francis Drake Boulevard, San Quentin Gates/Sir Francis Drake Boulevard, Anderson Drive/Sir Francis Drake Boulevard, and Main Street/I-580 eastbound ramps. Additional evening traffic congestion occurs on northbound US 101, from the Tamalpais Drive interchange to the Sir Francis Drake Boulevard off-ramp, and continues onto eastbound I-580. Because substantial growth is projected to occur in this region, there is a need to improve and expand eastbound bridge capacity to reduce and avoid additional traffic congestion and delay during peak commute hours.

Accessibility for Bicyclists and Pedestrians — The current lack of bicycle and pedestrian facilities across the RSR Bridge represents a major gap in the planned 500-mile Bay Trail. Overall, an estimated 37.9 million annual trips were made on the existing Bay Trail in 2005, making it one of the most heavily used recreational and non-motorized transportation corridors in the region, but

no access was available over the RSR Bridge. Sections of the Bay Trail adjoin the bridge on both sides and this gap prevents non-motorized access across a major transportation corridor linking Marin and Contra Costa County.

#### **Description of Work**

#### Project Element 1 - Eastbound I-580 Third Lane (including RSR Bridge Pilot Project)

Element 1 of the proposed project would construct a new third travel lane by converting the existing shoulder of the eastbound direction of I-580 across the lower deck of the RSR Bridge to a travel lane. The new lane will begin immediately downstream from the eastbound Main Street off-ramp in Marin County and terminate on the Contra Costa County side of the bridge, slightly downstream of the Marine Street/East Standard Avenue eastbound off-ramp in Richmond. The exact hours of operation of the lane will be outlined in the Project Report. Electronic and static signs will be used to operate and manage the lane during the hours of operations (refer to Figure 2). The third travel lane on the RSR Bridge is part of a pilot project (along with Element 3) that will run for a duration of four years, intended to test and evaluate the performance and use of the third travel lane. After 4 years, the third lane on the RSR Bridge may be made permanent, or will return to function as a shoulder during the off-peak hours. All other constructed components of this element would be permanent. All improvements for this element will be within existing state and local right-of-way.

#### Project Element 2 - Bicycle/Pedestrian Path in Contra Costa County

The proposed bi-directional bicycle/pedestrian path (bi-directional path) in Contra Costa County would be constructed along the north side of westbound I-580 from the Marine Street interchange in Contra Costa County to Stenmark Drive (formerly Western Drive) and the Toll Plaza where it would then connect to Project Element 3, discussed below. The bi-directional path would be implemented along the existing westbound I-580 shoulder and would replace the existing one-way Class III bicycle lanes in both eastbound and westbound directions of I-580 between Marine Street and the Toll Plaza. The proposed bi-directional path would be separated from vehicle traffic by a continuous concrete barrier. All improvements for this element will be within existing state and local right-of-way.

# Project Element 3 – Bicycle/Pedestrian Path on RSR Bridge and Related Connections to RSR Bridge (Pilot Project)

Project Element 3 includes the continuation of the proposed bi-directional path between the Stenmark Drive off-ramp at the eastern end of the RSR Bridge, continuing onto and across the RSR Bridge to the Main Street (San Quentin) interchange at the western end of the bridge. This portion of the bi-directional path would be part of the pilot project that would run for four years, intended to test and evaluate the performance and use of bicycle/pedestrian path on the RSR Bridge. After the 4 years, the bi-directional path on the RSR Bridge may be made permanent, or will return to functioning as a shoulder. Pedestrian/bicycle access improvements are also included in this project element to improve multimodal circulation and connections to the RSR Bridge. With the exception of the segment of the bicycle and pedestrian path adjacent to the maintenance facility (on an easement to be provided by Chevron), all improvements for this element will be located within state and local right-of-way.

# 3 CEQA Checklist and Impact Analysis

#### 3.1 SCOPE OF ANALYSIS

This Addendum considers whether the inclusion of the project in Plan Bay Area could result in any significant effects on the environments that were not already described in the 2013 DEIR and FEIR.

The level of significance of impacts resulting from the inclusion of the proposed project in the Plan would not result in any new impacts that were not previously disclosed, nor has the environmental baseline in the Bay Area changed since the 2013 FEIR, such that new impacts would be created. This addendum evaluates potential environmental impacts resulting only from the addition of the proposed project to the Plan, in comparison to what was evaluated in the 2013 DEIR and FEIR.

The following environmental categories were specifically examined in the context of the modification to the Plan discussed above:

- Transportation
- Air Quality
- Land Use and Physical Development
- Energy
- Climate Change and GHGs
- Noise
- Geology and Seismicity

- Water Resources
- Biological Resources
- Visual Resources
- Cultural Resources
- Public Utilities and Facilities
- Hazards
- Public Services and Recreation

## 3.2 ANALYSIS

Additional analysis has been conducted for the environmental topics listed above and the results are discussed below in **Table 1**. All of the environmental topics examined in the FEIR have been assessed and found not to have any material change from what has already been presented in the 2013 FEIR. All mitigation measures adopted in the 2013 DEIR/FEIR continue to remain in effect and are incorporated by reference in this Addendum.

Table 1 Summary of Impacts and Mitigation

Environmental Impact in DEIR/FEIR	Conclusion in DEIR/FEIR	Substantial Increase in the Severity of Previously Identified Significant Effects?	DEIR/FEIR Mitigation Measures	New or Revised Mitigation Measures	Conclusion with the Project
Fransportation					
impact 2.1-1: Implementation of the proposed Plan could result in a substantial increase in per trip travel time for commute travel by any mode over existing conditions. A substantial increase in per trip travel time is defined as greater than 5 percent.	Less than significant	No. Implementation of the proposed project would not substantially increase (greater than 5%) per trip travel time for commute travel by any mode (see <b>Table 4</b> ). The potential impacts or the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. There would not be a substantial Increase in the severity of any previously Identified effects.	NA	No	Less than significant
Impact 2.12: Implementation of the proposed Plan could result in a substantial increase in per trip travel time for noncommute travel by any mode over existing conditions. A substantial increase in per trip travel time is defined as greater than 5 percent.	Less than significant	No. Implementation of the proposed project would decrease travel time for non-commute travel by all modes (see <b>Table 5</b> ). The potential impacts or the proposed project are covered within the parameters of the previous environmental analysis conducted for Plan Bay Area. There would not be a substantial Increase in the severity of any previously Identified effects.	NA	No	Less than significant

## I-580 Access Improvement Project





**Project Location** 

igure

Source: HNTB and Circlepaint, 2015

Table 17 Revised FEIR Table 2.5-10, Total Regional Annual GHG Emissions

	2010 Baseline MTCO₂e	2040 Proposed Plan MTCOze	Change from Existing	Percent Change from Existing (2013 Plan Bay Area)
Land Use Emissions Subtotal	24,266,000	21,402,000	-2,864,000	-12%
Transportation Emissions Subtotal	26,193,000	19,912,202	-4,668,798	-19% (-13%)
Regional Emissions Total	50,459,000	41,314,202	-9,144,798	-18% (-12%)

**Notes:** \* Where there is no change in percentage between the 2013 Plan Bay Area and Plan Bay Area with the project included, no parentheses containing the 2013 Plan Bay Area percentage is provided. Figures may not sum due to independent rounding.

Source: Metropolitan Transportation Commission, 2013 and 2015; Dyett & Bhatia, 2013.

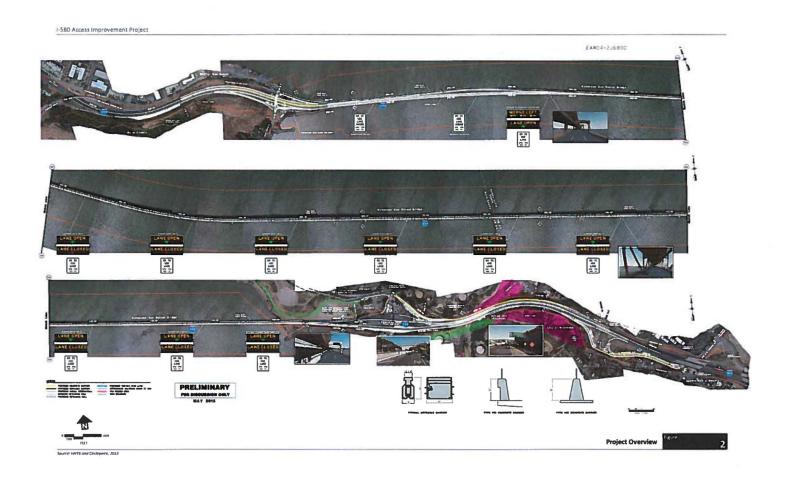
The project is intended to reduce existing and future traffic congestion and offer non-motorized alternatives to travelling on the RSR Bridge, which in turn should result in reduced GHG emissions. Forecasted annual GHG emissions estimates would be the same with inclusion of the project in the Plan as were estimated with Plan implementation in the 2013 DEIR/FEIR (refer to **Table 16**). Furthermore, as shown in **Table 17**, the total regional annual GHG emissions would be reduced by 6 percent with inclusion of the project in the Plan relative to the 2013 Plan that was assessed in the FEIR.

Therefore, inclusion of the project in the Plan would not result in a substantial increase in the severity of any previously identified impacts or result in any new impacts not previously identified. The project would also incorporate the mitigation measures/standard best management practices identified in the DEIR/FEIR as applicable.

#### 5 Conclusion

The addition of the proposed project would not result in any new significant environmental effects or substantial increases in the severity of the previously identified significant effects presented in the 2013 DEIR and certified FEIR completed for Plan Bay Area.

None of the conditions described in §15162 of the CEQA Guidelines requiring the preparation of a subsequent FEIR have occurred. Therefore, this Addendum to the 2013 FEIR is an appropriate level of environmental review for the inclusion of the proposed project in Plan Bay Area as identified in §15164 of the CEQA Guidelines.



# Responses to Comment Letter L-1: Marin County Department of Public Works

- L-1.1 The commenter requests further discussion regarding the addition of a bus shelter at the transit stop in the Caltrans right of way takes place, and also brings up the possibility of adding another bus stop to the RSR Bridge Project description.
  - MTC and ABAG appreciate the commenter's previous and current participation in the planning process. To date, provisions to provide a bus pullout along the Main Street on-ramp to Eastbound I-580 has been included in the project scope. The installation of the bus shelter and associated shelter improvements will remain the responsibility of the County of Marin.
- L-1.2 The commenter requests more information regarding the short fall in connection to East Sir Francis Drake Boulevard, as the Project Location Map (Figure 2) seems contradictory to the map on the project fact sheet.

As of now, the proposed bicycle/pedestrian path would terminate at Main Street in Marin County. The new lane will begin immediately downstream from the eastbound Main Street off-ramp in Marin County. The Richmond-San Rafael Bridge Access Improvement Project is still in the planning phases, please refer to: http://mtc.ca.gov/projects/rsr\_bridge/ for the most up-to-date project information.

# Letter O-1

# **Pam Grove**

From: David Schonbrunn <david@schonbrunn.org>

Sent: Saturday, July 18, 2015 10:22 PM

To: MTC Info

Cc: Dianne Steinhauser; Randy Iwasaki **Subject: Richmond Bridge Comments** 

**Attachments:** Richmond Bridge Amendments comments.pdf

Please see attached comments. An email indicating receipt would be much appreciated.

--David

David Schonbrunn, President

Transportation Solutions Defense and Education Fund (TRANSDEF) P.O. Box 151439 San Rafael, CA 94915-1439

415-370-7250 cell & office

David@Schonbrunn.org www.transdef.org

# Transportation Solutions Defense and Education Fund

P.O. Box 151439 San Rafael, CA 94915 415-331-1982

July 18, 2015 By E-Mail

Ashley Nguyen Metropolitan Transportation Commission 101 Eighth Street Oakland, CA 94607

Re: Comments on Plan Bay Area Amendments Documents

Dear Ms. Nguyen:

The Transportation Solutions Defense and Education Fund is an environmental non-profit advocating the regional planning of transportation, land use and air quality. Due to our base of operations being in Marin, our organization has been especially focused on the upward trend of traffic congestion at the western approach to the Richmond-San Rafael Bridge (Bridge). It is clear that Caltrans and MTC either entirely missed this trend, or ignored it for years, leading to the current crash program to open the third EB lane to traffic.

We have reviewed the documents posted on MTC's website pertaining to the Draft Amendment to Plan Bay Area (2013) to bring the Richmond-San Rafael Bridge Third Lane project into the TIP. We offer these comments:

- MTC Deputy Executive Director Fremier's June 25th presentation to TAM included a reference to a categorical exemption for this project. Given that a CE has been discussed for months, please explain what triggered environmental review, and state whether a CE is being pursued.
- The project description in the Draft Amendment ("Construction of a new third travel lane by converting the existing shoulder of the eastbound direction of I-580 across the lower deck of the Richmond-San Rafael Bridge to a travel lane") is inconsistent with the Project Fact Sheet, which describes a "Peak-Period Use Lane on I-580 Freeway." Please decide whether this is to be a full-time lane or a peak-period lane, and be consistent.
- The Report for TIP Revision 2015-18 asserts a 50%-50% mode share between autos and bike-ped users. This unfairly gives the appearance that the benefits and costs are shared equally between the modes. Please use a consistent methodology to allocate an appropriate share to each mode. Allocated cost or projected person-trips are two methodologies that come to mind.

# **Draft Conformity Analysis**

- Page 3 offers the one-sentence conclusion that "the project results in negligible changes in the air quality conformity analysis..." Because it is so difficult--or impossible--to actually find the substantiation for that conclusion within this document, please quantify those changes.
- Figure 3 of Appendix C has no content.
- Figure 17 of Appendix C suggests that future RTP alternatives should be constructed using <u>completely</u> different strategies, to enable their comparison and evaluation. The results from these alternatives are so similar that they offer no useful information on how to optimize the RTP's strategy for achieving its goals.

## **Draft Addendum**

- O-1.1 On page 4, Andersen Drive is misspelled.
- We believe that the congestion described on page 4 is the result not of growth, but of a change in traffic patterns resulting from the opening of the Richmond Parkway, which shifted traffic from the Bay Bridge to the Golden Gate. To competently fulfill their assigned responsibilities, MTC and Caltrans need to have a detailed quantitative handle on these changing traffic patterns.
- Project Element 1 on page 5 should refer to the Main Street on-ramp, not off-ramp. This description entirely misses the proposed conversion of the I-580 road shoulder from the Sir Francis Drake on-ramp to the Bridge approach. We believe this to fully be part of the project.
- Contrary to prior MTC information, the discussion of the pilot project on page 5 states that the peak-period use of the third lane will be permanent ("After 4 years, the third lane on the RSR Bridge may be made permanent, or will return to function as a shoulder during the off-peak hours.") What exactly is being piloted?
- Table 1, the impact table, is unnecessarily confusing and difficult to interpret.

  Adding a separate column for Yes or No to the right of "Conclusion in DEIR/FEIR" would be very helpful. It could be labeled "Significant Project Impacts."
- L-1.6 It is misleading to group Impacts 2.2-3(a)&(b) together. 2.2-3(b) needs to be separated so as to avoid the misleading impression that the "No" is meant to cover it.
- The Transportation discussion on page 45 is misleading where it says "Where helpful, 2013 FEIR findings are included in the tables for comparative purposes.<sup>3</sup> FN3: In many instances the findings in the 2013 FEIR are identical to the updated modeling results. 2013 FEIR data is shown in parenthesis where it differs from the revised data." In fact, 2013 FEIR findings are only displayed for percentage calculations. We could find no other instance of a parenthesis in these tables. The reader should be the judge of what is helpful. Comparative data would be helpful for each data point that differs from 2013 findings.
- O-1.8 The non-availability of data makes it impossible to determine whether the project results in induced demand. That was TRANSDEF's only substantive question.

3

O-1.9

 The discussion of the significant increase in PM<sub>10</sub> emissions was handled so awkwardly that on the first two readings, it appeared that the Project caused the 12% increase. Please change the language to say "The 2013 FEIR found a 12% increase in PM<sub>10</sub>. The addition of the Project does not change that."

O-1.10

• We can find no basis for the 2040 Transportation Emissions Subtotal, 19,912,202, in Table 17. It does not correspond to Table 16. What is the justification for using a different number? The text on page 58 is very vague.

O-1.11

 Figure 2 appears to have been a poster board presentation shrunk down to fit on a page. Its scale makes the lettering and details so small as to be completely illegible. Please provide a figure that is intended to be displayed at a letter-sized scale.

O-1.12

Given the unacceptable level of service conditions in Marin County that are described on page 4 of the Addendum, TAM requested a proposal from MTC/Caltrans for the interim opening of the third lane on the Bridge during the two-year construction period. The thinking was "Why subject our residents to these traffic conditions for that period if traffic can be ameliorated on a temporary basis?" The June 25 presentation by MTC Deputy Executive Director Fremier offered no compelling explanation for why thousands of people need to be inconvenienced for two more years.

O-1.13

It appears that there is a significant misunderstanding as to how an appropriate opportunity cost for <u>not implementing</u> an interim solution is to be calculated. The potential benefit to many thousands of people was ignored, to avoid inconveniencing the painting contractor working on the Bridge, who is occupying its third lane. MTC needs to do a thorough evaluation of the cost of a change order for the staging of the painting contract, and compare it to the travel time savings of large numbers of people.

O-1.14

Issues involving access to I-580 from Western Drive need to be evaluated by determining how to provide the greatest good for the greatest number, along with some form of mitigation for impaired access.

Thank you for this opportunity to comment on the Draft Amendment to Plan Bay Area (2013).

Sincerely,

/s/ DAVID SCHONBRUNN

David Schonbrunn, President

CC: Dianne Steinhauser, TAM Randy Iwasaki, CCTA

# Responses to Comment Letter O-1: Transportation Solutions Defense and Education Fund

- O-1.1 The commenter points out a spelling error related to Andersen Drive. MTC and ABAG have revised the spelling of Andersen Drive in the Addendum.
- O-1.2 The commenter suggests that the congestion described on page 4 of the Draft Addendum is not the result of growth, but of traffic pattern changes resulting from the opening of the Richmond Parkway. Further, the commenter asserts that MTC and Caltrans need to have a detailed quantitative handle on these changing traffic patterns.

MTC and ABAG appreciate the commenter's concerns regarding traffic patterns. The 2013 Plan Bay Area is subject to the California Environmental Quality Act (CEQA) and, as a result, a program EIR was prepared and that program EIR was subsequently amended to reflect the proposed addition of Richmond-San Rafael (RSR) Bridge Access Improvements Project (Project). Project-level traffic studies are not prepared as part of this program-level EIR. The Bay Area Toll Authority (BATA) is preparing a series of project-level traffic studies that include a detailed traffic operational analysis of the I-580 corridor from US 101 to I-80. This includes projections for traffic that will be exiting at Richmond Parkway. Notably, increases in congestion along the I-580/RSR Bridge corridor may be associated a number of factors, including the opening of Richmond Parkway, population and job growth and ancillary travel demand in Marin and Contra Costa Counties, or any land use project-specific trip generating changes.

O-1.3 The commenter maintains that Project Element on Page 5 of the Draft Addendum should refer to the Main Street on-ramp, not off-ramp, as the description misses the proposed conversion of the I-580 road shoulder.

The segment of I-580 between Sir Francis Drake and the Main Street off-ramp is not included as part of the shoulder conversion to a third eastbound lane because a full time third lane already exists for that segment of the freeway. The auxiliary lane that ends at the Main Street off-ramp is proposed to continue onto the RSR Bridge rather than stop at the off-ramp.

O-1.4 The commenter queries the 4-year pilot component of the project for the third lane on the RSR Bridge.

Caltrans, MTC, and BATA agreed that the conversion of the existing shoulder on eastbound Richmond-San Rafael Bridge to a peak-period use third lane should be implemented as a pilot project for a period of 4-years. The purpose of the pilot is to allow Caltrans to assess how effective the project is at reducing congestion in the eastbound direction while still maintaining a safe facility for the travelling public. After 4 years, the third lane may be made into a permanent general purpose lane, peak-period lane, or revert back to a shoulder.

O-1.5 The commenter asserts that Table 1 in the Draft Addendum is confusing and difficult to interpret.

MTC and ABAG appreciate the commenter's suggestion regarding Table 1's readability. In order to assist with the interpretation of Table 1, additional text has been added under Section 3.2 and before Table 1 to help clarify that no new project impacts would result with the addition of the Richmond-San Rafael Bridge Access Improvement Project in Plan Bay Area. Table 1 presents the previous conclusions in the FEIR and well as the conclusions with the Project and has not been changed since the release of the Draft Addendum.

O-1.6 The commenter points out that the merging of impacts 2.2-3(a) & (b) in Table 1 is misleading to readers.

MTC and ABAG appreciate the thoughtful suggestion to help better present results in Table 1. Impacts 2.2-3(a) & (b) have been separated for clarity.

O-1.7 The comment pertains to the Transportation discussion on page 45, and asserts that there is a lack of helpful comparative data, which would assist with interpreting the 2013 Plan Bay Area EIR findings.

In response, MTC and ABAG have added columns to Table 2 and several other of the transportation tables to separately report the change from the baseline (2010) and the original Plan Bay Area (not just the amended Plan Bay Area data) to provide more data for readers and add clarity to help readers interpret the tables.

O-1.8 The commenter reasserts that the lack of data makes it difficult to determine effects of the Project.

MTC and ABAG direct the commenter to refer to response to comment O-1.7. Additional data from the original Plan Bay Area EIR was added to Table 2.

O-1.9 The commenter points out that the discussion of  $PM_{10}$  emissions is unclear, and suggests an edit to help clarify the language.

MTC and ABAG appreciate the suggested clarifying text, and the language has been revised accordingly.

O-1.10 The commenter finds that data in Tables 16 and 17 are not consistent.

MTC and ABAG appreciate the commenter's finding and Tables 16 and 17 have been revised to correct the errors noted by commenter.

O-1.11 The commenter requests an updated Figure 2 that is clearer and scaled to letter-size.

MTC and ABAG have noted the concern. Additional measures have been taken to ensure Figure 2 is legible to readers. A link to the project website has been added intext, which has detailed project information and graphical representations, including Figure 2. The commenter and other interested individuals may keep apprised of the project through the project website, available here:

http://mtc.ca.gov/projects/rsr\_bridge/.

O-1.12 Questions were raised regarding the timeline to complete the Richmond-San Rafael Bridge Access Improvement Project.

MTC supports expedited delivery of access improvements to mitigate existing congestion, and as such, have worked to find ways to reduce the overall implementation schedule by over one year while meeting all required federal, state, and environmental planning requirements and engineering and project delivery requirements.

O-1.13 Questions were raised regarding the timeline to complete the RSR Bridge Project and the existing painting contract that is in place.

MTC, ABAG, and BATA agree that the existing painting contract is a significant constraint; however the critical path in the project implementation schedule is still the ability to satisfy the project-level environmental review requirements set forth in CEQA and NEPA.

O-1.14 The commenter questions the impaired access to I-580 from western Drive, and states the need for evaluation and mitigation.

MTC and ABAG appreciate the thoughtful comment related to access. The 2013 Plan Bay Area is subject to CEQA and, as a result, a program-level EIR was prepared. The program-level EIR was subsequently amended to reflect the proposed addition of Richmond-San Rafael Bridge Access Improvement Project. Project-level traffic studies are not prepared as part of this program-level Addendum to the EIR. Specific access and other transportation related issues associated with the Project are being addressed in the project-level environmental review specific to the Richmond-San Rafael Bridge Access Improvement Project.



September 2015

This page intentionally left blank.