JACK LONDON SQUARE REDEVELOPMENT PROJECT

Addendum to the 2004 EIR
SCH No. 2003022086

Prepared for
The City of Oakland

May 9, 2014

ESA

JACK LONDON SQUARE REDEVELOPMENT PROJECT

Addendum to the 2004 EIR
SCH No. 2003022086

Prepared for
The City of Oakland

May 9, 2014

350 Frank H. Ogawa Plaza
Suite 300
Oakland, CA 94612
510.839.5066
www.esassoc.com

Los Angeles

Olympia

Petaluma

Portland

Sacramento

San Diego

San Francisco

Seattle

Tampa

Woodland Hills

120939

OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

TABLE OF CONTENTS

Jack London Square Redevelopment Project Addendum to the 2004 EIR

Page

List of Figures

List of Exhibits

List of Tables

CHAPTER 1
Introduction

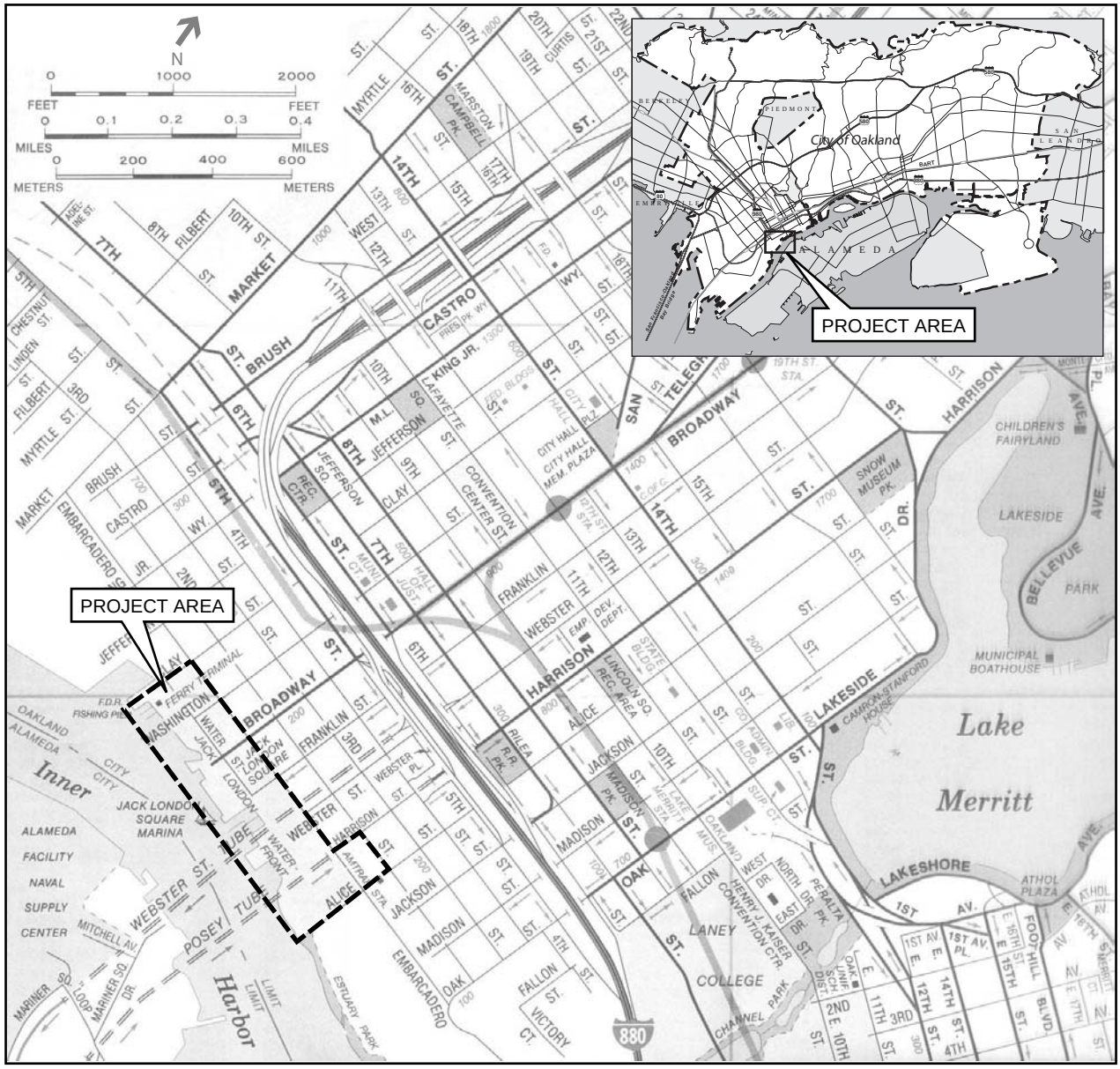
1.1 Overview

The City of Oakland ("City") is the Lead Agency (pursuant to State and local guidelines for implementing the California Environmental Quality Act [CEQA]), and has prepared this Addendum subject to CEQA (Public Resources Code Section 21000, et seq. and Section 15000, et seq.) and the State CEQA Guidelines (California Code of Regulations). The City has prepared this Addendum to the Jack London Square Redevelopment Project Environmental Impact Report (EIR), SCH No. 2003022086, which the Oakland City Council certified on July 6,2004 (the "2004 EIR").

As shown in **Figure 1-1**, **2004 Project Area Location**, Jack London Square is located along the Oakland Estuary waterfront, generally at the terminus of Broadway, one-half mile from downtown Oakland. The project sponsor, JLSV Land LLC, proposes to modify the existing project approvals for the Jack London Square Project that was evaluated under the 2004 EIR and approved by the City in 2004 (the "Approved Project").

The existing project approvals include a Planned Unit Development ("PUD") that serves as the Preliminary Development Plan ("PDP") for the Approved Project, as well as a Development Agreement that was entered into with respect to the Approved Project. The project sponsor's current proposal is to modify these approvals to (1) modify the PUD to add the potential to develop residential uses on two of the nine development sites (Sites D and F2) that make up the Jack London Square Project Site, and (2) modify the PUD to remove the previously-imposed "cap" on the amount of office use that could be developed with the project on Sites D and F2. This Addendum specifically addresses the environmental effects of the project sponsor's current proposal, and to the extent necessary to address the conditions of supplemental CEQA review (discussed further in this chapter, under *Scope of this Addendum Under CEQA Guidelines Section 15162*), the environmental effects of the Approved Project are revisited for certain topics..

The 2004 Approved Project includes several commercial variants for each of the component sites. The project sponsor now proposes to add residential variants to Sites D and F2. In order to ensure that the CEQA analysis addresses the most intensive potential impacts that could result from any possible combination of these variants, this Addendum evaluates multiple scenarios (outlined below).



SOURCE: California State Automobile Association; ESA

Jack London Square Redevelopment EIR Addendum . 120939

Figure 1-1

2004 Approved Project Area Location

Project Terms

The following terms pertinent to the project sponsor's current proposal are used throughout this Addendum and described in greater detail in Chapter 3, *Project Description*, of this document:

"**2004 Approved Project**" (or simply "**Approved Project**") is generally the project that was evaluated in the certified 2004 Final EIR and approved by the City in 2004. It includes a set of commercial land uses and building configurations (referred to as "variants") that could be developed on the Jack London Square Project Site, which includes nine development sites. When this Addendum refers to the 2004 Approved Project or the Approved Project in the context of CEQA review, those terms refer to the most intensive (from an environmental impact perspective) combination of proposed commercial-use variants that were approved as part of the 2004 Approved Project.[1]

"**2003 DEIR Project**" is the mixed use program that was analyzed in the 2004 Draft EIR document. It included the consideration of residential uses on Site G, which were removed from the proposed project before the 2004 Final EIR was produced and the project was approved. The 2003 DEIR Project is referenced in this Addendum only when it is important to distinguish it from the 2004 Approved Project.

"**2014 Modified Project**" is the project sponsor's current proposal to modify its existing approvals as described above (see *Overview*); it seeks to (1) modify the PUD to add the potential to develop residential uses on Sites D and F2, and (2) modify the PUD to remove an office use "cap" from Sites D and F2. Regarding (1), the 2014 Modified Project adds three new residential-only variants that could be developed on Sites D and F2; the variants on the remaining sites under the 2014 Modified Project would all continue to develop commercial uses as analyzed in the 2004 Final EIR for the Approved Project.

When this Addendum refers to the 2014 Modified Project without the parenthetical reference specifically to the Maximum Residential Scenario (described immediately below), this term refers to the full set of variants – residential and commercial – for all sites, factoring in the proposed office cap change.

"**Maximum Residential Scenario**" refers to the most intensive (from an environmental impact perspective) combination of variants that are proposed as part of the 2014 Modified Project, with the provision that only the most intensive of the three newly-proposed residential variants each for Sites D and F2 (not any of the commercial-use variants) are considered for Sites D and F2. As a result, the Maximum Residential Scenario reflects a project that is essentially identical to the 2004 Approved Project, except that Sites D and F2 are assumed to have been developed with the most intensive (from an environmental standpoint) residential variant proposed as part of the 2014 Modified Project. The Maximum Residential Scenario is evaluated in this document to

[1] In order to reflect actual construction that has occurred since 2004, this analysis considers the most intensive scenario that is now possible for the 2004 Approved Project, which is slightly different from (and slightly less intensive than) the scenario that was studied in the Final EIR. The reason this scenario is slightly less intensive than the scenario that was studied in the Final EIR is that, since 2004, certain sites have been fully developed with a less intensive combination of uses than that studied for the sites by the 2004 EIR.

provide an analysis for the most intensive residential variants for each of Sites D and F2 that could occur under the proposed project.[2]

"**Jack London Square Project**" represents the entire development proposed for the Jack London Square Project Site: the Approved Project and the potential to develop residential uses on Sites D and F2 by the 2014 Modified Project.

This Addendum demonstrates that no additional CEQA review is required as none of the conditions requiring preparation of a Supplemental or Subsequent EIR, as specified in Public Resources Code section 21166 and CEQA Guidelines sections 15162 and 15163, are present (also see Section 1.3, *Purpose and CEQA Context*, below.) For each environmental topic addressed by CEQA, this Addendum reviews the 2014 Modified Project in light of the City's current CEQA Thresholds/Criteria of Significance and Uniformly Applied Standards and Conditions of Approval to determine whether any updates or revisions to the 2004 EIR analysis or conclusions are required.

1.2 Project Background

2004 Approved Project and EIR

On July 6, 2004, the Oakland City Council certified the 2004 EIR and approved the 2004 Approved Project.[3] The project sponsor, Jack London Square Partners, LLC, proposed to redevelop areas within the Jack London Square area by intensifying existing office, retail, and dining establishments with new construction. The Project Site encompasses nine development sites, and the Approved Project identified combinations of land uses and building configurations (referred to as "variants") that could be developed on each site. Overall, the Approved Project would develop up to approximately 960,700 net new gross square feet (gsf) of commercial uses.

The 2004 EIR identified significant impacts for the Approved Project associated with traffic intersection operations and air quality emissions. All other significant impacts associated with the Approved Project would be less than significant, some requiring mitigation measures.

JLSV Land LLC is the project sponsor. Since 2004, three new buildings and four new plazas/greens have been constructed within the project area, consistent with the terms of the existing approvals and within the approved office use cap.

---

2 To ensure a conservative CEQA analysis, only the most intensive residential variants for each of Sites D and F2 are considered and analyzed within this Addendum.

3 The Approved Project was introduced in the 2004 Responses to Comments / Final EIR document as a smaller version of the project that was described and analyzed in the Draft EIR. On May 12, 2004, in response to an appeal of the project, the City Council amended mitigation measures B.4 and C.2 in the EIR and in the Mitigation Monitoring and Reporting Program for the Approved Project. As used herein, the term "2004 EIR" incorporates the amendments that were adopted by the City Council.

2014 Modified Project

As described in the previous section, JLSV Land LLC now proposes the 2014 Modified Project, which would add residential variants to the commercial-use variants previously approved for Sites D and F2 as part of the PUD for the Approved Project. The 2014 Modified Project includes the addition of three new residential variants for each of Sites D and F2 in the existing PUD.[4]

Tabular comparisons of the Approved Project and the Maximum Residential Scenario are presented in Chapter 3, *Project Description*.

1.3 Purpose and CEQA Context

Purpose of this Addendum

According to CEQA Guidelines Section 15162, a Subsequent or Supplemental EIR is required when:

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

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration 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 Negative Declaration was adopted, shows any of the following:

   a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

   b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

   c. 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 the project proponents decline to adopt the mitigation measure or alternative.

[4] Although the project sponsor's current proposal also involves removing an office use "cap" from Sites D and F2, doing so does not represent a "change" from the project that was previously analyzed pursuant to CEQA, as discussed below with Table 1-1.

e. Section 15164 of the CEQA Guidelines states that an addendum may be prepared if some changes or additions are necessary to a certified EIR and none of the above-stated conditions are present. Based on a review of the 2014 Modified Project and existing conditions, analysis concludes that there is no substantial change proposed that would require major revisions to the 2004 EIR; that there is no substantial change in circumstances that would cause new significant impacts or a substantial increase in the severity of previously identified significant impacts; and that there is no new information of substantial importance that shows 1) new significant impacts, 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project (CEQA Guidelines Section 15162). Therefore, the City has determined that an addendum to the previously certified 2004 EIR is the appropriate form of CEQA analysis for the Maximum Residential Scenario.

Scope of this Addendum Under CEQA Guidelines Section 15162

The scope of the supplemental CEQA review of the Maximum Residential Scenario focuses on: 1) changes to the 2004 Approved Project that could result in physical impacts; or 2) changes in circumstances since 2004 or new information that could not have been known in 2004 that could result in the identification of physical impacts. **Table 1-1**, below, sets forth the scope of the supplemental review undertaken pursuant to these requirements.

TABLE 1-1
CEQA REVIEW (UNDER SECTION 15162) OF THE REQUESTED APPROVALS

CEQA Guidelines	Proposed Action or Consideration	Scope of Addendum Analysis
Sec.15162(a)(1) Substantial changes proposed in the project *(Project sponsor-initiated modifications proposed to the 2004 Approved Project*	2014 Modified Project: • ***Residential Variants:*** Modify 2004 PUD to add residential variants to Sites D and F2 • ***Residential Uses / Sensitive Receptors:*** Modify 2004 PUD to add sensitive receptors at Sites D and F2 and be expose persons to substantial toxic air contaminants.	• Sites D and F2 Only
	• ***Office Cap Removal*****:** *Modify* PUD to *remove* 2004 office use "cap" on Sites D and F2	• Not Addressed. The project evaluated by the 2004 EIR did not include any limitations on the amount of office uses that could be developed; thus, that element of the current proposal does not constitute a "change" from a CEQA standpoint.
Sec.15162(a)(2) Changes in Circumstances, and Sec.15162(a)(3) New Information [a] *(Changes to the context within which the Jack London Square Project would occur))*	• ***Transportation and Circulation*****:** Updates to environmental setting, traffic model, vehicle trip generation methodology, and City's significance thresholds established after the 2004 EIR.	• Entire Jack London Square Project (All Sites): Approved Project and 2014 Modified Project
	• ***Total Cumulative Noise*****:** Updates to City's methods established after the 2004 EIR.	• Entire Jack London Square Project (All Sites): Approved Project and 2014 Modified Project

[a] Air quality and global climate change are not considered "changed circumstances" or "new information" since information regarding these topics was known, or could have been known, in 2004. To the extent that the "proposed changes to the project" would introduce sensitive receptors (residents) to Sites D and F2, thereby potentially exposing people to toxic air contaminants, is addressed in this Addendum, and discussed in the context of CEQA Section 15162,

SOURCE: CEQA Guidelines Section 15162; ESA

Consideration of "Changes Proposed in the Project"

The City has prepared this Addendum to analyze the potential environmental effects of the project sponsor-initiated changes to the Approved Project to determine the extent to which "substantial changes proposed in the project" will require major revisions to the 2004 EIR (CEQA Guidelines Section 15162, consideration #1 listed above[5]).

The only components of the project sponsor's current proposal that could potentially affect the environment (and therefore the 2004 EIR Findings) are the addition of variants that would allow for development of residential uses on Sites D and F2 of the Jack London Square Project Site, and removal from Sites D and F2 of the existing office use "cap" included in the Approved

[5] CEQA Guidelines Section 15162(a)(1).

Project PUD. However, the project evaluated by the 2004 EIR did not include any limitations on the amount of office uses that could be developed (this was imposed later at a City Council hearing on the project); thus, that element of the current proposal does not constitute a "change" from the project that was previously analyzed pursuant to CEQA. Therefore, the addition of residential variants is the only "change proposed in the project" considered pursuant to CEQA Guidelines Section 15162. Table 1-1 summarizes the scope of this Addendum relative to all aspects of the project sponsor's current proposal.

The 2004 EIR already analyzed the environmental effects of, and identified feasible mitigation measures for, the Approved Project. In accordance with CEQA Guidelines Section 15164, this Addendum contains only the information necessary to make the 2004 EIR adequate for the 2014 Modified Project. All environmental topics identified in the City's CEQA Thresholds/Criteria of Significance document are analyzed to identify the potential effects of developing residential uses on Sites D and F2 under the Maximum Residential Scenario – the most intensive of the residential variants (from an environmental impact perspective).

This Addendum discusses the reasons for determining that effects would not result in new or substantially more severe significant impacts than those already identified and disclosed in the 2004 EIR, which includes the 2003 Initial Study, 2003 Draft EIR (2003 DEIR), and 2004 Final EIR (FEIR). Each of these 2003-2004 CEQA documents are incorporated in this Addendum by reference and are available at the City's Department of Planning, Building & Neighborhood Preservation at 250 Frank H. Ogawa Plaza, Suite 2114, and on the City's website.[6]

Consideration of "Changed Circumstances" and "New Information"

This Addendum also assesses the extent to which "substantial changes to the circumstances" under which the project is undertaken have occurred that may indicate a new significant impact or a substantial increase in significant environmental impact associated with the 2004 Approved Project) (CEQA Guidelines Section 15162, consideration #2 listed above[7]), and the extent to which "new information of substantial importance" was known, or could have been known, with the exercise of reasonable diligence at the time of the previous CEQA documents that may indicate a new significant impact or a substantial increase in significant environmental impact associated with the 2004 Approved Project (CEQA Guidelines Section 15162, consideration #3 listed above[8]).

As summarized above in Table 1-1, these two considerations pertain to the context within which the 2004 Approved Project would occur (instead of the project sponsor's proposed changes to the project), and therefore are considerations applicable to both the 2004 Approved Project and the 2014 Modified Project.

6 The 2004 CEQA documents for the Jack London Square Project are available on the City of Oakland's official website, http://www2.oaklandnet.com/Government/o/PBN/OurServices/Application/DOWD009158.
7 CEQA Guidelines Section 15162(a)(2).
8 CEQA Guidelines Section 15162(a)(3).

This Addendum provides summary CEQA analysis with respect to certain environmental topics where the analysis, and the circumstances and information that applied to that analysis, have been determined to remain consistent with those set forth in the 2004 EIR. Significance determinations for these topics are based on the thresholds from the 2004 EIR.

This Addendum analyzes the following two topics in more depth for *both* the 2004 Approved Project and the 2014 Modified Project (specifically the Maximum Residential Scenario, representing the most intensive set of residential variants in the 2014 Modified Project), because there exist changed circumstances, and/or new information, with respect to those topics

- **Transportation and Circulation:** Transportation and circulation, including pedestrian circulation, are analyzed in detail to update the environmental setting information, to update potential impacts based on the updated traffic model, and to analyze the 2014 Modified Project's potential impacts under the City's current transportation and circulation significance thresholds and vehicle trip generation methodology established after publication and certification of the 2004 EIR.
- **Cumulative Noise:** Cumulative noise considering the *combined* effects of stationary and operational noise is analyzed pursuant to analysis methods the City established after publication and certification of the 2004 EIR.

Since certain information regarding air quality and global climate change was known, or could have been known, in 2004 and later, it is not "new information" as defined under CEQA, nor does it represent "changed circumstances." Therefore, significance determinations in this Addendum with respect to air quality and global climate change are based on the thresholds from the 2004 EIR in conformance with the requirements of CEQA Guidelines Section 15162. However, an analysis of the 2014 Modified Project that relies on the City's current significance thresholds for those two topics (which rely upon the May 2011 Bay Area Air Quality Management District [BAAQMD] CEQA Guidelines) has nevertheless been conducted in order to provide more information to the public and decision-makers and to determine whether the 2014 Modified Project would warrant application of the City's SCAs related to greenhouse gas emissions. The assessment that relies on the City's current significance thresholds for toxic air contaminants (TACs) is also appropriate in this Addendum also because the new potential to expose new sensitive receptors (residents) on Sites D and F2 to substantial levels of TACs would result specifically as a result of "change proposed in the project" considered under CEQA Guidelines Section 15162.

Standard Conditions of Approval

This Addendum updates some of the regulatory setting, impact conclusions, and mitigation measures in the 2004 EIR to incorporate, in certain instances, the City's *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) established after publication of the 2004 EIR, as described below.

General SCA Application

The City's SCAs are incorporated into new and changed projects as conditions of approval regardless of a project's environmental determination. The SCAs incorporate policies and standards from various adopted plans, policies, and ordinances (such as the Oakland Planning and Municipal Codes, Oakland Creek Protection Ordinance, Stormwater Water Management and Discharge Control Ordinance, Oakland Tree Protection Ordinance, Oakland Grading Regulations, National Pollutant Discharge Elimination System (NPDES) permit requirements, Housing Element-related mitigation measures, California Building Code and Uniform Fire Code, among others), which have been found to substantially mitigate environmental effects. The SCAs are adopted as requirements of an individual project when it is approved by the City and are designed to, and will, substantially mitigate environmental effects.

SCA Application in this Addendum

Because the SCAs are mandatory City requirements, the impact analyses for new and, as addressed in this Addendum, modified projects assume that these will be imposed and implemented by the project in question. Specifically, this analysis assumes that appropriate SCAs will apply to those aspects of the project sponsor's current proposal that are "changes" to the Approved Project. As previously discussed under *Scope of this Addendum Under CEQA Guidelines Section 15162*, the only change to the Approved Project (and that is addressed in this Addendum because it could affect the environment) is the addition of residential variants on Sites D and F2 under the Maximum Residential Scenario; the removal of the office "cap" is not considered a "change" as it was previously addressed in the 2004 EIR. Therefore, all of the relevant SCAs have been incorporated into the Maximum Residential Scenario for Sites D and F2 and supersede potentially significant impacts and mitigation measures identified in the 2004 EIR that apply to Sites D and F2.

1.4 Document Content and Organization

Following this Chapter 1, *Introduction*, this Addendum is organized as follows:

Chapter 2, *Summary*, contains a brief description of the 2014 Modified Project and Maximum Residential Scenario, and a summary table that allows the reader to easily reference the analysis and conclusions presented throughout the Addendum.

Chapter 3, *Project Description*, describes the 2014 Modified Project and Maximum Residential Scenario and its setting in detail and in comparison to the Approved Project, and also describes the 2014 Modified Project objectives and their differences from those of the Approved Project. Chapter 3 also identifies the requested approvals.

Chapter 4, *Environmental Setting, Impacts, Standard Conditions of Approval, and Mitigation Measures.* For all environmental topics, Chapter 4 provides relevant updates of existing conditions and applicable regulations and/or significance thresholds; identifies and updates impacts and mitigation measures for certain topics, based on the applicable SCAs; and provides

sufficient analysis to confirm that the 2014 Modified Project and Maximum Residential Scenario would not result in any new or substantially more severe significant impacts than identified in the 2004 EIR.

Chapter 5*, Report Preparation*, identifies the authors of this Addendum, including City staff, the Addendum consultant team, and the technical consultants.

All reference documents and persons contacted to prepare the Addendum analyses are listed at the end of each analysis section in Chapter 4, *Environmental Setting, Impacts, Standard Conditions of Approval and Mitigation Measures*.

The Addendum document is available for review by the public at the City of Oakland Department of Planning, Building, and Neighborhood Preservation, under reference Case Number ER03-0004, located at 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, California 94612.

This page intentionally left blank

CHAPTER 2
Summary

2.1 Overview

The City of Oakland (City), as the Lead Agency (pursuant to State and local guidelines for implementing the California Environmental Quality Act [CEQA]), has prepared this Addendum to the Jack London Square Redevelopment Project Environmental Impact Report (EIR), SCH No. 2003022086, which the Oakland City Council certified on July 6, 2004 (the 2004 EIR").

The project sponsor, JLSV Land LLC, proposes a 2014 Modified Project to modify the existing project approvals for the Jack London Square Project that was evaluated under the 2004 EIR and approved by the City in 2004 (the "Approved Project"). The 2014 Modified Project would (1) modify the PUD to add the potential to develop residential uses on two of the nine development sites (Sites D and F2) that make up the Jack London Square Project Site, and (2) modify the PUD to remove a previously-imposed "cap" on the amount of office use that could be developed with the project on Sites D and F2.

This Addendum focuses on the addition of most intensive (from an environmental impact perspective) combination of residential variants to the PUD to ensure a conservative analysis. The Maximum Residential Scenario is specifically evaluated in this document to provide an analysis for the most intensive residential variants for each of Sites D and F2 that could occur under the proposed project.[1] This combination of variants is considered the Maximum Residential Scenario, which would develop up to 621,700 net new gross square feet (gsf) of commercial and residential uses (including the up to 665 dwelling units not previously proposed). The 2004 EIR analyzed the most intensive (from an environmental impact perspective) combination of variants, for development of up to 960,700 net new gsf of proposed commercial use, that were approved as part of the 2004 Approved Project. Both the 2004 Approved Project (for certain environmental topics) and the 2014 Modified Project (through its most intensive combination of residential variants, the Maximum Residential Scenario) are therefore studied by this Addendum, as required by CEQA in the supplemental review context.

Table 2-1, below, presents the impact statements, *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) (where applicable), recommended mitigation measures, and the level of significance of the impact after recommended mitigation measures and/or SCAs are implemented. As indicated in Chapter 1, *Introduction*, SCAs are only applied to

[1] To ensure a conservative CEQA analysis, only the most intensive residential variants for each of Sites D and F2 are considered and analyzed within this Addendum.

the aspects of the project sponsor's current proposal that are "changes" to the Approved Project. Thus, SCAs are only identified in Table 2-1 to address the proposed addition of residential variants on Sites D and F2 in the context of the Maximum Residential Scenario.

TABLE 2-1
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
Transportation and Circulation				
Impact TRANS-1: The addition of Approved Project traffic would result in the intersection meeting the conditions of the MUTCD peak hour volume traffic signal warrant during the PM peak hour at the **Webster Street / Embarcadero** intersection, which is expected to operate at unacceptable LOS F under Existing plus Approved Project Conditions. (Significant)	**Mitigation Measure TRANS-1:** All-way stop control shall be installed at the Webster Street / Embarcadero intersection, including high-visibility ladder crosswalks at all intersection approaches, consistent with current City of Oakland crosswalk standards for unsignalized intersections. Stop lines for vehicles shall be placed such that any stopped motorist can clearly see pedestrians intending to cross, and vehicles at opposing intersection approaches.	X		Less than Significant
Impact TRANS-2: The addition of 2014 Modified Project (Maximum Residential Scenario) traffic would result in the intersection meeting the conditions of the MUTCD peak hour volume traffic signal warrant during both peak hours at the **Oak Street / Embarcadero** intersection, which is expected to operate at unacceptable LOS F under Cumulative Year 2035 plus Project 2014 Modified Project Conditions (Maximum Residential Scenario). (Significant)	**Mitigation Measure TRANS-2:** Install traffic signals at the unsignalized Oak Street / Embarcadero intersection. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e. allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.	*(MM TRANS-2 applies as MM TRANS-5, below)*	X	Less than Significant
Impact TRANS-3: The addition of 2014 Modified Project (Maximum Residential Scenario) traffic would result in the intersection meeting the conditions of the MUTCD peak hour volume traffic signal warrant during both AM and PM peak hours at the **5th Avenue / Embarcadero** intersection, which is expected to operate at unacceptable LOS F under Cumulative Year 2035 plus 2014 Modified Project Conditions (Maximum Residential Scenario). (Significant)	**Mitigation Measure TRANS-3**: The following improvements are required to mitigate this impact to a less than significant level: 1. Install traffic signals at the unsignalized 5th Avenue / Embarcadero intersection. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e. allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections. 2. Widen Embarcadero at the 5th Avenue / Embarcadero intersection from one travel lane in each direction into two travel lanes in each direction. Implementation of signalization and widening at the 5th Avenue / Embarcadero intersection would reduce the impact to a less-than-significant level.	*(MM TRANS-3 applies as MM TRANS-6, below*)	X (Measure #1 has already been fulfilled by the project sponsor. Measure #2 will be fulfilled (if necessary) by the Oak to Ninth Project.)	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
Impact TRANS-4: The addition of Approved Project traffic would result in the intersection meeting the conditions of the MUTCD peak hour volume traffic signal warrant during the PM peak hour at the **Webster Street / Embarcadero** intersection, which is expected to operate at unacceptable LOS F under Cumulative Year 2035 plus Approved Project Conditions. (Significant)	**Mitigation Measure TRANS-4:** Implement Mitigation Measure TRANS-1. Implementation of this measure would reduce the impact to a less-than-significant level.	X		Less than Significant
Impact TRANS-5: The addition of Approved Project traffic would result in the intersection meeting the conditions of the MUTCD peak hour volume traffic signal warrant during both peak hours at the **Oak Street / Embarcadero** intersection, which is expected to operate at unacceptable LOS F under Cumulative Year 2035 plus Approved Project Conditions. (Significant)	**Mitigation Measure TRANS-5:** Implement Mitigation Measure TRANS-2, which requires the installation of traffic signals at the unsignalized Oak Street / Embarcadero intersection. Signalization would reduce average intersection delay to LOS B levels during both AM and PM peak hours, mitigating the project's contribution to the impact at this location.	X	*(MM TRANS-5 applies as MM TRANS-2, above)*	Less than Significant
Impact TRANS-6: The addition of Approved Project traffic would result in the intersection meeting the conditions of the MUTCD peak hour volume traffic signal warrant during both peak hours at the **5th Avenue / Embarcadero** intersection, which is expected to operate at unacceptable LOS F under Cumulative Year 2035 plus Approved Project Conditions. (Significant)	**Mitigation Measure TRANS-6:** Implement Mitigation Measure TRANS-3. Implementation of this measure would reduce the impact to a less-than-significant level.	X	*(MM TRANS-6 applies as MM TRANS-3, above*)	Less than Significant
Impact TRANS-7 (previously 2004 Impact B.9): The Project (Approved Project or 2014 Modified Project, Maximum Residential Scenario) would increase the potential for conflicts among different traffic streams. (Potentially Significant)	**Mitigation Measure TRANS-7 (previously 2004 MM B.9a):** The project sponsor shall design vehicular traffic features of Project development (e.g., turning radii for buses and service vehicles, Project parking garage access driveways, and circulation aisles within the parking garages) to meet the design standards set forth by the American Association of State Highway and Transportation Officials (AASHTO) in *A Policy on Geometric Design of Highways and Streets*, or other design standards deemed appropriate by the City of Oakland.	X	X	Less than Significant
Impact TRANS-8: The Project (Approved Project or 2014 Modified Project, Maximum Residential Scenario) would not increase the potential for pedestrian conflicts or expose pedestrians to a	**Mitigation Measure TRANS-8:** The following measures shall be implemented to mitigate the potential safety impact:	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
permanent and substantial transportation hazard. (Potentially Significant for Approved Project; Less than Significant for 2014 Modified Project, Maximum Residential Scenario)	• Install pedestrian signal heads (with adequate time for pedestrians to cross Embarcadero) when new traffic signals are installed as part of the Project. • Install informational signs to indicate to pedestrians where pedestrian bridges are located. • Install warning signs, and/or audible signals, at parking garage access points to alert pedestrians about approaching vehicles.			
Impact TRANS-9 (previously 2004 EIR Impact B.12): Project construction (Approved Project or 2014 Modified Project, Maximum Residential Scenario) would affect traffic flow and circulation, parking, and pedestrian safety. (Potentially Significant for Approved Project; Less than Significant for 2014 Modified Project, Maximum Residential Scenario)	**Mitigation Measure TRANS-9 (previously 2004 MM B.12):** Prior to the issuance of each building permit, the project applicant and construction contractor shall meet with the Traffic Engineering and Parking Division of the Oakland Public Works Agency and other appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project applicant shall develop a construction management plan for review and approval by the City Traffic Engineering Division. The plan shall include at least the following items and requirements: • A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. In addition, the information shall include a construction staging plan for any right-of-way used on the Embarcadero, Broadway, and Franklin, Alice, and 2nd Streets, including sidewalk and lane intrusions and/or closures. • Identification of any transit stop relocations, particularly along the Embarcadero and 2nd Street. • Provisions for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces. • Identification of parking eliminations and any relocation of parking for employees and public parking during construction. • Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.	X		

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	• Provisions for accommodation of pedestrian flow, particularly along Embarcadero. • Location of construction staging areas for materials, equipment, and vehicles. • Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant. • Temporary construction fences to contain debris and material and to secure the site. • Provisions for removal of trash generated by project construction activity. • A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager.			
	SCA TRANS-2: Construction Management Plan The Project applicant shall submit to the Planning and Zoning Division and the Building Services Division for review and approval a construction management plan that identifies the conditions of approval and mitigation measures related to construction impacts of the Project and explains how the project applicant will comply with these construction-related conditions of approval and mitigation measures.		X	Less than Significant
	SCA TRANS-3: Construction Traffic and Parking *Prior to the issuance of a demolition, grading or building permit.* The Project applicant and construction contractor shall meet with appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this Project and other nearby projects that could be simultaneously under construction. The Project applicant shall develop a construction management plan for review and approval by the Planning and Zoning Division, the Building Services Division, and the Transportation Services Division. The plan shall		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	include at least the following items and requirements: a) A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes; b) Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur; c) Location of construction staging areas for materials, equipment, and vehicles at an approved location; d) A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. Planning and Zoning shall be informed who the Manager is prior to the issuance of the first permit issued by Building Services; and, e) Provision for accommodation of pedestrian flow. Major Project Cases: a. Provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces (see item "p" below); b. Any damage to the street caused by heavy equipment, or as a result of this construction, shall be repaired, at the applicant's expense, within one week of the occurrence of the damage (or excessive wear), unless further damage / excessive wear may continue; in such case, repair shall occur prior to issuance of a final inspection of the building permit. All damage that is a threat to public health or safety shall be repaired immediately. The street shall be restored to its condition prior to the new construction as established by the City Building Inspector and / or photo documentation, at the applicant's expense, before the issuance of a Certificate of Occupancy; c. Any heavy equipment brought to the construction site shall be transported by truck, where feasible; d. No materials or equipment shall be stored on the traveled			

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	roadway at any time; e. Prior to construction, a portable toilet facility and a debris box shall be installed on the site, and properly maintained through Project completion; f. All equipment shall be equipped with mufflers; and, g. Prior to the end of each work day during construction, the contractor or contractors shall pick up and properly dispose of all litter resulting from or related to the project, whether located on the property, within the public rights-of-way, or properties of adjacent or nearby neighbors.			
Air Quality				
Air Quality – Construction: 2014 Modified Project, Maximum Residential Scenario (Less than Significant)	**SCA AIR-1:** Construction-Related Air Pollution Controls (Dust and Equipment Emissions *Ongoing throughout demolition, grading, and/or construction.* During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the BAAQMD: a) Water all exposed surfaces of active construction areas at least twice daily (using reclaimed water if possible). Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible. b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). c) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. d) Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used. e) Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.). f) Limit vehicle speeds on unpaved roads to 15 miles per hour.		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	g) Idling times on all diesel-fueled commercial vehicles over 10,000 lbs. shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations. Clear signage to this effect shall be provided for construction workers at all access points. h) Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes and fleet operators must develop a written idling policy (as required by Title 13, Section 2449 of the California Code of Regulations.) i) All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. j) Post a publicly visible sign that includes the contractor's name and telephone number to contact regarding dust complaints. When contacted, the contractor shall respond and take corrective action within 48 hours. The telephone numbers of contacts at the City and the BAAQMD shall also be visible. This information may be posted on other required on-site signage. k) All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. l) All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph. m) Install sandbags or other erosion control measures to prevent silt runoff to public roadways. n) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more). o) Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress.			

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	p) Install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of the construction site to minimize wind blown dust. Wind breaks must have a maximum 50 percent air porosity. q) Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. r) The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. s) All trucks and equipment, including tires, shall be washed off prior to leaving the site. t) Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel. u) Minimize the idling time of diesel-powered construction equipment to two minutes. v) All equipment to be used on the construction site and subject to the requirements of Title 13, Section 2449 of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations") must meet Emissions and Performance Requirements one year in advance of any fleet deadlines. The project applicant shall provide written documentation that the fleet requirements have been met. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings). w) All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of NO_x and PM. x) Off-road heavy diesel engines shall meet the CARB's most recent certification standard.			
Air Quality – Operations (Project and Cumulative): 2014 Modified Project, Maximum Residential Scenario (Potentially Significant)	**SCA TRANS-1:** Parking and Transportation Demand Management *Prior to issuance of a final inspection of the building permit*. The property owner shall pay for and submit for review and approval by the City a Transportation Demand Management (TDM) plan containing strategies to		X	Significant and Unavoidable

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	1) Reduce the amount of traffic generated by new development and the expansion of existing development, pursuant to the City's police power and necessary in order to protect the public health, safety and welfare. 2) Ensure that expected increases in traffic resulting from growth in employment and housing opportunities in the City of Oakland will be adequately mitigated. 3) Reduce drive-alone commute trips during peak traffic periods by using a combination of services, incentives, and facilities. 4) Promote more efficient use of existing transportation facilities and ensure that new developments are designed in ways to maximize the potential for alternative transportation usage. 5) Establish an ongoing monitoring and enforcement program to ensure that the desired alternative mode use percentages are achieved. The property owner shall implement the approved TDM plan. The TDM plan shall include strategies to increase bicycle, pedestrian, transit, and carpools / vanpool use. All four modes of travel shall be considered, and parking management and parking reduction strategies should be included. Actions to consider include the following: • Inclusion of additional long term and short term bicycle parking that meets the design standards set forth in Chapter Five of the *Bicycle Master Plan*, and Bicycle Parking Ordinance, shower, and locker facilities in commercial developments that exceed the requirement. • Construction of and/or access to bikeways per the *Bicycle Master Plan*; construction of priority Bikeway Projects, on-site signage and bike lane striping. • Installation of safety elements per the *Pedestrian Master Plan* (such as cross walk striping, curb ramps, count-down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials. • Installation of amenities such as lighting, street trees, trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan. • Construction and development of transit stops / shelters,			

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements. • Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency). • Employees or residents can be provided with a subsidy, determined by the property owner and subject to review by the City, if the employees or residents use transit or commute by other alternative modes. • Provision of shuttle service between the development and nearest mass transit station, or ongoing contribution to existing shuttle or public transit services. • Guaranteed ride home program for employees, either through 511.org or through separate program. • Pre-tax commuter benefits (commuter checks) for employees. • Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants. • Onsite carpooling and/or vanpooling program that includes preferential (discounted or free) parking for carpools and vanpools. • Distribution of information concerning alternative transportation options. • Parking spaces sold / leased separately for residential units. Charge employees for parking, or provide a cash incentive or transit pass alternative to a free parking space in commercial properties. • Parking management strategies; including attendant / valet parking and shared parking spaces. • Requiring tenants to provide opportunities and the ability to work off-site. • Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite.			

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	• Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours. The property owner shall submit an annual compliance report for review and approval by the City. This report will be reviewed either by City staff (or a peer review consultant, chosen by the City and paid for by the property owner). If timely reports are not submitted, the reports indicate a failure to achieve the stated policy goals, or the required alternative mode split is still not achieved, staff will work with the property owner to find ways to meet their commitments and achieve trip reduction goals. If the issues cannot be resolved, the matter may be referred to the Planning Commission for resolution. Property owners shall be required, as a condition of approval, to reimburse the City for costs incurred in maintaining and enforcing the trip reduction program for the approved Project.			
2004 Impact C.1 (updated): Activities associated with demolition, site preparation and construction of the Approved Project would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. (Potentially Significant)	**2004 Mitigation Measures C.1a:** During construction, the project sponsor shall require the construction contractor to implement the following measures required as part of BAAQMD's basic enhanced dust control procedures required for sites larger than four acres (such as the proposed project) located in close proximity to sensitive receptors.: • Water all active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible. • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e. the minimum required space between the top of the load and the top of the trailer). • Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. • Sweep daily (with water sweepers using reclaimed water if possible) all paved access roads, parking areas and staging	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	areas at const ruction sites. • Sweep streets (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads. • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more). • Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.). • Limit traffic speeds on unpaved roads to 15 miles per hour. • Install sandbags or other erosion control measures to prevent silt runoff to public roadways. • Limit the amount of the disturbed area at any one time, where feasible. • Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site. • Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas. • Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph. • Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used. • Replant vegetation in disturbed areas as quickly as feasible. • Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the BAAQMD prior to the start of construction as well as posted on-site over the duration of construction.			

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
2004 Impact C.2 (updated): The Approved Project would result in an increase in ROG, NOx and PM emissions due to project-related traffic and on-site area sources. (Potentially Significant)	**2004 Mitigation Measure C.2:** To reduce the significance of the operational impacts of the project, the project sponsor shall implement the following mitigation measures. Mitigation measures required for reducing motor vehicle emissions are provided in *italics* followed by specific measures already included as part of the proposed project. ***Rideshare Measures*** ***C.2a:*** *Encourage tenants at the site to implement carpool/vanpool programs (e.g., carpool, ride matching for employees, assistance with vanpool formation, provision of vanpool vehicles, guaranteed ride home program, etc.).* *Distribute information about the Alameda County Congestion Management Agency's Guaranteed Ride Home Program to tenants of the buildings to facilitate alternative transportation modes. As part of this program, a person who uses an alternate mode of travel, including transit or a carpool, is provided with free taxi service in the case of unexpected circumstances. These circumstances might include unscheduled overtime or a family illness or emergency.* ***C.2b:*** *The project sponsor shall encourage tenants to implement employee rideshare incentive programs providing cash payments or pre-paid fare media such as transit passes or coupons.* ***Transit Measures*** ***C.2c****: Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, etc., as determined appropriate by AC Transit.* ***C.2d:*** *Provide preferential parking for carpool and vanpool vehicles within project parking structures/lots (e.g., near building entrance, sheltered area, etc.) to the extent that there is demand for such spaces.* ***C.2e:*** *Encourage tenants to meet minimum employee ridesharing requirements or provide incentives for them to meet targets.* ***C.2f:*** *Encourage tenants to implement a parking cash-out program for employees (i.e. non-driving employees receive transportation allowance equivalent to the value of*	X		Significant and Unavoidable

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	subsidized parking) ***C.2.f.1:*** *The project sponsor shall post the schedules, fares and routes of local public transit services provided within the project vicinity, including the Water Taxi, the Ferry and AC Transit, at several publicly visible locations throughout the project site.* ***C.2.f.2:*** *The project sponsor shall participate in current and future public transportation studies for the Jack London District sponsored by local or regional government agencies, and intended to address long term public transportation solutions/alternatives for the area.* ***Shuttle Measures*** *C.2.g Provide shuttle service from project to transit stations/multimodal centers during peak hours.* *The project sponsor would provide a private shuttle service for employees of, and visitors to, the project site between the project site and the 12th Street BART station during peak traffic hours.* ***Bicycle and Pedestrian Measures*** ***C.2h:*** *Provide adequate amount of bicycle parking at or in the vicinity of the project site.* ***C.2.i****: Provide secure, weather-protected bicycle parking for employees.* ***C.2.j:*** *Provide showers and lockers for employees bicycling or walking to work.* ***C.2.k:*** *Provide direct safe, attractive pedestrian and bicycle access to transit stops and adjacent development.* ***C.2.l:*** *Provide adequate street lighting within the street right of way immediately adjacent to and within the project site.* ***C.2.l.1:*** *The project sponsor shall post information indicating the identified City of Oakland Bicycle Routes serving the project and vicinity, as well as the location of the Bay Trail, at several publicly visible locations throughout the project site.*			

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
2004 Impact C.5 (updated): The Approved Project, together with anticipated future cumulative development in Oakland and the Bay Area in general, would contribute to regional air pollution. (Potentially Significant)	**2004 Mitigation Measure C.5:** Implement Mitigation Measure C.2 (listed above).	X		Significant and Unavoidable
Greenhouse Gases and Global Climate Change				
Operational GHG Emissions: 2014 Modified Project, Maximum Residential Scenario *(For Informational Purposes)* (Less than Significant)	**Mitigation:** None Required.		X	Less than Significant
	SCA TRANS-1: Parking and Transportation Demand Management This SCA is listed in this table under *Air Quality – Operations (Project and Cumulative)*		X	Less than Significant
	SCA UTL-1: Waste Reduction and Recycling This SCA is listed in this table under *Utilities and Service Systems.*		X	Less than Significant
	SCA UTL-3: Compliance with the Green Building Ordinance, OMC Chapter 18.02 This SCA is listed in this table under *Utilities and Service Systems*.			Less than Significant
	SCA AES-1: Landscape Requirements for Street Frontages *Prior to issuance of a final inspection of the building permit.* On streets with sidewalks where the distance from the face of the curb to the outer edge of the sidewalk is at least six and one-half (6 ½) feet and does not interfere with access requirements, a minimum of one (1) twenty-four (24) inch box tree shall be provided for every twenty-five (25) feet of street frontage, unless a smaller size is recommended by the City arborist. The trees to be provided shall include species acceptable to the Tree Services Division.		X	Less than Significant
	SCA BIO-2: Tree Replacement Plantings This SCA is listed in this table under *Biological Resources.*		X	Less than Significant
	SCA HYD-1: Erosion and Sedimentation Control Plan This SCA is presented in this table under *Hydrology and Water Quality*.		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	SCA HYD-2: Stormwater Pollution Prevention Plan (SWPPP) This SCA is presented in this table under *Hydrology and Water Quality*.		X	Less than Significant
	SCA HYD-3: Post-Construction Stormwater Management Plan This SCA is presented in this table under *Hydrology and Water Quality*.		X	Less than Significant
Noise				
Construction Noise: 2014 Modified Project, Maximum Residential Scenario (Less than Significant)	**SCA NOI-1:** Days/Hours of Construction Operation *Ongoing throughout demolition, grading, and/or construction.* The project applicant shall require construction contractors to limit standard construction activities as follows: a) Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday, except that pile driving and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday. b) Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division. c) Construction activity shall not occur on Saturdays, with the following possible exceptions: i. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	ii. After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed. d) No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions. e) No construction activity shall take place on Sundays or Federal holidays. f) Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc) or materials, deliveries, and construction meetings held on-site in a non-enclosed area. g) Applicant shall use temporary power poles instead of generators where feasible.			
	SCA NOI-2: Noise Control *Ongoing throughout demolition, grading, and/or construction.* To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to the Planning and Zoning Division and the Building Services Division review and approval, which includes the following measures: a) Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible). b) Except as provided herein, Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	consistent with construction procedures. c) Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.			
	SCA NOI-3: Noise Complaint Procedures *Ongoing throughout demolition, grading, and/or construction.* Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the Building Services Division a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include: a) A procedure and phone numbers for notifying the Building Services Division staff and Oakland Police Department; (during regular construction hours and off-hours); b) A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours); c) The designation of an on-site construction complaint and enforcement manager for the project; d) Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and e) A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	SCA NOI-4: Pile Driving and Other Extreme Noise Generators *Ongoing throughout demolition, grading, and/or construction.* To further reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90dBA, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted for review and approval by the Planning and Zoning Division and the Building Services Division to ensure that maximum feasible noise attenuation will be achieved. This plan shall be based on the final design of the project. A third-party peer review, paid for by the project applicant, may be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the project applicant. The criterion for approving the plan shall be a determination that maximum feasible noise attenuation will be achieved. A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of the deposit shall be determined by the Building Official, and the deposit shall be submitted by the project applicant concurrent with submittal of the noise reduction plan. The noise reduction plan shall include, but not be limited to, an evaluation of implementing the following measures. These attenuation measures shall include as many of the following control strategies as applicable to the site and construction activity: a) Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings; b) Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; c) Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; d) Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and e) Monitor the effectiveness of noise attenuation measures by taking noise measurements.		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	SCA NOI-7: Vibration A qualified acoustical consultant shall be retained by the project applicant during the design phase of the project to comment on structural design as it relates to reducing groundborne vibration at the project site. If required in order to reduce groundborne vibration to acceptable levels, the project applicant shall incorporate special building methods to reduce groundborne vibration being transmitted into project structures. The City shall review and approve the recommendations of the acoustical consultant and the plans implementing such recommendations. Applicant shall implement the approved plans. Potential methods include the following: (a) Isolation of foundation and footings using resilient elements such as rubber bearing pads or springs, such as a "spring isolation" system that consists of resilient spring supports that can support the podium or residential foundations. The specific system shall be selected so that it can properly support the structural loads, and provide adequate filtering of ground-borne vibration to the residences above. (b) Trenching, which involves excavating soil between the railway/freeway and the project so that the vibration path is interrupted, thereby reducing the vibration levels before they enter the project's structures. Since the reduction in vibration level is based on a ratio between trench depth and vibration wavelength, additional measurements shall be conducted to determine the vibration wavelengths affecting the project. Based on the resulting measurement findings, an adequate trench depth and, if required, suitable fill shall be identified (such as foamed styrene packing pellets (i.e., Styrofoam) or low-density polyethylene).		X	
2004 Impact D.1 (updated): Construction activities for the Approved Project would intermittently and temporarily generate noise levels above existing ambient levels in the project vicinity. (Potentially Significant)	**2004 Mitigation Measure D.1a:** The project sponsor shall require construction contractors to limit standard construction activities as required by the City Building Department. Such activities are generally limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, with pile driving and/or other extreme noise generating activities greater than 90 dBA limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday, with no extreme noise generating activity permitted between 12:30 and 1:30 p.m. No construction activities shall be allowed on weekends until after the	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	building is enclosed, without prior authorization of the Building Services Division, and no extreme noise generating activities shall be allowed on weekends and holidays.			
	2004 Mitigation Measure D.1b: To reduce daytime noise impacts due to construction, the project sponsor shall require construction contractors to implement the following measures: • Equipment and trucks used for project construction shall employ the best available noise control techniques (*e.g.,* improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible). • Impact tools (*e.g.*, jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible. • Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent feasible. If feasible, the noisiest phases of construction (such as pile driving) shall be limited to less than 10 days at a time to comply with the local noise ordinance.	X		Less than Significant
	2004 Mitigation Measure D.1c: To further mitigate potential pile driving and/or other extreme noise generating construction impacts, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted for review and approval by the City to ensure that maximum feasible noise attenuation will be achieved. These attenuation measures shall include as many of the following control	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	strategies as feasible: • Erect temporary plywood noise barriers around the construction site, particularly along the eastern boundary along Alice Street to shield the adjacent multi-family residential buildings; • Implement "quiet" pile-driving technology (such as pre-drilling of piles, the use of more than one pile-driver to shorten the total pile-driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; • Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; • Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings; and Monitor the effectiveness of noise attenuation measures by taking noise measurements.			
	2004 Mitigation Measure D.1d: Prior to the issuance of each building permit, along with the submission of construction documents, the project sponsor shall submit to the City Building Department a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include: • A procedure for notifying the City Building Division staff and Oakland Police Department; • A plan for posting signs on-site pertaining to permitted construction days and hours and complaint procedures and who to notify in the event of a problem; • A listing of telephone numbers (during regular construction hours and off-hours); • The designation of an on-site construction complaint manager for the project; • Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of pile-driving activities about the estimated duration of the activity; and • A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
Operational Noise / Interior Noise Levels: 2014 Modified Project, Maximum Residential Scenario (Less than Significant)	**SCA NOI-5:** Interior Noise *Prior to issuance of a building permit.* If necessary to comply with the interior noise requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable interior noise level, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls) shall be incorporated into project building design, based upon recommendations of a qualified acoustical engineer and submitted to the Building Services Division for review and approval. Final recommendations for sound-rated assemblies would depend on the specific building designs and layout of buildings on the site and shall be determined during the design phases. Written confirmation by the acoustical consultant, HVAC or HERS specialist, shall be submitted for City review and approval, prior to Certificate of Occupancy (or equivalent) that: (a) Quality control was exercised during construction to ensure all air-gaps and penetrations of the building shell are controlled and sealed; and (b) Demonstrates compliance with interior noise standards based upon performance testing of a sample unit. (c) Inclusion of a Statement of Disclosure Notice in the CC&R's on the lease or title to all new tenants or owners of the units acknowledging the noise generating activity and the single event noise occurrences. Potential features/measures to reduce interior noise could include, but are not limited to, the following: i. Installation of an alternative form of ventilation in all units identified in the acoustical analysis as not being able to meet the interior noise requirements due to adjacency to a noise generating activity, filtration of ambient make-up air in each unit and analysis of ventilation noise if ventilation is included in the recommendations by the acoustical analysis. ii. Prohibition of Z-duct construction.		X	Less than Significant
	SCA NOI-6: Operational Noise - General *Ongoing.* Noise levels from the activity, property, or any mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	compliance verified by the Planning and Zoning Division and Building Services.			
Cultural Resources				
Historic Architectural Resources: 2014 Modified Project, Maximum Residential Scenario (Less than Significant)	**SCA NOI-7**: Vibration This SCA is presented in this table under *Noise*.		X	Less than Significant
Archaeological Resources, Human Remains and Paleontological Resources: 2014 Modified Project, Maximum Residential Scenario (Less than Significant)	**SCA CUL-1:** Archaeological Resources *Ongoing throughout demolition, grading, and/or construction* a) Pursuant to CEQA Guidelines section 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Oakland. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards. b) In considering any suggested measure proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while measure for historical resources or unique archaeological resources is carried out. c) Should an archaeological artifact or feature be discovered on-site during project construction, all activities within a 50-foot radius of		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	the find would be halted until the findings can be fully investigated by a qualified archaeologist to evaluate the find and assess the significance of the find according to the CEQA definition of a historical or unique archaeological resource. If the deposit is determined to be significant, the project applicant and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate measure, subject to approval by the City of Oakland, which shall assure implementation of appropriate measure measures recommended by the archaeologist. Should archaeologically-significant materials be recovered, the qualified archaeologist shall recommend appropriate analysis and treatment, and shall prepare a report on the findings for submittal to the Northwest Information Center.			
	SCA CUL-2: Human Remains *Ongoing throughout demolition, grading, and/or construction.* In the event that human skeletal remains are uncovered at the project site during construction or ground-breaking activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.		X	Less than Significant
	SCA CUL-3: Paleontological Resources *Ongoing throughout demolition, grading, and/or construction.* In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 1995,1996)). The qualified paleontologist shall		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	document the discovery as needed, evaluate the potential resource, and assess the significance of the find. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.			
2004 Impact E.1 (updated): Construction of the Approved Project ~~project~~ may cause substantial adverse changes to the significance of currently unknown cultural resources. (Potentially Significant)	**2004 Mitigation Measure E.1a:** The project sponsor shall retain a qualified archaeologist to conduct on-site monitoring and consultation during all ground disturbing activities. In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 100 feet of the resource shall be halted. The qualified archaeologist shall evaluate the find and assess the significance of the find. If any find is determined to be significant, representatives of the project sponsor and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation, subject to approval by the City of Oakland, which shall assure implementation of appropriate mitigation measures recommended by the archeologist. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.	X		Less than Significant
	2004 Mitigation Measure E.1b: In the event that human skeletal remains are uncovered during construction activities for the proposed project, the project sponsor shall immediately halt work, contact the Alameda County Coroner to evaluate the remains, and follow the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City will contact the California Native American Heritage Commission, pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities will cease until appropriate arrangements are made. The project sponsor shall identify a Native American monitor/consultant who is either a qualified archaeologist, or who shall work in conjunction with a qualified archaeologist, who shall be on call in the event that Native American remains are discovered.	X		

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
2004 Impact E.2 (updated): The Approved Project ~~proposed project~~ may damage or degrade unidentified paleontological remains. (Potentially Significant)	**2004 Mitigation Measure E.2:** The project proponent shall notify a qualified paleontologist of unanticipated discoveries, document the discovery as needed, evaluate the potential resource, and assess the significance of the find under the criteria set forth in Section 15064.5 of the CEQA Guidelines. In the event of an unanticipated discovery of a breas, true, and/or trace fossil during construction, excavations within 100 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, a paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.	X		Less than Significant
2004 Impact E.3 (updated): The Approved Project ~~proposed project~~ would construct multiple story buildings near historic resources, risking damage to the resources during construction. These resources are: Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark; USS Potomac, a property listed in the National Register and an Oakland Landmark; and 101-07 Broadway, a property that may be eligible as an Oakland Landmark. (Potentially Significant)	**2004 Mitigation Measure E.3a:** If a registered structural engineer (with geotechnical consultation as necessary) determines that, due to the nature of the existing foundation, the Heinold's First and Last Chance Saloon would significantly settle during and as a result of the construction of the Site F1 and 66 Franklin buildings, then the Heinold's building shall be underpinned or otherwise structurally supported during construction on those sites so as to avoid significant settlement.	X		Less than Significant
	2004 Mitigation Measure E.3b: A protective plywood enclosure shall be constructed above and on all sides of the Heinold's building and signage and shall be in place prior to mass grading and during other construction phases as necessary, in order to protect the building from construction equipment, debris, and dust. The enclosure shall be a free standing structure without structural or other materials touching or being attached to the Heinold's building. The contractor's design and shop drawings shall be reviewed and approved by a historic preservation architect prior to construction of the protective enclosure.	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	2004 Mitigation Measure E.3c: A geotechnical engineer and registered structural engineer shall determine the maximum vibration that the Heinold's building could tolerate without damage to the historic integrity of the building. An evaluation of the proposed construction plans and methods shall be conducted prior to construction to determine whether vibration during the construction on the Site F1 or 66 Franklin buildings would exceed this allowable vibration threshold. No construction method or equipment that could cause the allowable vibration threshold to be exceeded shall be used. Specifically, if driven piles could cause the vibration threshold to be exceeded, they shall not be used and augured grouted piles shall be substituted. A historic preservation architect will be consulted to plan and oversee such evaluation at the applicant's expense.	X		Less than Significant
	2004 Mitigation Measure E.3d: *(Mitigation Measure E.3d is updated in this Addendum to incorporate current practices and technologies since 2004.)* Prior to the construction of the protective enclosure and any relocation of the Heinold's building, a registered structural engineer and a historic preservation architect with a minimum of five years of experience in the rehabilitation of historic buildings shall document the existing condition of the Heinold's building, including identification of existing deterioration and damage. The documentation shall include digital photographs and or videos and condition descriptions. All documentary photographs or videos ~~(negatives and prints) shall be black and white and~~ shall be processed and formatted to meet Historic American Buildings Survey Photographic Standards for processing only~~; 35mm film format is acceptable~~.	X		Less than Significant
	2004 Mitigation Measure E.3e: The structural engineer and the historic preservation architect who documented the existing condition of the Heinold's building shall periodically monitor the condition of the historic resource during construction of the F1 and 66 Franklin sites. If, in the opinion of the monitoring team, substantial adverse impacts to the historic resource related to construction activities are found during construction, the monitoring team shall so inform the project sponsor and his/her representative responsible for construction of the project. The project sponsor shall adhere to the monitoring team's recommendations for corrective measures, including halting construction in situations where	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	construction activities at F1 and 66 Franklin would endanger the Heinold's historic resource.			
	2004 Mitigation Measure E.3f: The project sponsor shall prepare and thereafter implement a construction plan setting forth procedures and monitoring methods to be used by the contractor while working near the Heinold's building during construction of the F1 and 66 Franklin sites, along with any site work within a 50 foot radius of the building. At a minimum, the plan shall address operation of construction equipment near Heinold's, storage of construction materials away from the Heinold's building, and education/training of construction workers about the significance of Heinold's First and Last Chance Saloon.	X		Less than Significant
2004 Impact E.4 (updated): The proposed project (Approved Project or 2014 Modified Project, Maximum Residential Scenario) would introduce a new multiple story building near and around the Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark. (Less than Significant)	**Mitigation:** None Required.	X	X	Less than Significant
2006 Impact E.6 (updated): The proposed project (Approved Project or 2014 Modified Project, Maximum Residential Scenario) would introduce new multiple story buildings near historic districts and Areas of Primary and Secondary Importance. (Less than Significant)	**Mitigation:** None Required.	X	X	Less than Significant
2004 Impact E.7 (updated): The proposed project (Approved Project or 2014 Modified Project, Maximum Residential Scenario), in combination with other past, current, and reasonably foreseeable new construction and other alterations to historic resources in the Jack London Square area could result in cumulative impacts to historic resources. (Less than Significant)	**Mitigation:** None Required.	X	X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
Geology, Soils, and Seismicity				
Geology and Soils: 2014 Modified Project, Maximum Residential Scenario (Less than Significant)	**SCA GEO-1:** Soils Report *Required as part of the submittal of a Tentative Tract or Tentative Parcel Map.* A preliminary soils report for each construction site within the project area shall be required as part of this project and submitted for review and approval by the Building Services Division. The soils reports shall be based, at least in part, on information obtained from on-site testing. Specifically the minimum contents of the report should include: A. Logs of borings and/or profiles of test pits and trenches: a) The minimum number of borings acceptable, when not used in combination with test pits or trenches, shall be two (2), when in the opinion of the Soils Engineer such borings shall be sufficient to establish a soils profile suitable for the design of all the footings, foundations, and retaining structures. b) The depth of each boring shall be sufficient to provide adequate design criteria for all proposed structures. c) All boring logs shall be included in the soils report. B. Test pits and trenches a) Test pits and trenches shall be of sufficient length and depth to establish a suitable soils profile for the design of all proposed structures. b) Soils profiles of all test pits and trenches shall be included in the soils report. C. A plat shall be included which shows the relationship of all the borings, test pits, and trenches to the exterior boundary of the site. The plat shall also show the location of all proposed site improvements. All proposed improvements shall be labeled. D. Copies of all data generated by the field and/or laboratory testing to determine allowable soil bearing pressures, sheer strength, active and passive pressures, maximum allowable slopes where applicable and any other information which may be required for the proper design of foundations, retaining walls, and other structures to be erected subsequent to or concurrent with work done under the grading permit.		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	E. Soils Report. A written report shall be submitted which shall include, but is not limited to, the following: a) Site description; b) Local and site geology; c) Review of previous field and laboratory investigations for the site; d) Review of information on or in the vicinity of the site on file at the Information Counter, City of Oakland, Office of Planning and Building; e) Site stability shall be addressed with particular attention to existing conditions and proposed corrective attention to existing conditions and proposed corrective actions at locations where land stability problems exist; f) Conclusions and recommendations for foundations and retaining structures, resistance to lateral loading, slopes, and specifications, for fills, and pavement design as required; g) Conclusions and recommendations for temporary and permanent erosion control and drainage. If not provided in a separate report they shall be appended to the required soils report; h) All other items which a Soils Engineer deems necessary; i) The signature and registration number of the Civil Engineer preparing the report. F. The Director of Planning and Building may reject a report that she/he believes is not sufficient. The Director of Planning and Building may refuse to accept a soils report if the certification date of the responsible soils engineer on said document is more than three years old. In this instance, the Director may be require that the old soils report be recertified, that an addendum to the soils report be submitted, or that a new soils report be provided.			

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	SCA GEO-2: Geotechnical Report *Required as part of the submittal of a tentative Tract Map or tentative Parcel Map.* a) A site-specific, design level, Landslide or Liquefaction geotechnical investigation for each construction site within the project area shall be required as part of this project and submitted for review and approval by the Building Services Division. Specifically: i. Each investigation shall include an analysis of expected ground motions at the site from identified faults. The analyses shall be accordance with applicable City ordinances and polices, and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from identified faults. ii. The investigations shall determine final design parameters for the walls, foundations, foundation slabs, surrounding related improvements, and infrastructure (utilities, roadways, parking lots, and sidewalks). iii. The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer, geotechnical engineer, shall be included in the final design, as approved by the City of Oakland. iv. The geotechnical report shall include a map prepared by a land surveyor or civil engineer that shows all field work and location of the "No Build" zone. The map shall include a statement that the locations and limitations of the geologic features are accurate representations of said features as they exist on the ground, were placed on this map by the surveyor, the civil engineer or under their supervision, and are accurate to the best of their knowledge. v. Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the projects design phase, shall be incorporated in the project. vi. Final seismic considerations for the site shall be submitted to and approved by the City of Oakland Building Services		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	Division prior to commencement of the project. vii. A peer review is required for the Geotechnical Report. Personnel reviewing the geologic report shall approve the report, reject it, or withhold approval pending the submission by the applicant or subdivider of further geologic and engineering studies to more adequately define active fault traces. b) Tentative Tract or Parcel Map approvals shall require, but not be limited to, approval of the Geotechnical Report.			
	SCA HYD-2: Stormwater Pollution Prevention Plan (SWPPP) This SCA is presented in this table under *Hydrology and Water Quality)*.		X	Less than Significant
2004 Impact F.1 (updated): In the event of a major earthquake in the region, seismic ground shaking could potentially injure people and cause collapse or structural damage to proposed structures under the Approved Project. (Less than Significant)	**2004 Mitigation Measure F.1:** A site-specific, design level geotechnical investigation for each building (which is typical for any large development project) shall be required as part of this project. Each investigation shall include an analysis of expected ground motions at the site. The analyses shall be in accordance with applicable City ordinances and policies and consistent with the 1997 UBC (or any more recent version of the UBC adopted by the City of Oakland), which requires structural design that incorporates ground accelerations expected from known active faults. In addition, the investigations will determine final design parameters for the walls, foundations and foundation slabs. The investigations shall be reviewed by a registered geotechnical engineer. All recommendations by the project engineer and geotechnical engineer will be included in the final design. Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the project design phase shall be incorporated in the project. The final seismic considerations for the site shall be submitted to and approved by the City of Oakland Building Services Division.	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
2004 Impact F.2 (updated): In the event of a major earthquake in the region, seismic ground shaking could potentially expose people and property to liquefaction and earthquake-induced settlement under the Approved Project. (Less than Significant)	**2004 Mitigation Measure F.2a:** Prepare an updated site specific, design level geotechnical investigation for each building site to consider the proposed project designs and provide engineering recommendations for mitigation of liquefiable soils. These recommendations shall become part of the project. Prior to incorporation into the project, geotechnical engineering recommendations from previous investigations regarding the mitigation and reduction of liquefaction for each site shall be reviewed for compliance with *California Geological Survey's (CGS) Geology Guidelines for Evaluating and Mitigating Seismic Hazards (CGS Special Publication 117, 1997*).	X		Less than Significant
2004 Impact F.3 (updated): Development at the site under the Approved Project could be subjected to differential settlement. (Less than Significant)	**2004 Mitigation Measure F.3:** Geotechnical investigations and reports will be required in order to obtain permits from the City of Oakland. Such geotechnical investigations and reports prepared for the Jack London Square site shall include generally accepted and appropriate engineering techniques for determining the susceptibility of the project site to settlement and reducing its effects. Engineering recommendations shall become part of the project. In addition, the project applicant shall adhere to City grading and construction policies to reduce the potential for geologic hazards, including differential settlement and soil erosion. The project applicant shall employ Best Management Practices for reduction of soil erosion by water and wind. All construction activities and design criteria shall comply with applicable codes and requirements of the 1997 UBC with California additions (Title 22), and applicable City construction and grading ordinances.	X		Less than Significant
2004 Impact F.4 (updated): Construction activities at the Approved Project ~~at the project~~ area could loosen and expose surface soils. If this were to occur over the long term, exposed soils could erode by wind or rain increasing the sediment load to San Francisco Bay. (Less than Significant)	**2004 Mitigation Measure F.4**: During construction, the applicant shall comply with erosion and sediment control measures in accordance with City of Oakland's stormwater management requirements and construction best management practices for the reduction of pollutants in runoff and the State Water Quality Control Board National Pollution Discharge Elimination System (NPDES) requirements, including the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) incorporating Best Management Practices (BMPs). The SWPPP shall identify BMPs for implementation during construction activities, such as detention basins, straw bales, silt fences, check dams, geofabrics, drainage swales, and sandbag dikes.	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
2004 Impact F.5 (updated): The development proposed as part of the project (Approved Project or Approved Project or 2014 Modified Project, Maximum Residential Scenario), when combined with other foreseeable development in the vicinity, could result in cumulative impacts with respect to geology (Less than Significant)	**2004 Mitigation:** None Required.	X	X	Less than Significant
Hydrology and Water Quality				
Water Quality, Supply and Drainage/Flooding: 2014 Modified Project, Maximum Residential Scenario) Maximum Residential Scenario (Less than Significant)	**SCA HYD-1:** Erosion and Sedimentation Control Plan *Prior to any grading activities.* a) The project applicant shall obtain a grading permit if required by the Oakland Grading Regulations pursuant to Section 15.04.660 of the Oakland Municipal Code. The grading permit application shall include an erosion and sedimentation control plan for review and approval by the Building Services Division. The erosion and sedimentation control plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading operations. The plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the Director of Development or designee. The plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment. *Ongoing throughout grading and construction activities.* The project applicant shall implement the approved erosion and		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	sedimentation plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Building Services Division.			
	SCA HYD-2: Stormwater Pollution Prevention Plan (SWPPP) *Prior to and ongoing throughout demolition, grading, and/or construction activities.* The project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project applicant must file a notice of intent (NOI) with the SWRCB. The project applicant will be required to prepare a stormwater pollution prevention plan (SWPPP) and submit the plan for review and approval by the Building Services Division. At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project applicant shall submit to the Building Services Division a copy of the SWPPP and evidence of submittal of the NOI to the SWRCB. Implementation of the SWPPP shall start with the commencement of construction and continue though the completion of the project. After construction is completed, the project applicant shall submit a notice of termination to the SWRCB.		X	Less than Significant
	SCA HYD-3: Post-Construction Stormwater Management Plan *Prior to issuance of building permit (or other construction-related permit).* The applicant shall comply with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Alameda Countywide Clean Water Program. The applicant shall submit with the application for a building permit (or other construction-related permit) a completed Construction-Permit-Phase Stormwater Supplemental Form to the Building Services Division. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater management plan, for review and approval by the City, to manage stormwater run-off and to limit the discharge of pollutants in stormwater after construction of the project to the		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	maximum extent practicable. a) The post-construction stormwater management plan shall include and identify the following: ▪ All proposed impervious surface on the site; ▪ Anticipated directional flows of on-site stormwater runoff; and ▪ Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; and ▪ Source control measures to limit the potential for stormwater pollution; ▪ Stormwater treatment measures to remove pollutants from stormwater runoff; and ▪ Hydromodification management measures so that post-project stormwater runoff does not exceed the flow and duration of pre-project runoff, if required under the NPDES permit. b) The following additional information shall be submitted with the post-construction stormwater management plan: i. Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and ii. Pollutant removal information demonstrating that any proposed manufactured/mechanical (i.e. non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable or removing the range of pollutants typically removed by landscape-based treatment measures and/or the range of pollutants expected to be generated by the project. All proposed stormwater treatment measures shall incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and shall be designed with considerations for vector/mosquito control. Proposed planting materials for all proposed landscape-based stormwater treatment measures shall be included on the landscape and irrigation plan for the project. The applicant is not required to include on-site stormwater treatment measures in the post-construction stormwater management plan if he or she secures approval from Planning and Zoning of a proposal that demonstrates compliance with the			

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	requirements of the City's Alternative Compliance Program. *Prior to final permit inspection.* The applicant shall implement the approved stormwater management plan.			
	SCA HYD-4: Maintenance Agreement for Stormwater Treatment Measures *Prior to final zoning inspection.* For projects incorporating stormwater treatment measures, the applicant shall enter into the "Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement," in accordance with Provision C.3.e of the NPDES permit, which provides, in part, for the following: i. The applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and ii. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The agreement shall be recorded at the County Recorder's Office at the applicant's expense.		X	Less than Significant
2004 Impact G.1 (updated): Project construction of the Approved Project could result in increased erosion and subsequent sedimentation, with impacts to water quality. Construction activities at the proposed project site could result in dewatering of shallow groundwater resources and contamination of surface water. Additionally, release of fuels or other hazardous materials associated with construction activities could degrade water quality. (Less than Significant)	**2004 Mitigation**: None required due to assumed compliance with regulatory requirements.	X		

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
2004 Impact G.2 (updated): Implementation of the Approved Project ~~proposed project~~ would increase waterfront uses, which could result in water quality impacts to the Oakland estuary and San Francisco Bay. (Less than Significant)	**2004 Mitigation**: None required due to assumed compliance with regulatory requirements.	X		Less than Significant
2004 Impact G.3 (updated): Development of the Approved Project at the project site could alter storm water drainage volumes and flow patterns. (Less than Significant)	**2004 Mitigation**: None required due to assumed compliance with regulatory requirements.	X		Less than Significant
2004 Impact G.4: The development proposed as part of the project (Approved Project or Approved Project or 2014 Modified Project, Maximum Residential Scenario),when combined with other foreseeable development in the vicinity, could result in cumulative impacts with respect to hydrology and water quality. (Less than Significant)	**2004 Mitigation**: None required due to assumed compliance with regulatory requirements.	X	X	Less than Significant
Hazardous Materials				
Hazardous Materials – Construction. 2014 Modified Project, Maximum Residential Scenario Only (Less than Significant)	**SCA HAZ-1:** Hazards Best Management Practices *Prior to the commencement of demolition, grading, or construction.* The project applicant and construction contractor shall ensure that construction of Best Management Practices (BMPs) is implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following: a) Follow manufacturers' recommendations on use, storage, and disposal of chemical products used in construction; b) Avoid overtopping construction equipment fuel gas tanks; c) During routine maintenance of construction equipment, properly contain and remove grease and oils; d) Properly dispose of discarded containers of fuels and other chemicals. e) Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would potentially affect a particular development or building. f) If soil, groundwater or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notification of regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.			
	SCA HAZ-2: Asbestos Removal in Structures. *Prior to issuance of a demolition permit.* If asbestos-containing materials (ACM) are found to be present in building materials to be removed, demolition and disposal, the project applicant shall submit specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations, including but not necessarily limited to: California Code of Regulations, Title 8; Business and Professions Code; Division 3; California Health & Safety Code 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended.		X	Less than Significant
	SCA HAZ-3: Site Review by the Fire Services Division. *Prior to the issuance of demolition, grading or building permit.* The project applicant shall submit plans for site review and approval to the Fire Prevention Bureau Hazardous Materials Unit. Property owner may be required to obtain or perform a Phase II hazard assessment.		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	SCA HAZ-4: Phase I and/or Phase II Reports *Prior to issuance of a demolition, grading, or building permit.* Prior to issuance of demolition, grading, or building permits the project applicant shall submit to the Fire Prevention Bureau, Hazardous Materials Unit, a Phase I environmental site assessment report, and a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer.		X	Less than Significant
	SCA HAZ-5: Lead-based Paint/Coatings, Asbestos, or PCB Occurrence Assessment *Prior to issuance of any demolition, grading or building permit.* The project applicant shall submit a comprehensive assessment report to the Fire Prevention Bureau, Hazardous Materials Unit, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACM), lead-based paint, and any other building materials or stored materials classified as hazardous waste by State or federal law.		X	Less than Significant
	SCA HAZ-6: Environmental Site Assessment Reports Remediation *Prior to issuance of a demolition, grading, or building permit.* If the environmental site assessment reports recommend remedial action, the project applicant shall: a) Consult with the appropriate local, State, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps. b) Obtain and submit written evidence of approval for any remedial action if required by a local, State, or federal environmental regulatory agency. c) Submit a copy of all applicable documentation required by local, State, and federal environmental regulatory agencies, including but not limited to: permit applications, Phase I and II environmental site assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans.		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	SCA HAZ-7: Lead-based Paint Remediation *Prior to issuance of any demolition, grading or building permit.* If lead-based paint is present, the project applicant shall submit specifications to the Fire Prevention Bureau, Hazardous Materials Unit signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: Cal/OSHA's Construction Lead Standard, 8 CCR1532.1 and DHS regulation 17 CCR Sections 35001 through 36100, as may be amended.		X	Less than Significant
	SCA HAZ-8: Other Materials Classified as Hazardous Waste *Prior to issuance of any demolition, grading or building permit.* If other materials classified as hazardous waste by State or federal law are present, the project applicant shall submit written confirmation to Fire Prevention Bureau, Hazardous Materials Unit that all State and federal laws and regulations shall be followed when profiling, handling, treating, transporting and/or disposing of such materials.		X	Less than Significant
	SCA HAZ-9: Health and Safety Plan per Assessment *Prior to issuance of any demolition, grading or building permit.* If the required lead-based paint/coatings, asbestos, or PCB assessment finds presence of such materials, the project applicant shall create and implement a health and safety plan to protect workers from risks associated with hazardous materials during demolition, renovation of affected structures, and transport and disposal.		X	Less than Significant
	SCA HAZ-10: Hazard Best Management Practices for Soil and Groundwater Hazards The project applicant shall implement all of the following Best Management Practices (BMPs) regarding potential soil and groundwater hazards: a) Soil generated by construction activities shall be stockpiled onsite in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state and federal agencies laws, in particular, the Regional Water Quality Control Board		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	(RWQCB) and/or the Alameda County Department of Environmental Health (ACDEH) and policies of the City of Oakland. b) Groundwater pumped from the subsurface shall be contained onsite in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies of the City of Oakland, the RWQCB and/or the ACDEH. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building (pursuant to the Standard Condition of Approval regarding Radon or Vapor Intrusion from Soil and Groundwater Sources); c) Prior to issuance of any demolition, grading, or building permit, the applicant shall submit for review and approval by the City of Oakland, written verification that the appropriate federal, state or county oversight authorities, including but not limited to the RWQCB and/or the ACDEH, have granted all required clearances and confirmed that the all applicable standards, regulations and conditions for all previous contamination at the site. The applicant also shall provide evidence from the City's Fire Department, Office of Emergency Services, indicating compliance with the Standard Condition of Approval requiring a Site Review by the Fire Services Division pursuant to City Ordinance No. 12323, and compliance with the Standard Condition of Approval requiring a Phase I and/or Phase II Reports.			
	SCA HAZ-11: Radon or Vapor Intrusion from Soil or Groundwater Sources *Ongoing.* The project applicant shall submit documentation to determine whether radon or vapor intrusion from the groundwater and soil is located on-site as part of the Phase I documents. The Phase I analysis shall be submitted to the Fire Prevention Bureau, Hazardous Materials Unit, for review and approval, along with a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. Applicant shall implement the approved recommendations.		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	SCA HAZ-12: Hazardous Materials Business Plan *Prior to issuance of a business license.* The project applicant shall submit a Hazardous Materials Business Plan for review and approval by Fire Prevention Bureau, Hazardous Materials Unit. Once approved this plan shall be kept on file with the City and will be updated as applicable. The purpose of the Hazardous Business Plan is to ensure that employees are adequately trained to handle the materials and provides information to the Fire Services Division should emergency response be required. The Hazardous Materials Business Plan shall include the following: a) The types of hazardous materials or chemicals stored and/or used on site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids. b) The location of such hazardous materials. c) An emergency response plan including employee training information. d) A plan that describes the manner in which these materials are handled, transported and disposed.		X	Less than Significant
2004 Impact H.1 (updated): Disturbance and release of contaminated soil during demolition and construction phases of the Approved Project ~~project~~ could expose construction workers, the public, or the environment to adverse conditions related to hazardous substance handling. (Potentially Significant)	**2004 Mitigation Measure H.1:** Implement all directives required by the July 30, 2002 and August 28, 2002 letters from the RWQCB.	X		Less than Significant
2004 Impact H.2 (updated): Disturbance and release of hazardous structural and building components (i.e. asbestos, lead, PCBs, USTs, and ASTs) during demolition and construction phases of the Approved Project ~~project~~ could expose construction workers, the public, or the environment to adverse conditions related to hazardous substance handling. (Potentially Significant)	2004 Mitigation Measure H.2a: A pre-demolition ACM survey shall be performed prior to demolition of the structures at 66 Franklin Street, Pavilion 2, Water I Expansion, and Site D. The survey shall include sampling and analysis of suspected ACMs identified in the 1996 hazardous material screening survey. Abatement of known or suspected ACMs shall occur prior to demolition or construction activities that would disturb those materials. Pursuant to an asbestos abatement plan developed by a state-certified asbestos consultant and approved by the City, all ACMs shall be removed and appropriately disposed of by a state certified asbestos contractor.	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	2004 Mitigation Measure H.2b: The project applicant shall implement a lead-based paint abatement plan, which shall include the following components: • Development of an abatement specification approved by an Interim-Certified Project Designer. • A site Health and Safety Plan, as needed. • Containment of all work areas to prohibit off-site migration of paint chip debris. • Removal of all peeling and stratified lead-based paint on building surfaces and on non-building surfaces to the degree necessary to safely and properly complete demolition activities per the recommendations of the survey. The demolition contractor shall be identified as responsible for properly containing and disposing of intact lead-based paint on all equipment to be cut and/or removed during the demolition. • Appropriately remove paint chips by vacuum or other approved method. • Collection, segregation, and profiling waste for disposal determination. Appropriate disposal of all hazardous and non-hazardous waste.	X		Less than Significant
	2004 Mitigation Measure H.2c: In the event that additional electrical equipment or other PCB-containing materials are identified prior to demolition activities they shall be removed, and shall be disposed of by a licensed transportation and disposal facility in Class I hazardous waste landfill cells.	X		Less than Significant
	2004 Mitigation Measure H.2d: When USTs are encountered during construction, construction in the immediate area shall cease until the UST is removed and the Alameda County Local Oversight Program (Alameda LOP) is contacted to oversee removal and determine appropriate remediation measures. Removal of the UST shall require, as deemed necessary by the LOP, over-excavation and disposal of any impacted soil that may be associated with such tanks to a degree sufficient to the oversight agency.	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
2004 Impact H.3: Improper disposal of contaminated soil and hazardous structural and building components (i.e. asbestos, lead, PCBs, USTs, and ASTs) from the demolition and construction phases of the Approved Project ~~project~~ could expose construction workers, the public, or the environment to adverse conditions. (Less than Significant)	2004 Mitigation Measure H.3a: Prior to off-site disposal, the project applicant shall perform additional soluble lead analyses of in-place or excavated soils to confirm the classification of the soils as a California hazardous waste material. If the soils are classified as a California hazardous waste, the project applicant shall dispose of the soils at a Class I disposal facility in California or an out of state non-RCRA facility permitted to accept wastes at concentrations of the excavated soils.	X		Less than Significant
	2004 Mitigation Measure H.3b: Soils that are not destined for reuse shall be characterized for disposal in accordance with the requirements of specific disposal facilities, consistent with the Directives received in the July 30, 2002 and August 28, 2002 from the Regional Water Quality Control Board to the Port of Oakland.	X		Less than Significant
	2004 Mitigation Measure H.3c: Groundwater generated during construction dewatering shall be contained and transported offsite for disposal at an appropriate facility, or treated, if necessary, prior to discharge into the sanitary sewer to levels acceptable to the East Bay Municipal Utilities District.	X		Less than Significant
Impact H.4 (updated): Hazardous materials used on-site during the Approved Project construction activities (i.e. solvents) could be released to the environment through improper handling or storage. (Potentially Significant)	**2004 Mitigation Measure H.4:** The use of construction best management practices shall be implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following: • Follow manufacturer's recommendations on use, storage and disposal of chemical products used in construction; • Avoid overtopping construction equipment fuel gas tanks; • During routine maintenance of construction equipment, properly contain and remove grease and oils. • Properly dispose of discarded containers of fuels and other chemicals.	X		Less than Significant
Impact H.5 (updated): Project operations of the Approved Project would generate general office and household hazardous waste. (Less than Significant)	**2004 Mitigation:** None required due to assumed compliance with regulatory requirements.	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
Impact H.6 (updated): The of the Approved Project ~~proposed project~~ could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant)	**2004 Mitigation:** None required due to assumed compliance with regulatory requirements.	X		Less than Significant
Impact H.7 (updated): Development proposed as part of the Approved Project, when combined with other foreseeable development in the vicinity, could result in cumulative hazardous materials impacts. (Less than Significant)	**2004 Mitigation:** None required due to assumed compliance with regulatory requirements.	X		Less than Significant
Aesthetics, Shadow and Wind				
Aesthetics: 2014 Modified Project, Maximum Residential Scenario (Less than Significant)	**SCA AES-1:** Landscape Requirements for Street This SCA is listed in this table under *Greenhouse Gases and Global Climate Change.*		X	Less than Significant
	SCA AES-2: Landscape Maintenance *(Ongoing*. All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. All required irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.		X	Less than Significant
	SCA AES-3: Lighting Plan *Prior to the issuance of an electrical or building permit.* The proposed lighting fixtures shall be adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. Plans shall be submitted to the Planning and Zoning Division and the Electrical Services Division of the Public Works Agency for review and approval. All lighting shall be architecturally integrated into the site.		x	Less than Significant
2004 Impact I.1 (updated): The Approved Project ~~project~~ would construct buildings of greater height and mass than existing nearby buildings along pedestrian routes and adjacent to public areas, which could adversely affect the area's existing visual character. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
2004 Impact I.2 (updated): The Approved Project ~~project~~ would result in a change to the scenic vistas of which the proposed project area is a part. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
2004 Impact I.3 (updated): The Approved Project ~~project~~ would create additional shadow on adjacent blocks to the west, north, and east, including casting shadow on historic resources and contributor resources to a historic district, but would not introduce landscaping conflicting with the California Public Resource Code; not cast shadow on buildings using passive solar heat, solar collectors for hot water heating, or photovoltaic solar collectors; and not cast shadow that impairs the use of any public or quasi-public park, lawn, garden, or open space. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
2004 Impact I.4 (updated): The Approved Project ~~project~~ requires a planned unit development, rezoning and conditional use permit, but would be consistent with polices and regulations addressing the provision of adequate light. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
2004 Impact I.5 (updated): The Approved Project ~~project~~ would increase the amount of light and glare emitted from the project site. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
2004 Impact I.6: The Approved Project could result in hazardous wind conditions. (Less than Significant)	**Recommendations:** That the project sponsor implement one or more of the following in the final design, particularly for the taller buildings Site F1, Site F2, Site F3, Site G, Site D, and 66 Franklin: • Within the final design of the new building, incorporate specific elements such as façade articulation and horizontal projections, including wind screens, to break up and reduce the flow of winds along and/or down the face of the building. • Place or retain several street trees (that would provide sufficient canopy and weight) along main pedestrian corridors around the buildings. • Incorporate into the project design structural protective	X		Not Applicable

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	measures, such as overhead awnings and/or vertical wind screens and fences where necessary, to protect pedestrian walkways and gathering points.			
2004 Impact I.7 (updated): Development proposed as part of the Approved ~~project~~, when combined with other foreseeable development in the vicinity, could result in cumulative impacts related to aesthetics, shadow, light and glare, and wind. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
Public Services and Recreation				
Public Services – Fire: 2014 Modified Project, Maximum Residential Scenario (Less than Significant)	**SCA PS-1:** Fire Safety Phasing Plan. *Prior to issuance of a demolition, grading, and/or construction and concurrent with any p-job submittal permit.* The project applicant shall submit a separate fire safety phasing plan to the Planning and Zoning Division and Fire Services Division for their review and approval. The fire safety plan shall include all of the fire safety features incorporated into the project and the schedule for implementation of the features. Fire Services Division may require changes to the plan or may reject the plan if it does not adequately address fire hazards associated with the project as a whole or the individual phase.		X	Less than Significant
2004 Impact J.1: The proposed Approved Project ~~project~~, could result in an increase in calls for police protection services. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
2004 Impact J.2: The proposed Approved Project ~~project~~ would increase the number of calls for fire protection services and emergency medical assistance. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
2004 Impact J.3: The proposed Approved Project ~~project~~ could result in new students for local schools. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
2004 Impact J.4: Development proposed as part of the Approved Project ~~project~~ could increase the demand for parks and recreational facilities. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
2004 Impact J.5: Development proposed as part of the Approved Project) ~~project~~ , when combined with other foreseeable development in the vicinity, could result in cumulative impacts to the provision of public services. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
Utilities and Service Systems				
Utilities – Solid Waste: 2014 Modified Project, Maximum Residential Scenario (Less than Significant)	**SCA UTL-1:** Waste Reduction and Recycling. The project applicant will submit a Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP) for review and approval by the Public Works Agency. *Prior to issuance of demolition, grading, or building permit.* Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include all new construction, renovations/ alterations/modifications with construction values of $50,000 or more (except R-3), and all demolition (including soft demo).The WRRP must specify the methods by which the development will divert C&D debris waste generated by the proposed project from landfill disposal in accordance with current City requirements. Current standards, FAQs, and forms are available at www.oaklandpw.com/Page39.aspx or in the Green Building Resource Center. After approval of the plan, the project applicant shall implement the plan. *Ongoing.* The ODP will identify how the project complies with the Recycling Space Allocation Ordinance, (Chapter 17.118 of the Oakland Municipal Code), including capacity calculations, and specify the methods by which the development will meet the current diversion of solid waste generated by operation of the proposed project from landfill disposal in accordance with current City requirements. The proposed program shall be in implemented and maintained for the duration of the proposed activity or facility. Changes to the plan may be re-submitted to the Environmental Services Division of the Public Works Agency for review and approval. Any incentive programs shall remain fully operational as long as residents and businesses exist at the project site.		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	SCA: UTL-2 Stormwater and Sewer *Prior to completing the final design for the project's sewer service.* Confirmation of the capacity of the City's surrounding stormwater and sanitary sewer system and state of repair shall be completed by a qualified civil engineer with funding from the project applicant. The project applicant shall be responsible for the necessary stormwater and sanitary sewer infrastructure improvements to accommodate the proposed project. In addition, the applicant shall be required to pay additional fees to improve sanitary sewer infrastructure if required by the Sewer and Stormwater Division. Improvements to the existing sanitary sewer collection system shall specifically include, but are not limited to, mechanisms to control or minimize increases in infiltration/inflow to offset sanitary sewer increases associated with the proposed project. To the maximum extent practicable, the applicant will be required to implement Best Management Practices to reduce the peak stormwater runoff from the project site. Additionally, the project applicant shall be responsible for payment of the required installation or hook-up fees to the affected service providers.		X	Less than Significant
	SCA UTL-3: Compliance with the Green Building Ordinance, OMC Chapter 18.02 *Prior to issuance of a demolition, grading, or building permit.* The applicant shall comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the Green Building Ordinance, OMC Chapter 18.02. a) The following information shall be submitted to the Building Services Division for review and approval with the application for a building permit: i. Documentation showing compliance with Title 24 of the 2008 California Building Energy Efficiency Standards. ii. Completed copy of the final green building checklist approved during the review of the Planning and Zoning permit. iii. Copy of the Unreasonable Hardship Exemption, if granted, during the review of the Planning and Zoning permit. iv. Permit plans that show, in general notes, detailed design drawings, and specifications as necessary, compliance with		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	the items listed in subsection (b) below. v. Copy of the signed statement by the Green Building Certifier approved during the review of the Planning and Zoning permit that the project complied with the requirements of the Green Building Ordinance. vi. Signed statement by the Green Building Certifier that the project still complies with the requirements of the Green Building Ordinance, unless an Unreasonable Hardship Exemption was granted during the review of the Planning and Zoning permit. vii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance. b) The set of plans in subsection (a) shall demonstrate compliance with the following: i. CALGreen mandatory measures. ii. All pre-requisites per either the LEED or GreenPoint Rated checklist approved during the review of the Planning and Zoning permit, or, if applicable, all the green building measures approved as part of the Unreasonable Hardship Exemption granted during the review of the Planning and Zoning permit. iii. Specific green building point level and certification requirement will be determined for each building within the Project Site in accordance with the Green Building Ordinance per the appropriate checklist approved during the Planning entitlement process. iv. All green building points identified on the checklist approved during review of the Planning and Zoning permit, unless a Request for Revision Plan-check application is submitted and approved by the Planning and Zoning Division that shows the previously approved points that will be eliminated or substituted. v. The required green building point minimums in the appropriate credit categories. *During construction.* The applicant shall comply with the applicable requirements CALGreen and the Green Building Ordinance, Chapter 18.02.			Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	a) The following information shall be submitted to the Building Inspections Division of the Building Services Division for review and approval: i. Completed copies of the green building checklists approved during the review of the Planning and Zoning permit and during the review of the building permit. ii. Signed statement(s) by the Green Building Certifier during all relevant phases of construction that the project complies with the requirements of the Green Building Ordinance. iii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance. *After construction, as specified below*. Within sixty (60) days of the final inspection of the building permit for the project, the Green Building Certifier shall submit the appropriate documentation to either Build It Green or Green Building Certification Institute and attain the minimum certification/point level identified in subsection (a) above. Within one year of the final inspection of the building permit for the project, the applicant shall submit to the Planning and Zoning Division the Certificate from the organization listed above demonstrating certification and compliance with the minimum point/certification level noted above.			
2004 Impact K.1: The proposed Approved Project) ~~project~~ would increase the demand for water services and could impact EBMUD's limited water supply. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
2004 Impact K.2: The proposed Approved Project ~~project~~ would increase the demand for sewer collection and treatment services. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
2004 Impact K.3: Construction of the proposed Approved Project ~~project~~ could impede the ability of the City of Oakland to meet the waste diversion requirements of the California Integrated Waste Management Act (AB 939) or the Alameda County Waste Reduction and Recycling Initiative (Measure D). (Potentially Significant)	**2004 Mitigation Measure K.3:** The project sponsor shall prepare, submit to the City for approval, and implement during construction a Construction and Demolition Debris Waste Reduction and Recycling Plan. The project sponsor shall divert a minimum of 50 percent of the construction and demolition debris from each stage of the project. This percentage is to be based on the City of Oakland's method for calculating diversion by total volume or weight as described in Oakland Municipal Code Section 15.34.050.	X		Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
2004 Impact K.4: Operation of the proposed Approved Project ~~project~~ would increase the amount of solid waste disposed by the City of Oakland at the Altamont Landfill and Recycling Facility (Altamont Landfill). (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
2004 Impact K.5: Operation of the proposed Approved Project ~~project~~ would increase the amount of solid waste generated in the City of Oakland, and could impede the City's ability to meet the diversion rate requirements of AB 939 and Measure D. (Potentially Significant)	**2004 Mitigation Measure K.5:** Adequate storage space for recyclable and compostable materials shall be provided in each project building. The design, location and maintenance of recycling collection and storage areas shall substantially comply with the provision of the Oakland City Planning Commission's *Guidelines for the Development and Evaluation of Recycling Collection and Storage Areas*, Policy No. 100-28. A minimum of two cubic feet of storage and collection area shall be provided for each 1,000 square feet of commercial space. In addition, the project sponsor shall be required to contract with a recycling pickup service.	X		Less than Significant
2004 Impact K.6: Operation of the Approved Project ~~project~~ and its components would increase consumption of energy. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
2004 Impact K.7: Development proposed as part of the Approved Project ~~project~~, when combined with other foreseeable development in the vicinity, could result in cumulative impacts to the provision of utilities and service systems. (Less than Significant)	**2004 Mitigation:** None Required.	X		Less than Significant
Agriculture and Forestry Resources				
No Impacts				
Biological Resources				
Biological Resources – Trees: 2014 Modified Project, Maximum Residential Scenario (Less than Significant)	**SCA BIO-1:** Tree Removal Permit *Prior to issuance of a demolition, grading, or building permit.* Prior to removal of any protected trees, per the Protected Tree Ordinance, located on the project site or in the public right-of-way adjacent to the project, the project applicant must secure a tree removal permit from the Tree Division of the Public Works Agency, and abide by the conditions of that permit.		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	SCA: BIO-2: Tree Replacement Plantings *Prior to issuance of a final inspection of the building permit.* Replacement plantings shall be required for erosion control, groundwater replenishment, visual screening and wildlife habitat, and in order to prevent excessive loss of shade, in accordance with the following criteria: a) No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered. b) Replacement tree species shall consist of Sequoia sempervirens (Coast Redwood), Quercus agrifolia (Coast Live Oak), Arbutus menziesii (Madrone), Aesculus californica (California Buckeye) or Umbellularia californica (California Bay Laurel) or other tree species acceptable to the Tree Services Division. c) Replacement trees shall be at least of twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate. d) Minimum planting areas must be available on site as follows: i. For Sequoia sempervirens, three hundred fifteen square feet per tree; ii. For all other species listed in #2 above, seven hundred (700) square feet per tree. e) In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee as determined by the master fee schedule of the city may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians. Plantings shall be installed prior to the issuance of a final inspection of the building permit, subject to seasonal constraints, and shall be maintained by the project applicant until established. The Tree Reviewer of the Tree Division of the Public Works Agency may require a landscape plan showing the replacement planting and the method of irrigation. Any replacement planting which fails to become established within one year of planting shall be replanted at the project applicant's expense.		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
Biological Resources: Bird Collision: 2014 Modified Project, Maximum Residential Scenario (Less than Significant)	**SCA BIO-3:** Bird Collision Reduction *Prior to issuance of a building permit and ongoing.* The project applicant, or his or her successor, including the building manager or homeowners' association, shall submit plans to the Planning and Zoning Division, for review and approval, indicating how they intend to reduce potential bird collisions to the maximum feasible extent. The applicant shall implement the approved plan, including all mandatory measures, as well as applicable and specific project Best Management Practice (BMP) strategies to reduce bird strike impacts to the maximum feasible extent. a) Mandatory measures include **all** of the following: i. Comply with federal aviation safety regulations for large buildings by installing minimum intensity white strobe lighting with three second flash instead of blinking red or rotating lights. ii. Minimize the number of and co-locate rooftop-antennas and other rooftop structures. iii. Monopole structures or antennas shall not include guy wires. iv. Avoid the use of mirrors in landscape design. v. Avoid placement of bird-friendly attractants (i.e. landscaped areas, vegetated roofs, water features) near glass. b) Additional BMP strategies to consider include the following: i. Make clear or reflective glass visible to birds using visual noise techniques. Examples include: 1. Use of opaque or transparent glass in window panes instead of reflective glass. 2. Uniformly cover the outside clear glass surface with patterns (e.g., dots, decals, images, abstract patterns). Patterns must be separated by a minimum 10 centimeters (cm). 3. Apply striping on glass surface. If the striping is less than 2 cm wide it must be applied vertically at a maximum of 10 cm apart (or 1 cm wide strips at 5 cm distance). 4. Install paned glass with fenestration patterns with vertical and horizontal mullions of 10 cm or less. 5. Place decorative grilles or louvers with spacing of 10 cm		X	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	or less. 6. Apply one-way transparent film laminates to outside glass surface to make the window appear opaque on the outside. 7. Install internal screens through non-reflective glass (as close to the glass as possible) for birds to perceive windows as solid objects. 8. Install windows which have the screen on the outside of the glass. 9. Use UV-reflective glass. Most birds can see ultraviolet light, which is invisible to humans. 10. If it is not possible to apply glass treatments to the entire building, the treatment should be applied to windows at the top of the surrounding tree canopy or the anticipated height of the surrounding vegetation at maturity. ii. Mute reflections in glass. Examples include: 1. Angle glass panes toward ground or sky so that the reflection is not in a direct line-of-sight (minimum angle of 20 degrees with optimum angle of 40 degrees). 2. Awnings, overhangs, and sunshades provide birds a visual indication of a barrier and may reduce image reflections on glass, but do not entirely eliminate reflections. iii. Reduce Light Pollution. Examples include: 1. Turn off all unnecessary interior lights from 11 p.m. to sunrise. 2. Install motion-sensitive lighting in lobbies, work stations, walkways, and corridors, or any area visible from the exterior and retrofitting operation systems that automatically turn lights off during after-work hours. 3. Reduce perimeter lighting whenever possible. iv. Institute a building operation and management manual that promotes bird safety. Example text in the manual includes: 1. Donation of discovered dead bird specimens to authorized bird conservation organization or museums to aid in species identification and to benefit scientific study,			

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL (SCA) AND RESIDUAL EFFECTS

Environmental Impact	Mitigation Measure or SCA	Applies to 2004 Approved Project	Applies to 2014 Modified Project: Residential Uses on Sites D and F2 Only	Level of Significance after Implementation of Mitigation Measure or SCA
	as per all federal, state and local laws. 2. Production of educational materials on bird-safe practices for the building occupants. 3. Asking employees to turn off task lighting at their work stations and draw office blinds or curtains at end of work day. 4. Schedule nightly maintenance during the day or to conclude before 11 p.m., if possible.			
Mineral Resources				
No Impacts, No SCAs.		X	X	Less than Significant
Population and Housing				
No Impacts, No SCAs.		X	X	Less than Significant

CHAPTER 3
Project Description

The proposed project is referred to as the "2014 Modified Project." It is a modified version of the 2004 Approved Project and adds variants that would allow the potential to develop multifamily residential uses on Site D and Site F2 of the nine development sites that make up the Jack London Square Project Site, as detailed further in this chapter. Overall, this chapter describes the 2014 Modified Project (the "change proposed to the 2004 Approved Project), and its most intensive (from an environmental impact perspective) combination of residential variants, which is referred to as the "Maximum Residential Scenario," (to ensure a conservative analysis). This chapter also describes the 2004 Approved Project (for comparison and because it is evaluated under certain topics in this Addendum within the context of supplement CEQA review).

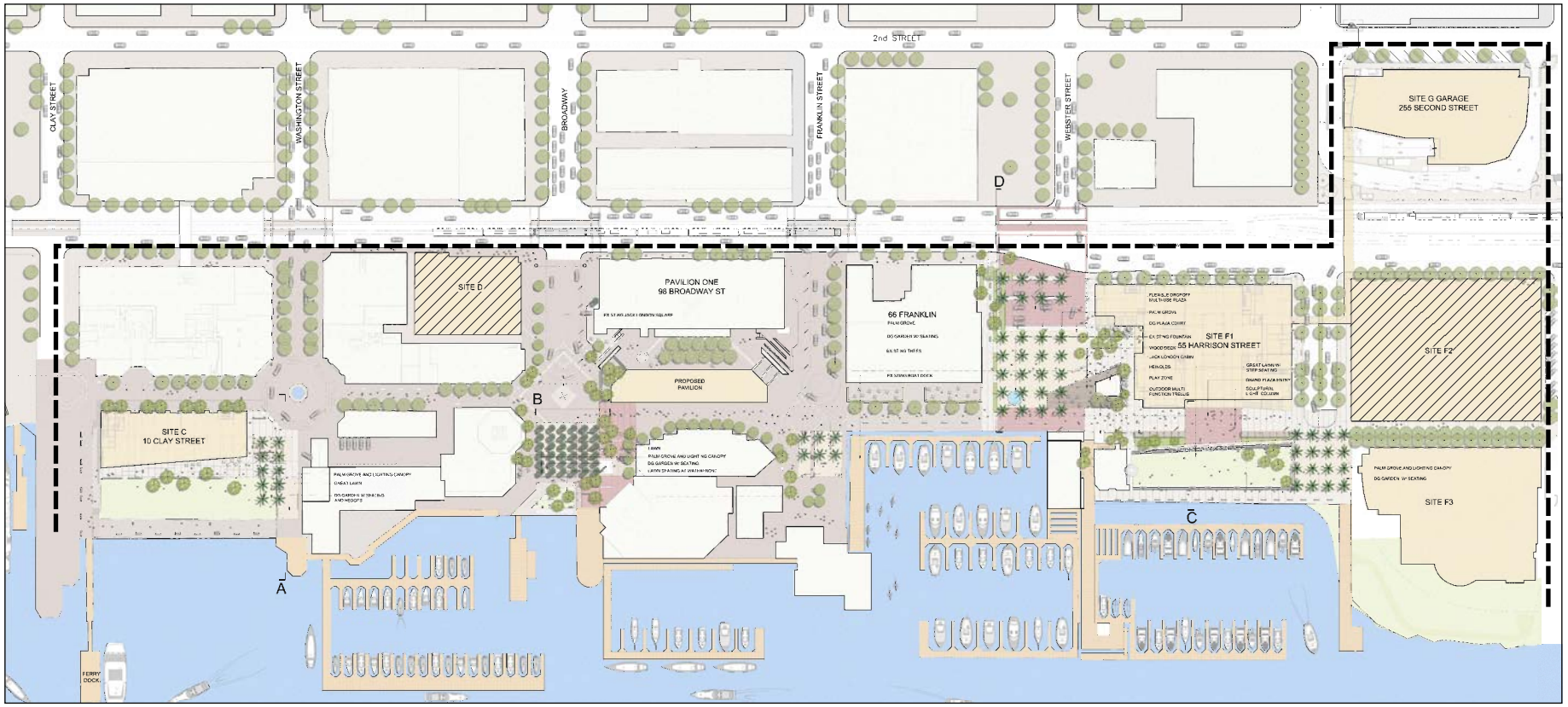
3.1 Project Area Characteristics

3.1.1 Location and Surroundings

Jack London Square, the project area, is located along the Oakland Estuary waterfront, generally at the terminus of Broadway. As shown in **Figure 3-1**, **Site Plan - 2014 Modified Project**, the Jack London Square project area is generally bounded by Embarcadero/railroad tracks on the north, Clay Street on the west, the Oakland Estuary to the south, and Alice Street on the east. Site D is located at the southwest corner of Broadway and Embarcadero, and Site F2 sits at the southwest corner of Alice Street and Embarcadero. Most of the project area lies within Jack London Square (south of Embarcadero), except Site G which is located north of Embarcadero at Alice Street. For ease of comparison, **Figure 3-2**, **Site Plan - 2004 Approved Project**, immediately follows.

3.1.2 Project Area Uses

Jack London Square is a mixed-use waterfront development on which the project sponsor has successfully completed the construction of three new buildings and four new plazas/greens. The project area contains a variety of commercial uses including retail, restaurant, office, and entertainment activities. Establishments located in the area generally from Clay to Webster Streets include various restaurants and eating establishments, the Port of Oakland offices, plaza/greens, and the Waterfront Plaza Hotel. The area generally from Webster to Alice Streets currently contains the Harbor Master and marina, Jack London's Cabin, and Heinold's First and Last Chance Saloon (a designated City of Oakland landmark historic structure that is located between the terminus of Webster Street and the Oakland Estuary). Site D and Site F2 are currently flat, paved surface



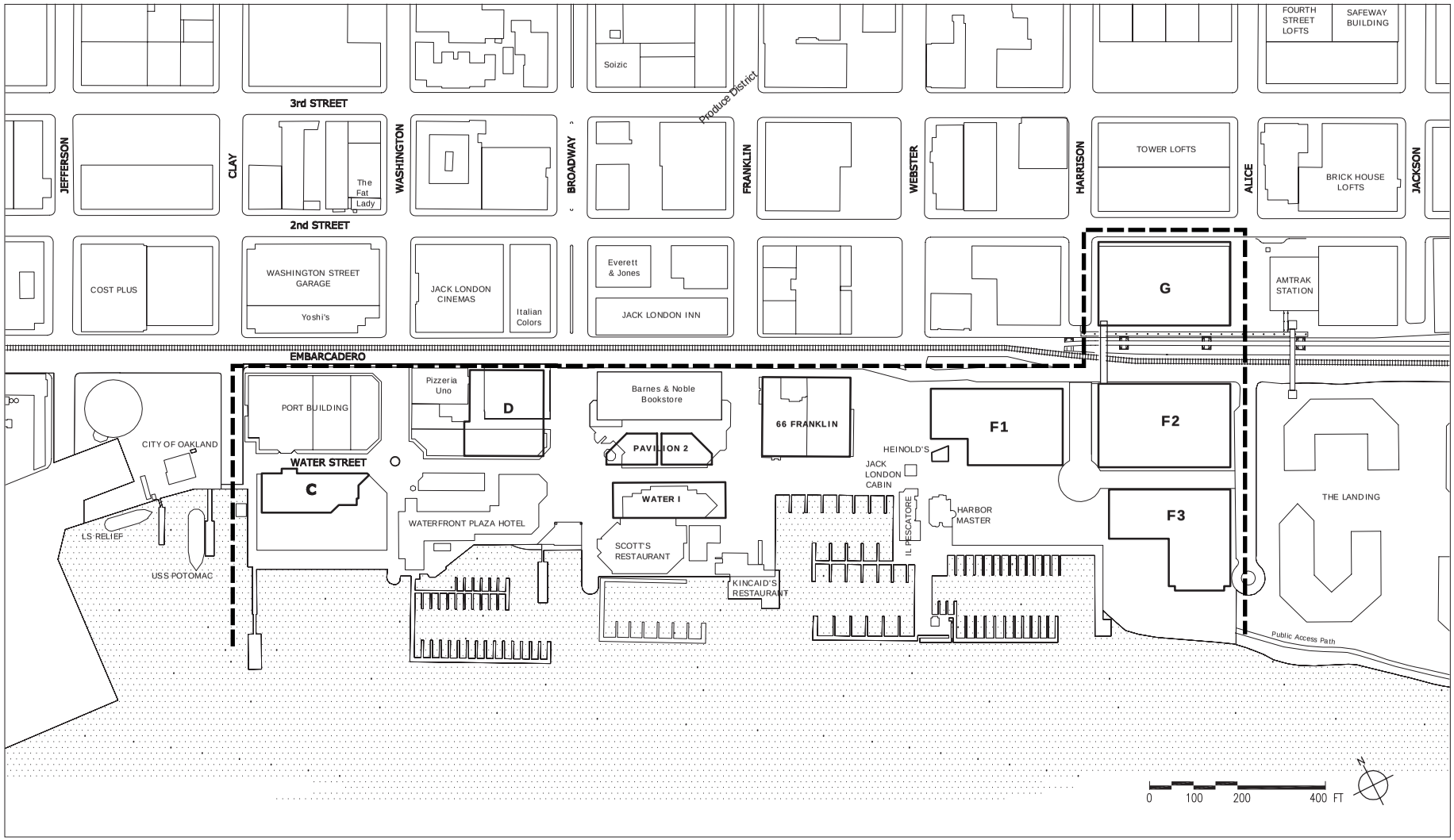
Project Site Boundary

2014 Modified Project Development Sites
for Maximum Residential Scenario (Sites D and F2)

SOURCE: JLS Land LLC, 2014

Figure 3-1

Site Plan - 2014 Modified Project



Project Site Boundary

SOURCE: Jack London Square Partners, LLC/HOK Inc.

Jack London Square Redevelopment EIR Addendum . 120939

Figure 3-2

Site Plan - 2004 Approved Project

parking lots. Existing uses adjacent to Site D are office, retail, and structured parking. Similar existing uses surround Site F2, in addition to the undeveloped, unpaved Site F3 directly south. The railroad tracks within Embarcadero front both Sites D and F2. An overhead east-west pedestrian bridge across Harrison Street connects Sites F1 (constructed) to F2, and then turns north-south across the Embarcadero / railroad tracks between Sites F2 and G

West: To the west of the project area are industrial and warehouse activities including the Port of Oakland's Howard Terminal and Seaport, as well as Schnitzer Steel (metal recycling).

East: To the east, within one-half mile along Embarcadero, are multifamily residential developments, a warehouse building and the Estuary Park/Aquatic Center and the 62-acre site of the Brooklyn Basin Project (previously referred to as the "Oak to Ninth Avenue Project"), which currently contains industrial and aging maritime uses and will be developed as a new mixed use neighborhood. The Lake Merritt Channel exists amid these uses to the east of the project area.

North (East of Broadway): North of Embarcadero, to I-880 and east of Broadway to Oak Street, is the Mixed Use and Waterfront Warehouse District, originally an industrial area with former warehouse and distribution activities and now a mixed use area of recently developed mid- to high-rise residential (e.g., The Ellington, 311 Oak Street, The Sierra, and the Allegro developments), adaptive joint living and working quarters with some ground floor commercial space (e.g., Fourth Street Lofts, the Allegro Project, the Brick House Lofts, Portico Lofts). The Mixed Use and Waterfront Warehouse District also includes a number of restaurants and a mix of commercial and light industrial, warehouse, and office businesses. The Produce Market is a concentrated area of fresh produce packaging and warehouse distribution activities that lies north of the project area, east of Broadway, as does the Lower Broadway District that offers a number of restaurants with entertainment and office uses.

North (West of Broadway): Uses to the north of the project site, west of Broadway, include restaurants and entertainment uses, including a movie theater, and commercial retail uses primarily related to home furnishings. This area also includes office uses in reuse warehouse structures, as well as the BART tracks, which enter/exit the underground near 4th and Washington Streets.

South: The Oakland Estuary borders the south edge of the project area and includes a total of approximately 125 boat slips in the area between the ends of Washington and Harrison Streets, as well as the Oakland-San Francisco Ferry Terminal to the southwest, at the foot of Clay Street.

3.1.3 Transportation/Circulation

South of Embarcadero, streets in Jack London Square prioritize pedestrian use. There is no through-traffic for motor vehicles through the project area, except to enter and exit parking structures, valet parking, passenger loading/unloading for the Waterfront Hotel, and service areas for loading for service vehicles and deliveries from Embarcadero. The Amtrak Train Station is located immediately northeast of the project area. The Lake Merritt BART Station is approximately eight blocks to the northeast. Also, the Oakland/San Francisco Ferry Terminal is

located at the western edge of the project area, at the waterfront and Site C. Major bus lines, and a free public shuttle (to which which the project sponsor is a substantial financial contributor), run along Broadway. Bicycle routes and lanes exist throughout the project vicinity, and a stretch of the Bay Trail exists along the Estuary.

3.1.4 General Plan, Zoning and Ownership

The project area is within the Jack London District of the Central/Chinatown Planning District and within a General Plan land use classification of "Mixed Use Waterfront/Estuary Plan Area" per the General Plan Land Use and Transportation Element (LUTE). Also part of the General Plan, the Estuary Policy Plan (EPP) specifies land use classifications for the project area. Site D is currently in land use classification RD&E-1 (Retail, Dining, Entertainment-1) and Site F2 is currently in land use classification WCR-1 (Waterfront Commercial Recreation-1). Neither of these land use classifications permits residential use, though residential uses are permitted on adjacent parcels pursuant to the General Plan. Both Site D and F2 are located within the C-45 Community Shopping Commercial zoning designation, which otherwise would permit residential use, if not constrained by the General Plan.

The Alameda County Assessor's Parcels Numbers is 0018-0415-001-01 for Site D and 0018-0420-004-01 for Site F2. Much of Jack London Square is currently Port-owned property with portions being ground leased and/or managed by the project sponsor. Sites D and F2 are currently owned by the project sponsor.

3.2 Project Objectives

CEQA Guidelines Section 15124(b) requires that the Project Description of an EIR include a statement of objectives for the proposed project. The 2014 Modified Project objectives are the same as those described in the 2004 Draft EIR (DEIR) and are repeated below, with specific modifications (shown in inserted/deleted text with underline/~~strike-through~~ formatting) to reflect the dissolution of Redevelopment Agencies by the State of California.[1]

General Objectives

- To fulfill the General Plan Land Use and Transportation Element's (LUTE) (Oakland Community and Economic Development Agency Planning Department, 1998) goals and objectives for the waterfront and Jack London Square, including to "develop and encourage mixed use areas along the estuary shoreline, while enhancing and promoting economic opportunities in Oakland which take advantage of the waterfront's unique character to attract public uses and activities" and to ensure that development along the estuary shore reflects "higher intensity mixed use activities and areas at Jack London Square."
- To fulfill the goals and objectives of the Estuary Policy Plan component of the General Plan (Oakland Community and Economic Development Agency Planning Department,

[1] The Approved Project objectives in the 2004 Final EIR document were the same as those in the 2004 Draft EIR document, minus the objectives regarding residential uses, since the residential component was removed from the Jack London Square project prior to preparation of the 2004 Final EIR.

1999), including to "provide for a broad mixture of activities within the Estuary area and for public activities that are oriented to the water;" "develop the Estuary area in a way that enhances Oakland's long-term economic development;" "provide for the orderly transformation of land uses while acknowledging and respecting cultural and historical resources when applicable and feasible;" "create a clear and continuous system of public access along the Estuary shoreline;" "build on the successes of the area, create a stronger regional destination, and establish activity centers that benefit the city as a whole;" and "punctuate the shoreline promenade with a series of parks and larger open spaces."

- To provide an economically feasible, integrated, and cohesive redevelopment project that includes timely phasing and construction of improvements, increasing the number of locally available jobs, and the ability to attract capital investment.
- To create and maximize additional revenues in the form of sales and use taxes to contribute to the local economy including the City of Oakland ~~and the Oakland Redevelopment Agency~~.
- To secure entitlements encompassing a defined variety in the configuration and mix of uses to provide the project sponsor with the flexibility to respond to evolving market demands as the development proceeds.
- To provide certainty in laws, plans, regulations and fees during the development and use of the project, which is a large-scale, multi-phase undertaking that will require major monetary investments.

Uses

- To aggregate attractive retail and entertainment uses at appropriate intensities to enhance Jack London Square's reputation as an exciting urban waterfront location that is convenient to a variety of modes of transportation, thereby creating an economically self-sustaining and regionally competitive destination.
- To provide lodging and amenities for the enjoyment and convenience of both visitors to Oakland and Oakland residents.
- To create additional office space in order to expand the daytime customer base for existing and new retailers and restaurants.
- To have the option to provide residential uses that are close to a variety of modes of transportation, including several mass transit nodes.[2]

Site Planning

- To provide infill development in furtherance of smart growth principles.
- To redevelop current underutilized areas and surface parking lots of the project area.
- To create a visually compelling streetscape that integrates the new development with the waterfront, surrounding districts and historic elements of the area, including Heinold's First and Last Chance Saloon.
- To provide new permanent open space areas and extend pedestrian walkways along the estuary in order to meet the passive recreational needs of local residents and visitors, and to

[2] This objective was deleted from the Final EIR due to the revision of the project to remove residential uses from Site G.

complement the existing and proposed surrounding urban fabric while enhancing the waterfront access experience for visitors and employees to the area.

- To retain and enhance the outdoor area at the foot of Broadway as a gathering place for the City and as a place to hold special events.
- To provide sufficient well-located parking and loading spaces to meet projected visitor demand and operational needs.
- To preserve view corridors of the estuary throughout Jack London Square.

3.3 Project Background and Characteristics

3.3.1 2003 DEIR Project

The City prepared and released on September 8, 2003, a Draft EIR for the Jack London Square Redevelopment Project. The 2003 DEIR Project would intensify existing office, retail, and dining establishments through new construction on nine development areas within Jack London Square (labeled Site C, Site D, Pavilion 2, Water I Expansion, 66 Franklin, Site F1, Site F2, Site F3, and Site G, as shown in **Figures 3-1 and 3-2**, above).

The 2003 DEIR Project identified combinations of land uses and building configurations (referred to as "variants") that could be developed on each site. For the purposes of providing a conservative analysis, the 2003 DEIR evaluated the most intensive combination of proposed variants from an environmental impact perspective. Overall, the 2004 DEIR Project proposed to develop up to approximately 1,075,700 net new gross square feet (gsf) of commercial uses across the Jack London Square Project Site and up to 120 multifamily residential units on Site G**.**

3.3.2 2004 Approved Project

After publication of the 2003 DEIR, the project sponsor refined the 2003 DEIR Project to reduce the commercial development and omit residential uses that had been previously considered and analyzed in the 2003 DEIR. **Table 3-1**, **Selected Variants by Development Site**, shows the most intensive variants analyzed in the 2004 EIR, which totaled approximately 960,700 net new gsf of commercial uses.

Table 3-2, Proposed and Active Uses by Development Site, shows the range of land uses and uses analyzed in the 2004 EIR and proposed with the Maximum Residential Scenario.

Once the 2004 EIR was completed, the project (including the PUD) was heard by the Planning Commission and approved by the City Council. The 2004 Approved Project included a maximum (or "cap") of 355,300 net square feet of new office use.[3] The 2004 Approved Project is analyzed again in this Addendum as required by CEQA in the supplemental review context to address "changed circumstances" and "new information."

[3] This Addendum addresses the environmental impacts of the 2004 Approved Project with the reallocation of 55,000 square feet of retail space to office space, which is reflective of the portions of those sites that have been

TABLE 3-1
SELECTED MOST INTENSIVE VARIANTS BY DEVELOPMENT SITE

Development Site	2004 Approved Project:		2014 Modified Project: Maximum Residential Scenario	
	Variant #	Total Development Area[a] (Net New GSF)	Variant #	Total Development Area[a] (Net New GSF)
Site C	0	33,000	0	33,000
Site D	2b	190,000	**7**	**200 units**[b]
Pavilion 2	0	15,000	0	15,000
Water I Expansion	0	26,000	0	26,000
66 Franklin	0	87,700	0	87,700
Site F1	1	200,000	1	200,000
Site F2	4	149,000	**7**	**465 units**[b]
Site F3	0	220,000	0	220,000
Site G	0	40,000	0	40,000
TOTAL		**960,700**		**621,700 + 665 units**

[a] Total Development Area excludes parking area.

[b] The Maximum Residential Scenario involves up to a total of 665 residential units, distributed between sites D and F2. The analysis in this Addendum assumes 200 units on Site D and 465 units on Site F2, but any variation to this distribution would not result in additional significant environmental impacts in comparison to those environmental impacts identified in this analysis.

Bold Double Underline denotes change from Approved Project.

Net New GSF/DU: gross square feet/dwelling units

NOTE: The variants shown for the 2004 Approved Project previously were determined to be "worst case" for the environmental impact analysis for all topics, except aesthetics. (The exception for aesthetics is because the height or massing of a particular structure does not necessarily always correspond with the intensity of impacts associated with the particular use or mix of uses within that structure.) Similarly, the variants shown for the Maximum Residential Scenario have been determined to be the "worst case" for all topics.

SOURCE: Jack London Square Redevelopment Project Final EIR, 2004. 2004. JLSV Land LLC, 2013.

constructed since 2004. This reallocation of commercial uses does not exceed the amount of development set forth and analyzed in the 2004 EIR.

TABLE 3-2
PROPOSED AND ACTIVE LAND USES BY SITE

Development Site	2004 Approved Project: Use	2004 Approved Project: Net New GSF/DU	2014 Modified Project: Maximum Residential Scenario: Use	2014 Modified Project: Maximum Residential Scenario: Net New GSF/DU	Active Uses Built and Occupied Since 2004 [d]: Net New GSF
Site C	Retail/Office	33,000	Retail/Office	33,000	15,000
Site D	Retail/Office Theater[a]	149,000 41,000	Residential	**200 units**[b]	
Pavilion 2	Retail	15,000	Retail	15,000	
Water I Expansion	Retail	26,000	Retail	26,000	
66 Franklin	Retail/Office	87,700	Retail/Office	87,700	
Site F1	Retail/Office	200,000	Retail/Office	200,000	100,000
Site F2	Retail Office	149,000	Residential	**465 units**[b]	
Site F3 [c]	Retail Hotel/Conf Center	10,000 210,000	Retail Hotel/Conf. Center	10,000 210,000	
Site G	Retail Residential Parking	40,000 **0** 380,000	Retail Residential Parking	40,000 0 380,000	 380,000
TOTAL		**960,700**		**621,700 + 665 units**	**115,000 sf retail/office + 380,000 parking**

[a] Theater use omitted in error in the 2004 FEIR (Table II-2) although included in the 2004 FEIR analysis.

[b] The Maximum Residential Scenario involves up to a total of up to 665 residential units, distributed between sites D and F2. The analysis in this Addendum assumes up to 200 units on Site D and up to 465 units on Site F2, but any variation to this distribution would not result in additional significant environmental impacts in comparison to those environmental impacts identified in this analysis. Total gross square footage assumed for residential use includes non-livable space (e.g., utility rooms, hallways, common spaces).

[c] Total floor area on Site F3 will not exceed 220,000 square feet, consistent with the Approved Project.

[d] Sites C, F1 and G also include completed buildings that are not yet fully occupied, the effects of which are considered in the environmental effects of the 2014 Modified Project. (See Section 3.3.4, below.)

Bold Double Underline denotes change from 2004 Approved Project.

Net New GSF/DU: gross square feet/dwelling units, excluding parking.

SOURCE: Jack London Square Redevelopment Project Final EIR, 2004. 2004. JLSV Land LLC, 2013.

The specific land uses for each possible variant by development site for the Approved Project is presented in **Exhibit 3-1a through 3-1c, Project Description Detail – All Possible Variants for all Sites**. The approach of identifying variants for development sites reflects possible alternative development concepts for these sites. It allows for flexibility in the final development and location of certain uses within the project area. In reality, for both the Approved Project and the 2014 Modified Project, full buildout of the Jack London Square Project would likely be less than the maximum development scenarios analyzed, since that would entail the unlikely development of the highest-intensity variants on each of the nine development sites.

Site Designation	SITE C		SITE D								
									Proposed 2014	Proposed 2014	Proposed 2014
	Variant 0	Variant 1	Variant 0	Variant 1	Variant 2	Variant 2b	Variant 3	Variant 4	Variant 5	Variant 6	Variant 7
	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use
New Development											
level 1 *use 1*	18,000 Retail	17,000 Retail	17,000 Retail	36,000 Retail	33,000 Retail	33,000 Retail	23,000 Retail	20,000 Retail	2,020 Residential*	2,020 Residential*	3,995 Residential*
level 1 *use 2*		1,000 Office	2,000 Office	2,000 Office	2,000 Office	2,000 Office	2,000 Office	2,000 Office	18,425 Parking	18,425 Parking	15,425 Parking
level 1 *use 3*			19,000 Theater		3,000 Theater	3,000 Theater		3,000 Theater			
level 2 *use 1*	15,000 Retail	15,000 Office	38,000 Theater	38,000 Retail	38,000 Theater	38,000 Retail	25,000 Retail	25,000 Theater	400 Residential*	400 Residential*	400 Residential*
level 2 *use 2*									17,855 Parking	17,855 Parking	19,020 Parking
level 3 *use 1*			25,000 Office	25,000 Office	25,000 Office	38,000 Theater	25,000 Office	25,000 Theater	15,330 Residential*	15,330 Residential*	400 Residential*
level 3 *use 2*											19,020 Parking
level 4 *use 1*			25,000 Office	25,000 Office	25,000 Office	25,000 Office	25,000 Office	25,000 Office	15,330 Residential*	15,330 Residential*	400 Residential*
level 4 *use 2*											19,020 Parking
level 5			25,000 Office	25,000 Office	25,000 Office	25,000 Office	25,000 Office	25,000 Office	15,330 Residential*	15,330 Residential*	13,315 Residential*
level 6			25,000 Office	25,000 Office	25,000 Office	25,000 Office	25,000 Office	25,000 Office	15,330 Residential*	15,330 Residential*	13,315 Residential*
level 7			25,000 Office	25,000 Office	25,000 Office	25,000 Office	25,000 Office	25,000 Office		15,330 Residential*	13,315 Residential*
level 8										15,330 Residential*	13,315 Residential*
level 9											13,315 Residential*
level 10											13,315 Residential*
level 11											13,315 Residential*
level 12											13,315 Residential*
level 13											13,315 Residential*
level 14											13,315 Residential*
level 15											13,315 Residential*
level 16											13,315 Residential*
level 17											13,315 Residential*
level 18											
level 19											
level 20											
level 21											
level 22											
level 23											
level 24											
level 25											
level 26											
Total GSF New	33,000	33,000	201,000	201,000	201,000	214,000	175,000	175,000	100,020	130,680	250,775
Less Existing Development											
level 1			-12,000 Retail	-12,000 Retail	-12,000 Retail	-12,000 Retail					
level 2			-12,000 Office	-12,000 Office	-12,000 Office	-12,000 Office					
level 3											
Total GSF Existing			-24,000	-24,000	-24,000	-24,000					
TOTAL NET GSF											
OFFICE		16,000	115,000	115,000	115,000	90,000	127,000	102,000			
RETAIL	33,000	17,000	5,000	62,000	21,000	59,000	48,000	20,000			
THEATER			57,000		41,000	41,000		53,000			
HEALTH CLUB											
HOTEL											
CONFERENCE											
RESIDENTIAL									63,740	94,400	178,290
RESIDENTIAL UNITS									60	90	167
PARKING									36,280	36,280	72,485
PARKING STALLS									81	91**	167
Notes	V-shaped wing roof	V-shaped wing roof							*Residential SF refers to either unit SF or supporting uses (i.e. circulation, MEP rooms, lobby/amenity space, etc.)	*Residential SF refers to either unit SF or supporting uses (i.e. circulation, MEP rooms, lobby/amenity space, etc.); **Parking includes stackers	*Residential SF refers to either unit SF or supporting uses (i.e. circulation, MEP rooms, lobby/amenity space, etc.)

SOURCE: JLSV Land LLC, 2014

Figure 3-1a

Project Description Detail -
all Possible Variants for all Sites

Site Designation	SITE F1		SITE F2							SITE F3	SITE G	
							Proposed 2014	Proposed 2014	Proposed 2014			
	Variant 0	Variant 1	Variant 0	Variant 1	Variant 3	Variant 4	Variant 5	Variant 6	Variant 7	Variant 0	Variant 0	Variant 2
	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use
New Development												
level 1 *use 1*	40,000 Retail	43,000 Retail	10,000 Retail	10,000 Retail	10,000 Retail	15,000 Retail	21,730 Residential*	21,510 Residential*	21,095 Residential*	30,000 Hotel	40,000 Retail	60,000 Parking
level 1 *use 2*	2,000 Office	2,000 Office	45,000 Parking	47,000 Parking	47,000 Parking	2,000 Office	41,200 Parking	41,300 Parking	41,715 Parking	10,000 Retail	20,000 Parking	
level 1 *use 3*			2,000 Health Club			220,000 Parking*				15,000 Conference		
level 2 *use 1*	32,000 Office	40,000 Retail	57,000 Parking	57,000 Parking	57,000 Parking	20,000 Office	22,465 Residential*	21,815 Residential*	21,815 Residential*	26,000 Hotel	60,000 Parking	60,000 Parking
level 2 *use 2*							42,170 Parking	42,170 Parking	42,170 Parking			
level 3 *use 1*	32,000 Office	40,000 Retail	57,000 Parking	57,000 Parking	57,000 Parking	20,000 Office	43,665 Residential*	42,860 Residential*	22,830 Residential*	17,000 Hotel	60,000 Parking	60,000 Parking
level 3 *use 2*									42,170 Parking			
level 4 *use 1*	25,000 Office	25,000 Office	57,000 Parking	57,000 Parking	57,000 Parking	20,000 Office	43,415 Residential*	42,610 Residential*	42,860 Residential*	17,000 Hotel	60,000 Parking	60,000 Parking
level 4 *use 2*												
level 5	25,000 Office	25,000 Office	38,000 Health Club		30,000 Office	18,000 Office	43,830 Residential*	43,025 Residential*	43,025 Residential*	17,000 Hotel	60,000 Parking	60,000 Parking
level 6	25,000 Office	25,000 Office				18,000 Office	43,830 Residential*	43,025 Residential*	43,025 Residential*	17,000 Hotel	60,000 Parking	60,000 Parking
level 7						18,000 Office		43,025 Residential*	10,975 Residential*	17,000 Hotel	60,000 Parking	60,000 Parking
level 8						18,000 Office		43,025 Residential*	10,975 Residential*	17,000 Hotel		
level 9									10,975 Residential*	17,000 Hotel		
level 10									10,975 Residential*	15,800 Hotel*		
level 11									10,975 Residential*	15,800 Hotel*		
level 12									10,975 Residential*	7,100 Hotel*		
level 13									10,975 Residential*	7,100 Hotel*		
level 14									10,975 Residential*			
level 15									10,975 Residential*			
level 16									10,975 Residential*			
level 17									10,975 Residential*			
level 18									10,975 Residential*			
level 19									10,975 Residential*			
level 20									10,975 Residential*			
level 21									10,975 Residential*			
level 22									10,975 Residential*			
level 23									10,975 Residential*			
level 24									10,975 Residential*			
level 25									10,975 Residential*			
level 26									10,975 Residential*			
Total GSF New	181,000	200,000	266,000	228,000	258,000	369,000	302,305	384,365	540,205	220,000 *	420,000	420,000
Less Existing Development												
level 1												
level 2												
level 3												
Total GSF Existing												
TOTAL NET GSF												
OFFICE	141,000	77,000			30,000	134,000						
RETAIL	40,000	123,000	10,000	10,000	10,000	15,000				10,000	40,000	
THEATER												
HEALTH CLUB			40,000									
HOTEL										250 Rooms		
CONFERENCE										15,000		
RESIDENTIAL							218,935	300,895	414,150			
RESIDENTIAL UNITS							217	282	370			
PARKING			216,000	218,000	218,000	220,000	83,370	83,470	126,055		380,000	420,000
PARKING STALLS			576 rough est.	545 rough est.	545 rough est.	550 rough est.	219	240**	370		1086 rough est.	1200 rough est.
Notes	Heinhold's shall remain as a distinct freestanding structure	Heinhold's shall remain as a distinct freestanding structure				*Parking is in 6-level structure behind office	*Residential SF refers to either unit SF or supporting uses (i.e. circulation, MEP rooms, lobby/amenity space, etc.)	*Residential SF refers to either unit SF or supporting uses (i.e. circulation, MEP rooms, lobby/amenity space, etc.); **Not including 42 spaces at 255 Second Street (Site G) Garage	*Residential SF refers to either unit SF or supporting uses (i.e. circulation, MEP rooms, lobby/amenity space, etc.)	* Floor areas are max footprint at each level. Total floor area will not exceed 220,000 SF.		

SOURCE: JLSV Land LLC, 2014

Figure 3-1b

Project Description Detail -
all Possible Variants for all Sites

Site Designation	Pavilion 2		Water I Expansion		66 Franklin					
	Variant 0		Variant 0		Variant 0		Variant 1		Variant 1b		Variant 2	
	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use
New Development												
level 1 *use 1*	15,000	Retail	20,000	Retail	35,000	Retail	35,000	Retail	28,500	Retail		
level 1 *use 2*					2,000	Office	2,000	Office	2,000	Office		
level 1 *use 3*									47,250	Parking*		
level 2 *use 1*			20,000	Retail	37,000	Office	37,000	Retail	30,500	Retail		
level 2 *use 2*												
level 3 *use 1*					37,000	Office	37,000	Office	37,000	Parking		
level 3 *use 2*												
level 4 *use 1*					23,500	Office	23,500	Office	37,000	Parking	30,600	Office
level 4 *use 2*												
level 5					23,500	Office	23,500	Office	37,000	Parking	30,600	Office
level 6					23,500	Office	23,500	Office	23,500	Office	23,500	Office
level 7												
level 8												
level 9												
level 10												
level 11												
level 12												
level 13												
level 14												
level 15												
level 16												
level 17												
level 18												
level 19												
level 20												
level 21												
level 22												
level 23												
level 24												
level 25												
level 26												
Total GSF New	15,000		40,000		181,500		181,500		242,750		84,700	
Less Existing Development												
level 1			-14,000	Retail	-32,600	Retail	-32,600	Retail	-32,600	Retail		
level 2					-30,600	Office	-30,600	Office	-30,600	Office		
level 3					-30,600	Office	-30,600	Office	-30,600	Office		
Total GSF Existing			-14,000		-93,800		-93,800		-93,800			
TOTAL NET GSF												
OFFICE					85,300		48,300		-35,700		84,700	
RETAIL	15,000		26,000		2,400		39,400		26,400			
THEATER												
HEALTH CLUB												
HOTEL												
CONFERENCE												
RESIDENTIAL												
RESIDENTIAL UNITS												
PARKING									158,250			
PARKING STALLS									422	rough est.		
Notes									*Parking at 3 levels behind retail levels 1 and 2		This variant is an addition of 2 and a half floors to the existing building	

SOURCE: JLSV Land LLC, 2014

Figure 3-1c

Project Description Detail -
all Possible Variants for all Sites

3.3.3 2014 Modified Project

This Addendum analyzes the most intensive combination of variants of the 2014 Modified Project. The 2014 Modified Project includes the potential for residential and/or commercial variants on Sites D and F2. In Exhibits 3-1a through 3-1c on the preceding pages, and **Table 3-3, 2014 Modified Project Detail - Residential Variants**, the additional residential variants are labeled variants 5, 6, and 7 for each site given that the existing commercial variant options from the Approved Project are to be retained. Table 3-3 shows the number of residential units in the three proposed variants (per site) and the total mix of uses for each residential variant in the 2014 Modified Project is also shown.

TABLE 3-3
2014 MODIFIED PROJECT DETAIL - RESIDENTIAL VARIANTS

Site	Variant 5 (Low-Rise)	Variant 6 (Mid-Rise)	Variant 7 (High-Rise)	Max Units[a]
D	60	90	167	665
F2	217	282	370	

a Although Variant 7 for Site D (167 units) plus Variant 7 for Site F2 (370 units) sums to 537 units, up to 665 units would be allowed to be built within an approved PDP massing envelope (per the PUD). As such, 665 units are being studied under this CEQA document.

The 2014 Modified Project includes the removal from Sites D and F2 of the cap on net new office space that was added by the City Council when approving the 2004 Approved Project. Since office uses would not occur on Sites D and F2 under the Maximum Residential Scenario or any of the residential variants proposed, removal of the cap is not a change to the Approved Project or the analysis in the 2004 EIR. Moreover, as previously mentioned, the City Council added the office cap after completion of the 2004 EIR, which analyzed all commercial uses only on Site D and F2. Therefore, the currently proposed removal of the office cap from Sites D and F2 does not require any supplemental CEQA analysis because the 2004 EIR already studied project impacts without an office cap.

The Maximum Residential Scenario would substitute up to 200 residential units for approximately 190,000 square feet of commercial (retail and office use, considering the office cap with the Approved Project) on Site D, and would substitute up to 465 residential units for approximately 149,000 square feet of commercial (retail and office use, considering the office cap with the Approved Project) on Site F2.

The maximum 665 total units that may be distributed across Sites D and F2 is derived based on the existing residential densities pursuant to the Estuary Policy Plan (a component of the General Plan), factoring in the remaining development potential from the already developed Site G, which is dedicated primarily to parking to support the Jack London Square area (discussed in detail in

Chapter 4, *Environmental Setting, Impacts, Standard Conditions of Approval and Mitigation Measures*, under Land Use, Plans and Policies).[4]

3.3.4 Approved Project Elements Already Built and Operating

As shown in Table 3-4, since 2004, the project sponsor has constructed three new buildings, the occupied and operational components of which are referred to as "active uses."[5] **Table 3-4 Project Description Summary and Active Uses**, shows the square footages associated with these active uses subtracted from the proposed project, since the effects of these active uses now constitute part of the existing "background" physical setting and it would be duplicative to analyze them as part of the project in the CEQA analysis for certain environmental topics. Specifically, the development totals shown in Table 3-4, less the active uses, are factored into the analysis of traffic and noise impacts since the measurable existing baseline effects of these topics (i.e., vehicle trips and operational/stationary noise) are part of the 2013 existing environmental setting, with applicable 2004 identified mitigations implemented, and these effects would otherwise be counted twice: once as part of the existing physical setting, then again as part of the 2014 Modified Project.

TABLE 3-4
PROJECT DESCRIPTION SUMMARY AND ACTIVE USES

Land Use	2013 Existing Conditions	2004 Approved Project		2014 Modified Project: Maximum Residential Scenario	
	Total Active Uses[a] (net new GSF)	Total Proposed (net new GSF)	Total Minus Active Uses[b] (net new GSF)	Total Proposed (net new GSF)	Total Minus Active Uses[b] (net new GSF)
Commercial	115,000	709,700	594,700	411,700	296,700
Theater	0	41,000 (1,700 seats)	41,000 (1,700 seats)	0	0
Residential	0	0	0	665 units	665 units
Hotel[b]	0	195,000 (250 Rooms)	195,000 (250 Rooms)	195,000 (250 Rooms)	195,000 (250 Rooms)
Conference	0	15,000	15,000	15,000	15,000
TOTAL	**115,000**	**960,700**	**845,700**	**621,700 + 665 units**	**506,700 + 665 units**

[a] Total Active Uses are portions of the Approved Project that have been built and occupied since approval of that project.

[b] Total floor area on Site F3 where Hotel use is proposed with 10,000 square feet of Retail and 15,000 square feet of conference space and will not exceed 220,000 square feet, consistent with the Approved Project.

Net New GSF: gross square feet, excludes parking.

SOURCE: Jack London Square Redevelopment Project Final EIR, 2004. AECOM, 2013.

4 The project sponsor proposes an amendment to the General Plan / Estuary Policy Plan, to change the land use classifications of Site D and F2 to "Retail, Dining, and Entertainment 2 (RD&E-2)" and "Mixed Use Development (MUD)," respectively, which would apply a maximum permitted residential density on these sites to 166.67 unit per net acre.

5 The Site G Garage has also been constructed, which includes the 40,000 square feet of retail space that is not yet occupied and operational. Similarly, 17,000 square feet of retail space on Site C is constructed but not yet occupied and operational.

Other improvements that have occurred since 2004, pursuant to the previous approvals, include the four new plazas/greens in common areas, and the renovation and re-leasing of office, retail and restaurant spaces. Also, the 2004 EIR identified a mitigation measure that required the project sponsor to implement a peak-hour shuttle between the project area and the Oakland 12th Street BART Station. Since 2004, the City started a peak hour shuttle serving this route, and the project sponsor contributes financially to its operation.

3.3.5 Maximum Building Massing and Heights

This section shows the comparison of the maximum massing of buildings considered for Sites D and F2 for the 2014 Modified Project. No other proposed buildingmassing on any of the other development sites is modified from the 2004 Approved Project. Maximum massing plans for Site D under the Maximum Residential Scenario of the 2014 Modified Project and under the Approved Project follow in **Figures 3-3** and **3-4**, respectively. Maximum massing plans for Site F2 under the Maximum Residential Scenario of the 2014 Modified Project and under the Approved Project follow in **Figures 3-5** and **3-6a / 3-6b**, respectively.[6] The full set of programmatic plans (floor plans, elevations/sections, massing) for the newly-added variants for each of Sites D and F2 under the 2014 Modified Project are provided in **Appendix A** (Project Plans and Elevations –Sites D and F2, Newly Proposed Variants [2014] to this Addendum.

Table 3-5, **Maximum Building Heights by Development Site**, presents the maximum building heights (to top of parapet) by development site for the Maximum Residential Scenario of the 2014 Modified Project and under the Approved Project.

TABLE 3-5
MAXIMUM BUILDING HEIGHTS BY DEVELOPMENT SITE[a]

	2004 Approved Project:		2014 Modified Project: Maximum Residential Scenario	
	Levels	**Height (feet)**	**Levels**	**Height (feet)**
Site C	2	45	2	45
Site D	7	140	**17**	**193**
Pavilion 2	1	24	1	24
Water I Expansion	2	44	2	44
66 Franklin	6	94	6	94
Site F1	6	108	6	108
Site F2	8	125	**26**	**293**
Site F3	13	175	13	175
Site G	7	88	7	88

[a] Stairs, elevator, and mechanical equipment may be above these top-of-parapet heights.

Bold Double Underline denotes changes from the Approved Project.

SOURCE: Jack London Square Redevelopment Project Final EIR, 2004; MBH Architects, 2013

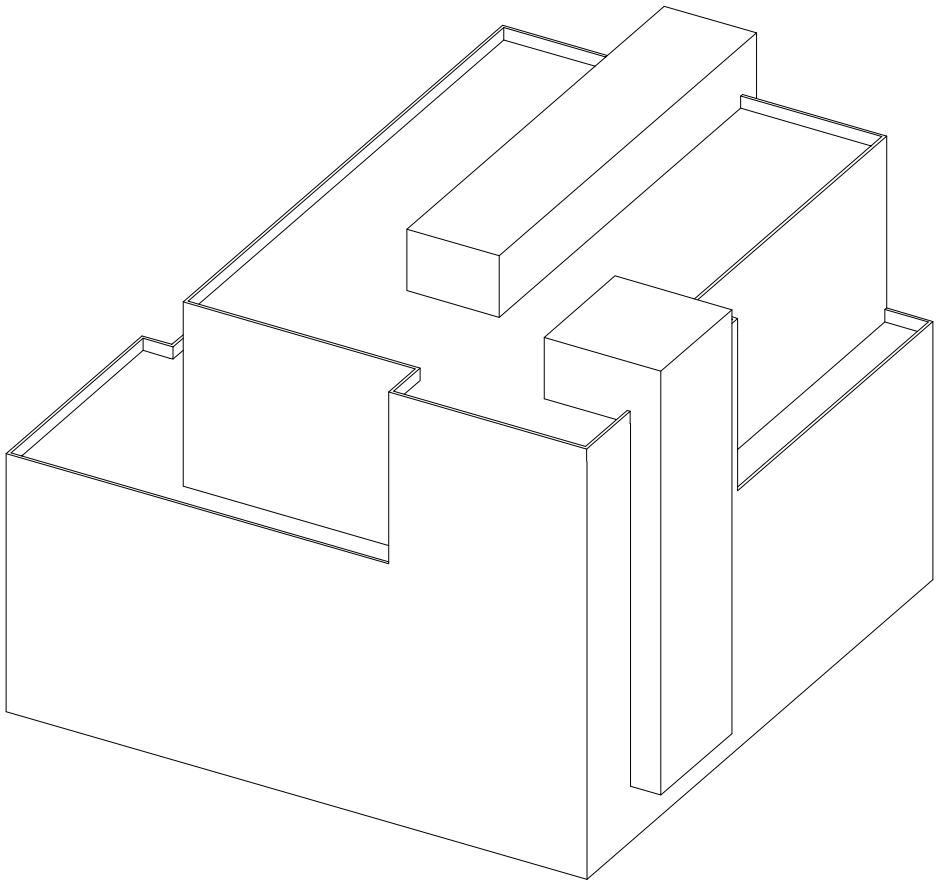
[6] In Figures 3-4 and 3-6, aqua shading (or area labeled "Revised Project Massing") shows where the Approved Project (Revised Project) exceeds the 2004 DEIR Project massing, which is shown as a dotted outline of the DEIR Project.

Jack London Square Redevelopment EIR Addendum . 120939

SOURCE: MBH

Figure 3-3

Site D Maximum Massing (17 Over 3 Levels)
2014 Modified Project (Maximum Residential Scenario)

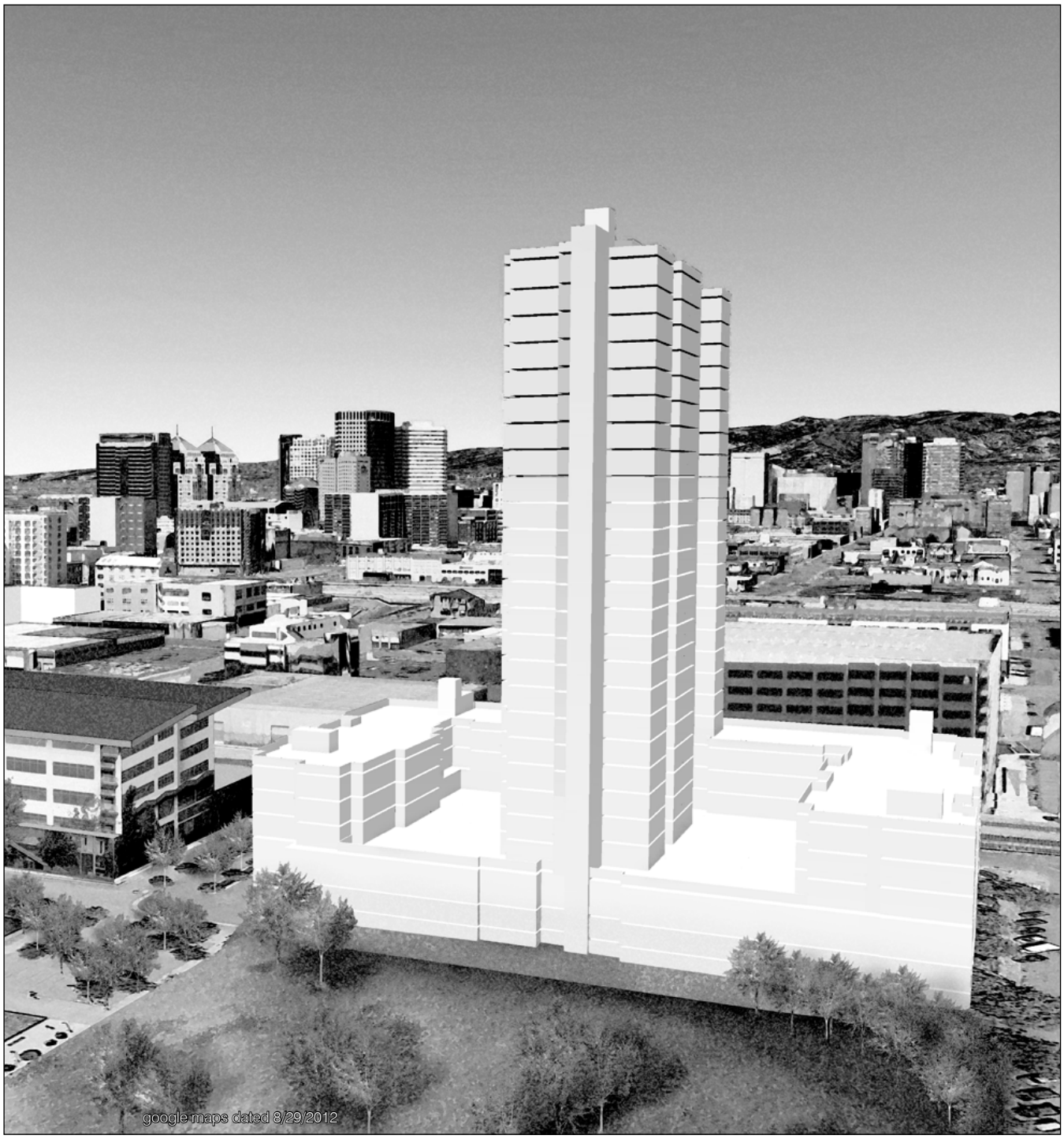


Axonometric View Looking North

SOURCE: Jack London Square Partners, LLC/HOK Inc.

Figure 3-4

Site D Maximum Massing (7 Levels)
2004 Approved Project

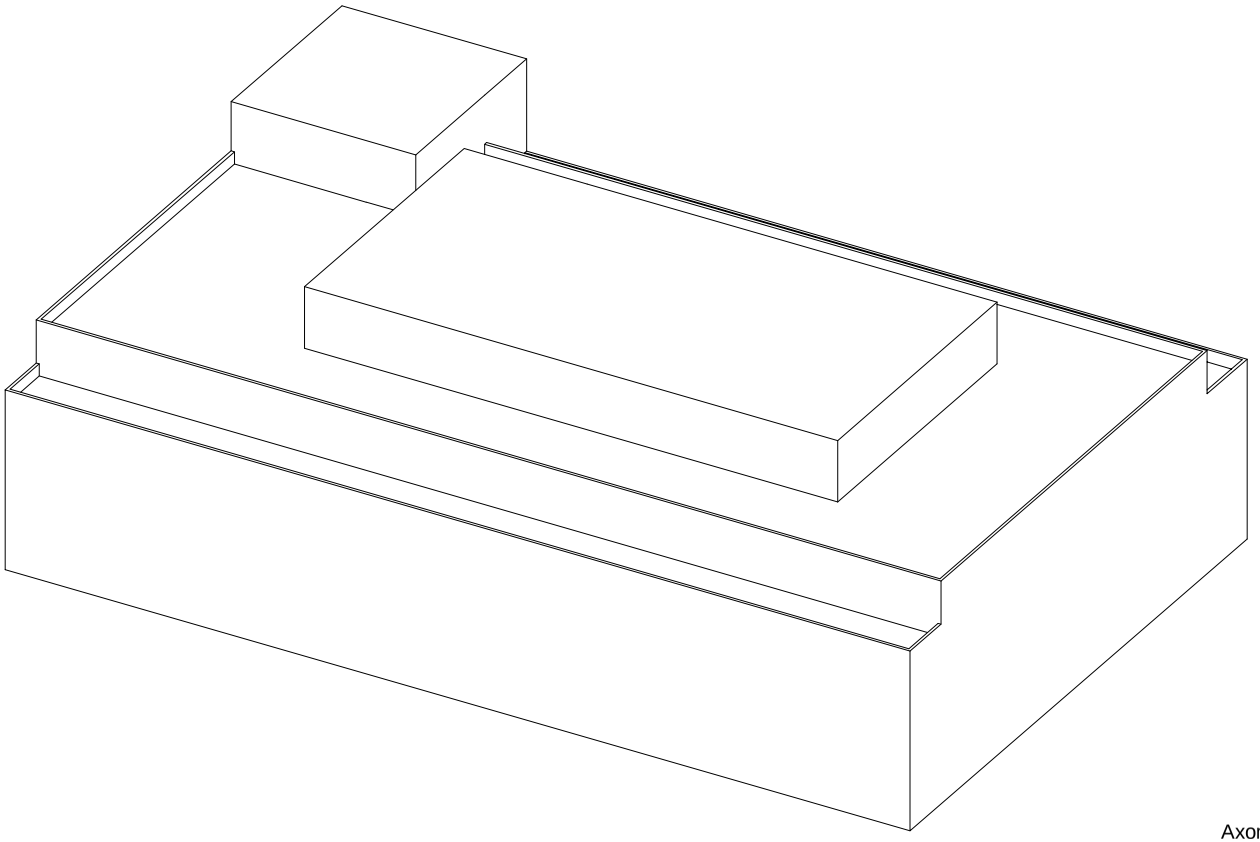


Jack London Square Redevelopment EIR Addendum . 120939

SOURCE: MBH

Figure 3-5

Site F2 Maximum Massing (23 Over 3 Levels)
2014 Modified Project (Maximum Residential Scenario)

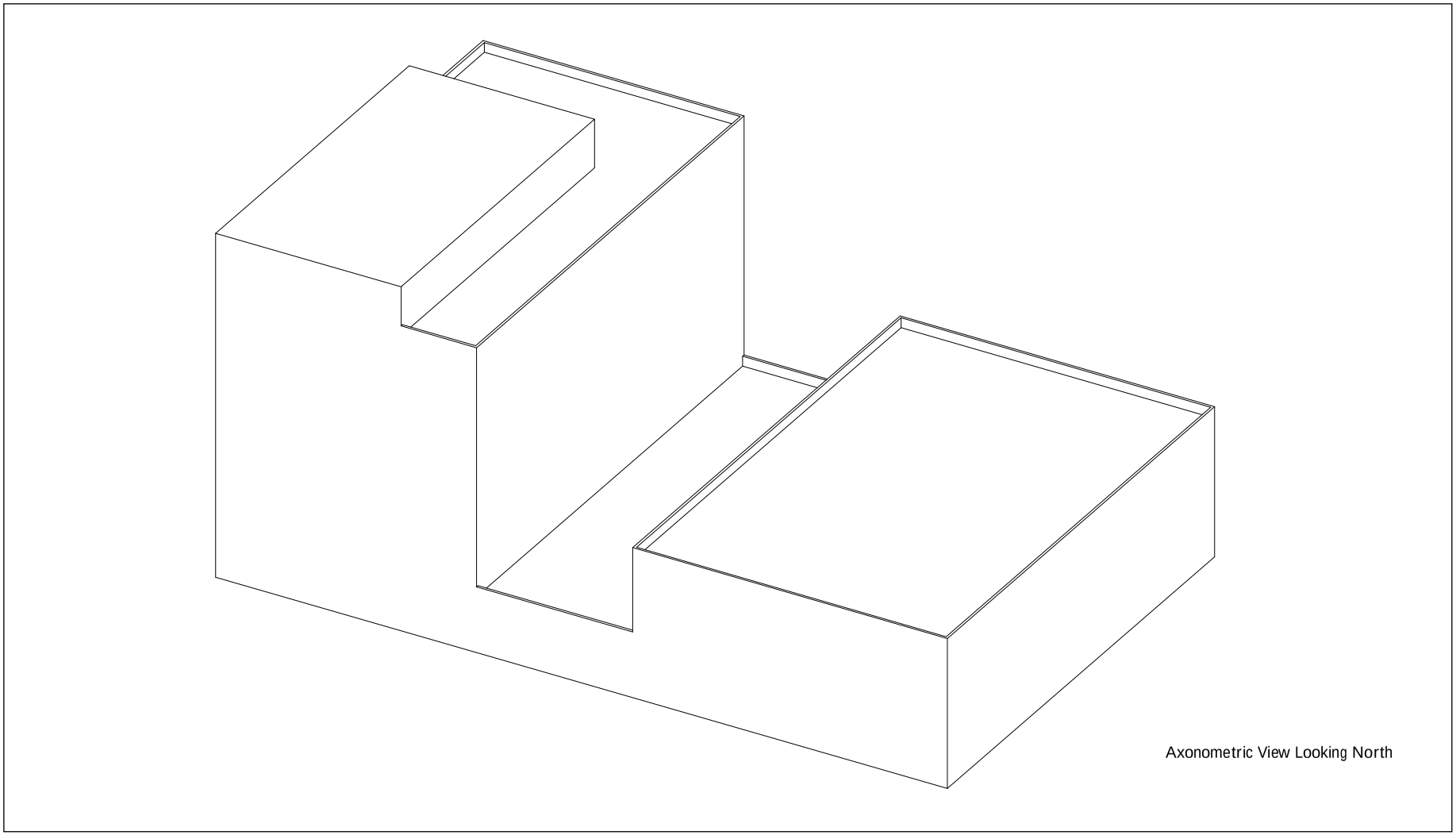


Axonometric View Looking North

SOURCE: Jack London Square Partners, LLC/HOK Inc.

Figure 3-6a

Site F2 Maximum Massing (8 Levels)
2004 Approved Project (Maximum Commercial Scenario)



SOURCE: Jack London Square Partners, LLC/HOK Inc.

Figure 3-6b

Site F2 Maximum Massing (8 Levels)
2004 Approved Project (Maximum Commercial Scenario)

3.3.6 Project Construction Phasing and Demolition

As previously mentioned, the project sponsor has completed construction of three new buildings and four new plazas/greens under the Approved Project. The constructed and occupied development includes portions of Sites C and F1. Site G is also already constructed, although all uses on that site are not yet occupied and operational.

Table 3-6 shows that construction of the remainder of the Jack London Square Project, under the proposed Maximum Residential Scenario, is expected to start with Sites D and F2 in 2015, with a ten year continuous buildout anticipated to be completed by 2025 as detailed below. Sites D and F2 are the only two development areas that would be constructed concurrently. A total of 161,800 square feet of development remain to be demolished to accommodate the Maximum Residential Scenario; the same amount required to accommodate the Approved Project.[7]

TABLE 3-6
PROJECT CONSTRUCTION PHASING AND DEMOLITION – 2014 MODIFIED PROJECT
(MAXIMUM RESIDENTIAL SCENARIO)

Development Area	Start of Construction	Duration (months)	Proposed Demolition of Existing Development (gross square feet)
Site C	Construction Complete		
Site F1	Construction Complete		
Site G	Construction Complete		
Site D	2015	24 mo	(24,000)
Site F2	2015	24 mo	0
Site F3	2017	24 mo	0
Pavilion 2	2019	18 mo	(30,000)
66 Franklin	2021	20 mo	(93,800)
Water I Expansion	2024	10 mo	(14,000)

SOURCE: Jack London Square Redevelopment Project Final EIR, 2004; JLSV Land LLC, 2013.

3.4 Project Approvals

The City of Oakland, as the Lead Agency, is responsible for preparation of this Addendum, which is intended to be used to address all required zoning and other permits and other discretionary governmental actions for the 2014 Modified Project.

3.4.1 2004 Approved Project Approvals

As discussed in the 2004 FEIR, the land use approvals identified in the 2004 DEIR were also required for the Approved Project.

[7] No demolition was required for the development of Sites C, F1, and G.

3.4.2 2014 Modified Project Approvals

The 2014 Modified Project represents currently proposed modifications to the Approved Project that originally was approved (and has been partially implemented) pursuant to the 2004 Planned Unit Development. The 2014 Modified Project requires modification to the 2004 PUD and other project approvals. This Addendum, together with the 2004 EIR, are intended to provide the environmental review for all discretionary actions and other considerations and approvals that are required of governmental entities (including the City of Oakland) for implementation of the 2014 Modified Project. The required approvals include those listed below, without limitation:

- General Plan amendment to change the land use designation of Site D from Retail, Dining, Entertainment 1 (RD&E-1) to Retail, Dining, and Entertainment 2 (RD&E-2)" and to change the land use designation of Site F2 from Waterfront Commercial Recreation 1 (WCR-1) to Mixed Use District (MUD).
- Planned Unit Development / Preliminary Development Plan (PUD/PDP) amendments to accomplish the following:
    - Permit residential uses on Sites D and F2;
    - Modify stories, height, massing/envelopes by proposing new site variants for Sites D and F2;
    - Remove the cap limiting office space on Sites D and F2 of the 2014 Modified Project; and
- Modification of the conditions of approval for the 2014 Modified Project.
- Final Development Plan (FDP) amendments to accommodate revised plans for Sites D and F2.

As with the previous approvals, the development of the Jack London Square Redevelopment Project, pursuant to the 2014 Modified Project, will be limited by the proposed amendments to the PUD/PDP, the FDP, and the negotiation and approval of a new or revised DA, and other entitlements that are ultimately approved by the City Planning Commission, City Council, and any other relevant governmental entities.

CHAPTER 4
Environmental Setting, Impacts, Standard Conditions of Approval, and Mitigation Measures

Introduction

As discussed in Chapter 1, *Introduction*, this Addendum is prepared to present the results of the City's conclusion, based on independent analysis, that no additional CEQA review is required for the project sponsor's current proposed modifications to the Jack London Square Project (the "2004 Approved Project" or "Approved Project"). This conclusion is based on the fact that none of the conditions requiring preparation of a Supplemental or Subsequent EIR, as specified in Public Resources Code section 21166 and CEQA Guidelines sections 15162 and 15163, are present.

This chapter provides sufficient analysis and updates necessary to confirm that there are no new or significantly more severe impacts as a result of the 2014 Modified Project as a result of changes to the 2004 Approved Project, new circumstances, or new information.

As also discussed in Chapter 1, *Introduction*, this chapter updates some of the environmental and regulatory setting, impact conclusions, and mitigation measures in the 2004 EIR. The impacts, mitigation measures, and where appropriate, newly applicable *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) for the 2014 Modified Project, are summarized in Table 2-1 in Chapter 2, *Summary*. The impacts and mitigation measures from the 2004 EIR (as amended by the City Council after publication of the 2004 EIR) and that continue to apply to the 2004 Approved Project are presented in Table 2-1 in Chapter 2, *Summary.*

This page intentionally left blank

4.1 Transportation and Circulation

This section evaluates the potential transportation and circulation impacts of the entire Jack London Square Project, considering the Maximum Residential Scenario of the 2014 Modified Project which proposes "project changes" to Sites D and F2 of the project site. Specifically, the analysis evaluates the 2014 Modified Project and whether "changed circumstances" and/or "new information" affecting the context in which the full project would occur, would result in new or substantially more severe significant transportation and circulation impacts not identified in the 2004 EIR.

This Addendum evaluates the project using the City's current CEQA thresholds of significance and methodologies (including updated existing and forecasted future traffic volumes). Further, this section provides relevant updates to the environmental and regulatory settings that account for changed circumstances and information since preparation of the 2004 EIR. The Approved Project is evaluated in this section under these updated conditions in order to provide an "apples-to-apples" comparison of the impacts of the 2014 Modified Project and those identified in the 2004 EIR for the Approved Project. In addition, the analysis of the Approved Project ensures that the CEQA analysis addresses the most intensive potential impacts that could result from any possible combination of the project variants. (See related discussion in Chapter 1, *Introduction,* under *Scope of this Addendum Under CEQA Guidelines Section 15162* of this Addendum.)

Impacts and mitigation measures identified in the 2004 EIR and that still address the 2014 Modified Project changes are identified and, where appropriate, are clarified, refined, revised, or deleted.

Previous Environmental Analysis

The 2004 EIR analysis determined that the additional traffic generated by the 2004 FEIR Project would result in significant impacts on traffic operations at a number of intersections. Many of the impacts previously identified were determined to be reduced to less than significant through implementation of mitigation measures), and some were considered significant and unavoidable even with the implementation of mitigation measures. For ease of review and comparison of the impacts identified in the 2004 EIR with those identified in this Addendum, specified impacts and mitigation measures from the 2004 EIR are discussed within the *Analysis of the 2014 Modified Project* section, below.

Standard Conditions of Approval

Since City of Oakland's certification of the 2004 EIR, the City of Oakland has adopted *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) that apply to new development projects. The SCAs that are relevant to reducing traffic and circulation impacts and

that apply specifically to address impacts resulting from the 2014 Modified Project in connection with residential uses on Sites D and F2 are listed below.[1]

- **SCA TRANS-1: Parking and Transportation Demand Management**

  This SCA would apply to all development Projects facilitated by the Proposed Amendments consisting of 50 or more new residential units, or 50,000 square feet or more of new non-residential space.

  Prior to issuance of a final inspection of the building permit. The property owner shall pay for and submit for review and approval by the City a Transportation Demand Management (TDM) plan containing strategies to

  1. Reduce the amount of traffic generated by new development and the expansion of existing development, pursuant to the City's police power and necessary in order to protect the public health, safety and welfare.
  2. Ensure that expected increases in traffic resulting from growth in employment and housing opportunities in the City of Oakland will be adequately mitigated.
  3. Reduce drive-alone commute trips during peak traffic periods by using a combination of services, incentives, and facilities.
  4. Promote more efficient use of existing transportation facilities and ensure that new developments are designed in ways to maximize the potential for alternative transportation usage.
  5. Establish an ongoing monitoring and enforcement program to ensure that the desired alternative mode use percentages are achieved.

  The property owner shall implement the approved TDM plan. The TDM plan shall include strategies to increase bicycle, pedestrian, transit, and carpools / vanpool use. All four modes of travel shall be considered, and parking management and parking reduction strategies should be included. Actions to consider include the following:

  - Inclusion of additional long term and short term bicycle parking that meets the design standards set forth in Chapter Five of the *Bicycle Master Plan*, and Bicycle Parking Ordinance, shower, and locker facilities in commercial developments that exceed the requirement.
  - Construction of and/or access to bikeways per the *Bicycle Master Plan*; construction of priority Bikeway Projects, on-site signage and bike lane striping.
  - Installation of safety elements per the *Pedestrian Master Plan* (such as cross walk striping, curb ramps, count-down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials.
  - Installation of amenities such as lighting, street trees, trash receptacles per the *Pedestrian Master Plan* and any applicable streetscape plan.

[1] No SCAs are applied to address the potential effects of the changed circumstance and new information regarding the City's updated total cumulative noise analysis method established since the 2004 EIR.

- Construction and development of transit stops / shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements.
- Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency).
- Employees or residents can be provided with a subsidy, determined by the property owner and subject to review by the City, if the employees or residents use transit or commute by other alternative modes.
- Provision of shuttle service between the development and nearest mass transit station, or ongoing contribution to existing shuttle or public transit services.
- Guaranteed ride home program for employees, either through 511.org or through separate program.
- Pre-tax commuter benefits (commuter checks) for employees.
- Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants.
- Onsite carpooling and/or vanpooling program that includes preferential (discounted or free) parking for carpools and vanpools.
- Distribution of information concerning alternative transportation options.
- Parking spaces sold / leased separately for residential units. Charge employees for parking, or provide a cash incentive or transit pass alternative to a free parking space in commercial properties.
- Parking management strategies; including attendant / valet parking and shared parking spaces.
- Requiring tenants to provide opportunities and the ability to work off-site.
- Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite.
- Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours.

The property owner shall submit an annual compliance report for review and approval by the City. This report will be reviewed either by City staff (or a peer review consultant, chosen by the City and paid for by the property owner). If timely reports are not submitted, the reports indicate a failure to achieve the stated policy goals, or the required alternative mode split is still not achieved, staff will work with the property owner to find ways to meet their commitments and achieve trip reduction goals. If the issues cannot be resolved, the matter may be referred to the Planning Commission for resolution. Property owners shall be required, as a condition of approval, to reimburse the City for costs incurred in maintaining and enforcing the trip reduction program for the approved Project.

Regarding the applicability of SCA TRANS-1 to the 2014 Modified Project, the project sponsor is already required to comply with Mitigation Measures C.2 and C.5 (Rideshare, Transit, Shuttle, Bicycle/Pedestrian Measures) identified in the 2004 EIR for the 2004 Approved Project and therefore prepared a Parking and Transportation Demand Management Plan in accordance with those measures. The project sponsor would be required to update its existing plan for City review and approval in order to fully satisfy SCA TRANS-1 for the 2014 Modified Project.

- **SCA TRANS-2: Construction Management Plan**

  The Project applicant shall submit to the Planning and Zoning Division and the Building Services Division for review and approval a construction management plan that identifies the conditions of approval and mitigation measures related to construction impacts of the Project and explains how the project applicant will comply with these construction-related conditions of approval and mitigation measures.

- **SCA TRANS-3: Construction Traffic and Parking**

  Prior to the issuance of a demolition, grading or building permit. The Project applicant and construction contractor shall meet with appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this Project and other nearby projects that could be simultaneously under construction. The Project applicant shall develop a construction management plan for review and approval by the Planning and Zoning Division, the Building Services Division, and the Transportation Services Division. The plan shall include at least the following items and requirements:

  - A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes;
  - Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur;
  - Location of construction staging areas for materials, equipment, and vehicles at an approved location;
  - A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. Planning and Zoning shall be informed who the Manager is prior to the issuance of the first permit issued by Building Services; and,
  - Provision for accommodation of pedestrian flow.

  Major Project Cases:

  (A) Provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces (see item "p" below);

  (B) Any damage to the street caused by heavy equipment, or as a result of this construction, shall be repaired, at the applicant's expense, within one week of the occurrence of the damage (or excessive wear), unless further damage / excessive wear may continue; in such case, repair shall occur prior to issuance of a final inspection of the building permit. All damage that is a threat to public health or safety shall be repaired immediately. The street shall be restored to its condition prior to the new construction as established by the City Building Inspector and / or photo

documentation, at the applicant's expense, before the issuance of a Certificate of Occupancy;

(C) Any heavy equipment brought to the construction site shall be transported by truck, where feasible;

(D) No materials or equipment shall be stored on the traveled roadway at any time;

(E) Prior to construction, a portable toilet facility and a debris box shall be installed on the site, and properly maintained through Project completion;

(F) All equipment shall be equipped with mufflers; and,

(G) Prior to the end of each work day during construction, the contractor or contractors shall pick up and properly dispose of all litter resulting from or related to the project, whether located on the property, within the public rights-of-way, or properties of adjacent or nearby neighbors.

Existing Conditions

The existing transportation-related context in which the project (Approved Project or 2014 Modified Project) would be constructed is described below, beginning with a description of the study area and the street network that serves the project site. Existing transit service, bicycle and pedestrian facilities, and on- and off-street parking in the vicinity of the project site are also described. Intersection and roadway levels of service (LOS) are then defined and current conditions for roadways and intersections in the project vicinity are summarized. This subsection also discusses planned transportation improvements in the project vicinity as well as the applicable planning policies.

Existing Roadway Network

Regional Access

A brief description of the regional roadway network serving the project site is provided below. The most recent average daily traffic volumes were obtained from California Department of Transportation's (Caltrans) Performance Measurement System (PeMS) census traffic count data.

- ***Interstate-880*** (I-880) is a north-south running regional freeway located north of the project site, extending between Interstate-80 (I-80) in Emeryville and Interstate-280 (I-280) in San Jose. I-880 provides four lanes in each direction near the project area. Access to and from I-880 is provided at the Jackson Street / Oak Street and Broadway Interchanges, as well as Interstate-980 (I-980) to the east. Average daily traffic on I-880 in the vicinity of the project site is approximately 163,900 vehicles.
- ***I-980*** is a north-south running local freeway located north of the project site, extending from I-880 to Interstate-580 (I-580) / State Route 24 (SR 24) in Oakland. I-890 provides three lanes in each direction near the project area. Access to and from I-980 is provided via I-880, and by the 11th Street / 12th Street Interchange. Average daily traffic on I-980 in the vicinity of the project site is approximately 77,200 vehicles.
- ***I-580*** is an east-west running regional freeway located north of the project site, extending from United States Highway 101 (U.S. 101) in Marin County to Interstate-5 (I-5) south of Tracy. I-580 provides four lanes in each direction near the project area. Access to and from I-580 is provided via I-980. Average daily traffic on I-580 in the vicinity of the project site is approximately 168,800 vehicles.

- ***SR 24*** is an east-west running regional freeway located north of the project site, extending between Interstate-680 (I-680) in Walnut Creek to I-580 / I-980 in Oakland. SR 24 provides four lanes in each direction near the project area. Access to and from SR 24 is provided by I-980. Average daily traffic on SR 24 in the vicinity of the project site is approximately 93,700 vehicles.

Local Access

A brief description of the local and arterial streets serving the project site is given below:

- ***Market Street*** is a north-south collector, extending from Embarcadero to 63rd Street in Berkeley. Between Embarcadero and 3rd Street, Market Street provides one northbound travel lane, and three southbound travel lanes which generally serve as a truck entrance to the Port of Oakland. Elsewhere, Market Street consists of two travel lanes in each direction.
- ***Castro Street*** is a one-way northbound arterial running adjacent to I-880, extending from 2nd Street to San Pablo Avenue, where it merges with Martin Luther King Jr. Way. In the vicinity of the project site, Castro Street consists of three northbound travel lanes.
- ***Broadway*** is a major north-south arterial extending from Jack London Square in the south to SR 24 in the north. In the vicinity of the project site, Broadway provides two travel lanes in each direction and serves as the primary roadway connecting the project site with the Oakland City Center.
- ***Franklin Street*** is a collector roadway, extending from Embarcadero to 5th Street, and from 6th Street to Broadway. Between Embarcadero and 5th Street, Franklin Street runs in a one-way southbound direction, providing two travel lanes. Between 7th Street and Broadway, Franklin Street runs in a one-way northbound direction, providing three or four travel lanes.
- ***Harrison Street*** and ***Webster Street (Oakland)*** are north-south collectors providing access between the Webster and Posey Tubes to Alameda, Downtown Oakland, and I-580. Between the Webster and Posey Tubes and 10th Street, Webster Street and Harrison Street operate as a one-way couplet, with traffic flow along Webster Street oriented southbound (towards Alameda) and Harrison Street oriented northbound (from Alameda). South of I-880, both Webster Street and along Harrison Street allow for two-way traffic flow, with one travel lane provided in each direction.
- ***Jackson Street*** is a north-south collector roadway, extending from 2nd Street to Lakeside Drive. In the vicinity of the project site, Jackson Street provides one travel lane in each direction.
- ***Madison Street*** and ***Oak Street / Lakeside Drive*** are north-south collectors providing access between I-580, the Lake Merritt area, and I-880. North of I-880, Madison Street and Oak Street / Lakeside Drive operate as a one-way couplet, with traffic flow along Madison Street oriented southbound and along Oak Street / Lakeside Drive oriented northbound. South of I-880, both Madison Street and Oak Street allow for two-way traffic flow, with one travel lane provided in each direction.
- ***5th Avenue*** is a north-south collector roadway, extending from Park Boulevard to the Oakland Estuary. In the vicinity of the project site, 5th Avenue provides one vehicular travel lane in each direction.
- ***Embarcadero*** is an east-west collector roadway that runs along the Oakland Estuary, extending from 23rd Avenue to west of Market Street, where it terminates. Embarcadero generally fronts the project site, includes railroad tracks running through the center of the roadway, and provides one vehicular travel lane in each direction, on either side of the railroad tracks.
- ***2nd Street*** is an east-west roadway, extending from Brush Street to Oak Street. In the vicinity of the project site, 2nd Street provides one travel lane in each direction.

- ***3rd Street*** is an east-west roadway, extending from Mandela Parkway to Oak Street. In the vicinity of the project site, 3rd Street provides one travel lane in each direction.
- ***5th Street*** and ***6th Street*** are east-west collectors running parallel to I-880 through Downtown Oakland. 5th and 6th Streets operate as a one-way couplet, with traffic flow along 5th Street oriented eastbound, and 6th Street oriented westbound. Each roadway provides between two and four travel lanes along their extents.
- ***7th Street*** is an east-west arterial extending from the Oakland Middle Harbor to Fallon Street, where 7th Street merges with 8th Street. West of Castro Street, 7th Street runs in a two-way configuration, providing between two or three travel lanes in each direction. East of Castro Street, 7th Street operates as a one-way couplet with 8th Street, with traffic flow along 7th Street oriented eastbound, and 8th Street oriented westbound. Throughout this portion, 7th Street provides four eastbound travel lanes.
- ***11th Street*** and ***12th Street*** are east-west collectors providing access between West Oakland, Downtown Oakland, and East Oakland. 11th and 12th Streets operate as a one-way couplet in downtown Oakland, with traffic flow along 11th Street oriented eastbound, and 12th Street oriented westbound. Both streets provide four travel lanes.
- ***14th Street*** is a major east-west arterial connecting West Oakland to Downtown Oakland and East Oakland. East of Lake Merritt, 14th Street becomes International Boulevard and continues to San Leandro. In the Project study area, 14th Street provides two travel lanes in each direction.
- ***Webster Street (Alameda)*** is a north-south arterial extending from the Webster and Posey Tubes to Central Avenue. Webster Street provides two travel lanes in each direction.
- ***Constitution Way (Alameda)*** is a north-south arterial extending from the Webster and Posey Tubes to Lincoln Avenue. Constitution Way provides two travel lanes in each direction.
- ***Atlantic Avenue (Alameda)*** is an east-west collector roadway extending from Ferry Point to Eagle Avenue. Atlantic Avenue provides one or two travel lanes in each direction.

Existing Traffic Conditions

Intersection operating conditions were analyzed at 32 key intersections in the vicinity of the project site for the AM and PM peak hours (peak 60-minute intervals between the hours of 7:00-9:00 AM and 4:00-6:00 PM), hereafter referred to simply as the "AM peak hour" and "PM peak hour." These 32 intersections were selected in coordination with City of Oakland (City) staff and are inclusive of all locations which could be significantly affected by project traffic, all of which including a minimum of 50 peak hour project trips. The following study intersections were selected for analysis and are shown on **Figure 4.1-1**:

1. Market Street / 3rd Street;
2. Market Street / 5th Street;
3. Market Street / 6th Street;
4. Market Street / 7th Street;
5. Castro Street / 11th Street;
6. Castro Street / 12th Street;
7. Broadway / Embarcadero;
8. Broadway / 2nd Street;
9. Broadway / 3rd Street;
10. Broadway / 5th Street;
11. Broadway / 6th Street;
17. Webster Street / Embarcadero;
18. Harrison Street / 7th Street;
19. Jackson Street / 5th Street;
20. Jackson Street / 6th Street;
21. Jackson Street / 7th Street;
22. Madison Street / 5th Street;
23. Madison Street / 6th Street;
24. Madison Street / 7th Street;
25. Oak Street / Embarcadero;
26. Oak Street / 3rd Street;
27. Oak Street / 5th Street;

12. Broadway / 11th Street;
13. Broadway / 12th Street;
14. Broadway / 14th Street;
15. Franklin Street / 2nd Street;
16. Franklin Street / 3rd Street;
28. Oak Street / 6th Street;
29. Oak Street / 7th Street;
30. 5th Avenue / Embarcadero;
31. Webster Street / Atlantic Avenue (Alameda); and
32. Constitution Way / Atlantic Avenue (Alameda).

It should be noted that the 32 intersections selected for analysis match the intersections analyzed previously as part of the 2004 EIR.

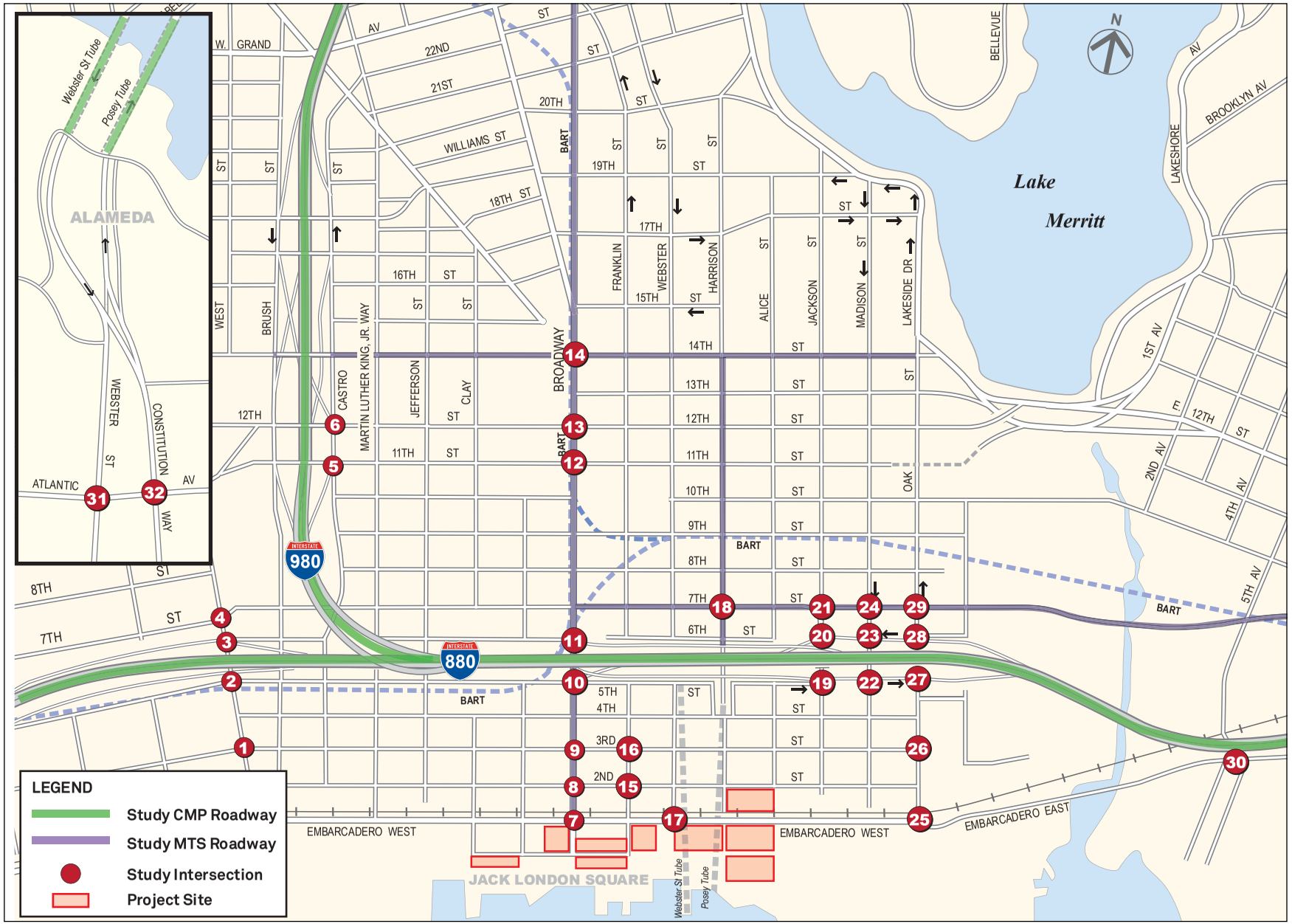
Preliminary trip generation estimates determined that an Alameda County Transportation Commission (ACTC) Congestion Management Program (CMP) analysis and Metropolitan Transportation System (MTS) analysis of the proposed project's effect on ACTC roadways is required, as the number of peak hour trips to be generated by the proposed project is expected to exceed 100 vehicle trips, under both development scenarios. The following CMP and MTS roadway segments in the vicinity of the project site were selected for analysis (see Figure 4.1-1):

- ***CMP Roadways:***

  1. I-980 north of 18th Street;
  2. I-880 west of Market Street;
  3. I-880 east of Oak Street; and
  4. SR 260 (Posey/Webster Tubes) between Alameda city limits and I-880.

- ***MTS Roadways:***

  1. Broadway, between Embarcadero and 2nd Street;
  2. Broadway, between 2nd Street and 3rd Street;
  3. Broadway, between 3rd Street and 5th Street;
  4. Broadway, between 5th Street and 6th Street;
  5. Broadway, between 6th Street and 11th Street;
  6. Broadway, between 11th Street and 12th Street;
  7. Broadway, between 12th Street and 14th Street;
  8. Broadway, north of 14th Street;
  9. 14th Street, between Broadway and Clay Street;
  10. 14th Street, between Broadway and Franklin Street;
  11. 7th Street, between Webster Street and Harrison Street;
  12. 7th Street, between Harrison Street and Alice Street;
  13. 7th Street, between Jackson Street and Madison Street;
  14. 7th Street, between Madison Street and Oak Street;
  15. 7th Street, east of Oak Street;
  16. Harrison Street, between 6th Street and 7th Street; and
  17. Harrison Street, between 7th Street and 8th Street.



SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-1
Traffic Study Locations

Analysis Methods

The operation of a local roadway network is commonly evaluated using the LOS methodology. This methodology qualitatively characterizes traffic conditions associated with varying levels of vehicular traffic, ranging from LOS A (indicating free flow traffic conditions with little or no delay experienced by motorists) to LOS F (indicating congested conditions where traffic flows exceed design capacity and result in long queues and delays). The LOS methodology applies to both signalized and unsignalized intersections and is summarized in **Table 4.1-1**.

It should be noted that because LOS F operations represent over-capacity conditions, any associated delays are beyond the meaningful range for the analysis methodology. As a result, delays for intersections operating at LOS F are presented as ">80.0" and ">50.0" for signalized and unsignalized intersections, respectively.

TABLE 4.1-1
CRITERIA FOR INTERSECTION LEVEL OF SERVICE

Unsignalized Intersections			Signalized Intersections	
Description	Average Total Vehicle Delay (Seconds)	LOS Grade	Average Control Vehicle Delay (Seconds)	Description
No delay for stop-controlled approaches.	≤10.0	A	≤10.0	Insignificant delays: No approach phase is fully utilized and no vehicle waits longer than one red indication.
Operations with minor delays.	>10.0 and ≤15.0	B	>10.0 and ≤20.0	Minimal delays: An occasional approach phase is fully utilized. Drivers begin to feel restricted.
Operations with moderate delays.	>15.0 and ≤25.0	C	>20.0 and ≤35.0	Acceptable delays: Major approach phase may become fully utilized. Most drivers feel somewhat restricted.
Operations with some delays.	>25.0 and ≤35.0	D	>35.0 and ≤55.0	Tolerable delays: Drivers may wait through more than one red indication. Queues may develop but dissipate rapidly, without excessive delays.
Operations with high delays and long queues.	>35.0 and ≤50.0	E	>55.0 and ≤80.0	Significant delays: Volumes approaching capacity. Vehicles may wait through several signal cycles and long vehicle queues form upstream.
Operation with extreme congestion, with very high delays and long queues unacceptable to most drivers.	>50.0	F	>80.0	Excessive delays: Represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.

SOURCE: Transportation Research Board, *Highway Capacity Manual*, 2000.

Signalized Intersections

At signalized study intersections, traffic conditions were evaluated using the 2000 *Highway Capacity Manual* (HCM) operations methodology. The operations analysis uses various

intersection characteristics (e.g., traffic volumes, lane geometry, and signal phasing / timing) to estimate the average control delay experienced by motorists at an intersection.

Unsignalized Intersections

At unsignalized (side-street, and all-way stop-controlled) study intersections, traffic conditions were also evaluated using the 2000 HCM operations methodology. With this methodology, the LOS is related to the total delay per vehicle for the intersection as a whole (for all-way stop-controlled intersections) or for each stop-controlled approach only (for side-street stop-controlled intersections). Total delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs the queue. This time includes the time required for a vehicle to travel from the last-in-queue position to the first-in-queue position.

Roadway Segments

The ACTC roadway segment analysis addresses project impacts to roadway facilities on the CMP / MTS network, with LOS determinations based ranges of volume-to-capacity (v/c) ratios from the 2000 HCM (for Caltrans facilities), and from the 1985 HCM (for non-Caltrans facilities). The ranges of v/c ratios from both versions of the HCM are summarized in **Table 4.1-2**. LOS E or better is generally considered acceptable, and LOS F is considered unacceptable.

The assumed capacities are 2,000 vehicles per hour per lane (vphpl) for typical freeway segments, 1,700 vphpl for tunnel sections (Posey and Webster Tubes), and 900 vphpl for arterials such as Broadway, 14th Street, 7th Street, and Harrison Street.

TABLE 4.1-2
CRITERIA FOR ROADWAY LEVEL OF SERVICE

1985 HCM Methodology	LOS Grade	Description	2000 HCM Methodology
v/c Ratio			v/c Ratio
≤0.30	A	Vehicles travel at free-flow speeds and can maneuver almost freely within the traffic stream.	≤0.30
>0.30 and ≤0.50	B	Vehicles travel at free-flow speeds and movement within the traffic stream is only slightly restricted.	>0.30 and ≤0.50
>0.50 and ≤0.70	C	Vehicles travel at or near free-flow speed and movement is somewhat restricted. Incidents can cause local queuing.	>0.50 and ≤0.71
>0.70 and ≤0.84	D	Vehicle speed declines as density increases, and maneuverability within the traffic stream is noticeably limited.	>0.71 and ≤0.89
>0.84 and ≤1.00	E	Roadway is operating at or near capacity, with vehicles closely spaced. Any incident can cause backups that propagate upstream.	>0.89 and ≤1.00
>1.00	F	Roadway operates beyond capacity, with significant queuing at bottlenecks such as key intersections or lane drops. Vehicles are closely spaced and maneuverability is extremely restricted.	>1.00

SOURCE: Transportation Research Board, *Highway Capacity Manual*, 2000.

Existing Intersection Operations

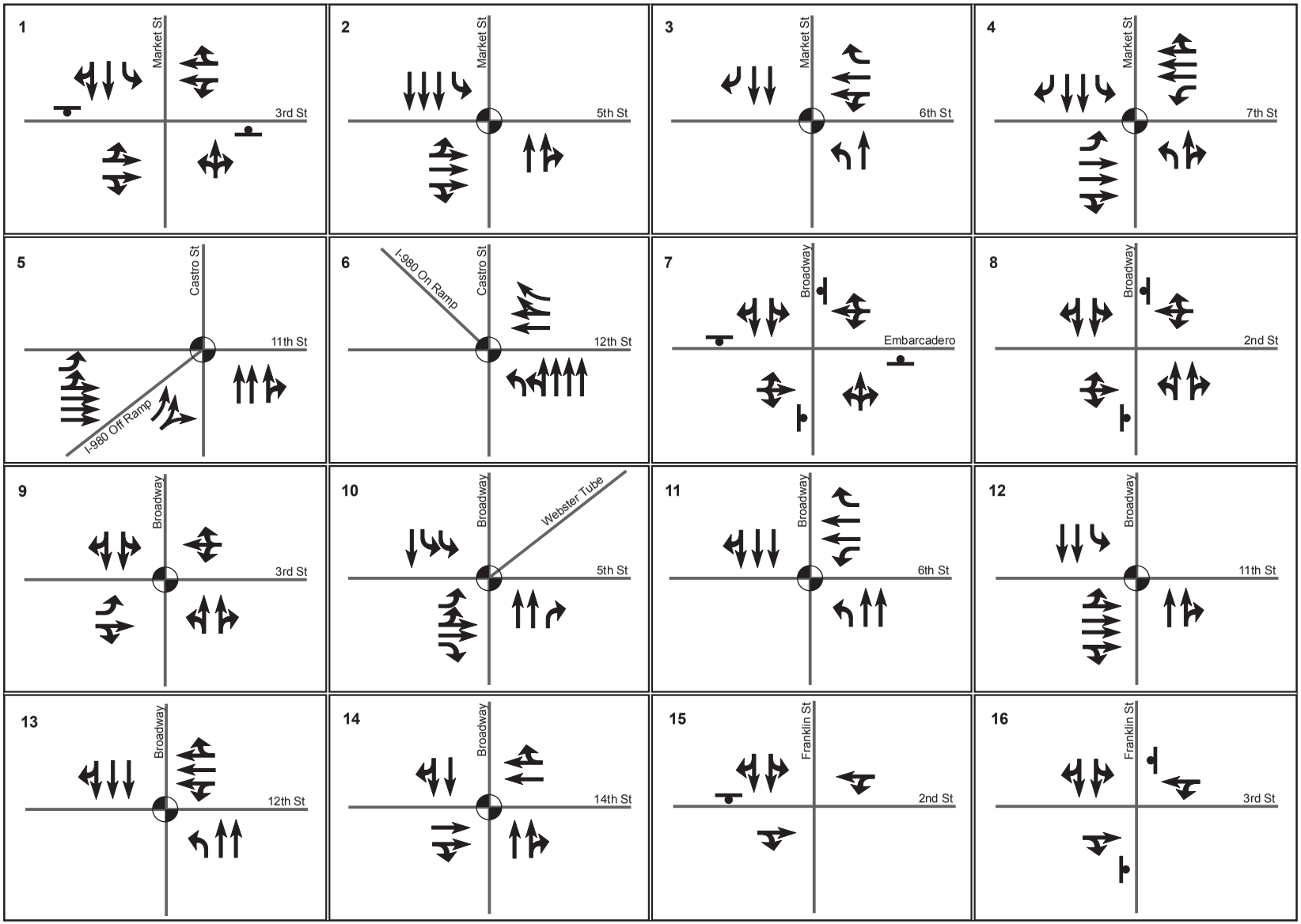
Intersection turning movement volumes were collected on Tuesday, January 15, 2013 and Thursday, February 14, 2013. **Figure 4.1-2** illustrates existing lane geometry and signal control for each of the 32 study intersections, and **Figure 4.1-3** illustrates existing traffic volumes during the AM and PM peak hours.

For informational purposes, the total intersection traffic volumes collected as part of this analysis are compared with total intersection traffic volumes as evaluated in the 2004 EIR at all 32 study intersections. This comparison is summarized in **Table 4.1-3**. However, it should be noted that after the completion of the 2004 EIR, some portions of the project have been constructed and are in use (see Figure 3-5 in Chapter 3, *Project Description*). As such, trips associated with these uses are accounted for in existing turning movement counts collected in 2013.

TABLE 4.1-3
INTERSECTION TRAFFIC VOLUME COMPARISON

		Intersection Volume Total				Volume Difference			
		2004 EIR (1999-2002)		2013 Count		AM Peak Hour		PM Peak Hour	
Intersection		AM	PM	AM	PM	Total	%	Total	%
1	Market St / 3rd St	863	771	555	665	-308	-36%	-106	-14%
2	Market St / 5th St	849	981	838	1,011	-11	-1%	**30**	**3%**
3	Market St / 6th St	1,467	1,260	838	691	-629	-43%	-569	-45%
4	Market St / 7th St	2,046	1,984	1,437	1,745	-609	-30%	-239	-12%
5	Castro St / 11th St	2,473	2,314	1,479	1,865	-994	-40%	-449	-19%
6	Castro St / 12th St	1,092	2,858	909	2,341	-183	-17%	-517	-18%
7	Broadway / Embarcadero	502	742	249	330	-253	-50%	-412	-56%
8	Broadway / 2nd St	527	828	331	666	-196	-37%	-162	-20%
9	Broadway / 3rd St	772	1,103	503	908	-269	-35%	-195	-18%
10	Broadway / 5th St	2,417	3,182	1,901	2,715	-516	-21%	-467	-15%
11	Broadway / 6th St	2,058	2,334	1,732	1,988	-326	-16%	-346	-15%
12	Broadway / 11th St	1,887	2,681	1,668	2,083	-219	-12%	-598	-22%
13	Broadway / 12th St	1,820	2,730	1,316	1,990	-504	-28%	-740	-27%
14	Broadway / 14th St	2,064	2,677	1,644	2,279	-420	-20%	-398	-15%
15	Franklin St / 2nd St	243	290	133	282	-110	-45%	-8	-3%
16	Franklin St / 3rd St	166	374	73	519	-93	-56%	**145**	**39%**
17	Webster St / Embarcadero	403	486	206	179	-197	-49%	-307	-63%
18	Harrison St / 7th St	3,435	3,884	1,954	1,844	-1,481	-43%	-2,040	-53%
19	Jackson St / 5th St	1,886	2,259	1,290	1,585	-596	-32%	-674	-30%
20	Jackson St / 6th St	3,260	3,402	2,204	1,615	-1,056	-32%	-1,787	-53%
21	Jackson St / 7th St	2,713	3,167	2,162	1,894	-551	-20%	-1,273	-40%
22	Madison St / 5th St	1,464	1,804	1,048	1,371	-416	-28%	-433	-24%
23	Madison St / 6th St	1,209	1,563	984	1,215	-225	-19%	-348	-22%
24	Madison St / 7th St	1,667	2,256	1,192	1,929	-475	-28%	-327	-14%
25	Oak St / Embarcadero	768	858	672	621	-96	-13%	-237	-28%
26	Oak St / 3rd St	665	854	666	595	**1**	**0%**	-259	-30%
27	Oak St / 5th St	1,717	2,405	1,252	1,645	-465	-27%	-760	-32%
28	Oak St / 6th St	1,660	1,519	1,150	1,191	-510	-31%	-328	-22%
29	Oak St / 7th St	1,776	2,386	1,310	1,858	-466	-26%	-528	-22%
30	5th Ave / Embarcadero	1,279	1,425	1,027	1,227	-252	-20%	-198	-14%
31	Webster St / Atlantic Ave	3,197	2,949	2,466	2,218	-731	-23%	-731	-25%
32	Constitution Way / Atlantic Ave	2,061	2,664	1,961	2,578	-100	-5%	-86	-3%

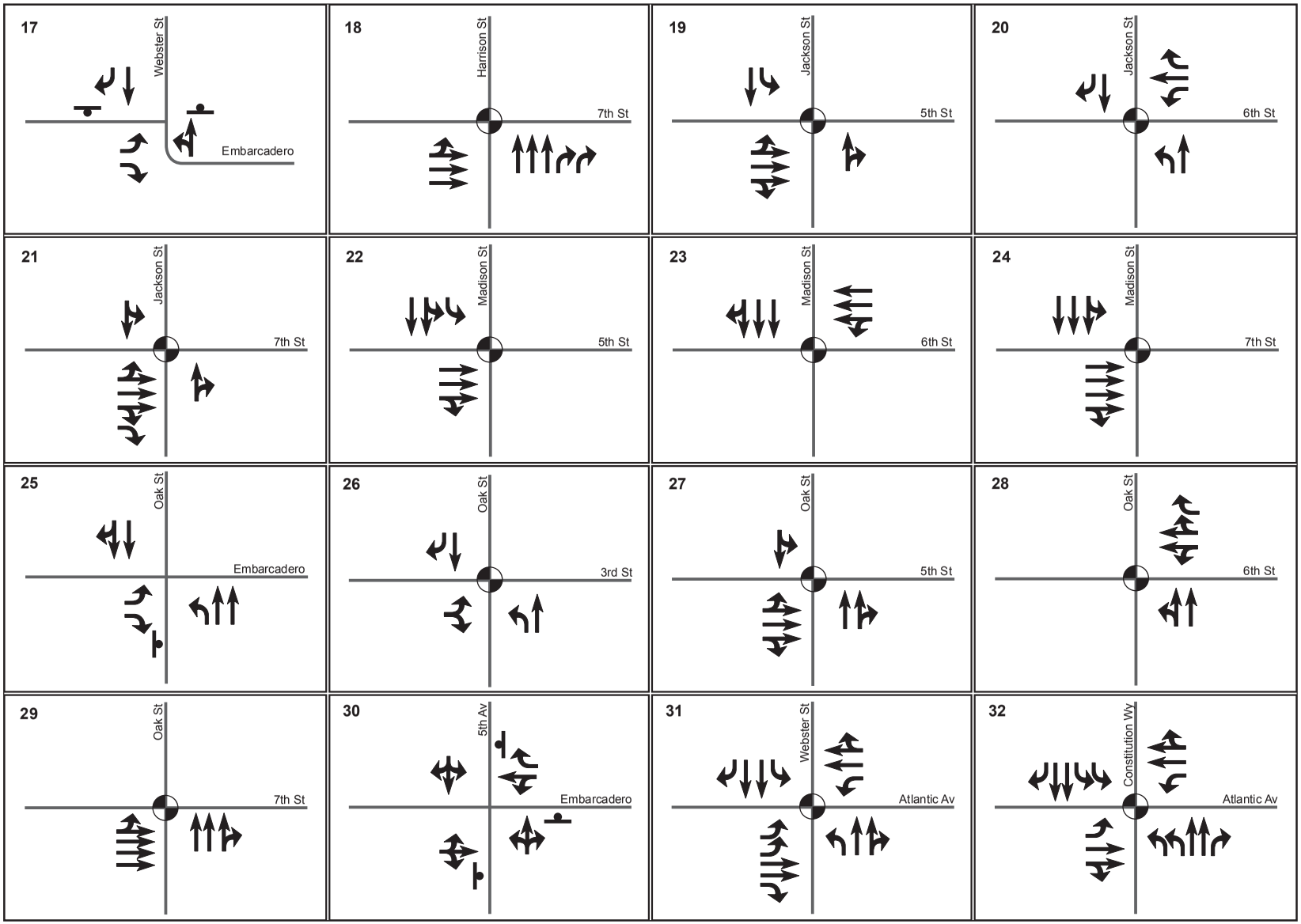
Source:Jack London Square Redevelopment Project Final Environmental Impact Report, 2004; AECOM, 2013.
Notes:Values that are **bolded** and shaded represent volume increases as compared with the 2004 EIR.



SOURCE: AECOM

Figure 4.1-2a

Existing Intersection Lane Geometry

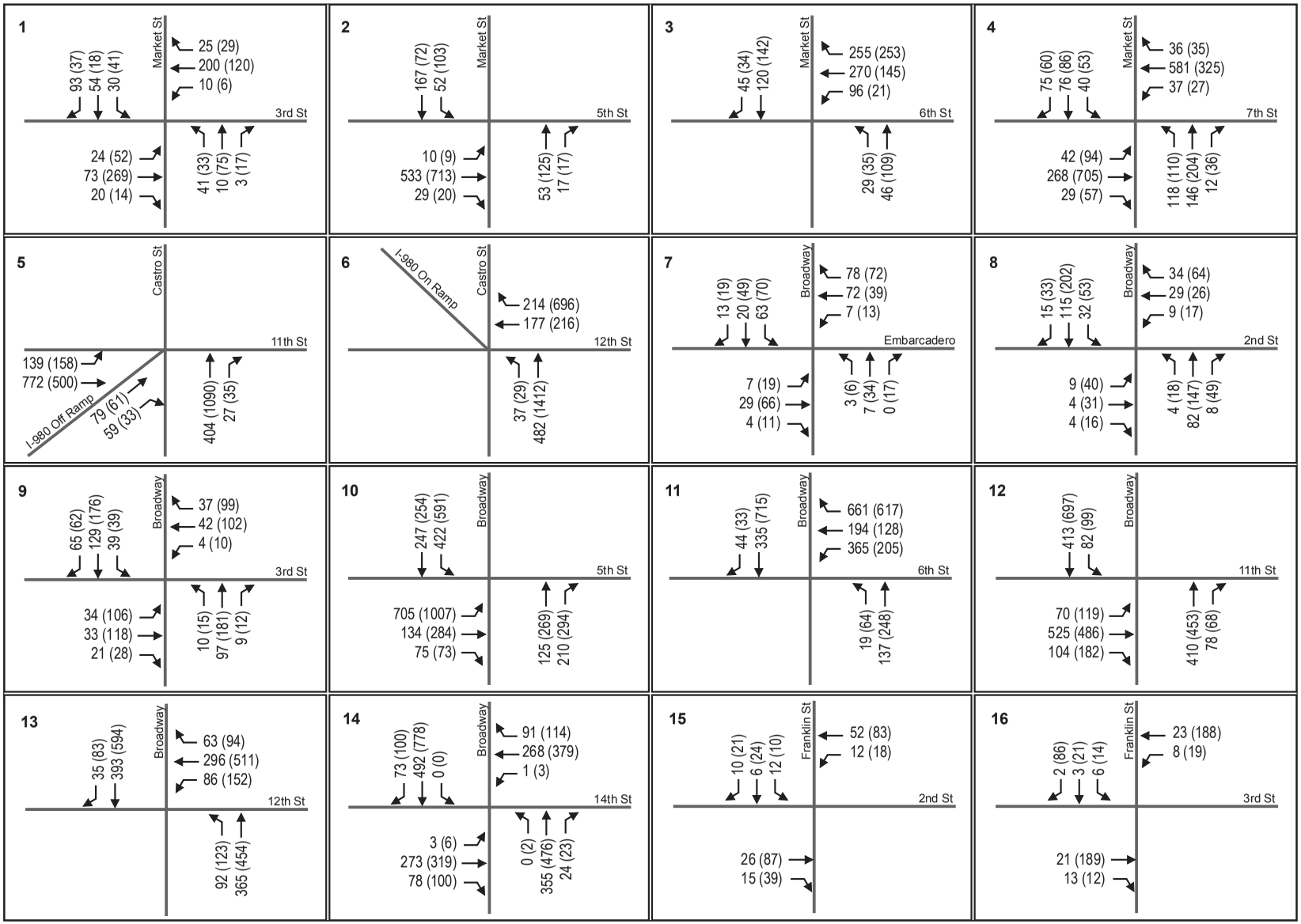


SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-2b

Existing Intersection Lane Geometry

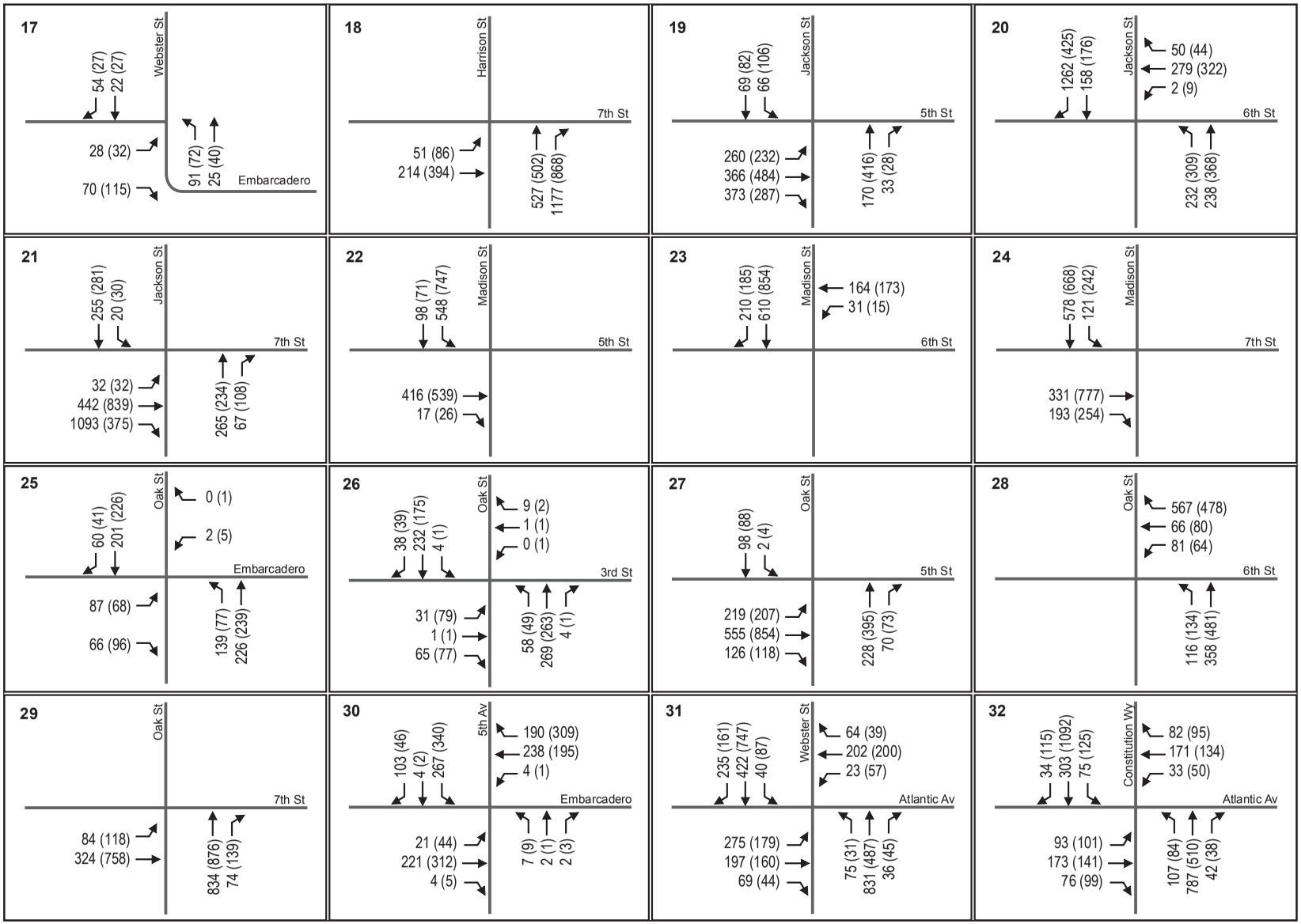


SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-3a

Existing Intersection Traffic Volumes



SOURCE: AECOM

Figure 4.1-3b

Existing Intersection Traffic Volumes

As shown, since the time of 2004 EIR data collection (between the years 1999 and 2002), 29 of the 32 intersections have experienced decreases in traffic volumes during both peak hours. The Oak Street / 3rd Street intersection has experienced an increase in traffic volume during the AM peak hour, and a decrease during the PM peak hour. The Market Street / 5th Street and the Franklin Street / 3rd Street intersections have experienced an increase in traffic volumes during the PM peak hour, and a decrease during the AM peak hour.

Intersection LOS for the 32 study intersections were calculated using Trafficware's Synchro 8 (Build #804) software package, based on 2000 HCM methodology. Results are summarized within **Table 4.1-4**.

The LOS results presented in **Table 4.1-4** are confirmed through field observations of intersection operations during peak periods. Where traffic was observed to operate in a manner different than as initially programmed into the Synchro traffic modeling software, appropriate adjustments are made in order to better reflect actual operating conditions. An example where an adjustment may be warranted would include an intersection approach striped to include one all-movement lane that is wide enough to accommodate two vehicle widths, allowing for right-turning vehicles to bypass queued vehicles and complete a right turn. Were the Synchro traffic modeling software to represent such an approach as one all-movement lane only, delay for right-turning vehicles would be misrepresented. As such, adjustments are made to the traffic analysis in order to accurately depict existing traffic operations. These adjustments include:

- ***Webster Street / Embarcadero intersection*** **–** Though the southbound approach to the intersection is striped with one shared through-right turn lane, this approach is wide enough to support separate through and right turn movements. During peak periods, this approach was observed operating in this fashion, and as such, separate through and right turn movements are assumed in the analysis.
- ***Oak Street / 6th Street intersection*** **–** Though the intersection includes separate westbound approaches via the I-880 off-ramp and via 6th Street, the Synchro modeling software does not support this configuration. As a result, the analysis combines the two westbound approaches; a method that is consistent with traffic analyses for the recently completed and approved *325 Seventh Street Project EIR* (2010), *Emerald Views Residential Development EIR* (2011), and *Kaiser Center Office Project EIR* (2010).
- ***5th Avenue / Embarcadero intersection*** **–** Though the intersection actually operates as a three-way stop controlled intersection, the 2000 HCM methodology does not support this configuration. As such, intersection is evaluated with an all-way stop controlled configuration, consistent with traffic analyses for the recently completed and approved *Oak to Ninth Avenue Project EIR* (2006).

TABLE 4.1-4
INTERSECTION LEVELS OF SERVICE – EXISTING CONDITIONS

	Intersection[1]	Traffic Control[2]	AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay
1	Market St / 3rd St	TWSC	B	13.3	C	15.9
2	Market St / 5th St	Signal	A	9.5	B	12.5
3	Market St / 6th St	Signal	B	14.0	C	30.5
4	Market St / 7th St	Signal	B	19.1	B	14.9
5	Castro St / 11th St	Signal	C	27.0	C	26.2
6	Castro St / 12th St	Signal	C	23.5	B	11.6
7	Broadway / Embarcadero	AWSC	A	7.7	A	7.9
8	Broadway / 2nd St	TWSC	B	10.6	C	15.2
9	Broadway / 3rd St	Signal	B	10.2	B	13.3
10	Broadway / 5th St	Signal	C	24.8	C	27.8
11	Broadway / 6th St	Signal	B	17.1	C	21.6
12	Broadway / 11th St	Signal	B	11.4	B	12.4
13	Broadway / 12th St	Signal	B	15.1	B	15.5
14	Broadway / 14th St	Signal	B	13.6	B	15.5
15	Franklin St / 2nd St	OWSC	A	9.1	A	9.9
16	Franklin St / 3rd St	OWSC	A	9.0	B	10.6
17	Webster St / Embarcadero	TWSC	B	10.3	B	10.1
18	Harrison St / 7th St	Signal	B	11.4	B	10.1
19	Jackson St / 5th St	Signal	B	13.9	B	16.2
20	Jackson St / 6th St	Signal	B	11.9	B	11.6
21	Jackson St / 7th St	Signal	B	11.5	B	12.0
22	Madison St / 5th St	Signal	A	8.7	A	9.5
23	Madison St / 6th St	Signal	A	8.3	A	8.5
24	Madison St / 7th St	Signal	A	8.4	A	7.6
25	Oak St / Embarcadero	OWSC	B	14.9	B	11.9
26	Oak St / 3rd St	Signal	A	5.1	A	7.1
27	Oak St / 5th St	Signal	A	8.8	A	9.7
28	Oak St / 6th St	Signal	A	8.9	A	8.8
29	Oak St / 7th St	Signal	B	13.5	B	11.6
30	5th Ave / Embarcadero	AWSC[3]	B	13.2	C	17.1
31	Webster St / Atlantic Ave	Signal	C	23.9	C	21.5
32	Constitution Way / Atlantic Ave	Signal	C	20.3	C	21.8

SOURCE: AECOM, 2013.
NOTES:
[1] Delay presented for one-way and two-way stop controlled intersections is representative of the worst minor approach.
[2] OWSC = one-way stop controlled, TWSC = two-way stop controlled, AWSC = all-way stop controlled.
[3] Intersection actually operates as a three-way stop controlled intersection. However, the 2000 HCM methodology does not support this configuration. As such, intersection is evaluated with an all-way stop controlled configuration.

As shown, all study intersections currently operate at acceptable levels (LOS E or better for intersections within the downtown area or that provide direct access to the downtown area, and LOS D or better for intersections outside of the downtown area) during peak hours. The LOS calculation sheets for all study intersections are provided in Appendix B to this Addendum.

Existing Roadway Operations

Existing operations along CMP / MTS roadway segments within the study area were evaluated for the AM and PM peak hours. The existing volumes were used with the existing number of lanes as inputs into the LOS calculations to evaluate current operations. A roadway facility operating at LOS F indicates that the facility is over-capacity (i.e., v/c ratio is greater than 1.00). **Table 4.1-5** summarizes LOS on the study roadway segments.

As shown in **Table 4.1-5**, SR 260 northbound (i.e., the Posey Tube) currently operates at LOS E during the AM peak hour. All other study segments currently operate at LOS D or better during both peak hours. Detailed calculations for the roadway segment analysis are included in Appendix B to this Addendum.

Existing Transit Service

Public transportation in the study area includes Alameda-Contra Costa Transit District (AC Transit), Bay Area Rapid Transit (BART), Amtrak, and ferry service. **Figure 4.1-4** illustrates the existing transit service available within the study area. Each service is described below.

AC Transit

AC Transit is the primary bus service provider for 13 cities and adjacent unincorporated areas in Alameda County and Contra Costa County with Transbay service to destinations in San Francisco, San Mateo and Santa Clara counties. Eighteen local routes (including the Broadway Shuttle which provides free service through Downtown Oakland along Broadway), two Transbay routes, and seven night-service routes operate in the project study area. **Table 4.1-6** summarizes the characteristics of the AC Transit routes operating in the project study area. **Table 4.1-7** summarizes the existing maximum loads on AC Transit routes within the project vicinity, and calculates the corresponding capacity utilization (load factor).

TABLE 4.1-5
ROADWAY SEGMENT LEVELS OF SERVICE – EXISTING CONDITIONS

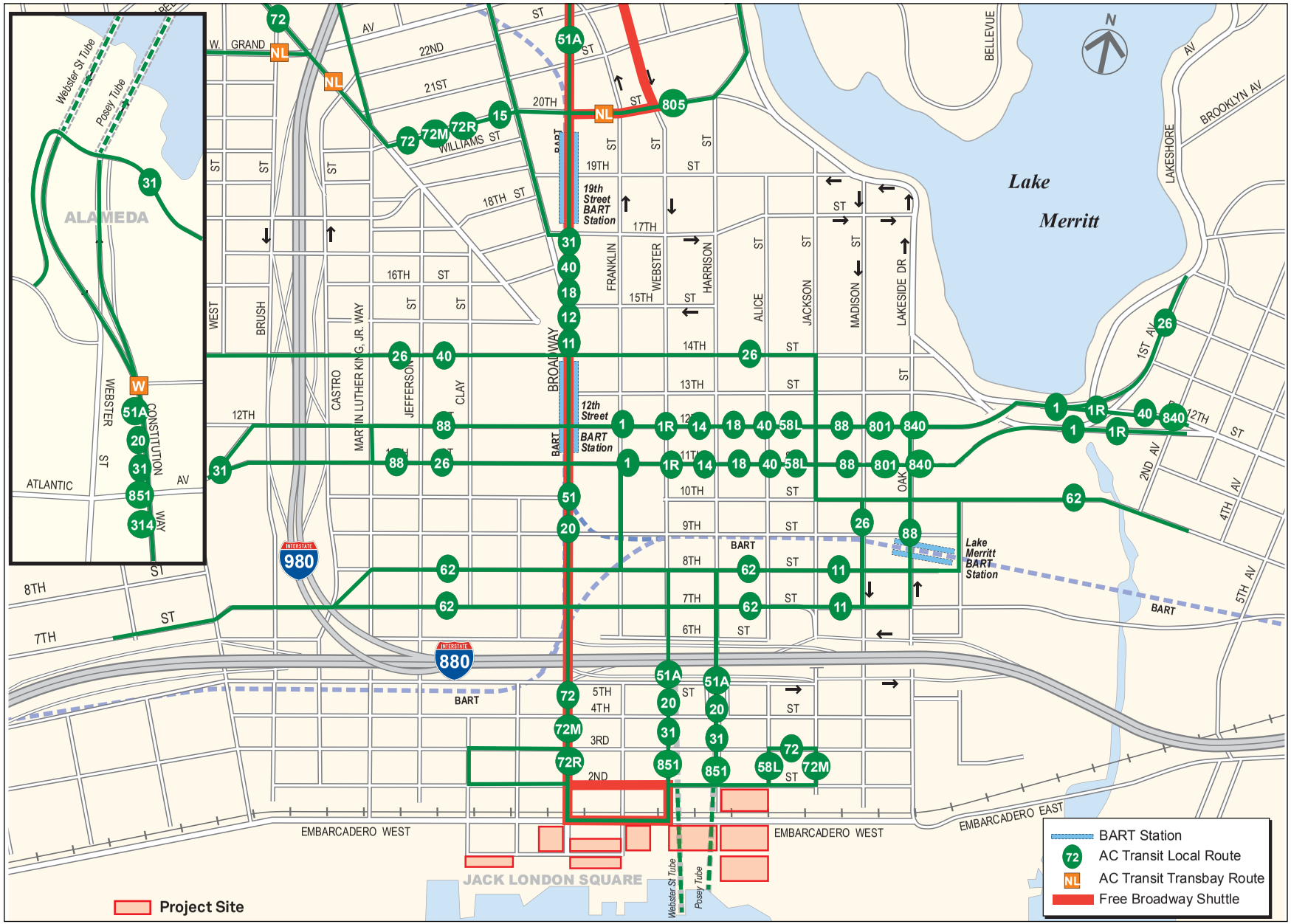
Study Location	Direction	Lane Capacity (vphpl)	Number of Lanes	Total Capacity (vph)	AM Peak Hour			PM Peak Hour		
					Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS
CMP Roadways:										
I-980	NB	2,000	5	10,000	1,970	0.20	A	3,993	0.40	B
north of 18th Street	SB	2,000	5	10,000	4,276	0.43	B	2,237	0.22	A
I-880	EB	2,000	4	8,000	4,183	0.52	C	4,446	0.56	C
west of Market Street	WB	2,000	4	8,000	4,138	0.52	C	4,304	0.54	C
I-880	EB	2,000	4	8,000	5,585	0.70	C	5,937	0.74	D
east of Oak Street	WB	2,000	4	8,000	5,525	0.69	C	5,747	0.72	D
SR 260 (Posey / Webster Tubes)	NB	1,700	2	3,400	3,081	0.91	E	2,478	0.73	D
between Alameda city limits and I-880	SB	1,700	2	3,400	1,575	0.46	B	2,347	0.69	C
MTS Roadways:										
Broadway	NB	900	2	1,800	93	0.05	A	170	0.09	A
between Embarcadero West and 2nd Street	SB	900	2	1,800	112	0.06	A	187	0.10	A
Broadway	NB	900	2	1,800	121	0.07	A	230	0.13	A
between 2nd Street and 3rd Street	SB	900	2	1,800	158	0.09	A	251	0.14	A
Broadway	NB	900	2	1,800	252	0.14	A	475	0.26	A
between 3rd Street and 5th Street	SB	900	2	1,800	278	0.15	A	302	0.17	A
Broadway	NB	900	2	1,800	157	0.09	A	307	0.17	A
between 5th Street and 6th Street	SB	900	2	1,800	685	0.38	B	883	0.49	B
Broadway	NB	900	2	1,800	643	0.36	B	693	0.39	B
between 6th Street and 11th Street	SB	900	2	1,800	448	0.25	A	814	0.45	B
Broadway	NB	900	2	1,800	469	0.26	A	575	0.32	B
between 11th Street and 12th Street	SB	900	2	1,800	487	0.27	A	771	0.43	B
Broadway	NB	900	3	2,700	404	0.15	A	525	0.19	A
between 12th Street and 14th Street	SB	900	3	2,700	500	0.19	A	779	0.29	A
Broadway	NB	900	3	2,700	449	0.17	A	596	0.33	B
north of 14th Street	SB	900	3	2,700	565	0.21	A	878	0.49	B
14th Street	EB	900	2	1,800	354	0.20	A	425	0.24	A
between Broadway and Clay Street	WB	900	2	1,800	341	0.19	A	481	0.27	A
14th Street	EB	900	2	1,800	297	0.17	A	342	0.10	A
between Broadway and Franklin Street	WB	900	2	1,800	360	0.20	A	496	0.14	A

TABLE 4.1-5 (CONTINUED)
ROADWAY SEGMENT LEVELS OF SERVICE – EXISTING CONDITIONS

Study Location	Direction	Lane Capacity (vphpl)	Number of Lanes	Total Capacity (vph)	AM Peak Hour			PM Peak Hour		
					Volume	V/C Ratio	LOS	Volume	V/C Ratio	LOS
7th Street between Webster Street and Harrison Street	EB	900	4	3,600	265	0.07	A	480	0.13	A
7th Street between Harrison Street and Alice Street	EB	900	4	3,600	1,567	0.44	B	1,246	0.35	B
7th Street between Jackson Street and Madison Street	EB	900	4	3,600	524	0.15	A	1,031	0.57	C
7th Street between Madison Street and Lakeside Drive	EB	900	4	3,600	408	0.11	A	876	0.32	B
7th Street east of Lakeside Drive	EB	900	2	1,800	398	0.22	A	897	0.33	B
Harrison Street between 6th Street and 7th Street	NB	900	3	2,700	1,704	0.63	C	1,370	0.51	C
Harrison Street between 7th Street and 8th Street	NB	900	3	2,700	578	0.21	A	588	0.22	A

Source: AECOM, 2013.

Notes: NB = northbound, SB = southbound, EB = eastbound, and WB = westbound.



SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-4

Existing Transit Network

TABLE 4.1-6
AC TRANSIT SERVICE SUMMARY

Line	Route	Headways (minutes) AM Peak Hour	Headways (minutes) PM Peak Hour
Local Routes:			
1	Berkeley BART to Bay Fair BART	15	15
1R	Berkeley BART to Bay Fair BART (Rapid)	12	12
11	Dimond District, Oakland to Estates Drive / Inverleith Terr.	30	30
12	Berkeley BART to Downtown Oakland	20	20
14	Downtown Oakland to Fruitvale BART	15	15
18	University Village, Albany, to Montclair	15	15
20	Dimond District, Oakland to Downtown Oakland	30	30
26	Emery Bay Public Market to Lakeshore Ave. / Wala Vista Ave.	20	20
31	Alameda Point to MacArthur BART	30	30
40	Downtown Oakland to Bay Fair BART	10	10
51A	Rockridge BART to Fruitvale BART	10	10
58L	Oakland Amtrak to Eastmont Transit Center	30	30
62	West Oakland BART to Fruitvale BART	20	20
72	Hilltop Mall to Oakland Amtrak	30	30
72M	Point Richmond to Oakland Amtrak	30	30
72R	Contra Costa College to Jack London Square (Rapid)	12	12
88	Berkeley BART to Lake Merritt BART	20	20
BSD	Broadway Shuttle	11	11
Transbay Routes:			
O	Fruitvale BART to San Francisco Transbay Terminal	13	10
W	Alameda to San Francisco Transbay Terminal	20	20
Night Routes:[1]			
800	Richmond BART to San Francisco	----	----
801	Fremont BART to Downtown Oakland	----	----
802	Berkeley Amtrak to Downtown Oakland	----	----
805	Oakland Airport to Downtown Oakland	----	----
840	Eastmont Transit Center to Downtown Oakland	----	----
851	Fruitvale BART to Downtown Berkeley, via Alameda	----	----
BSN	Broadway Shuttle	----	----

Source: AC Transit, 2013.

Notes: "----" Indicates not applicable
Terr.= Terrace, Ave= Avenue
(1) Service times do not correspond with the AM or PM peak hours.

TABLE 4.1-7
AC TRANSIT MAXIMUM CAPACITY UTILIZATION

Line	Direction	Capacity (Seats)	AM Peak Hour		PM Peak Hour	
			Maximum Load	Load Factor	Maximum Load	Load Factor
Local Routes:						
1	Northbound	47	34	72%	23	49%
	Southbound		19	40%	31	66%
1R	Northbound	47	43	91%	21	45%
	Southbound		21	45%	39	83%
11	Eastbound	25	16	64%	12	48%
	Westbound		20	80%	11	44%
12	Northbound	25	14	56%	19	76%
	Southbound		27	108%	17	68%
14	Eastbound	37	7	19%	28	76%
	Westbound		34	92%	9	24%
18	Northbound	32-37	32	93%	16	46%
	Southbound		15	43%	23	67%
20	Eastbound	37	10	27%	24	65%
	Westbound		28	76%	14	38%
26	Eastbound	32-37	11	32%	12	35%
	Westbound		14	41%	11	32%
31	Northbound	25	17	68%	12	48%
	Southbound		17	68%	14	56%
40	Northbound	47-52	35	71%	11	22%
	Southbound		10	20%	33	67%
51A	Northbound	32-37	37	107%	18	52%
	Southbound		23	67%	36	104%
58L	Eastbound	37	3	8%	7	19%
	Westbound		7	19%	4	11%
62	Northbound	37	12	32%	15	41%
	Southbound		14	38%	11	30%
72	Northbound	32-37	9	26%	8	23%
	Southbound		10	29%	9	26%
72M	Northbound	32-37	11	32%	7	20%
	Southbound		22	64%	11	32%
72R	Northbound	32	23	72%	29	91%
	Southbound		29	91%	20	63%
88	Northbound	32-37	13	38%	15	43%
	Southbound		19	55%	8	23%
BSD	Northbound	25	14	56%	16	64%
	Southbound		15	60%	15	60%
Transbay Routes:						
O	Eastbound	37	5	14%	32	86%
	Westbound		33	89%	7	19%
W	Eastbound	37	--	--	26	70%
	Westbound		31	84%	--	--

Source: AC Transit, 2013.

BART

BART is the regional rapid transit provider and connects the project study area and its surroundings to other parts of Alameda County, Contra Costa County, San Francisco, and northern San Mateo County. The BART system operates trains along five routes: (1) Richmond-Fremont; (2) Richmond-Daly City; (3) Millbrae-Dublin / Pleasanton; (4) Daly City-Pittsburg / Bay Point; and (5) Fremont-Daly City. The closest BART Station to the project site is the 12th Street Oakland City Center BART Station. The BART lines that serve the 12th Street Oakland City Center BART Station include the Richmond-Fremont, Richmond-Daly City, and Daly City-Pittsburg / Bay Point lines. **Table 4.1-8** summarizes the characteristics of BART lines operating in the project study area.

TABLE 4.1-8
BART SERVICE SUMMARY

	Headways (Minutes)			
Line	**AM Peak Hour**	**PM Peak Hour**	**Average Train Length[1]**	**Average Train Capacity[2]**
Richmond to Fremont	15	15	6	552
Fremont to Richmond	15	15	6	552
Richmond to Daly City / Millbrae	15	15	8-9	782
Daly City / Millbrae to Richmond	15	15	8-9	782
Pittsburg / Bay Point to Daly City / Millbrae	6	12	9-10	874
Daly City / Millbrae to Pittsburg / Bay Point	10	7.5	9-10	874

Source: BART, 2013.
Notes: [1] Number of cars per train.
[2] Capacity per train includes 67 seated and 25 standing passengers per car, based on BART utilization / methodology.

Table 4.1-9 summarizes train capacity utilization during peak hours at the 12th Street Oakland City Center BART Station. As shown, during the AM peak hour, capacity along Fremont-bound and Daly City / Millbrae-bound trains are 70 percent and 66 percent utilized. During the PM peak hour, capacity along Richmond-bound and Pittsburg / Bay Point-bound trains are approximately 50 percent and 60 percent utilized.

TABLE 4.1-9
BART TRAIN CAPACITY UTILIZATION

		Capacity Utilization	
Line	**Average Train Capacity[1]**	**AM Peak Hour (8:00 AM to 9:00 AM)**	**PM Peak Hour (5:00 PM to 6:00 PM)**
Richmond to Fremont	552	70%	24%
Fremont to Richmond	552	28%	51%
Richmond to Daly City / Millbrae	782	57%	20%
Daly City / Millbrae to Richmond	782	23%	49%
Pittsburg / Bay Point to Daly City / Millbrae	874	66%	20%
Daly City / Millbrae to Pittsburg / Bay Point	874	13%	60%

Source: BART, 2013.
Notes: [1] Capacity per train includes 67 seated and 25 standing passengers per car, based on BART utilization / methodology.

Table 4.1-10 summarizes the number of passengers using the 12th Street Oakland City Center BART Station during peak hours, and over the course of a typical weekday. During the AM peak hour, a substantially greater number of riders exit the BART system at the 12th Street Oakland City Center BART Station than enter. Conversely, during the PM peak hour, a greater number of rider entries occur than exits. In total, the 12th Street Oakland City Center BART Station experiences 13,491 entries and 13,433 exits over the course of a weekday.

TABLE 4.1-10
12TH STREET OAKLAND CITY CENTER BART STATION ENTRIES AND EXITS (WEEKDAY)

Entry / Exit Activity	AM Peak Hour (8:00 AM to 9:00 AM)	PM Peak Hour (5:00 PM to 6:00 PM)	Weekday Daily Total
Entries	846	2,718	13,491
Exits	2,620	921	13,433
Total[(1)]	3,466	3,639	26,924

Source: BART, 2013.

Notes: [(1)] Does not include passengers transferring between lines at the platform level.

Amtrak

Amtrak provides inter-city rail service throughout California and the country. The Oakland Jack London Station is at 245 2nd Street (between Jackson Street and Alice Street). The station provides a 115-space parking lot. The station operates from 5:15 AM to 11:00 PM seven days per week. The Oakland Jack London Station is served by the following routes:

- The Capitol Corridor, which operates more than 20 trains per day between San Jose and Sacramento / Auburn
- San Joaquin intercity, which operates four trains per day in each direction to Bakersfield via Modesto and Fresno
- Coast Starlight, which operates one train per day in each direction between Los Angeles and Seattle.

In addition, Amtrak provides connecting bus service between the Oakland Jack London Square and San Francisco.

Ferry Service

The Clay Street Terminal provides weekday and weekend ferry service. The Water Emergency Transportation Authority (WETA) operates the Alameda / Oakland ferry service that connects Jack London Square to the Alameda Ferry Terminal, the San Francisco Ferry Building, and Pier 41 near Fisherman's Wharf. The ferry also provides seasonal service to the AT&T Park ballpark and Angel Island. The weekday service operates between 6:00 AM and 9:25 PM with one-hour headways during the peak periods, and approximately two-hour headways during off-peak periods. The weekend service operates between 10:00 AM and 7:10 PM approximately every 90 minutes to two hours.

The service provides free validated parking for up to 12 hours for passengers who park in the Washington Street garage, and free transfers to and from the terminals on AC Transit and San Francisco Muni buses.

Existing Bicycle Network

Bicycle facilities are classified into the following types:

- ***Class 1 Path*** – Also known as a bicycle path, is a dedicated path for bicyclists and pedestrians that does not permit motorized travel. Bicycle paths create a relaxed environment for non-motorized travel and reduce the risk of potential conflict between vehicles and bicyclists. These facilities are typically located in parks or greenway areas, areas connecting dead-end streets, or atop railroad right-of-way that is no longer in use.
- ***Class 2 Bicycle Lane*** – Also known as a bicycle lane, this is a portion of the roadway network that has been striped and signed for bicycle use. Implementation of Class 2 facilities requires sufficient right-of-way between the vehicle stream and the curb or curbside parking. Bicycle lanes are typically used along collector or major streets with medium to high traffic volumes, providing additional travel space for bicyclists along busy roadway segments.
- ***Class 3 Bicycle Route*** – Also known as a bicycle route, this is a bikeway that primarily serves to connect other facilities and destinations in the bikeway network but provides a lower level of service than Class 1 or Class 2 bikeway facilities. These routes include signage but do not have roadway markings or striping to indicate reserved space for the bicyclist.
    - *Class 3A Arterial Bicycle Route* – These facilities are found along some arterial streets where bicycle lanes are not feasible and parallel streets do not provide adequate connectivity. Speed limits as low as 25 mph, shared lane bicycle stencils, wide curb lanes, and signage is used to encourage shared use.
    - *Class 3B Bicycle Boulevards* – These facilities are found along residential streets with low traffic volumes. Assignment of right-of-way to the route, traffic calming measures and bicycle traffic signal actuation are used to prioritize through-trips for bicycles.

Figure 4.1-5 shows the existing and planned bicycle facilities in the project study area.

Existing Pedestrian Network

Pedestrian facilities include off-street paths, sidewalks, crosswalks, and pedestrian signals. Sidewalks are provided on both sides of most roadways within the project area, and vary in width from five to 14 feet. Signalized intersections in the area provide striped crosswalks and pedestrian signals. Unsignalized intersections in the area provide striped crosswalks across some approaches.

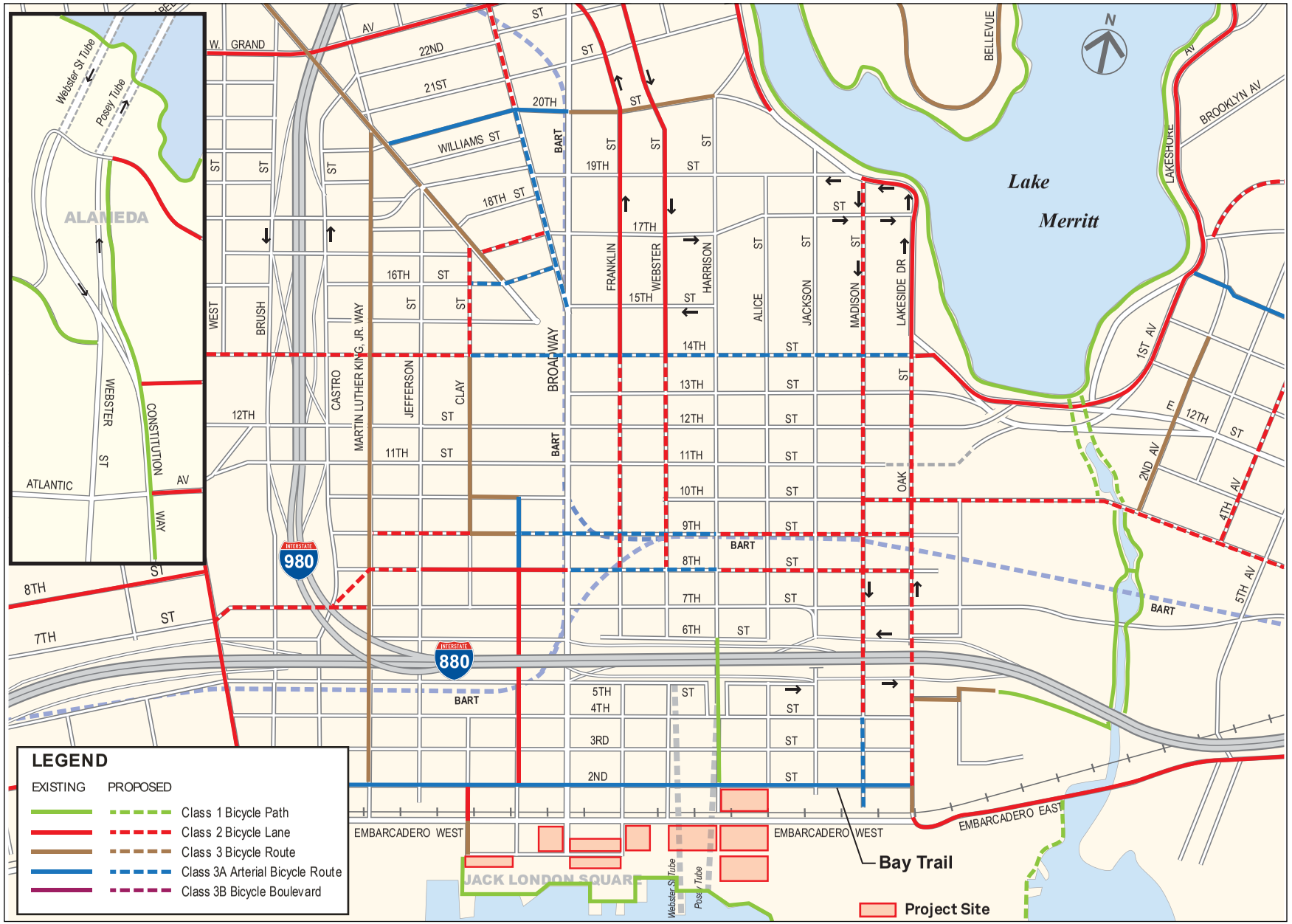
The majority of the project study area is located in Downtown Oakland. The City of Oakland's *Pedestrian Master Plan* (PMP) (2002) designates Downtown Oakland as a Pedestrian District based on a pedestrian-friendly street grid, high levels of pedestrian activity, and a high density of pedestrian trip generators, including commercial, residential, cultural, and recreational uses within walking distance (PMP, 2002). The designation of the downtown Pedestrian District

indicates the importance of pedestrian circulation and safety in the area, and the City's commitment to the downtown area as a safe and enjoyable place for walking.

Jack London Square is designed to be pedestrian friendly with patterned pavers, no curbs, and pedestrian amenities. An example of such pedestrian friendly design includes Water Street, which runs between Washington Street and Webster Street, is currently a pedestrian-only street along several segments, and provides a direct pedestrian connection for various project components. However, it should also be noted that pedestrian access to portions of downtown Oakland north of I-880 is not continuous, because the street grid is blocked in places by freeway ramps and BART tracks. Specifically, Clay Street, Franklin Street, Harrison Street, and Alice Street do not provide connections underneath I-880. Additionally, Jefferson Street and Clay Street do not extend between 4th Street and 5th Street due to the BART tracks. Broadway offers the most direct route from Jack London Square to Downtown Oakland for pedestrians.

As part of field observations conducted to record existing transportation behaviors, project area pedestrian activity was examined. Specifically, pedestrians in the study area were observed to determine preferences for access between parking areas and destinations. The highest concentration of pedestrian activity occurs along several corridors including Webster Street, Embarcadero, Washington Street, 3rd Street, Broadway, Water Street, and the waterfront. Because most of the pedestrian attractions are located south of the Embarcadero along the waterfront, the railroad tracks along the Embarcadero can be a barrier to pedestrian access. Crosswalks are striped at Washington Street, Broadway, and Franklin Street.

When trains are on the tracks, pedestrians must wait or use the pedestrian bridges at the Washington Street garage between Clay Street and Washington Street, or at the Amtrak station east of Alice Street. Lack of familiarity with the location and access to the pedestrian bridges deters pedestrians from using them. Access from the Washington Street garage requires pedestrians to walk through the garage among parked cars from the elevator to the pedestrian bridge. With most pedestrian activity concentrated at Broadway, the pedestrian bridges currently tend to be used mostly by Port of Oakland employees and visitors, and by Amtrak passengers. The Amtrak pedestrian bridge serves passengers at the station and provides direct pedestrian access over the tracks between Webster Street and Oak Street, where fencing along the tracks restricts pedestrian access. However, this bridge is several blocks away from the main pedestrian attractions in Jack London Square. For the shorter, but more frequent passenger trains, which typically block crossings for less than one minute, pedestrians do not tend to use the pedestrian bridges. Even for the longer, but less frequent, freight trains, which block crossings for longer time periods, most pedestrians wait at the crossings rather than use the pedestrian bridges. Such a scenario results in a minimal amount of pedestrian queuing on sidewalks; however, the pedestrian queuing does not result in blockages for other pedestrians not intending to cross the tracks.



SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-5
Bicycle Facilities

Planned Transportation Network Changes

A review of the available information indicates that numerous changes are planned for all transportation modes in the study area. However, not all of these changes have finalized design plans, are fully funded, and / or approved. Those changes lacking final design, full funding, and / or approval are not available to mitigate any deficient conditions in the No Project conditions, and it would be speculative to include them in the analysis. Therefore, they are not assumed in the quantitative analysis. Funded changes to the transportation network and projects that can reasonably be assumed to be approved and implemented have been assumed in certain instances, as described below.

Planned Transit Changes

In January 2012, AC Transit published the *East Bay Bus Rapid Transit* (BRT) *Project in Alameda County Final Environmental Impact Statement/Environmental Impact Report* (FEIS/FEIR), which evaluates the implementation of Bus Rapid Transit (BRT) on International Boulevard. The BRT system would connect Berkeley, Oakland, and San Leandro. The proposed system would generally dedicate one travel lane in each direction to bus operations only, allowing buses to provide a quicker and more reliable service than regular bus service today. In the vicinity of the project site, proposed BRT would run along the leftmost lanes on 11th Street and 12th Street, and along Broadway between 11th Street and 20th Street. The proposed BRT Project would generally not alter the lane geometry along Broadway. However, it would eliminate one travel lane along 11th Street and 12th Street.

On April 25, 2012, the AC Transit Board of Directors certified the BRT FEIS/FEIR. Funding for the BRT Project is to be provided by Regional Measure 2, Alameda County Measure B, Federal Small Starts, Federal/State Transportation Improvement Program, AC Transit Bus Program, and other funding sources. However, it should be noted that approvals from the City of Oakland and the City of San Leandro are still required to fully implement the BRT Project. Proposed (but not fully-approved) transit improvements are not typically considered part of the Projected baseline condition for the purpose of environmental review. However, this transportation evaluation conservatively provides a discussion of the potential effects of the project caused by modifications to the traffic circulation network by the proposed BRT Project under 2035 Cumulative Conditions.

The BRT FEIS/FEIR analyzed intersection operations at two locations also analyzed as a part of this study. These intersections include the following (the numbers correspond to the intersection numbering in the Jack London Square EIR):

12. Broadway / 11th Street;
13. Broadway / 12th Street; and
14. Broadway / 14th Street.

The BRT Project would result in the elimination of one travel lane along 11th Street and 12th Street. No geometric adjustments would be made to the Broadway / 14th Street intersection. Traffic signals would be upgraded at all three locations, and traffic signal timing would be

modified to provide transit priority. The nearest BRT station to the project site would be at the Oakland City Center.

The proposed BRT Project would likely result in more automobile congestion along 11th Street and 12th Street due to the reduced lane capacity. However, the BRT Project may have off-setting benefits as it would increase the capacity of each roadway on a per person basis. Thus, if a substantial number of people switched to BRT, the overall person delay in the corridor could be less than with the current configuration.

If the BRT is implemented as analyzed in the FEIS/FEIR, it was determined that the project would result in a reduced roadway capacity for vehicular traffic due to increased transit service and signal modifications to prioritize BRT traffic. The application of these delay increases to the analysis performed for the project would likely result in worsened conditions at these intersections. However, all three intersections would be expected to operate at acceptable LOS. Overall, the modifications proposed by the BRT Project would not alter any of the conclusions of this study (i.e., although the impacts identified below may incrementally worsen due to the BRT Project, the level of significance of the identified impacts would remain the same).

Planned Bicycle/Pedestrian Facilities Changes

The City of Oakland *Bicycle Master Plan Update*, as adopted in December 2007, proposes several improvements to the bicycle facilities within the project study area, including:

- Provide Class 2 bicycle lanes on segments of Clay Street, Franklin Street, Webster Street, Madison Street, Oak Street, 8th Street, 9th Street, 10th Street, 14th Street, 17th Street, and Telegraph Avenue

- Provide Class 3 arterial bicycle routes along segments of Madison Street, 8th Street, 9th Street, 14th Street, 16th Street, and Telegraph Avenue

Regulatory Setting

The regulatory setting in this section of the Addendum is presented and updated from the 2004 EIR as necessary because CEQA Section 15162 requires an assessment of the context within which the full Jack London Square Project is affected by changed circumstances and/or new information. The SCAs presented above are also considered part of the existing regulatory setting.

Local Plans and Policies

The Oakland General Plan comprises numerous elements, and those containing policies relevant to transportation resources primarily are contained in the Land Use and Transportation Element (LUTE). The goals and policies contained in the various General Plan Elements are often competing. In reviewing a project for conformity with the General Plan, the City is required to 'balance' the competing goals and policies. This project is reviewed for compliance with the following local plans and policies:

- City of Oakland General Plan LUTE;
- City of Oakland Pedestrian Master Plan;
- City of Oakland Bicycle Master Plan;
- City of Oakland Bicycle Parking Ordinance;
- City of Oakland Complete Streets Policy;
- Metropolitan Transportation Commission and Association of Bay Area Governments Plan Bay Area;
- AC Transit Short-Range Transit Plan;
- BART Strategic Plan; and,
- City of Oakland Standard Conditions of Approval.

City of Oakland General Plan LUTE

The City of Oakland, through various policy documents, states a strong preference for encouraging use of alternative transportation modes. The following polices are included in the LUTE:

> **LUTE Policy Framework: Encouraging Alternative Means of Transportation.** "A key challenge for Oakland is to encourage commuters to carpool or use alternative modes of transportation, including bicycling or walking. The Policy Framework proposes that congestion be lessened by promoting alternative means of transportation, such as transit, biking, and walking, providing facilities that support alternative modes, and implementing street improvements. The City will continue to work closely with local and regional transit providers to increase accessibility to transit and improve intermodal transportation connections and facilities. Additionally, policies support the introduction of light rail and trolley buses along appropriate arterials in heavily traveled corridors, and expanded use of ferries in the bay and estuary."
>
> - *Objective T2, Integrating Transportation and Land Use Planning*. Provide mixed use, transit-oriented development that encourages public transit use and increases pedestrian and bicycle trips at major transportation nodes.
>
> - *Policy T2.1, Encouraging Transit-Oriented Development*. Transit-oriented development should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city or commuter rail.
>
> - *Policy T2.2, Guiding Transit-Oriented Development*. Transit-oriented developments should be pedestrian oriented, encourage night and day time use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods.
>
> - *Policy T2.3, Promoting Neighborhood Services*. Promote neighborhood-serving commercial development within one-quarter to one-half mile of established transit routes and nodes.
>
> - *Policy T2.4, Linking Transportation and Economic Development*. Encourage transportation improvements that facilitate economic development.

- *Policy T2.5, Linking Transportation and Activities*. Link transportation facilities and infrastructure improvements to recreational uses, job centers, commercial nodes, and social services (i.e., hospitals, parks, or community centers).

- *Policy T3.5, Including Bikeways and Pedestrian Walks*. The City should include bikeways and pedestrian walks in the planning of new, reconstructed, or realized streets, wherever possible.

- *Policy T3.6, Encouraging Transit*. The City should encourage and promote use of public transit in Oakland by expediting the movement of and access to transit vehicles on designated "transit streets" as shown on the Transportation Plan. (Policies T3.6 and T3.7 are based on the City Council's passage of "Transit First" policy in October 1996.)

- *Policy T3.7, Resolving Transportation Conflicts*. The City, in constructing and maintaining its transportation infrastructure, should resolve any conflicts between public transit and single occupant vehicles in favor of the transportation mode that has the potential to provide the greatest mobility and access for people, rather than vehicles, giving due consideration to the environmental, public safety, economic development, health and social equity impacts.

- *Policy T4.1, Incorporating Design Features for Alternative Travel*. The City will require new development, rebuilding, or retrofit to incorporate design features in their Projects that encourage use of alternative modes of transportation such as transit, bicycling, and walking.

City of Oakland Pedestrian Master Plan

In November 2002, the PMP was adopted by the City Council and incorporated into the adopted General Plan. The PMP identifies policies and implementation measures that promote a walkable city. The PMP designated most of Downtown Oakland as the Downtown Pedestrian District.

The *PMP* includes the following relevant policies and actions:

- *Policy 1.1. Crossing Safety*: Improve pedestrian crossings in area of high pedestrian activity where safety is an issue.

  Action 1.1.1. Consider the full range of design elements – including bulbouts and refuge islands – to improve pedestrian safety.

- *Policy 1.2: Traffic Signals*: Use traffic signals and their associated features to improve pedestrian safety at dangerous intersections.

  Action 1.2.7. Consider using crossing enhancement technologies like countdown pedestrian signals at the highest pedestrian volume locations.

- *Policy 1.3. Sidewalk Safety*: Strive to maintain a complete sidewalk network free of broken or missing sidewalks or curb ramps.

Action 1.3.7. Conduct a survey of all street intersections to identify corners with missing, damaged, or non-compliant curb ramps and create a plan for completing their installation.

- *Policy 2.1: Route Network*: Create and maintain a pedestrian route network that provides direct connections between activity centers.

  Action 2.1.8. To the maximum extent possible, make walkway accessible to people with physical disabilities.

- *Policy 2.3: Safe Routes to Transit*: Implement pedestrian improvements along major AC Transit lines and at BART stations to strengthen connections to transit.

  Action 2.3.1: Develop and implement street designs (like bus bulbouts) that improve pedestrian/bus connections.

  Action 2.3.3: Prioritize the implementation of street furniture (including bus shelters) at the most heavily used transit stops.

  Action 2.3.4: Improve pedestrian wayfinding by providing local area maps and directional signage at major AC Transit stops and BART stations.

- *Policy 3.2. Land Use*: Promote land uses and site designs that make walking convenient and enjoyable.

  Action 3.2.4: Require contractors to provide safe, convenient, and accessible pedestrian rights-of-way along construction sites that require sidewalk closure.

  Action 3.2.8: Discourage motor vehicle parking facilities that create blank walls, unscreened edges along sidewalks, and/or gaps between sidewalks and building entrances.

City of Oakland Bicycle Master Plan

The Oakland City Council adopted the *Oakland Bicycle Master Plan Update* in December 2007. The adopted plan includes the following policy-supporting actions that are applicable to the development facilitated by the Proposed Amendments:

- *Policy 1A: Bikeway Network*: Develop and improve Oakland's bikeway network.

  Action 1A.1 – Bicycle Lanes (Class 2): Install bicycle lanes where feasible as the preferred bikeway type for all streets on the proposed bikeway network (except for the bicycle boulevards proposed for local streets with low traffic volumes and speeds).

  Action 1A.3 – Bicycle Boulevards (Class 3B): Enhance bicycle routes on local streets by developing bicycle boulevards with signage, striping, and intersection modifications to prioritize bicycle travel.

  Action 1A.6 – Dedicated Right Turn Lanes and "Slip Turns": Where feasible, avoid the use of dedicated right turn lanes on streets included in the bikeway network. Where infeasible, consider a bicycle through lane to the left of the turn lane or a combined bicycle lane/right turn lane.

- *Policy 1B: Routine Accommodation*: Address bicycle safety and access in the design and maintenance of all streets.

Action 1B.2 – Traffic Signals: Include bicycle-sensitive detectors, bicycle detector pavement markings, and adequate yellow time for cyclists with all new traffic signals and in the modernization of all existing signals.

- *Policy 1C: Safe Routes to Transit*: Improve bicycle access to transit, bicycle parking at transit facilities, and bicycle access on transit vehicles.

  Action 1C.1 – Bikeways to Transit Stations: Prioritize bicycle access to major transit facilities from four directions, integrating bicycle access into the station design and connecting the station to the surrounding neighborhoods.

- *Policy 1D: Parking and Support Facilities*: Promote secure and conveniently located bicycle parking at destinations throughout Oakland.

  Action 1D.6 – Bicycle Parking Ordinance: Adopt an ordinance as part of the City's Planning Code that would require new development to include short and long-term bicycle parking.

  Action 1D.7 – Development Incentives: Consider reduced automobile parking requirements in exchange for bicycle facilities as part of transportation demand management strategies in new development.

City of Oakland Bicycle Parking Ordinance

The Oakland City Council adopted a Bicycle Parking Ordinance in 2008. The ordinance is contained in Municipal Code Chapter 17.117, and requires new development to provide both short-term (i.e., bicycle racks) and long-term bicycle parking (i.e., lockers or indoor storage) for bicycles.

City of Oakland Complete Streets Policy

The City of Oakland adopted the Complete Street Policy to Further Ensure that Oakland Streets Provide Safe and Convenient Travel Options for all Users in January 2013 (City Council Resolution 84204 C.M.S.). This resolution, consistent with the California Complete Streets Act of 2008, directs the City of Oakland to plan, design, construct, operate, and maintain the street network in the City to accommodate safe, convenient, comfortable travel for all modes, including pedestrians, bicyclists, transit users, motorists, trucks, and emergency vehicles.

Metropolitan Transportation Commission and Association of Bay Area Governments Plan Bay Area

To plan for this future growth, Plan Bay Area calls for focused housing and job growth around high quality transit corridors, particularly within areas identified by local jurisdictions as Priority Development Areas (PDAs). The Jack London Square area of Oakland is identified as a PDA, per Plan Bay Area. Opportunities for focused growth development in Transit Priority Project (TPP)-eligible areas, as defined by SB 375 in Public Resources Code section 21155, which often overlap with PDAs, are also encouraged and facilitated by Plan Bay Area. This land use strategy enhances mobility and economic growth by linking housing/jobs with transit and existing transportation infrastructure, thus offering a more efficient land use pattern around transit and a greater return on existing and planned transit investments. Beyond the emphasis on transit-

oriented development, Plan Bay Area's land use strategy broadly calls for new housing and jobs in locations that expand existing communities and build off of all existing transportation investments.

AC Transit Short-Range Transit Plan

AC Transit, the provider of bus transit service in the project study area, has established goals related to transit service. These goals are documented in the *Short Range Transit Plan – Fiscal Year (FY) 2003 to FY 2012* (AC Transit, 2004). Some of the major goals of AC Transit include:

- Goal 1: Provide High Quality, Useful Transit Service for Customers in the East Bay.
- Goal 4: Plan and Advocate for the Funding and Implementation of Future Projects.
- Work with City and Local agencies to make transit usage as safe, secure, reliable, and quick as possible and to promote transit usage in the planning process.
- Promote "Transit First" development practices and increased funding for transit through transit mitigation funding for new developments.

AC Transit has also established a *Strategic Vision* to provide fast, frequent, reliable service on a wide variety of routes with attractive vehicles and an easy-to-use, affordable fare structure (AC Transit, 2002). Key elements of the AC Transit *Strategic Vision* include: increased frequency of buses to reduce wait time; greater frequency of service during midday, evening and owl travel times; an easy-to-use, integrated fare system; flexible routes; adequate around-the-clock service; a redesigned network that matches travel patterns and helps meet demand in the high-density urban core; gradual transition to BRT in the highest ridership corridors; and bus stop improvements including real-time display of arrival times.

BART Strategic Plan

BART, the provider of rail transit service in the project study area, has established strategies, Projects and programs related to transit service. These goals are documented in the BART *Strategic Plan*, adopted in October 2008. Some of the relevant elements of the BART *Strategic Plan* include:

- *Station Access Strategy*: Develop alliances with our transit partners and the community to maximize connectivity and to facilitate multi-modal access including transit, bicycling and walking.
    - *Projects and Programs*: Station Access Program: Develop a package of programs and Projects to improve access to our stations by modes other than single occupant vehicles. Station Wayfinding Program: Implement wayfinding signage to and from BART station and within the station, to aid the customer in navigating the BART system and in making connections to other transit and local destinations.
- *Partnerships for Financial Health Strategy*: Protect the Bay Area's investment in rail transit through long-term capital planning, strategic partnerships and outreach with elected and community leaders, the media and the public.

- *Projects and Programs: Employer Transit Forum*: Recognize and cultivate a closer relationship with the employers we serve.

Significance Criteria / Thresholds – City of Oakland

The Downtown area is defined in the Land Use and Transportation Element of the General Plan as the area generally bounded by West Grand Avenue to the north; Lake Merritt and Channel Park to the east; the Oakland Estuary to the south; and I-980/Brush Street to the west. Of the 30 study intersections within the City of Oakland, 26 are located within the Downtown area, one provides direct access to the Downtown area, and three are located outside of the Downtown area (and do not provide direct access to the Downtown area).

The project would have a significant impact on the environment if it would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit, specifically:

Traffic Load and Capacity Thresholds

1. At a study, signalized intersection which is located outside the Downtown area and that does not provide direct access to Downtown, the project would cause the motor vehicle level of service (LOS) to degrade to worse than LOS D (i.e., LOS E or F) and cause the total intersection average vehicle delay to increase by four (4) or more seconds;

2. At a study, signalized intersection which is located within the Downtown area or that provides direct access to Downtown, the project would cause the motor vehicle LOS to degrade to worse than LOS E (i.e., LOS F) and cause the total intersection average vehicle delay to increase by four (4) or more seconds;

3. At a study, signalized intersection outside the Downtown area and that does not provide direct access to Downtown where the motor vehicle level of service is LOS E, the project would cause the total intersection average vehicle delay to increase by four (4) or more seconds;

4. At a study, signalized intersection outside the Downtown area and that does not provide direct access to Downtown where the motor vehicle level of service is LOS E, the project would cause an increase in the average delay for any of the critical movements of six (6) seconds or more;

5. At a study, signalized intersection for all areas where the level of service is LOS F, the project would cause (a) the overall volume-to-capacity ("v/c") ratio to increase 0.03 or more or (b) the critical movement v/c ratio to increase 0.05 or more;

6. At a study, unsignalized intersection the project would add ten (10) or more vehicles to the critical movement and after project completion satisfy the *California Manual on*

Uniform Traffic Control Devices (MUTCD) peak hour volume traffic signal warrant;

7. For a roadway segment of the CMP Network, the project would cause (a) the LOS to degrade from LOS E or better to LOS F or (b) the v/c ratio to increase 0.03 or more for a roadway segment that would operate at LOS F without the project;

8. Cause congestion of regional significance on a roadway segment on the Metropolitan Transportation System evaluated per the requirements of the Land Use Analysis Program of the CMP; or

9. Result in substantially increased travel times for AC Transit buses;

Traffic Safety Thresholds

10. Directly or indirectly cause or expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a permanent and substantial transportation hazard due to a new or existing physical design feature or incompatible uses;

11. Directly or indirectly result in a permanent substantial decrease in pedestrian safety;

12. Directly or indirectly result in a permanent substantial decrease in bicyclist safety;

13. Directly or indirectly result in a permanent substantial decrease in bus rider safety; or

14. Generate substantial multi-modal traffic traveling across at-grade railroad crossings that cause or expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a permanent and substantial transportation hazard.

Other Thresholds

15. Fundamentally conflict with adopted City policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment;

16. Result in a substantial, though temporary, adverse affect on the circulation system during construction of the project; or

17. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

Cumulative Impacts

18. A project's contribution to cumulative impacts is considered "considerable" (i.e., significant) when the project exceeds at least one of the thresholds listed above in a future year scenario.

Planning-Related Non-CEQA Issues: Parking

The Court of Appeal has held that parking is not part of the permanent physical environment, that parking conditions change over time as people change their travel patterns, and that unmet parking demand created by a project need not be considered a significant environmental impact

under CEQA unless it would cause significant secondary effects. Similarly, the December 2009 amendments to the State CEQA Guidelines (which became effective March 18, 2010) removed parking from the State's Environmental Checklist (Appendix G of the State CEQA Guidelines) as an environmental factor to be considered under CEQA. Further, Senate Bill 743 (September 27, 2013) provides that the parking impact of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area (defined as "an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations") is not to be considered a significant impact on the environment. Given that the proposed project is located within a half-mile of the 12th Street Oakland City Center BART Station, it is considered to be located within a transit priority area.

Parking supply/demand varies by time of day, day of week, and seasonally. As parking demand increases faster than the supply, parking prices rise to reach equilibrium between supply and demand. Decreased availability and increased costs result in changes to people's mode and pattern of travel. However, the City of Oakland, in its review of the project, wants to ensure that the project's provision of parking spaces along with measures to lessen parking demand (by encouraging the use of non-auto travel modes) would result in minimal adverse effects to project occupants and visitors, and that any secondary effects (such as on air quality due to drivers searching for parking spaces) would be minimized. As such, although not required by CEQA, parking conditions are evaluated in this document as a non-CEQA topic for informational purposes.

Parking deficits may be associated with secondary physical environmental impacts, such as air quality and noise effects, caused by congestion resulting from drivers circling as they look for a parking space. However, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, shuttles, taxis, bicycles or travel by foot), may induce drivers to shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to alternative modes of travel would be in keeping with the City's Complete Streets Policy.

Additionally, regarding potential secondary effects, cars circling and looking for a parking space in areas of limited parking supply is typically a temporary condition, often offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Hence, any secondary environmental impacts that might result from a shortfall in parking in the vicinity of the project are considered less than significant.

This document evaluates whether the project's estimated parking demand (both project-generated and project-displaced) would be met by the project's proposed parking supply or by the existing parking supply within a reasonable walking distance of the project site. Project-displaced parking results from the project's removal of standard on-street parking, City controlled parking, and / or legally required off-street parking (non-open-to-the-public parking which is legally required).

Planning-Related Non-CEQA Issues: Transit Ridership

Transit load is not part of the permanent physical environment; transit service changes over time as people change their travel patterns. Therefore, the effect of the project on transit ridership need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects, such as causing the construction of new permanent transit facilities which in turn causes physical effects on the environment. Furthermore, an increase in transit ridership is an environmental benefit, not an adverse impact. One of the goals of the Land Use and Transportation Element of the Oakland General Plan is to promote transit ridership. The City of Oakland, however, in its review of the project, wants to understand the project's potential effect on transit ridership. As such, although not required by CEQA, transit ridership is evaluated in this document as a non-CEQA topic for informational purposes.

This document evaluates whether the project would exceed any of the following:

- Increase the average ridership on AC Transit lines by three (3) percent at bus stops where the average load factor with the project in place would exceed 125% over a peak thirty minute period;
- Increase the peak hour average ridership on BART by three (3) percent where the passenger volume would exceed the standing capacity of BART trains; or
- Increase the peak hour average ridership at a BART station by three (3) percent where average waiting time at fare gates would exceed one minute.

Planning-Related Non-CEQA Issues: Collision History

This document evaluates three years of vehicle, pedestrian, and bicycle collision data for intersections and roadway segments within three blocks of the project site to identify collision characteristics of the project study area. Determination of whether the project would contribute to an existing problem, or if any improvements are recommended in order to alleviate potential effects of the project, are addressed under the City of Oakland "Traffic Safety Thresholds."

Significance Criteria / Thresholds - City of Alameda

Two study intersections are located within the City of Alameda. The project would result in a significant impact if it caused these intersections to meet any of the following criteria:

- Cause the LOS of a signalized intersection that is projected to operate at LOS D or better in the Base Case scenario to degrade to a LOS E or F in the Base Case plus Project scenario;
- Cause the total intersection average vehicle delay an any signalized intersection currently operating at LOS E or F in the Base Case scenario to increase by four or more seconds in the Base Case plus Project scenario;
- Cause the LOS of any movement of the intersection approach of an unsignalized intersection that currently operates at LOS D or better for the Base Case scenario to degrade to LOS E or F for any movement of the intersection approach in the Base Case plus Project scenario;

- For any unsignalized intersection currently operating at LOS E or F in the Base Case scenario, when the total traffic volumes increase by one percent (1%) or more in the Base Case plus Project scenario;
- Cause the LOS of a signalized intersection that is projected to operate at LOS D or better in the Cumulative scenario to degrade to a LOS E or F in the Cumulative plus Project scenario;
- Cause the total intersection average vehicle delay an any signalized intersection currently operating at LOS E or F in the Cumulative scenario to increase by four or more seconds in the Cumulative plus Project scenario;
- Cause the LOS of any movement of the intersection approach of an unsignalized intersection that currently operates at LOS D or better for the Cumulative scenario to degrade to LOS E or F for any movement of the intersection approach in the Cumulative plus Project scenario;
- For any unsignalized intersection currently operating at LOS E or F in the Cumulative scenario, when the total traffic volumes increase by one percent (1%) or more in the Cumulative plus Project scenario.

Project Transportation Characteristics

Project Travel Demand

Trip Generation

Trip generation estimates for the project analysis are developed from rates given in the Institute of Transportation Engineers (ITE) *Trip Generation* (9th Edition, 2012). Both a weighted average rate and a regression equation with which to calculate trip generation for each land use are provided. Generally, in cases where ITE has surveyed at least 20 sites for a particular land use, where the project is within the range of sizes of the surveyed sites, and where the coefficient of determination[2] is greater or equal to 0.75, the regression equation is used to determine that land use's trip generation. In cases where ITE studied fewer than 20 sites, the coefficient of determination is less than 0.75, or the project provides a level of land use below a reasonable quantity, the weighted average is used to determine the land use's trip generation. Using the appropriate trip generation equation or rate, total vehicle trip generation estimates are calculated. The trip generation rates and regression equations used in this analysis are presented in **Table 4.1-11**.

[2] The coefficient of determination (R^2) is an estimate of the accuracy of the fit of the regression equation.

TABLE 4.1-11
ITE TRIP GENERATION RATES AND REGRESSION EQUATIONS

Land Use	ITE Land Use Code	Trip Generation Rate or Regression Equation		
		Daily	AM Peak Hour	PM Peak Hour
Office	General Office (710)	Ln(T) = 0.76*Ln(X)+3.68	Ln(T) = 0.8*Ln(X)+1.57	T = 1.12*(X)+78.45
Retail	Shopping Center (820)	Ln(T) = 0.65*Ln(X)+5.83	Ln(T) = 0.61*Ln(X)+2.24	Ln(T) = 0.67*Ln(X)+3.31
Theater	Multiplex Movie Theater (445)	0.8 Trips / Seat	0.1 Trips / Seat	0.08 Trips / Seat
Residential	Apartment (220)(1)	T = 6.06*(X)+123.56	T = 0.49*(X)+3.73	T = 0.55*(X)+17.65
Hotel	Hotel (310)	T = 8.95*(X)-373.16	0.53 Trips / Room	0.6 Trips / Room
Conference / Banquet	Quality Restaurant (931)	89.95 Trips / KSF	0.81 Trips / KSF	7.49 Trips / KSF

Source: ITE *Trip Generation* (9th Edition, 2012).
Notes: Where regression equations are presented, "T" stands for "Trips," and "X" stands for land use size. The office and retail land uses are evaluated per 1,000 square feet, the residential land use is evaluated per dwelling unit, and the hotel land use is evaluated per room.
(1) At this time, it has not been determined whether the project's residential space will be apartments or condominiums / townhouses. As such, the Apartment land use is used, as it is a larger trip generator, allowing for a conservative analysis of residential trip generation.

As noted previously, since the completion of the 2004 EIR, some portions of the project have been constructed and are active uses. Trips associated with these active uses are accounted for in existing turning movement counts collected in 2013. Thus, trip generation calculations for the Maximum Residential Project Scenario and the 2004 Approved Project subtract out square footage associated with any currently active uses in order to determine new trip generation totals to be added to the existing transportation network. [3] Trip generation estimates based on ITE values alone are summarized in **Tables 4.1-12** and **4.1-13**.

TABLE 4.1-12
ITE VEHICLE TRIP GENERATION – 2014 MODIFIED PROJECT (MAXIMUM RESIDENTIAL SCENARIO)

			Vehicle Trip Generation						
				AM Peak Hour			PM Peak Hour		
Land Use	Size	Unit	Daily	In	Out	Total	In	Out	Total
Office	106,300	SF	1,375	177	24	201	34	164	198
Retail	190,400	SF	10,321	143	88	231	443	479	922
Theater	----	----	0	0	0	0	0	0	0
Residential	665	DU	4,160	66	264	330	250	134	384
Hotel	250	Rm	1,864	78	55	133	76	74	150
Conference/Banquet	15,000	SF	1,349	6	6	12	75	37	112
Total	**----**	**----**	**19,069**	**470**	**437**	**907**	**879**	**888**	**1,766**

Source: AECOM, 2013.
Notes: "----" Indicates not applicable.
SF = Square Feet, DU = Dwelling Unites, Rm = Rooms.

[3] If the traffic associated with the already-constructed square footage were not subtracted from the project traffic, it effectively would be counted twice – once as part of the background traffic, and again as part of the project traffic.

TABLE 4.1-13
ITE VEHICLE TRIP GENERATION – APPROVED PROJECT

			Vehicle Trip Generation						
				AM Peak Hour			PM Peak Hour		
Land Use	**Size**	**Unit**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Office	330,300	SF	3,255	438	60	498	76	372	448
Retail	264,400	SF	12,776	175	107	282	552	597	1,149
Theater	1,700	Seats	1,360	11	6	17	49	87	136
Residential	----	----	0	0	0	0	0	0	0
Hotel	250	Rm	1,864	78	55	133	76	74	150
Conference/Banquet	15,000	SF	1,349	6	6	12	75	37	112
Total	**----**	**----**	**20,604**	**708**	**234**	**942**	**828**	**1,167**	**1,995**

Source: AECOM, 2013.

Notes: **"----"** Indicates not applicable.
SF = Square Feet, DU = Dwelling Unites, Rm = Rooms.

Research has shown that *ITE Trip Generation* over-estimates motor vehicle trips when applied to dense, urban environments such as the Jack London Square neighborhood in Oakland. In fact, *ITE Trip Generation* acknowledges that most of the underlying data for the *ITE Trip Generation Handbook* were collected in suburban settings with few, if any, alternatives to driving. Moreover, mixed-use developments that combine origins and destinations in close proximity may encourage "internal" trips made entirely within a given development and placing no burden on the external transportation network. For these reasons, the City of Oakland requires that mode split and internal capture are accounted for as part of the trip generation process using factors derived from observed travel data for Alameda County from the Metropolitan Transportation Commission's (MTC) *2000 Bay Area Travel Survey* (BATS). Based on the project's location between 0.5 and 1.0 miles of the nearest Amtrak station, appropriate modal split adjustment factors per the 2000 BATS data are applied to the *ITE Trip Generation* totals. The results of this calculation are provided in **Table 4.1-14**.

TABLE 4.1-14
TRIP GENERATION SUMMARY, BY MODE

Mode of Travel	Modal Split Adjustment Factor	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
2014 Modified Project (Maximum Residential Scenario)								
Automobile	0.786	14,989	370	343	713	689	699	1,388
Transit	0.118	2,254	56	52	108	104	105	209
Bike	0.056	1,059	26	24	50	49	49	98
Walk / Other	0.201	4,238	105	97	202	195	198	393
Total Trips	**1.161**	**22,540**	**557**	**516**	**1,073**	**1,037**	**1,051**	**2,088**
Approved Project								
Automobile	0.786	16,197	556	184	740	650	918	1,568
Transit	0.118	2,436	84	28	112	98	138	236
Bike	0.056	1,145	39	13	52	46	65	111
Walk / Other	0.201	4,579	157	52	209	184	259	443
Total Trips	**1.161**	**24,357**	**836**	**277**	**1,113**	**978**	**1,380**	**2,358**

Source: AECOM, 2013.

For informational purposes, a comparison of the vehicular trip generation as calculated in the 2004 EIR with the totals presented in **Table 4.1-14** is summarized in **Table 4.1-15**.

TABLE 4.1-15
VEHICLE TRIP GENERATION COMPARISON

Trip Generation Comparison	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
2004 EIR Vehicle Trip Generation Total	20,424	1,120	365	1,485	951	1,599	2,550
2014 Modified Project (Max. Residential Scenario) Vehicle Trips	14,989	370	343	713	689	699	1,388
Difference	**-5,435**	**-750**	**-22**	**-772**	**-262**	**-900**	**-1,162**
2004 EIR Vehicle Trip Generation Total	20,424	1,120	365	1,485	951	1,599	2,550
Approved Project Vehicle Trips	16,197	556	184	740	650	918	1,568
Difference	**-4,227**	**-564**	**-181**	**-745**	**-301**	**-681**	**-982**

Source: Jack London Square Redevelopment Project Final Environmental Impact Report, 2004; AECOM, 2013.

As shown, as compared with the 2004 EIR Project, the Maximum Residential Scenario would generate 5,435 fewer trips per day (including 772 fewer during the AM peak hour and 1,162

fewer during the PM peak hour), and the Approved Project would generate 4,227 fewer trips per day (including 745 fewer during the AM peak hour and 982 fewer during the PM peak hour).[4]

Trip Distribution and Assignment

Trips generated by the project are distributed throughout the surrounding roadway network. The distribution of project-generated traffic onto the roadway network is estimated based on a combination of ACTC Travel Demand Model output, as well as existing travel behaviors. The resulting trip distribution pattern is illustrated in **Figure 4.1-6**. Project trips are then manually layered over "No Project" scenarios to derive "Plus Project" scenarios. The assignment of these project trips, for both the 2014 Modified Project and the Approved Project, are shown in **Figures 4.1-7** and **4.1-8**.

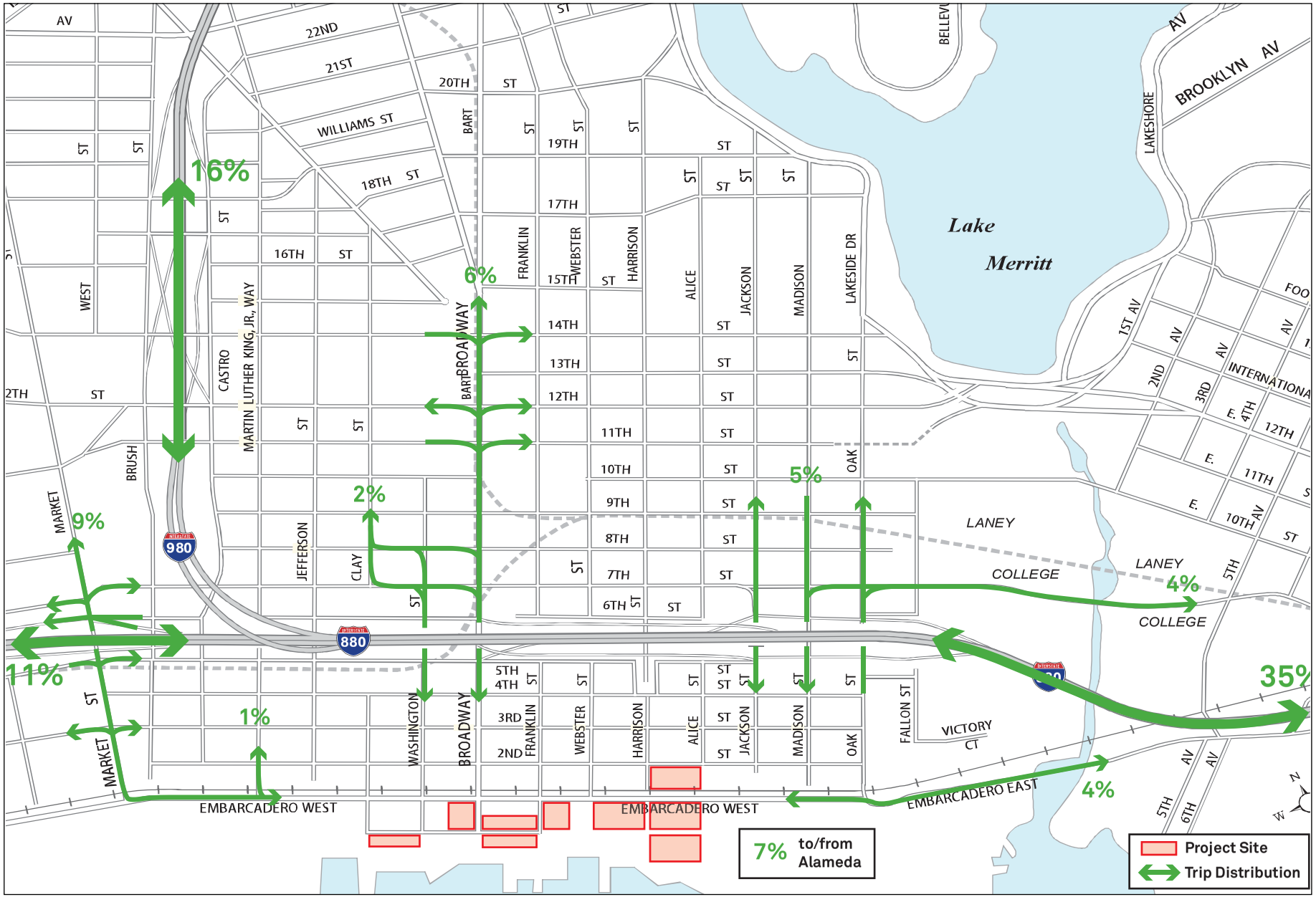
Analysis of the 2014 Modified Project

This section describes the transportation, circulation, and parking conditions, including transit services and pedestrian and bicycle facilities in the project area and its vicinity, and analyzes the potential impacts of the 2014 Modified Project, specifically its Maximum Residential Scenario that is the most intensive (from an environmental impact perspective) set of residential variants proposed with the 2014 Modified Project, on the transportation network. This transportation impact assessment conforms to the requirements and methodologies of the City of Oakland, and the Alameda County Transportation Commission (ACTC) guidelines. The transportation analysis describes the operational characteristics of the existing study area circulation system, determines the circulation system needs based on future transportation demand, and summarizes the potential circulation impacts associated with the development of the 2014 Modified Project.

As previously discussed in the Chapter 1, *Introduction,* and in the opening paragraphs of this section, The Approved Project is also evaluated in this section in the context of changed circumstances and new information that has occurred since preparation of the 2004 EIR and in order to compare the findings of the 2014 Modified Project with those in the 2004 EIR.

Appendix B to this Addendum contains technical background information relating to transportation and circulation.

[4] As noted earlier in this Addendum, the "2004 Approved Project" has assumed the reallocation of 55,000 square feet of retail space to office space. The variation in vehicle trip generation is due to the differences in ITE rate for office and retail, and moreover the change since 2004 in the City's approach to calculating trip generation. This reallocation of commercial uses reflects the actual land uses that have been already constructed on the project site since 2004 and does not exceed the total amount of commercial development set forth and analyzed in the 2004 EIR, because office space has a lower trip generation rate than retail space.

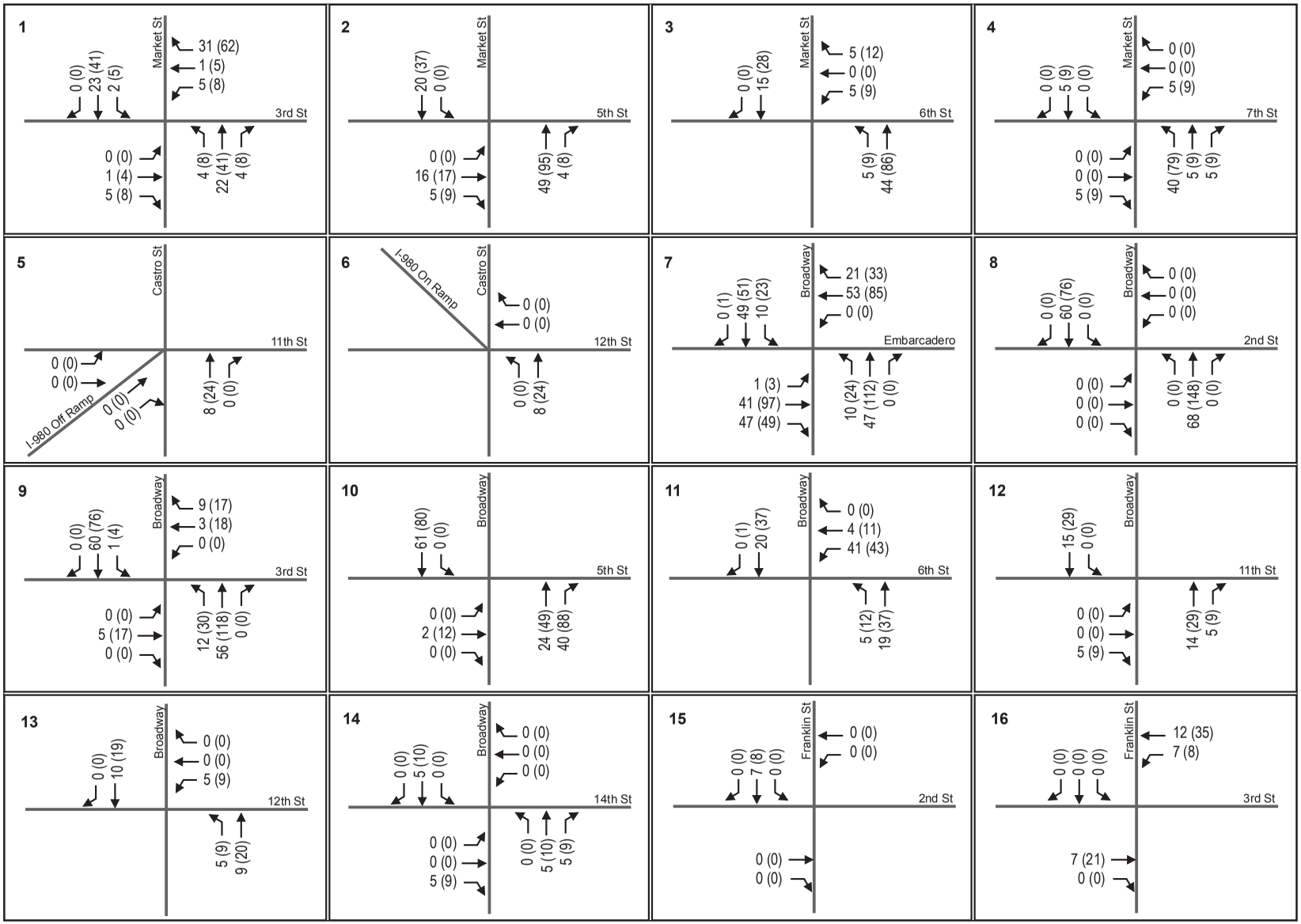


SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-6

Trip Distribution Pattern

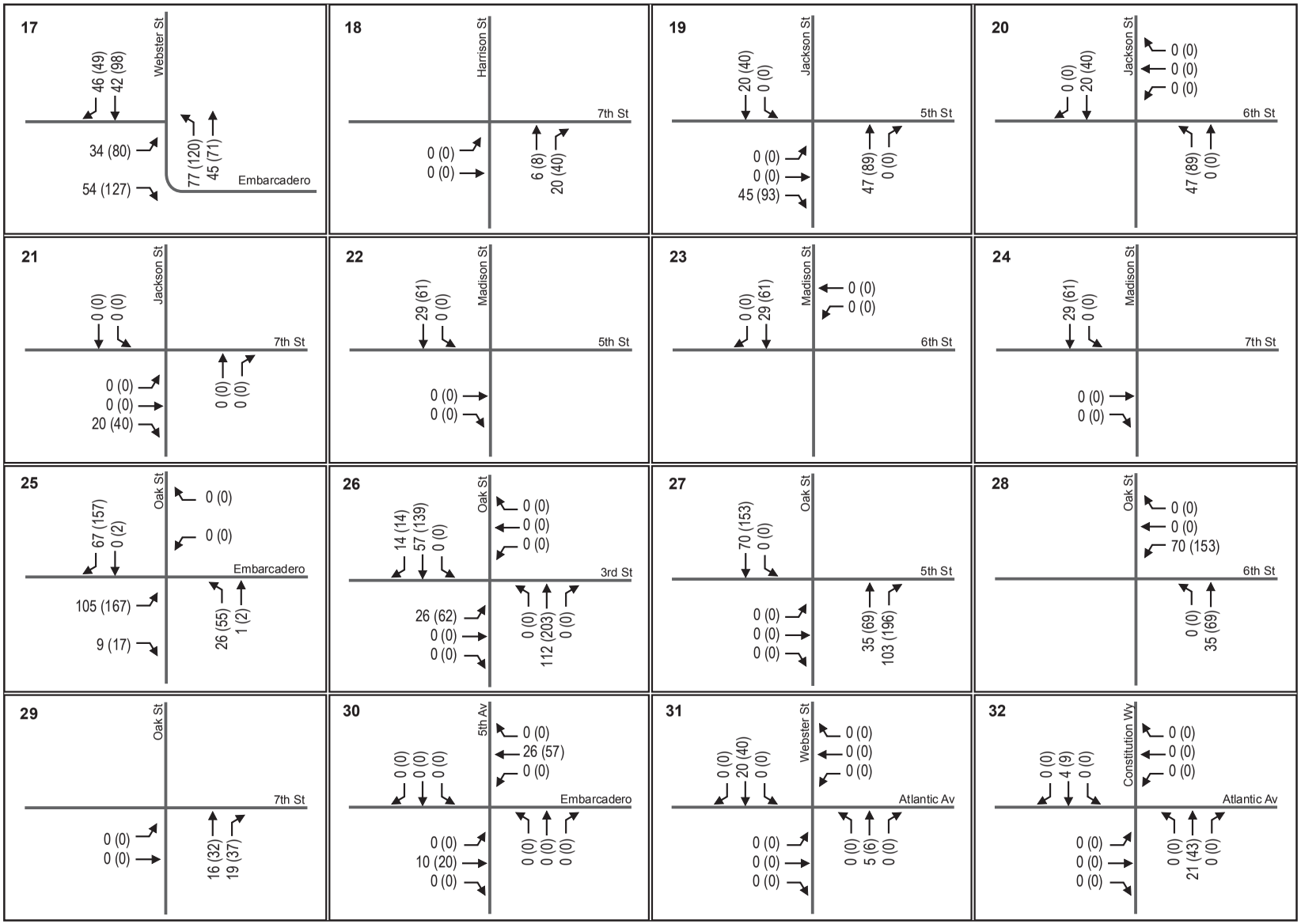


SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-7a

Traffic Volumes: 2014 Modified Project
(Maximum Residential Scenario)

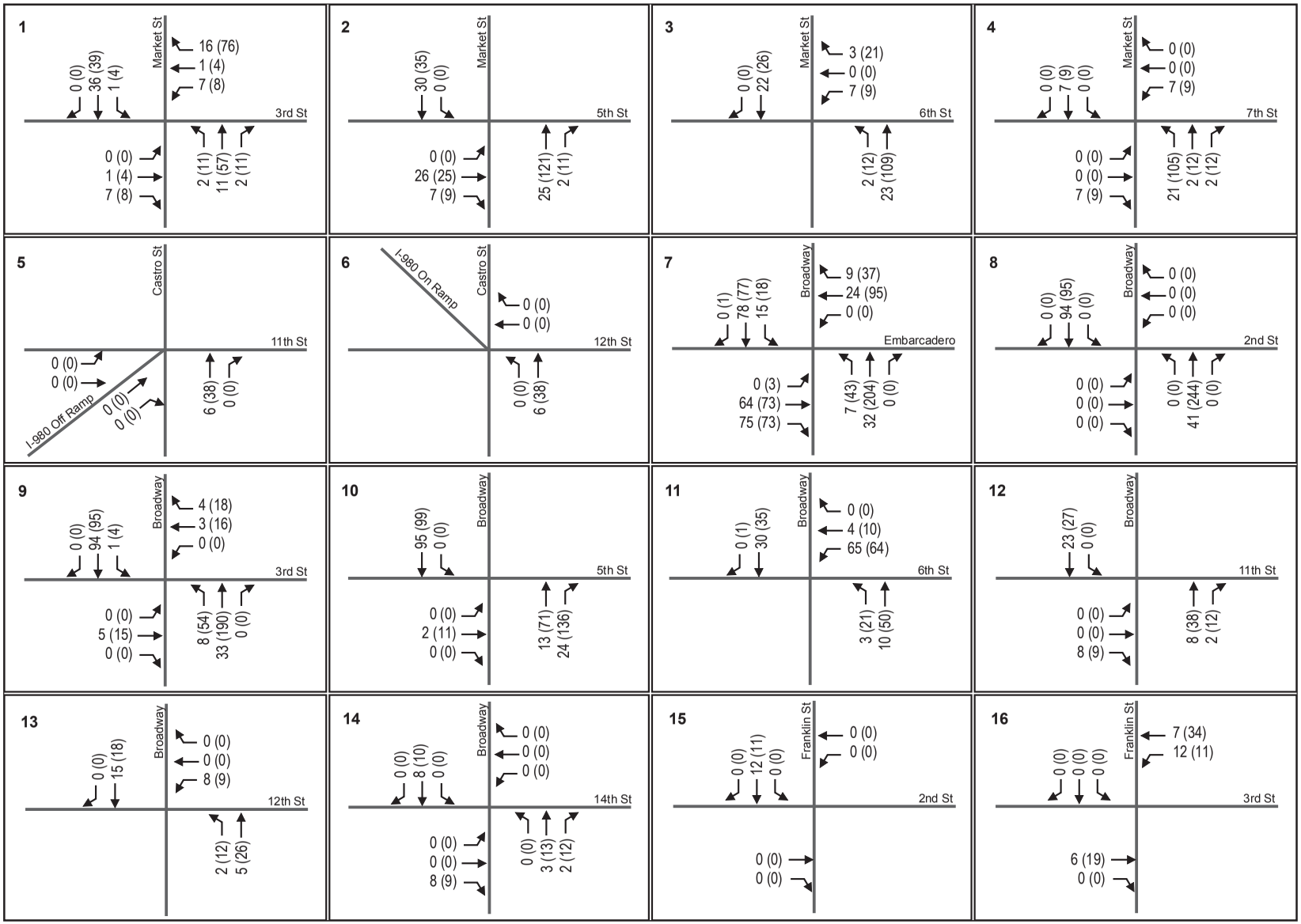


SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-7b

Traffic Volumes: 2014 Modified Project
(Maximum Residential Scenario)

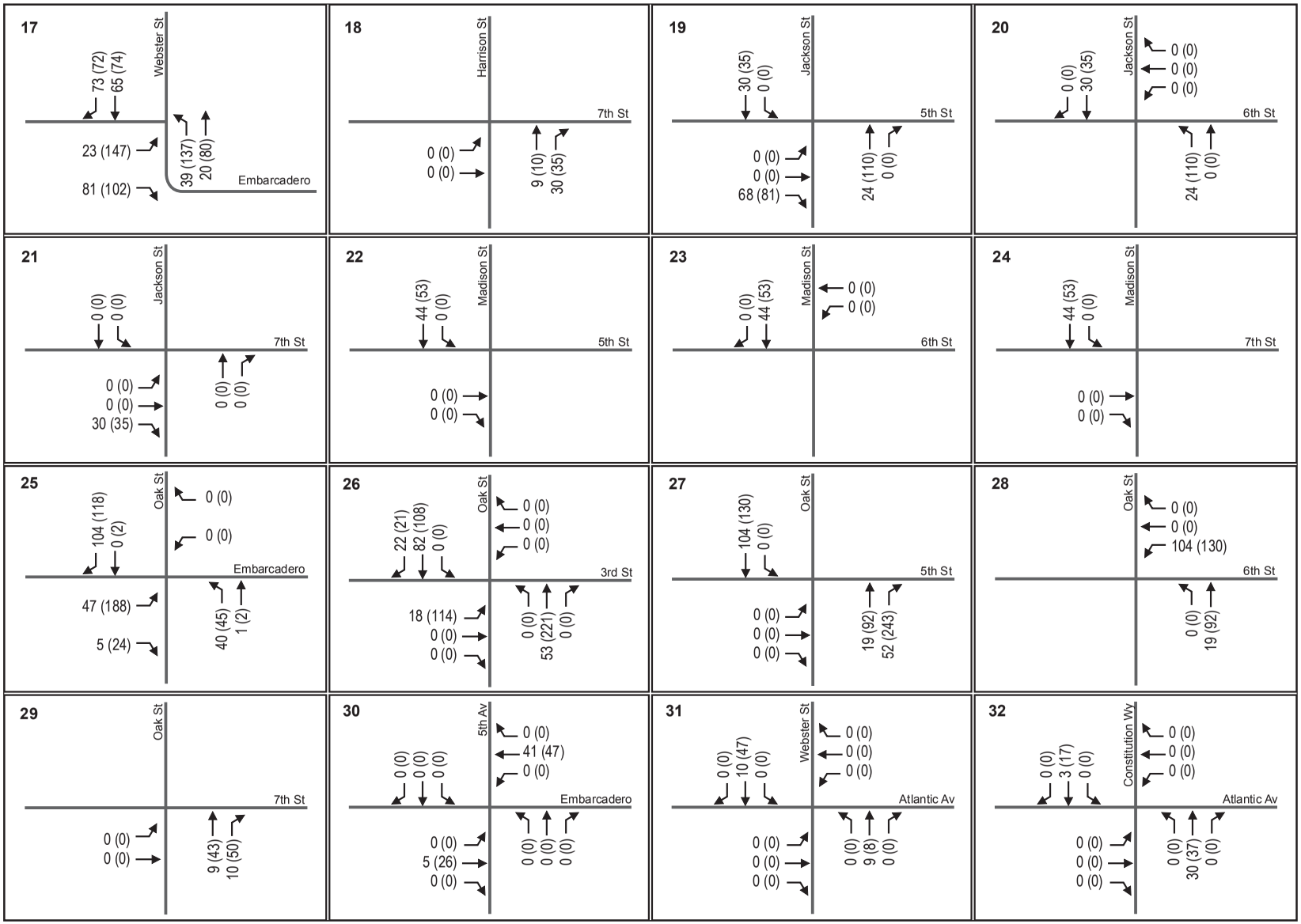


SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-8a

Traffic Volumes: 2004 Approved Project



SOURCE: AECOM

Figure 4.1-8b

Traffic Volumes: 2004 Approved Project

The analysis evaluates the traffic-related impacts of the 2014 Modified Project during both the weekday morning and evening peak hours (the peak 60-minute intervals between the hours of 7:00-9:00 AM and 4:00-6:00 PM), for the following six scenarios:

- ***Existing*** – Represents existing conditions (including built and occupied portions of the Approved Project) with volumes obtained from recent traffic counts and the existing roadway system.
- ***Existing Plus 2014 Modified Project (Maximum Residential Scenario)*** – Existing conditions plus estimated traffic generated by the 2014 Modified Project.
- ***Existing Plus 2004 Approved Project*** – Existing conditions plus estimated traffic generated by the Approved Project.
- ***Cumulative Year 2035 No Project*** – Future conditions with planned population and employment growth and planned transportation system improvements for the year 2035. Traffic projections were developed using the most recently available version of the Alameda Countywide Travel Demand Model provided by the ACTC. [5]
- ***Cumulative Plus 2014 Modified Project*** *(Maximum Residential Scenario)* – Future forecasted conditions for the year 2035, as determined in the Cumulative Year 2035 No Project scenario, plus estimated traffic generated by the 2014 Modified Project.
- ***Cumulative Plus Approved Project*** – Future forecasted conditions for the year 2035, as determined in the Cumulative Year 2035 No Project scenario, plus estimated traffic generated by the Approved Project.

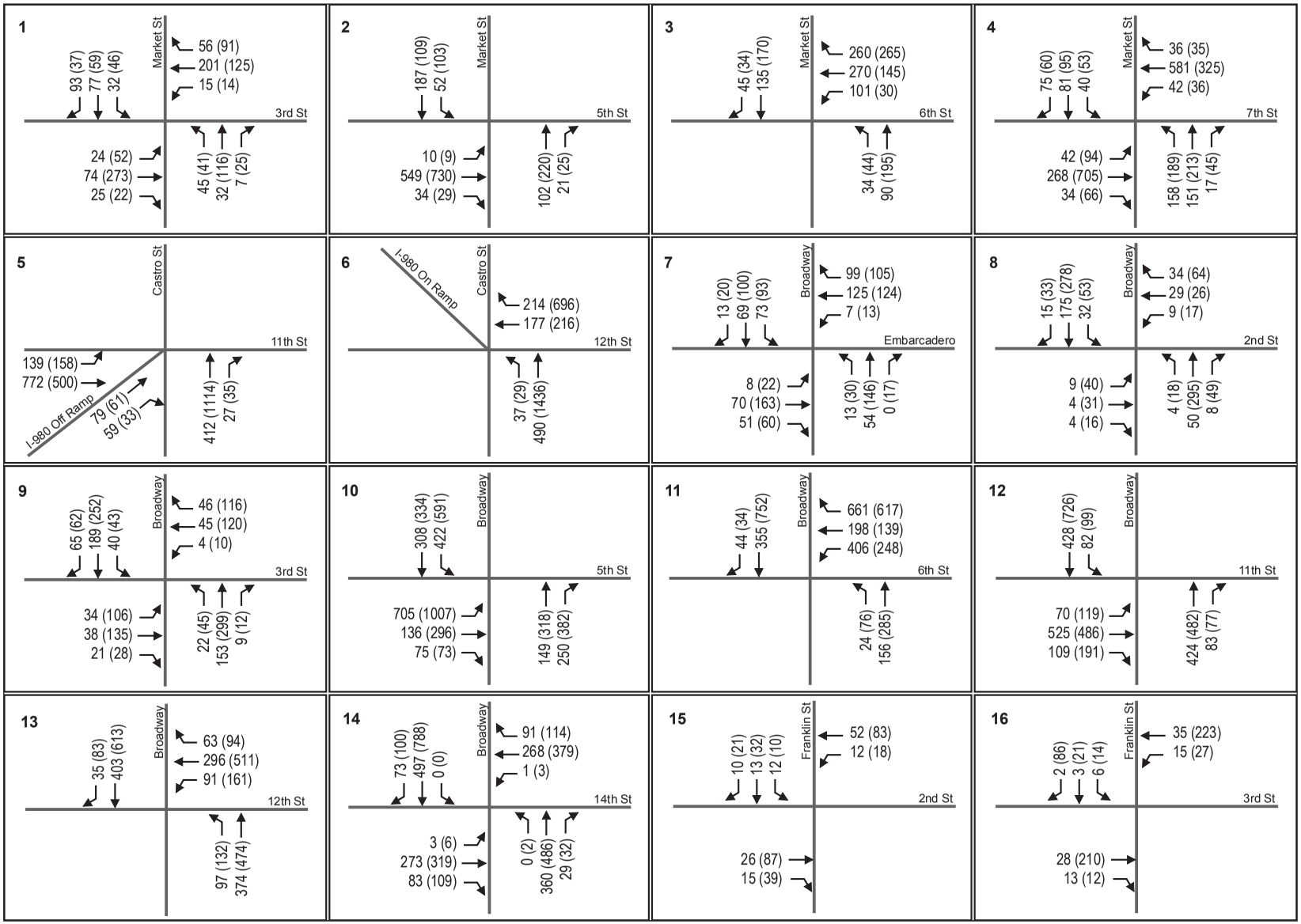
Existing plus 2014 Modified Project Conditions (Maximum Residential Scenario)

Intersection Impacts

The 2014 Modified Project would generate a total of 14,989 new daily vehicle trips, including 713 new vehicle trips during the AM peak hour and 1,388 during the PM peak hour. These traffic volumes are layered over Existing Conditions traffic volumes to derive Existing plus 2014 Modified Project Conditions traffic volumes, which are presented in **Figure 4.1-9**. Existing Conditions and Existing plus 2014 Modified Project Conditions intersection LOS analysis results are summarized in **Table 4.1-16**.

As shown in **Table 4.1-16**, all 32 study intersections would operate acceptably under Existing Conditions and be expected to continue to operate acceptably during the AM and PM peak hours with the addition of traffic generated by the 2014 Modified Project. Therefore, the project would not result in a potentially significant impact to intersection operations under Existing plus 2013 Project Conditions, and no mitigation measures would be warranted.

[5] It should be noted that no near-term Cumulative scenario (i.e., year 2020) is analyzed. The analysis of Existing Conditions, Existing plus 2014 Modified Project Conditions, Cumulative Year 2035 Conditions, and Cumulative Year 2035 plus Project Conditions addresses the full range of potential Project impacts, and allows for a direct comparison with the analysis and conclusions provided in the 2004 EIR.

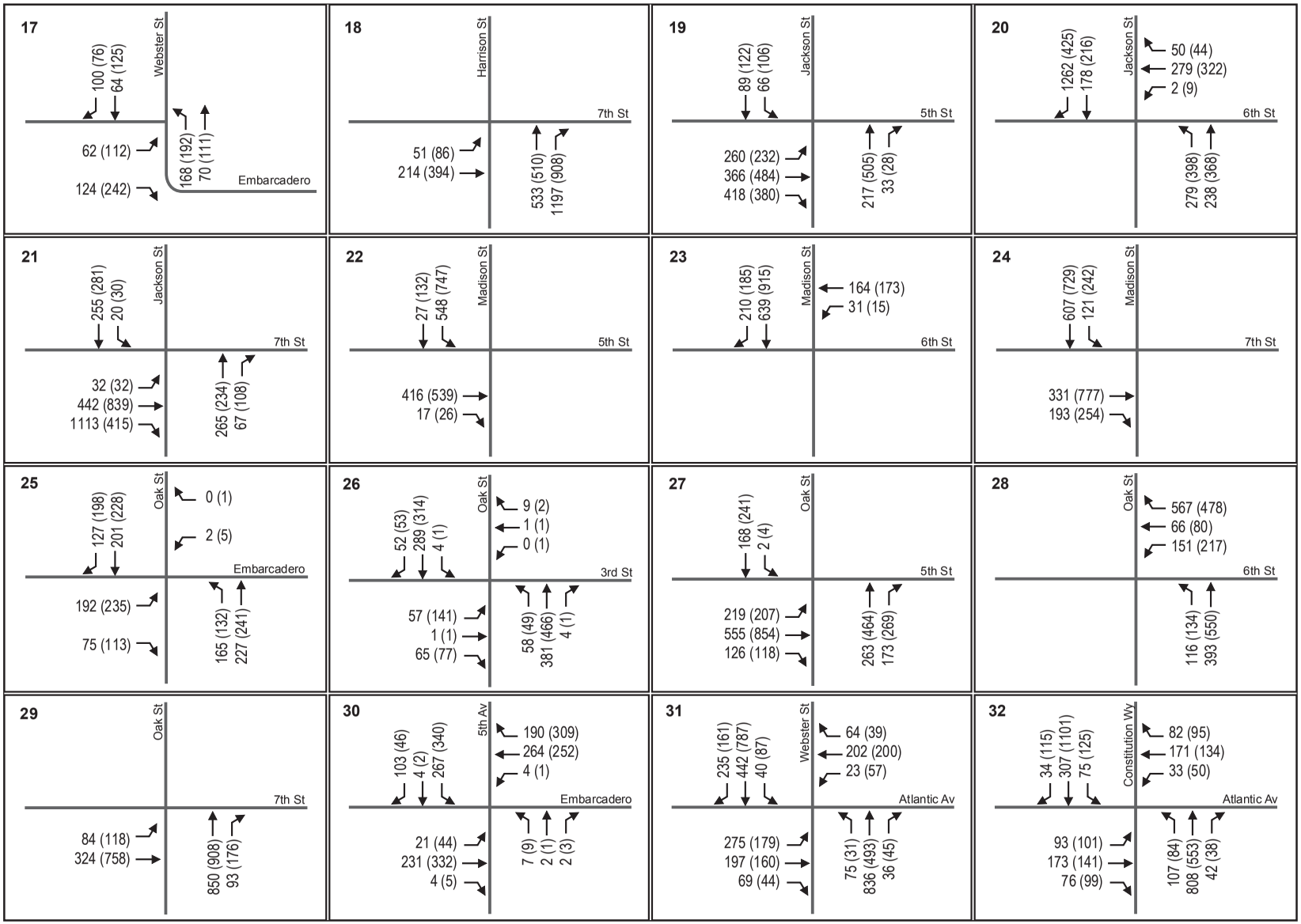


SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-9a

Traffic Volumes: Existing + 2014 Modified Project (Maximum Residential Scenario)



SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-9b

Traffic Volumes: Existing + 2014 Modified Project (Maximum Residential Scenario)

TABLE 4.1-16
INTERSECTION LEVELS OF SERVICE – EXISTING PLUS 2014 MODIFIED PROJECT CONDITIONS (MAXIMUM RESIDENTIAL SCENARIO)

			Existing Conditions				Existing plus 2014 Modified Project Conditions (Maximum Residential Scenario)			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection[1]	Control	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Market St / 3rd St	TWSC	B	13.3	C	15.9	B	14.3	C	21.3
2	Market St / 5th St	Signal	A	9.5	B	12.5	B	10.3	B	14.7
3	Market St / 6th St	Signal	B	14.0	C	30.5	B	13.2	C	28.4
4	Market St / 7th St	Signal	B	19.1	B	14.9	B	18.6	B	15.2
5	Castro St / 11th St	Signal	C	27.0	C	26.2	C	27.1	C	26.4
6	Castro St / 12th St	Signal	C	23.5	B	11.6	C	23.6	B	11.5
7	Broadway / Embarcadero	AWSC	A	7.7	A	7.9	A	8.8	B	11.0
8	Broadway / 2nd St	TWSC	B	10.6	C	15.2	B	11.5	C	19.3
9	Broadway / 3rd St	Signal	B	10.2	B	13.3	B	10.1	B	13.7
10	Broadway / 5th St	Signal	C	24.8	C	27.8	C	26.0	C	28.3
11	Broadway / 6th St	Signal	B	17.1	C	21.6	B	18.1	C	22.2
12	Broadway / 11th St	Signal	B	11.4	B	12.4	B	11.5	B	12.6
13	Broadway / 12th St	Signal	B	15.1	B	15.5	B	15.0	B	15.6
14	Broadway / 14th St	Signal	B	13.6	B	15.5	B	13.7	B	15.6
15	Franklin St / 2nd St	OWSC	A	9.1	A	9.9	A	9.3	B	10.1
16	Franklin St / 3rd St	OWSC	A	9.0	B	10.6	A	9.2	B	11.0
17	Webster St / Embarcadero	TWSC	B	10.3	B	10.1	B	14.7	D	25.2
18	Harrison St / 7th St	Signal	B	11.4	B	10.1	B	12.4	B	14.4
19	Jackson St / 5th St	Signal	B	13.9	B	16.2	B	14.2	B	18.0
20	Jackson St / 6th St	Signal	B	11.9	B	11.6	B	11.8	B	11.6
21	Jackson St / 7th St	Signal	B	11.5	B	12.0	B	11.5	B	12.0
22	Madison St / 5th St	Signal	A	8.7	A	9.5	A	8.7	A	9.5
23	Madison St / 6th St	Signal	A	8.3	A	8.5	A	8.2	A	8.5
24	Madison St / 7th St	Signal	A	8.4	A	7.6	A	8.5	A	8.1
25	Oak St / Embarcadero	OWSC	B	14.9	B	11.9	D	30.9	E	39.9
26	Oak St / 3rd St	Signal	A	5.1	A	7.1	A	5.4	A	8.0
27	Oak St / 5th St	Signal	A	8.8	A	9.7	A	9.5	B	11.5
28	Oak St / 6th St	Signal	A	8.9	A	8.8	A	9.3	A	9.7
29	Oak St / 7th St	Signal	B	13.5	B	11.6	B	13.7	B	12.0
30	5th Ave / Embarcadero	AWSC[2]	B	13.2	C	17.1	B	13.6	C	18.4
31	Webster St / Atlantic Ave	Signal	C	23.9	C	21.5	C	23.9	C	21.5
32	Constitution Way / Atlantic Ave	Signal	C	20.3	C	21.8	C	20.3	C	21.9

Source: AECOM, 2013.

Notes: OWSC = one-way stop controlled, TWSC = two-way stop controlled, AWSC = all-way stop controlled
[1] Delay presented for one-way and two-way stop controlled intersections is representative of the worst minor approach.
[2] Intersection actually operates as a three-way stop controlled intersection. However, the 2000 HCM methodology does not support this configuration. As such, intersection is evaluated with an all-way stop controlled configuration.

Roadway Segment Impacts

Existing plus 2014 Modified Project Conditions roadway segment operations at locations designated as part of the CMP and MTS roadway networks are summarized in **Table 4.1-17**. As shown, all study CMP and MTS roadway segments would operate acceptably under Existing Conditions and be expected to continue to operate acceptably during the AM and PM peak hours with the addition of traffic generated by the 2014 Modified Project. Therefore, the project would not result in a potentially significant impact to roadway segment operations under Existing plus 2014 Modified Project Conditions, and no mitigation measures would be warranted.

Existing plus Approved Project Conditions[6]

Intersection Impacts

The Approved Project would generate a total of 16,197 daily vehicle trips, including 740 vehicle trips during the AM peak hour and 1,568 during the PM peak hour. These traffic volumes are layered over Existing Conditions traffic volumes to derive Existing plus Approved Project Conditions traffic volumes, which are shown in **Figure 4.1-10**. Existing Conditions and Existing plus Approved Project Conditions intersection LOS analysis results are compared in **Table 4.1-18**.

As shown in **Table 4.1-18**, 31 of the 32 study intersections would be expected to continue to operate acceptably during the AM and PM peak hours with the addition of traffic generated by the Approved Project. As such, the project would not result in a potentially significant impact to intersection operations under Existing plus Approved Project Conditions at these locations. However, at the Webster Street / Embarcadero intersection, the northbound stop-controlled approach to the intersection is expected to deteriorate from LOS B to LOS F conditions during the PM peak hour, and the criteria of the *California Manual on Uniform Traffic Control Devices* (MUTCD) peak hour volume traffic signal warrant would be satisfied. Thus, the project would result in a potentially significant impact at this location under Existing plus Approved Project Conditions.

It should be noted that signalization of the Webster Street / Embarcadero intersection would reduce average intersection delay to LOS B levels, allowing the minor street approach to operate at LOS B, mitigating the project's contribution to the impact at this location. Signalization would reduce the impact to a less-than-significant level. However, given the intersection's placement along a rail line (i.e., active railroad tracks run through the center of Embarcadero), signalization may not be desired, as substantial signal coordination with rail use (and associated construction) would be required. Though the intersection would meet the criteria of the MUTCD peak hour volume traffic signal warrant, the intersection could be converted into an all-way stop control and successfully manage delay. All-way stop control can be an effective means of managing traffic operations where traffic volumes are relatively low as compared with signalized intersections, and where traffic volume levels at each approach are similar.

6 The Approved Project is evaluated in this section in the context of changed circumstances and new information that has occurred since preparation of the 2004 EIR and in order to compare the findings of the 2014 Modified Project with those in the 2004 EIR.

TABLE 4.1-17
ROADWAY SEGMENT LEVELS OF SERVICE – EXISTING PLUS 2014 MODIFIED PROJECT CONDITIONS (MAXIMUM RESIDENTIAL SCENARIO)

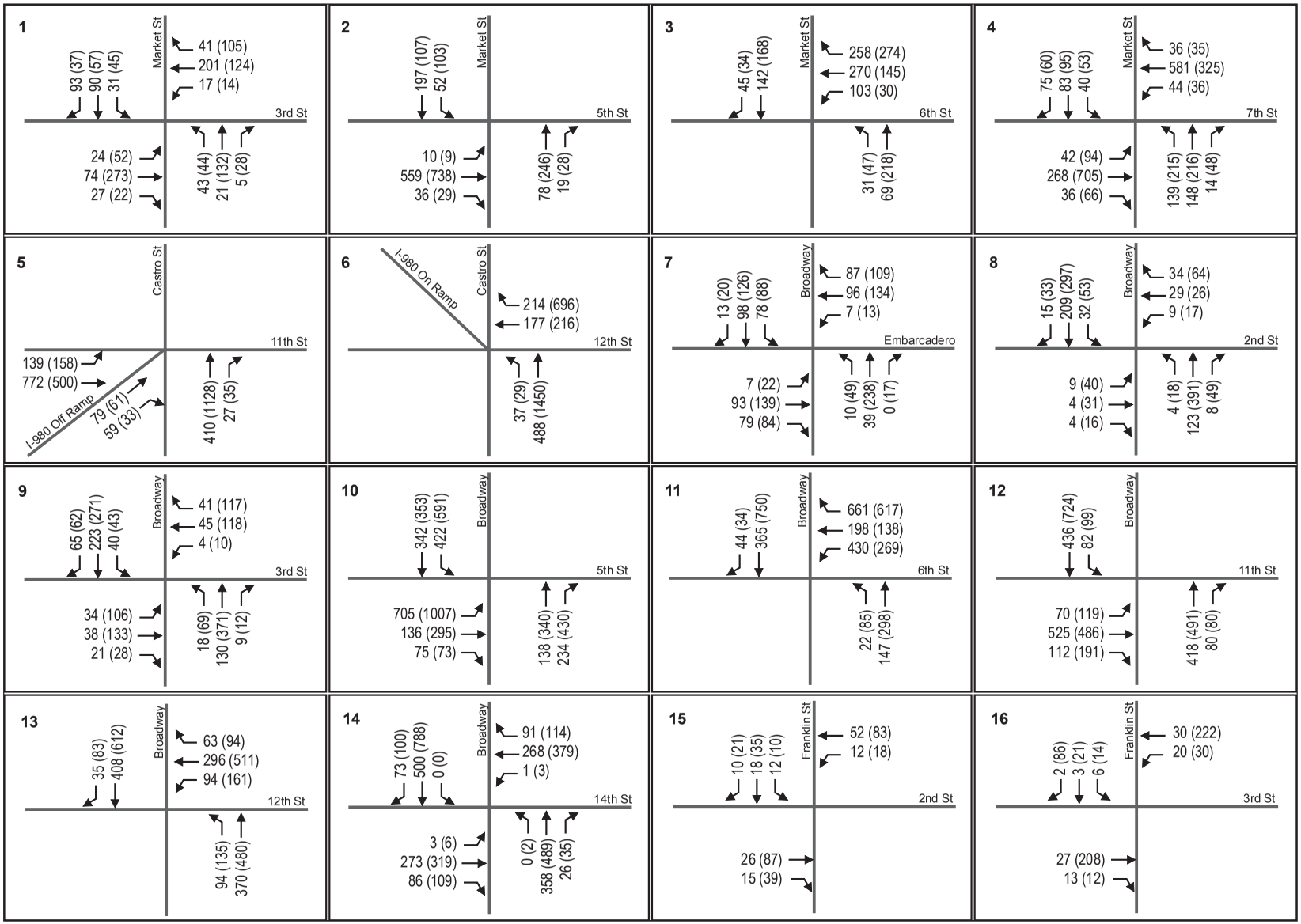
		Existing Conditions				Existing plus 2014 Modified Project Conditions (Maximum Residential Scenario)			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Study Location	**Direction**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**
CMP Roadways:									
I-980	NB	0.20	A	0.40	B	0.20	A	0.41	B
north of 18th Street	SB	0.43	B	0.22	A	0.43	B	0.23	A
I-880	EB	0.52	C	0.56	C	0.53	C	0.56	C
west of Market Street	WB	0.52	C	0.54	C	0.52	C	0.55	C
I-880	EB	0.70	C	0.74	D	0.71	D	0.77	D
east of Oak Street	WB	0.69	C	0.72	D	0.71	C	0.75	D
SR 260 (Posey/Webster Tubes)	NB	0.91	E	0.73	D	0.91	E	0.74	D
between Alameda city limits and I-880	SB	0.46	B	0.69	C	0.47	B	0.70	C
MTS Roadways:									
Broadway	NB	0.05	A	0.09	A	0.09	A	0.18	A
between Embarcadero West and 2nd Street	SB	0.06	A	0.10	A	0.10	A	0.15	A
Broadway	NB	0.07	A	0.13	A	0.10	A	0.21	A
between 2nd Street and 3rd Street	SB	0.09	A	0.14	A	0.12	A	0.18	A
Broadway	NB	0.14	A	0.26	A	0.18	A	0.34	B
between 3rd Street and 5th Street	SB	0.15	A	0.17	A	0.19	A	0.21	A
Broadway	NB	0.09	A	0.17	A	0.10	A	0.20	A
between 5th Street and 6th Street	SB	0.38	B	0.49	B	0.41	B	0.53	C
Broadway	NB	0.36	B	0.39	B	0.37	B	0.41	B
between 6th Street and 11th Street	SB	0.25	A	0.45	B	0.26	A	0.47	B
Broadway	NB	0.26	A	0.32	B	0.27	A	0.34	B
between 11th Street and 12th Street	SB	0.27	A	0.43	B	0.28	A	0.44	B
Broadway	NB	0.15	A	0.19	A	0.15	A	0.20	A
between 12th Street and 14th Street	SB	0.19	A	0.29	A	0.19	A	0.30	A
Broadway	NB	0.17	A	0.33	B	0.17	A	0.34	B
north of 14th Street	SB	0.21	A	0.49	B	0.21	A	0.49	B
14th Street	EB	0.20	A	0.24	A	0.20	A	0.24	A
between Broadway and Clay Street	WB	0.19	A	0.27	A	0.19	A	0.27	A

TABLE 4.1-17 (CONTINUED)
ROADWAY SEGMENT LEVELS OF SERVICE – EXISTING PLUS 2014 MODIFIED PROJECT CONDITIONS (MAXIMUM RESIDENTIAL SCENARIO)

		Existing Conditions				Existing plus 2014 Modified Project Conditions (Maximum Residential Scenario)			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Study Location	**Direction**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**
14th Street between Broadway and Franklin Street	EB	0.17	A	0.10	A	0.17	A	0.10	A
	WB	0.20	A	0.14	A	0.20	A	0.14	A
7th Street between Webster Street and Harrison Street	EB	0.07	A	0.13	A	0.07	A	0.13	A
7th Street between Harrison Street and Alice Street	EB	0.44	B	0.35	B	0.44	B	0.36	B
7th Street between Jackson Street and Madison Street	EB	0.15	A	0.57	C	0.15	A	0.57	C
7th Street between Madison Street and Lakeside Drive	EB	0.11	A	0.32	B	0.11	A	0.32	B
7th Street east of Lakeside Drive	EB	0.22	A	0.33	B	0.23	A	0.35	B
Harrison Street between 6th Street and 7th Street	NB	0.63	C	0.51	C	0.64	C	0.53	C
Harrison Street between 7th Street and 8th Street	NB	0.21	A	0.22	A	0.22	A	0.22	A

Source: AECOM, 2013.

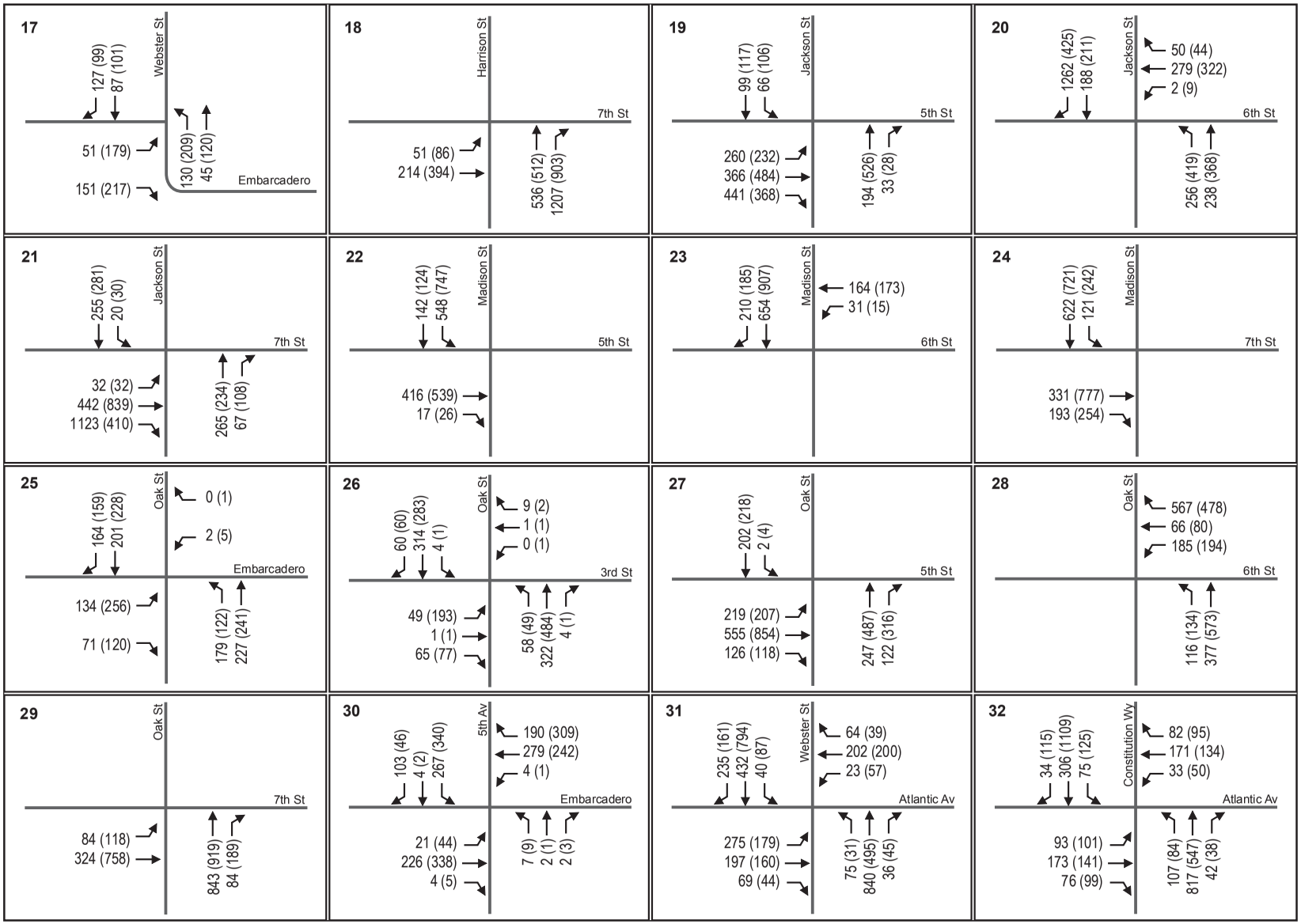
Notes: NB = northbound, SB = southbound, EB = eastbound, and WB = westbound.



SOURCE: AECOM

Figure 4.1-10a

Traffic Volumes: Existing + 2004 Approved Project



SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-10b

Traffic Volumes: Existing + 2004 Approved Project

TABLE 4.1-18
INTERSECTION LEVELS OF SERVICE – EXISTING PLUS APPROVED PROJECT CONDITIONS

			Existing Conditions				Existing plus Approved Project Conditions			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection[1]		**Control**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**
1	Market St / 3rd St	TWSC	B	13.3	C	15.9	B	14.4	C	23.4
2	Market St / 5th St	Signal	A	9.5	B	12.5	B	10.0	B	15.2
3	Market St / 6th St	Signal	B	14.0	C	30.5	B	13.5	C	29.1
4	Market St / 7th St	Signal	B	19.1	B	14.9	B	18.7	B	15.4
5	Castro St / 11th St	Signal	C	27.0	C	26.2	C	27.1	C	26.6
6	Castro St / 12th St	Signal	C	23.5	B	11.6	C	24.4	B	11.4
7	Broadway / Embarcadero	AWSC	A	7.7	A	7.9	A	8.8	B	13.0
8	Broadway / 2nd St	TWSC	B	10.6	C	15.2	B	11.7	C	21.6
9	Broadway / 3rd St	Signal	B	10.2	B	13.3	A	9.7	B	13.9
10	Broadway / 5th St	Signal	C	24.8	C	27.8	C	25.0	C	28.7
11	Broadway / 6th St	Signal	B	17.1	C	21.6	B	18.7	C	22.5
12	Broadway / 11th St	Signal	B	11.4	B	12.4	B	11.4	B	12.7
13	Broadway / 12th St	Signal	B	15.1	B	15.5	B	15.1	B	15.6
14	Broadway / 14th St	Signal	B	13.6	B	15.5	B	13.7	B	15.7
15	Franklin St / 2nd St	OWSC	A	9.1	A	9.9	A	9.4	B	10.1
16	Franklin St / 3rd St	OWSC	A	9.0	B	10.6	A	9.2	B	11.0
17	Webster St / Embarcadero	TWSC	B	10.3	B	10.1	B	14.1	**F**	**>50.0**
18	Harrison St / 7th St	Signal	B	11.4	B	10.1	B	12.5	B	10.7
19	Jackson St / 5th St	Signal	B	13.9	B	16.2	B	14.1	B	18.7
20	Jackson St / 6th St	Signal	B	11.9	B	11.6	B	11.8	B	11.6
21	Jackson St / 7th St	Signal	B	11.5	B	12.0	B	11.5	B	12.0
22	Madison St / 5th St	Signal	A	8.7	A	9.5	A	8.7	A	9.5
23	Madison St / 6th St	Signal	A	8.3	A	8.5	A	8.3	A	8.5
24	Madison St / 7th St	Signal	A	8.4	A	7.6	A	8.6	A	8.0
25	Oak St / Embarcadero	OWSC	B	14.9	B	11.9	C	24.3	E	38.8
26	Oak St / 3rd St	Signal	A	5.1	A	7.1	A	5.2	B	9.3
27	Oak St / 5th St	Signal	A	8.8	A	9.7	A	9.5	B	11.9
28	Oak St / 6th St	Signal	A	8.9	A	8.8	A	9.2	B	10.1
29	Oak St / 7th St	Signal	B	13.5	B	11.6	B	13.6	A	12.1
30	5th Ave / Embarcadero	AWSC[2]	B	13.2	C	17.1	B	13.8	C	18.5
31	Webster St / Atlantic Ave	Signal	C	23.9	C	21.5	C	23.9	C	21.6
32	Constitution Way / Atlantic Ave	Signal	C	20.3	C	21.8	C	20.4	C	22.0

Source: AECOM, 2013.

Notes: Values in **bold** represent intersections operating at unacceptable conditions.
Values shaded represent a potentially significant Project impact.
Delays for intersections operating at LOS F are presented as "**>80.0**" and "**>50.0**" for signalized and unsignalized intersections, respectively, as LOS F represents an over-capacity condition, and associated delays are beyond the meaningful range for the analysis methodology.
OWSC = one-way stop controlled, TWSC = two-way stop controlled, AWSC = all-way stop controlled
[1] Delay presented for one-way and two-way stop controlled intersections is representative of the worst minor approach.
[2] Intersection actually operates as a three-way stop controlled intersection. However, the 2000 HCM methodology does not support this configuration. As such, intersection is evaluated with an all-way stop controlled configuration.

Per MUTCD (Section 2B.07, Multiway Stop Applications), conversion to all-way stop control should be considered when:

(A) Traffic control signals are justified and multiway stop control can be used as an interim traffic control measure;

(B) Crash problems (as indicated by five or more reported crashes in a 12-month period) could be corrected through a multiway stop installation; or

(C) Vehicular volume entering from major street approaches averages 300 vehicles per hour over an eight hour period, and multimodal volumes entering from minor street approaches exceed 200 per hour over the same eight hour period.

Given that the intersection meets the criteria of the MUTCD peak hour volume traffic signal warrant, Criterion (A) listed above would be met. Collision data presented in **Table 4.1-28** indicates that a total of three collisions were recorded at this intersection over five years. As such, Criterion (B) listed above would not be met. Additional data collection and further study would be required to determine whether the intersection would meet Criterion (C) listed above.

Conversion to all-way stop control would increase opportunities for motorists at the northbound approach to the intersection to complete maneuvers. Additionally, per the *Highway Safety Manual* (American Association of State Highway and Transportation Officials; 2010), it was found that conversion to all-way stop control could result in an overall crash modification factor of 0.3 (i.e., a potential 70 percent reduction in total collisions) whereas conversion to signal control could result in an overall crash modification factor of 0.95 (i.e., a potential five percent reduction in total collisions). Further, all-way stop control at this location would reduce average intersection delay to LOS B levels, allowing the minor street approach to operate at LOS C.

Impact TRANS-1: The addition of Approved Project traffic would result in the intersection meeting the conditions of the MUTCD peak hour volume traffic signal warrant during the PM peak hour at the Webster Street / Embarcadero intersection, which is expected to operate at unacceptable LOS F under Existing plus Approved Project Conditions. (Significant)

> **Mitigation Measure TRANS-1:** All-way stop control shall be installed at the Webster Street / Embarcadero intersection, including high-visibility ladder crosswalks at all intersection approaches, consistent with current City of Oakland crosswalk standards for unsignalized intersections. Stop lines for vehicles shall be placed such that any stopped motorist can clearly see pedestrians intending to cross, and vehicles at opposing intersection approaches.

Significance after Implementation of Mitigation: Less than Significant.

Comparison to 2004 EIR: The 2004 EIR identified this impact at the Webster Street / Embarcadero intersection and recommended Mitigation Measures B.2b and B.3b to reduce the

impact to less than significant. The updated analysis in this Addendum identifies a different mitigation measure (Mitigation Measure TRANS-1, above) to mitigate the impact to less than significant. The new mitigation measure is warranted given this intersection's placement along a rail line (i.e., active railroad tracks run through the center of Embarcadero); signalization may not be desired. In lieu of signalization, the intersection could be converted into an all-way stop control. Such an improvement would increase opportunities for motorists at the northbound approach to the intersection to complete maneuvers. Further, all-way stop control at this location would reduce average intersection delay to LOS B levels, allowing the minor street approach to operate at LOS C, mitigating the impact. Implementation of this measure would reduce the impact to a less-than-significant level.

Roadway Segment Impacts

Existing plus Approved Project Conditions roadway segment operations at locations designated as part of the CMP and MTS roadway networks are summarized in **Table 4.1-19**. As shown, all study CMP and MTS roadway segments would be expected to continue to operate acceptably during the AM and PM peak hours with the addition of traffic generated by the Approved Project. Therefore, the Approved Project would not result in a potentially significant impact to roadway segment operations under Existing plus Approved Project Conditions, and no mitigation measures would be warranted.

Cumulative Year 2035 Conditions

Intersection and freeway segment operations are evaluated under the Cumulative Year 2035 Conditions. The Cumulative Year 2035 Conditions scenario evaluates expected future operating conditions, accounting for planned and proposed development growth and transportation network changes in the study area, as well as background growth in travel demand within the City and region.

Background growth in travel demand within the study area consists of both general growth in the City and region, as well as growth from specific foreseeable developments. General growth is accounted for through the use of growth factors developed from outputs from the most recent version of the ACTC Travel Demand Model. Network-wide growth factors were calculated between the ACTC Travel Demand Model's traffic volumes for base (2005) and future (2035) conditions for the north-south streets and east-west streets in the vicinity of the project site. These growth factors were applied to Existing Conditions traffic volumes to derive Cumulative 2035 Conditions traffic volumes.[7] These traffic volumes are presented on **Figure 4.1-11**.

[7] It should be noted that the proposed project is programmed into the ACTC Travel Demand Model. However, the programmed growth in vehicle trips associated with the Project in the ACTC Travel Demand Model falls considerably below the trip generation estimates prepared as a part of this study. As a result, by layering the trip generation estimates for the 2014 Modified Project and the Approved Project directly over Cumulative Year 2035 Conditions, the analysis of Cumulative Year 2035 plus 2014 Modified Project Conditions and Cumulative Year 2035 plus 2014 Modified Project Conditions is conservative.

TABLE 4.1-19
ROADWAY SEGMENT LEVELS OF SERVICE – EXISTING PLUS APPROVED PROJECT CONDITIONS

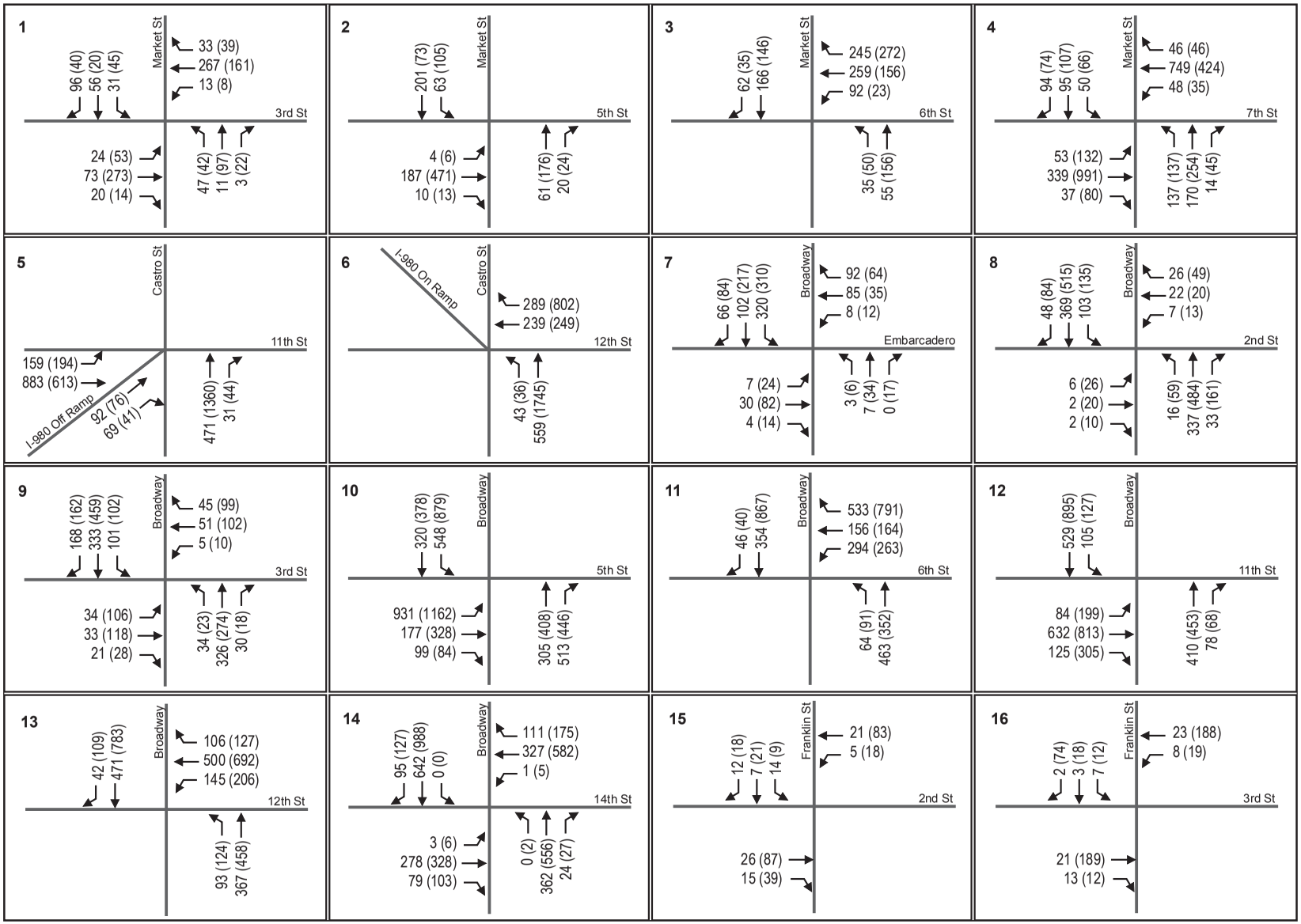
		Existing Conditions				Existing plus Approved Project Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Study Location	**Direction**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**
CMP Roadways:									
I-980	NB	0.20	A	0.40	B	0.20	A	0.41	B
north of 18th Street	SB	0.43	B	0.22	A	0.44	B	0.23	A
I-880	EB	0.52	C	0.56	C	0.53	C	0.56	C
west of Market Street	WB	0.52	C	0.54	C	0.52	C	0.55	C
I-880	EB	0.70	C	0.74	D	0.71	C	0.78	D
east of Oak Street	WB	0.69	C	0.72	D	0.72	D	0.75	D
SR 260 (Posey/Webster Tubes)	NB	0.91	E	0.73	D	0.92	E	0.74	D
between Alameda city limits and I-880	SB	0.46	B	0.69	C	0.47	B	0.71	C
MTS Roadways:									
Broadway	NB	0.05	A	0.09	A	0.07	A	0.23	A
between Embarcadero West and 2nd Street	SB	0.06	A	0.10	A	0.11	A	0.16	A
Broadway	NB	0.07	A	0.13	A	0.09	A	0.26	A
between 2nd Street and 3rd Street	SB	0.09	A	0.14	A	0.14	A	0.19	A
Broadway	NB	0.14	A	0.26	A	0.16	A	0.38	B
between 3rd Street and 5th Street	SB	0.15	A	0.17	A	0.21	A	0.22	A
Broadway	NB	0.09	A	0.17	A	0.09	A	0.21	A
between 5th Street and 6th Street	SB	0.38	B	0.49	B	0.43	B	0.55	C
Broadway	NB	0.36	B	0.39	B	0.36	B	0.41	B
between 6th Street and 11th Street	SB	0.25	A	0.45	B	0.27	A	0.47	B
Broadway	NB	0.26	A	0.32	B	0.26	A	0.34	B
between 11th Street and 12th Street	SB	0.27	A	0.43	B	0.28	A	0.44	B
Broadway	NB	0.15	A	0.19	A	0.15	A	0.20	A
between 12th Street and 14th Street	SB	0.19	A	0.29	A	0.19	A	0.30	A
Broadway	NB	0.17	A	0.33	B	0.17	A	0.34	B
north of 14th Street	SB	0.21	A	0.49	B	0.21	A	0.49	B
14th Street	EB	0.20	A	0.24	A	0.20	A	0.24	A
between Broadway and Clay Street	WB	0.19	A	0.27	A	0.19	A	0.27	A

TABLE 4.1-19 (CONTINUED)
ROADWAY SEGMENT LEVELS OF SERVICE – EXISTING PLUS APPROVED PROJECT CONDITIONS

		Existing Conditions				Existing plus Approved Project Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Study Location	**Direction**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**
14th Street between Broadway and Franklin Street	EB	0.17	A	0.10	A	0.17	A	0.10	A
	WB	0.20	A	0.14	A	0.20	A	0.14	A
7th Street between Webster Street and Harrison Street	EB	0.07	A	0.13	A	0.07	A	0.13	A
7th Street between Harrison Street and Alice Street	EB	0.44	B	0.35	B	0.44	B	0.36	B
7th Street between Jackson Street and Madison Street	EB	0.15	A	0.57	C	0.15	A	0.57	C
7th Street between Madison Street and Lakeside Drive	EB	0.11	A	0.32	B	0.11	A	0.32	B
7th Street east of Lakeside Drive	EB	0.22	A	0.33	B	0.23	A	0.35	B
Harrison Street between 6th Street and 7th Street	NB	0.63	C	0.51	C	0.65	C	0.52	C
Harrison Street between 7th Street and 8th Street	NB	0.21	A	0.22	A	0.22	A	0.22	A

Source: AECOM, 2013.

Notes: NB = northbound, SB = southbound, EB = eastbound, and WB = westbound.

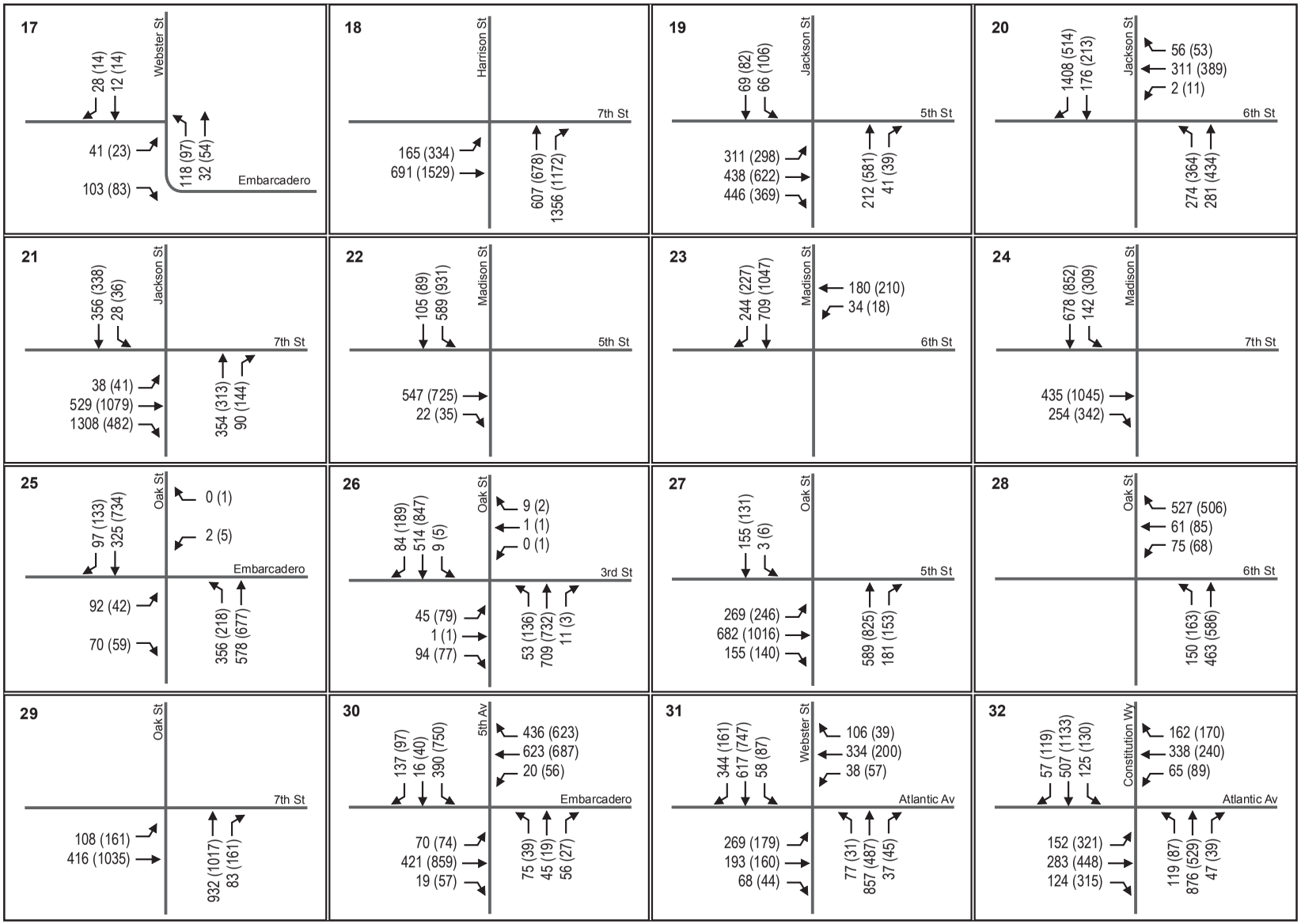


SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-11a

Cumulative Intersection Traffic Volumes



SOURCE: AECOM

Figure 4.1-11b

Cumulative Intersection Traffic Volumes

Intersection Operations

Existing Conditions and Cumulative Year 2035 Conditions intersection LOS analysis results are summarized in **Table 4.1-20**. As shown, 29 of the 32 study intersections would operate acceptably under Cumulative Year 2035 Conditions during the AM and PM peak hours. Delays at the worst stop-controlled approaches to the Broadway / 2nd Street, Oak Street / Embarcadero, and 5th Avenue / Embarcadero intersections would be expected to reach unacceptable levels. This deterioration in delays would occur as a result of planned and proposed development growth and transportation network changes in the study area, as well as background growth in travel demand within the City and region, prior to the addition of project-related trips. At the Broadway / 2nd Street intersection, the criteria of the MUTCD peak hour volume traffic signal warrant would not be met. At the Oak Street / Embarcadero and 5th Avenue / Embarcadero intersections, the criteria of the MUTCD peak hour volume traffic signal warrant would be satisfied, suggesting that signalization would be warranted at these locations. Signal warrant worksheets are included in Appendix B to this Addendum.

Roadway Segment Operations

Existing Conditions and Cumulative Year 2035 Conditions roadway segment operations at locations designated as part of the CMP and MTS roadway networks are summarized in **Table 4.1-21**. As shown, during the AM peak hour, northbound SR 260 (i.e., the Posey Tube) is expected to operate over capacity. This increase in volume-to-capacity ratio would occur as a result of planned and proposed development growth and transportation network changes in the study area, as well as background growth in travel demand within the City and region, prior to the addition of project-related trips. All other study CMP and MTS roadway segments would operate at LOS D or better during the AM and PM peak hours.

TABLE 4.1-20
INTERSECTION LEVELS OF SERVICE – CUMULATIVE YEAR 2035 CONDITIONS

			Existing Conditions				Cumulative Year 2035 Conditions			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection[1]		**Control**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**
1	Market St / 3rd St	TWSC	B	13.3	C	15.9	B	14.5	C	18.7
2	Market St / 5th St	Signal	A	9.5	B	12.5	B	12.8	B	15.7
3	Market St / 6th St	Signal	B	14.0	C	30.5	B	13.9	C	31.1
4	Market St / 7th St	Signal	B	19.1	B	14.9	B	18.2	B	15.9
5	Castro St / 11th St	Signal	C	27.0	C	26.2	C	27.8	C	31.1
6	Castro St / 12th St	Signal	C	23.5	B	11.6	C	23.2	B	11.7
7	Broadway / Embarcadero	AWSC	A	7.7	A	7.9	B	11.8	B	13.0
8	Broadway / 2nd St	TWSC	B	10.6	C	15.2	C	19.9	**F**	**>50.0**
9	Broadway / 3rd St	Signal	B	10.2	B	13.3	B	12.3	B	14.9
10	Broadway / 5th St	Signal	C	24.8	C	27.8	C	34.8	D	54.3
11	Broadway / 6th St	Signal	B	17.1	C	21.6	B	16.7	C	31.5
12	Broadway / 11th St	Signal	B	11.4	B	12.4	B	11.4	B	13.3
13	Broadway / 12th St	Signal	B	15.1	B	15.5	B	16.9	B	19.8
14	Broadway / 14th St	Signal	B	13.6	B	15.5	B	13.9	B	18.5
15	Franklin St / 2nd St	OWSC	A	9.1	A	9.9	A	8.9	A	9.9
16	Franklin St / 3rd St	OWSC	A	9.0	B	10.6	A	9.0	B	10.5
17	Webster St / Embarcadero	TWSC	B	10.3	B	10.1	B	10.5	B	10.0
18	Harrison St / 7th St	Signal	B	11.4	B	10.1	C	27.6	B	13.6
19	Jackson St / 5th St	Signal	B	13.9	B	16.2	B	14.8	C	23.4
20	Jackson St / 6th St	Signal	B	11.9	B	11.6	B	19.7	B	10.6
21	Jackson St / 7th St	Signal	B	11.5	B	12.0	B	13.5	B	14.1
22	Madison St / 5th St	Signal	A	8.7	A	9.5	A	9.4	B	10.7
23	Madison St / 6th St	Signal	A	8.3	A	8.5	A	8.3	A	9.1
24	Madison St / 7th St	Signal	A	8.4	A	7.6	A	8.5	A	9.1
25	Oak St / Embarcadero	OWSC	B	14.9	B	11.9	**F**	**>50.0**	**F**	**>50.0**
26	Oak St / 3rd St	Signal	A	5.1	A	7.1	A	5.4	A	6.6
27	Oak St / 5th St	Signal	A	8.8	A	9.7	B	11.2	B	13.7
28	Oak St / 6th St	Signal	A	8.9	A	8.8	A	9.2	B	10.5
29	Oak St / 7th St	Signal	B	13.5	B	11.6	B	14.3	B	12.9
30	5th Ave / Embarcadero	AWSC[2]	B	13.2	C	17.1	**F**	**>50.0**	**F**	**>50.0**
31	Webster St / Atlantic Ave	Signal	C	23.9	C	21.5	C	28.9	C	30.1
32	Constitution Way / Atlantic Ave	Signal	C	20.3	C	21.8	C	30.4	D	44.5

Source: AECOM, 2013.

Notes: Values in **bold** represent intersections operating at unacceptable conditions.
Delays for intersections operating at LOS F are presented as "**>80.0**" and "**>50.0**" for signalized and unsignalized intersections, respectively, as LOS F represents an over-capacity condition, and associated delays are beyond the meaningful range for the analysis methodology.
OWSC = one-way stop controlled, TWSC = two-way stop controlled, AWSC = all-way stop controlled
[1] Delay presented for one-way and two-way stop controlled intersections is representative of the worst minor approach.
[2] Intersection actually operates as a three-way stop controlled intersection. However, the 2000 HCM methodology does not support this configuration. As such, intersection is evaluated with an all-way stop controlled configuration.

TABLE 4.1-21
ROADWAY SEGMENT LEVELS OF SERVICE – CUMULATIVE YEAR 2035 CONDITIONS

		Existing Conditions				Cumulative Year 2035 Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Study Location	**Direction**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**
CMP Roadways:									
I-980	NB	0.20	A	0.40	B	0.23	A	0.44	B
north of 18th Street	SB	0.43	B	0.22	A	0.50	B	0.27	A
I-880	EB	0.52	C	0.56	C	0.63	C	0.71	C
west of Market Street	WB	0.52	C	0.54	C	0.64	C	0.66	C
I-880	EB	0.70	C	0.74	D	0.83	D	0.87	D
east of Oak Street	WB	0.69	C	0.72	D	0.73	D	0.83	D
SR 260 (Posey/Webster Tubes)	NB	0.91	E	0.73	D	**1.04**	**F**	0.98	E
between Alameda city limits and I-880	SB	0.46	B	0.69	C	0.78	D	0.80	D
MTS Roadways:									
Broadway	NB	0.05	A	0.09	A	0.14	A	0.23	A
between Embarcadero West and 2nd Street	SB	0.06	A	0.10	A	0.24	A	0.32	B
Broadway	NB	0.07	A	0.13	A	0.21	A	0.24	A
between 2nd Street and 3rd Street	SB	0.09	A	0.14	A	0.24	A	0.34	B
Broadway	NB	0.14	A	0.26	A	0.34	B	0.37	B
between 3rd Street and 5th Street	SB	0.15	A	0.17	A	0.28	A	0.33	B
Broadway	NB	0.09	A	0.17	A	0.24	A	0.25	A
between 5th Street and 6th Street	SB	0.38	B	0.49	B	0.42	B	0.66	C
Broadway	NB	0.36	B	0.39	B	0.41	B	0.46	B
between 6th Street and 11th Street	SB	0.25	A	0.45	B	0.29	A	0.59	C
Broadway	NB	0.26	A	0.32	B	0.27	A	0.34	B
between 11th Street and 12th Street	SB	0.27	A	0.43	B	0.35	B	0.56	C
Broadway	NB	0.15	A	0.19	A	0.16	A	0.22	A
between 12th Street and 14th Street	SB	0.19	A	0.29	A	0.23	A	0.37	B
Broadway	NB	0.17	A	0.33	B	0.18	A	0.41	B
north of 14th Street	SB	0.21	A	0.49	B	0.27	A	0.62	C
14th Street	EB	0.20	A	0.24	A	0.20	A	0.24	A
between Broadway and Clay Street	WB	0.19	A	0.27	A	0.23	A	0.40	B

TABLE 4.1-21 (CONTINUED)
ROADWAY SEGMENT LEVELS OF SERVICE – CUMULATIVE YEAR 2035 CONDITIONS

		Existing Conditions				Cumulative Year 2035 Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Study Location	**Direction**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**
14th Street between Broadway and Franklin Street	EB	0.17	A	0.10	A	0.17	A	0.10	A
	WB	0.20	A	0.14	A	0.24	A	0.21	A
7th Street between Webster Street and Harrison Street	EB	0.07	A	0.13	A	0.24	A	0.52	C
7th Street between Harrison Street and Alice Street	EB	0.44	B	0.35	B	0.52	C	0.45	B
7th Street between Jackson Street and Madison Street	EB	0.15	A	0.57	C	0.19	A	0.77	D
7th Street between Madison Street and Lakeside Drive	EB	0.11	A	0.32	B	0.15	A	0.44	B
7th Street east of Lakeside Drive	EB	0.22	A	0.33	B	0.28	A	0.44	B
Harrison Street between 6th Street and 7th Street	NB	0.63	C	0.51	C	0.73	D	0.69	C
Harrison Street between 7th Street and 8th Street	NB	0.21	A	0.22	A	0.29	A	0.37	B

Source: AECOM, 2013.

Notes: Values in **bold** represent segments operating over capacity.
NB = northbound, SB = southbound, EB = eastbound, and WB = westbound.

Cumulative Year 2035 plus 2014 Modified Project Conditions (Maximum Residential Scenario)

Intersection Impacts

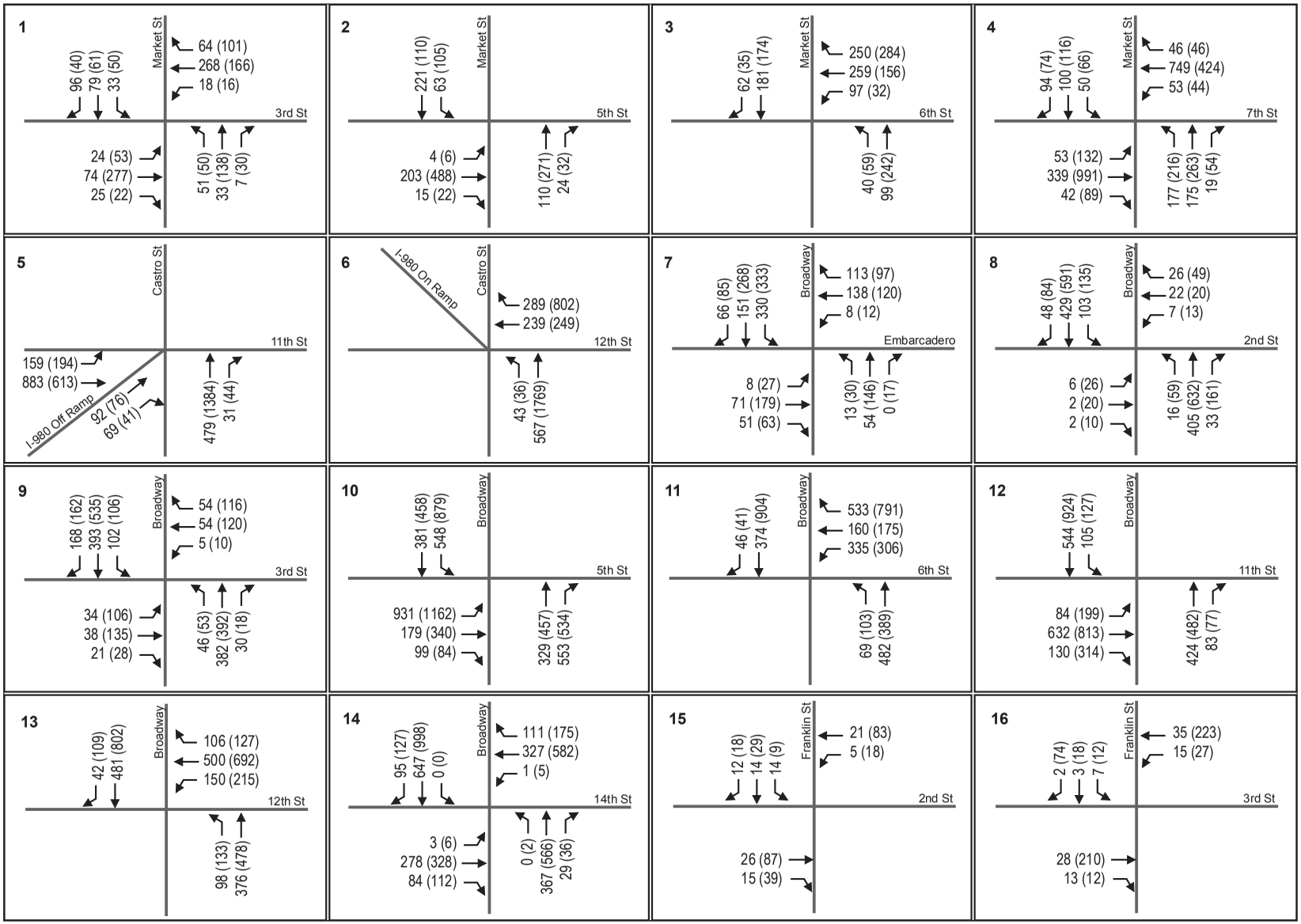
Layering project-generated traffic associated with the 2014 Modified Project over Cumulative Year 2035 Conditions traffic volumes yields Cumulative Year 2035 plus 2014 Modified Project Conditions traffic volumes, which are presented in **Figure 4.1-12**. Intersection LOS analysis results for Cumulative Year 2035 Conditions and Cumulative Year 2035 plus 2014 Modified Project Conditions are summarized in **Table 4.1-22**.

As shown in **Table 4.1-22**, 29 of the 32 study intersections would be expected to operate acceptably under Cumulative Year 2035 Conditions, and would continue to operate acceptably with the addition of project-related traffic during the AM and PM peak hours with the addition of traffic generated by the 2014 Modified Project. As such, the project would not result in a potentially significant impact to intersection operations under Cumulative Year 2035 plus 2014 Modified Project Conditions at these locations. However, the project would contribute trips and increase delays at the following three intersections projected to operate at LOS F:

8. Broadway / 2nd Street;
25. Oak Street / Embarcadero; and
30. 5th Avenue / Embarcadero.

At the Broadway / 2nd Street intersection, the eastbound stop-controlled approach to the intersection (the "critical movement") would continue to operate at LOS F with the addition of project-generated traffic, but the criteria of the MUTCD peak hour volume traffic signal warrant would not be met. Thus, the project would not result in a potentially significant cumulative impact at this location.

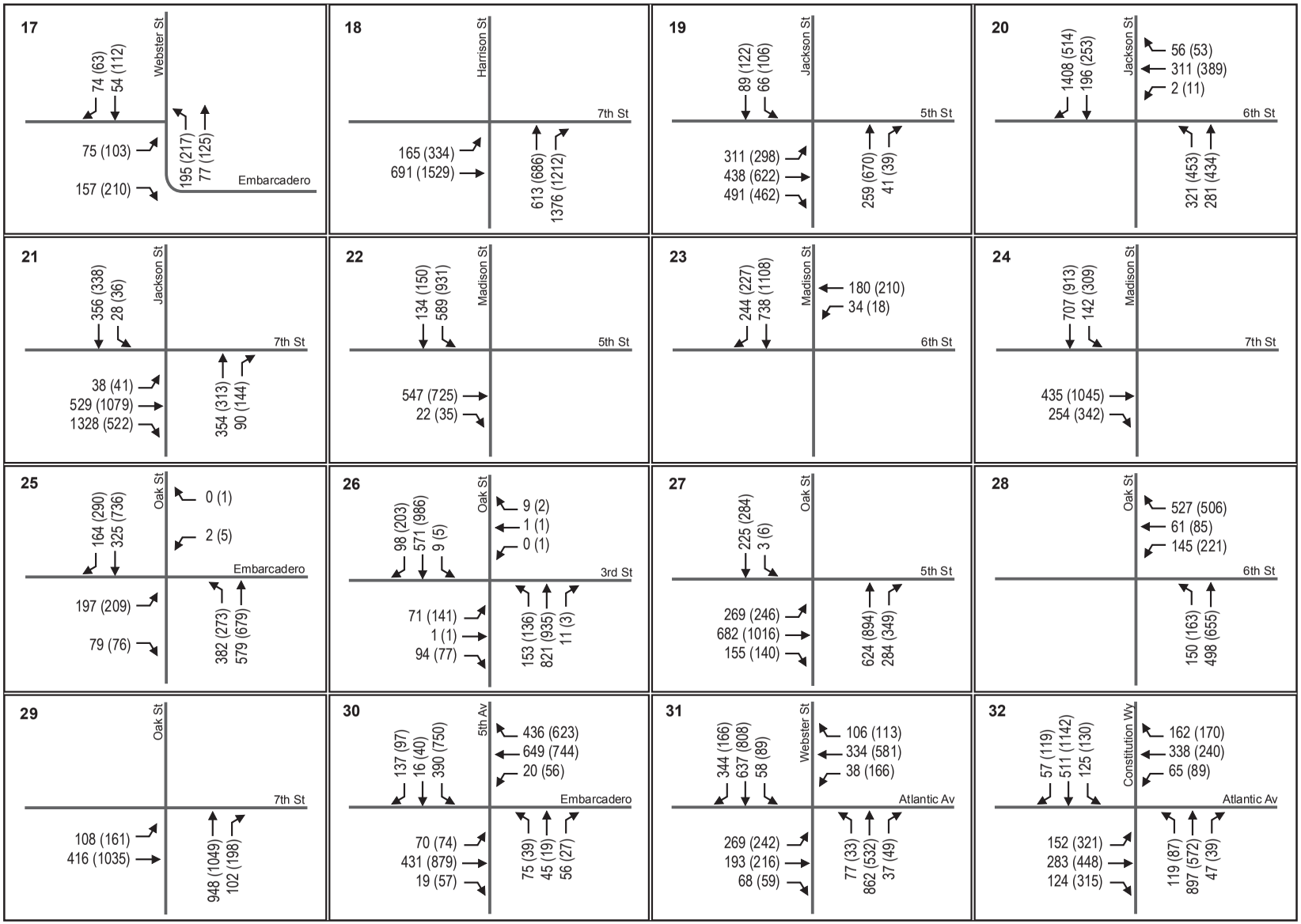
At the Oak Street / Embarcadero and 5th Avenue / Embarcadero stop-controlled intersections, the project would contribute trips to the worst stop-controlled approaches to the intersections, and the criteria of the MUTCD peak hour volume traffic signal warrant would be satisfied. As a result, the project would contribute to a potentially significant cumulative impact at these locations. However, it should be noted that the conditions of the MUTCD peak hour volume traffic signal warrant would be satisfied prior to the addition of project-generated trips; as such, these impacts would occur with or without the buildout of the proposed project. Signal warrant worksheets are included in Appendix B to this Addendum.



SOURCE: AECOM

Figure 4.1-12a

Traffic Volumes: Cumulative Year 2035 + 2014 Modified Project (Maximum Residential Scenario)



SOURCE: AECOM

Figure 4.1-12b

Traffic Volumes: Cumulative Year 2035 + 2014 Modified Project (Maximum Residential Scenario)

TABLE 4.1-22
INTERSECTION LEVELS OF SERVICE – CUMULATIVE YEAR 2035 PLUS 2014 MODIFIED PROJECT CONDITIONS (MAXIMUM RESIDENTIAL SCENARIO)

			Cumulative Year 2035 Conditions				Cumulative Year 2035 plus 2014 Modified Project Conditions (Maximum Residential Scenario)			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection[1]	Control	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Market St / 3rd St	TWSC	B	14.5	C	18.7	C	15.8	D	27.9
2	Market St / 5th St	Signal	B	12.8	B	15.7	B	14.1	B	18.3
3	Market St / 6th St	Signal	B	13.9	C	31.1	B	13.0	C	29.3
4	Market St / 7th St	Signal	B	18.2	B	15.9	B	17.8	B	16.2
5	Castro St / 11th St	Signal	C	27.8	C	31.1	C	27.9	C	31.9
6	Castro St / 12th St	Signal	C	23.2	B	11.7	B	23.3	B	11.6
7	Broadway / Embarcadero	AWSC	B	11.8	B	13.0	B	14.8	D	25.8
8	Broadway / 2nd St	TWSC	C	19.9	**F**	**>50.0**	C	22.8	**F**	**>50.0**
9	Broadway / 3rd St	Signal	B	12.3	B	14.9	A	12.7	B	15.9
10	Broadway / 5th St	Signal	C	34.8	D	54.3	D	35.1	E	56.1
11	Broadway / 6th St	Signal	B	16.7	C	31.5	B	17.8	C	33.0
12	Broadway / 11th St	Signal	B	11.4	B	13.3	B	11.5	B	13.6
13	Broadway / 12th St	Signal	B	16.9	B	19.8	B	16.9	B	19.9
14	Broadway / 14th St	Signal	B	13.9	B	18.5	B	13.9	B	18.7
15	Franklin St / 2nd St	OWSC	A	8.9	A	9.9	A	9.0	B	10.0
16	Franklin St / 3rd St	OWSC	A	9.0	B	10.5	A	9.2	B	10.9
17	Webster St / Embarcadero	TWSC	B	10.5	B	10.0	C	15.4	C	24.4
18	Harrison St / 7th St	Signal	C	27.6	B	13.6	C	29.9	B	14.8
19	Jackson St / 5th St	Signal	B	14.8	C	23.4	B	15.2	C	30.9
20	Jackson St / 6th St	Signal	B	19.7	B	10.6	B	19.5	B	14.6
21	Jackson St / 7th St	Signal	B	13.5	B	14.1	B	13.6	B	14.1
22	Madison St / 5th St	Signal	A	9.4	B	10.7	A	9.4	B	10.7
23	Madison St / 6th St	Signal	A	8.3	A	9.1	A	8.3	A	9.3
24	Madison St / 7th St	Signal	A	8.5	A	9.1	A	8.7	A	9.5
25	Oak St / Embarcadero	OWSC	**F**	**>50.0**	**F**	**>50.0**	**F**	**>50.0**	**F**	**>50.0**
26	Oak St / 3rd St	Signal	A	5.4	A	6.6	A	6.4	A	12.7
27	Oak St / 5th St	Signal	B	11.2	B	13.7	B	12.3	C	31.8
28	Oak St / 6th St	Signal	A	9.2	B	10.5	A	9.9	B	11.1
29	Oak St / 7th St	Signal	B	14.3	B	12.9	B	14.4	B	13.4
30	5th Ave / Embarcadero	AWSC[2]	**F**	**>50.0**	**F**	**>50.0**	**F**	**>50.0**	**F**	**>50.0**
31	Webster St / Atlantic Ave	Signal	C	28.9	C	30.1	C	29.1	C	30.3
32	Constitution Way / Atlantic Ave	Signal	C	30.4	D	44.5	C	31.0	D	45.3

Source: AECOM, 2013.

Notes: Values in **bold** represent intersections operating at unacceptable conditions.
Values shaded represent a potentially significant Project impact.
Delays for intersections operating at LOS F are presented as "**>80.0**" and "**>50.0**" for signalized and unsignalized intersections, respectively, as LOS F represents an over-capacity condition, and associated delays are beyond the meaningful range for the analysis methodology.
OWSC = one-way stop controlled, TWSC = two-way stop controlled, AWSC = all-way stop controlled
[1] Delay presented for one-way and two-way stop controlled intersections is representative of the worst minor approach.
[2] Intersection actually operates as a three-way stop controlled intersection. However, the 2000 HCM methodology does not support this configuration. As such, intersection is evaluated with an all-way stop controlled configuration.

Impact TRANS-2: The addition of 2014 Modified Project (Maximum Residential Scenario) traffic would result in the intersection meeting the conditions of the MUTCD peak hour volume traffic signal warrant during both peak hours at the Oak Street / Embarcadero intersection, which is expected to operate at unacceptable LOS F under Cumulative Year 2035 plus 2014 Modified Project Conditions (Maximum Residential Scenario). (Significant)

> **Mitigation Measure TRANS-2:** Install traffic signals at the unsignalized Oak Street / Embarcadero intersection. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e. allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

Significance after Implementation of Mitigation: Less than Significant.

The project sponsor will be required to fund the cost of preparing and implementing these plans. If the City adopts a transportation fee program prior to implementation of this mitigation measure, the project sponsor shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall mitigate this impact to less than significant. To identify the point at which the Cumulative impact would be triggered, anticipated traffic growth between Existing Conditions and Cumulative Year 2035 Conditions is applied by annual increments. This straight line interpolation of intersection traffic volume between Existing plus 2014 Modified Project Conditions, and Cumulative Year 2035 plus 2014 Modified Project Conditions, indicates that the impact would be triggered by the year 2015 (i.e., Cumulative growth to the year 2015, plus the full buildout of the proposed project). Investigation of the need for this mitigation shall be studied at the time of construction and every three years thereafter until the year 2035 or until the mitigation measure is implemented, whichever occurs first.

Comparison to 2004 EIR: The 2004 EIR identified an impact at the Oak Street / Embarcadero intersection and recommended Mitigation Measure B.1a to reduce the impact to less than significant. Implementation of this measure would reduce the impact to a less-than-significant level.

Impact TRANS-3: The addition of 2014 Modified Project (Maximum Residential Scenario) traffic would result in the intersection meeting the conditions of the MUTCD peak hour volume traffic signal warrant during both AM and PM peak hours at the 5th Avenue / Embarcadero intersection, which is expected to operate at unacceptable LOS F under Cumulative Year 2035 plus 2014 Modified Project Conditions (Maximum Residential Scenario). (Significant)

> **Mitigation Measure TRANS-3:** The following improvements are required to mitigate this impact to a less than significant level:

1. Install traffic signals at the unsignalized 5th Avenue / Embarcadero intersection. The signals shall have permitted left-turn phasing, which would not require a separate left-turn arrow, and will meet Oakland standard design requirements for signals. Installation of traffic signals shall include optimizing signal phasing and timing (i.e. allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

2. Widen Embarcadero at the 5th Avenue / Embarcadero intersection from one travel lane in each direction into two travel lanes in each direction.

Implementation of signalization and widening at the 5th Avenue / Embarcadero intersection would reduce the impact to a less-than-significant level.

Significance after Implementation of Mitigation: Less than Significant.

The extent of the impact and mitigation required at the 5th Avenue / Embarcadero intersection is highly dependent on the buildout of the proposed Oak to Ninth Avenue Project (2006)[8], as traffic volumes associated with the Oak to Ninth Avenue Project would comprise the majority of cumulative traffic growth at this intersection.

Signalization of the 5th Avenue / Embarcadero intersection would be required regardless of whether the Oak to Ninth Avenue Project is constructed in order to reduce average intersection delay to levels lower than Cumulative Year 2035 Conditions (without Approved Project). If the Oak to Ninth Avenue Project were not constructed, then signalization of this intersection would improve the intersection LOS to a satisfactory level, and the cumulative impact at this intersection would be less than significant. Based on analyses performed with respect to the 2004 EIR, the Jack London Square Redevelopment Project was determined to be a contributor to a cumulative traffic impact at this location, and was assessed a fee to fully fund signalizing the intersection. This fee has since been paid, and as such, there is secured funding for signalization of 5th Avenue / Embarcadero intersection.

With respect to the widening of Embarcadero, this improvement would be necessary to mitigate impacts at this intersection only if the Oak to Ninth Avenue Project (2006) were built out. If the Oak to Ninth Avenue Project were constructed, then intersection LOS would remain at LOS F even after implementation of the proposed signal, and the cumulative impact at this intersection would remain significant. In order to mitigate this impact, widening of Embarcadero at the 5th Avenue / Embarcadero intersection from one travel lane in each direction into two travel lanes in each direction would be required to reduce the impact to a less than significant level. Such an improvement would reduce delay, and improve intersection LOS to LOS C during the AM peak hour, and LOS E levels during the PM peak hour. The Oak to Ninth project is required by its own conditions of approval to undertake the widening of Embarcadero to mitigate that project's own

8 On April 10, 2013, the Oak to Ninth Project was renamed the Brooklyn Basin Project. However, as this document references findings in the 2006 Oak to Ninth Avenue EIR, for purposes of this Addendum, the Brooklyn Basin Project will continue to be referred to as the "Oak to Ninth Project."

impacts on the 5th Avenue/Embarcadero intersection. Thus, if the widening is required due to the construction of the Oak to Ninth Avenue Project, it will be undertaken by Oak to Ninth Avenue Project; conversely, if the Oak to Ninth Avenue Project is not built out, then the widening would not be necessary to mitigate cumulative impacts at this intersection.

Based on the foregoing, the project sponsor has fully funded improvements to mitigate its contribution to the cumulative impact at this intersection and to conclude that cumulative impacts at the 5th /Embarcadero intersection will be mitigated to a less than significant level without further contributions by the project sponsor.

Comparison to 2004 EIR: The 2004 EIR identified an impact at the 5th Avenue / Embarcadero intersection and recommended Mitigation Measure B.1b to reduce the impact to less than significant. The updated analysis in this Addendum acknowledges that since the completion of the 2004 EIR, the project sponsor has paid for improvement of this intersection. Also, details regarding the vehicle trip characteristics of the *Oak to Ninth Avenue Project* (2006), which fronts the 5th Avenue / Embarcadero intersection, were finalized, resulting in the changes to the mitigation measure to include the widening of Embarcadero.

Roadway Segment Impacts

Cumulative Year 2035 plus 2014 Modified Project Conditions roadway segment operations at locations designated as part of the CMP and MTS roadway networks are summarized in **Table 4.1-23**. As shown, during the AM peak hour, northbound SR 260 (i.e., the Posey Tube) would continue to operate over capacity with the addition of Project trips. However, the increase in volume-to-capacity ratio as a result of Project trips would be less than 0.03. As such, the project would not result in an impact to this segment location. All other study CMP and MTS roadway segments would be expected to continue to operate at acceptable levels during the AM and PM peak hours.

TABLE 4.1-23
ROADWAY SEGMENT LEVELS OF SERVICE – CUMULATIVE YEAR 2035 PLUS 2014 MODIFIED PROJECT CONDITIONS (MAXIMUM RESIDENTIAL SCENARIO)

		Cumulative Year 2035 Conditions				Cumulative Year 2035 plus 2014 Modified Project Conditions (Maximum Residential Scenario)			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Study Location	**Direction**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**
CMP Roadways:									
I-980	NB	0.23	A	0.44	B	0.23	A	0.45	B
north of 18th Street	SB	0.50	B	0.27	A	0.50	C	0.28	A
I-880	EB	0.63	C	0.71	C	0.64	C	0.72	D
west of Market Street	WB	0.64	C	0.66	C	0.65	C	0.67	C
I-880	EB	0.83	D	0.87	D	0.84	D	0.90	E
east of Oak Street	WB	0.73	D	0.83	D	0.74	D	0.86	D
SR 260 (Posey/Webster Tubes)	NB	**1.04**	**F**	0.98	E	**1.05**	**F**	1.00	E
between Alameda city limits and I-880	SB	0.78	D	0.80	D	0.79	D	0.82	D
MTS Roadways:									
Broadway	NB	0.14	A	0.23	A	0.17	A	0.31	B
between Embarcadero West and 2nd Street	SB	0.24	A	0.32	B	0.27	A	0.36	B
Broadway	NB	0.21	A	0.24	A	0.25	A	0.33	B
between 2nd Street and 3rd Street	SB	0.24	A	0.34	B	0.28	A	0.38	B
Broadway	NB	0.34	B	0.37	B	0.38	B	0.45	B
between 3rd Street and 5th Street	SB	0.28	A	0.33	B	0.32	B	0.37	B
Broadway	NB	0.24	A	0.25	A	0.25	A	0.27	A
between 5th Street and 6th Street	SB	0.42	B	0.66	C	0.46	B	0.71	D
Broadway	NB	0.41	B	0.46	B	0.42	B	0.48	B
between 6th Street and 11th Street	SB	0.29	A	0.59	C	0.30	B	0.61	C
Broadway	NB	0.27	A	0.34	B	0.27	A	0.36	B
between 11th Street and 12th Street	SB	0.35	B	0.56	C	0.36	B	0.57	C
Broadway	NB	0.16	A	0.22	A	0.16	A	0.22	A
between 12th Street and 14th Street	SB	0.23	A	0.37	B	0.23	A	0.38	B
Broadway	NB	0.18	A	0.41	B	0.18	A	0.42	B
north of 14th Street	SB	0.27	A	0.62	C	0.27	A	0.63	C
14th Street	EB	0.20	A	0.24	A	0.20	A	0.25	A

between Broadway and Clay Street	WB	0.23	A	0.40	B	0.23	A	0.40	B

TABLE 4.1-23 (CONTINUED)
ROADWAY SEGMENT LEVELS OF SERVICE – CUMULATIVE YEAR 2035 PLUS 2014 MODIFIED PROJECT CONDITIONS (MAXIMUM RESIDENTIAL SCENARIO)

		Cumulative Year 2035 Conditions				Cumulative Year 2035 plus 2014 Modified Project Conditions (Maximum Residential Scenario)			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Study Location	**Direction**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**
14th Street between Broadway and Franklin Street	EB	0.17	A	0.10	A	0.17	A	0.10	A
	WB	0.24	A	0.21	A	0.24	A	0.21	A
7th Street between Webster Street and Harrison Street	EB	0.24	A	0.52	C	0.24	A	0.52	C
7th Street between Harrison Street and Alice Street	EB	0.52	C	0.45	B	0.53	C	0.46	B
7th Street between Jackson Street and Madison Street	EB	0.19	A	0.77	D	0.19	A	0.77	D
7th Street between Madison Street and Lakeside Drive	EB	0.15	A	0.44	B	0.15	A	0.44	B
7th Street east of Lakeside Drive	EB	0.28	A	0.44	B	0.29	A	0.46	B
Harrison Street between 6th Street and 7th Street	NB	0.73	D	0.69	C	0.74	D	0.70	D
Harrison Street between 7th Street and 8th Street	NB	0.29	A	0.37	B	0.29	A	0.38	B

Source: AECOM, 2013.

Notes: NB = northbound, SB = southbound, EB = eastbound, and WB = westbound.

Cumulative Year 2035 plus Approved Project Conditions[9]

Intersection Impacts

Layering Project-generated traffic associated with the Approved Project over Cumulative Year 2035 Conditions traffic volumes yields Cumulative Year 2035 plus Approved Project Conditions traffic volumes, which are presented in **Figure 4.1-13**. Cumulative Year 2035 Conditions and Cumulative Year 2035 plus Approved Project Conditions intersection LOS analysis results are summarized in **Table 4.1-24**.

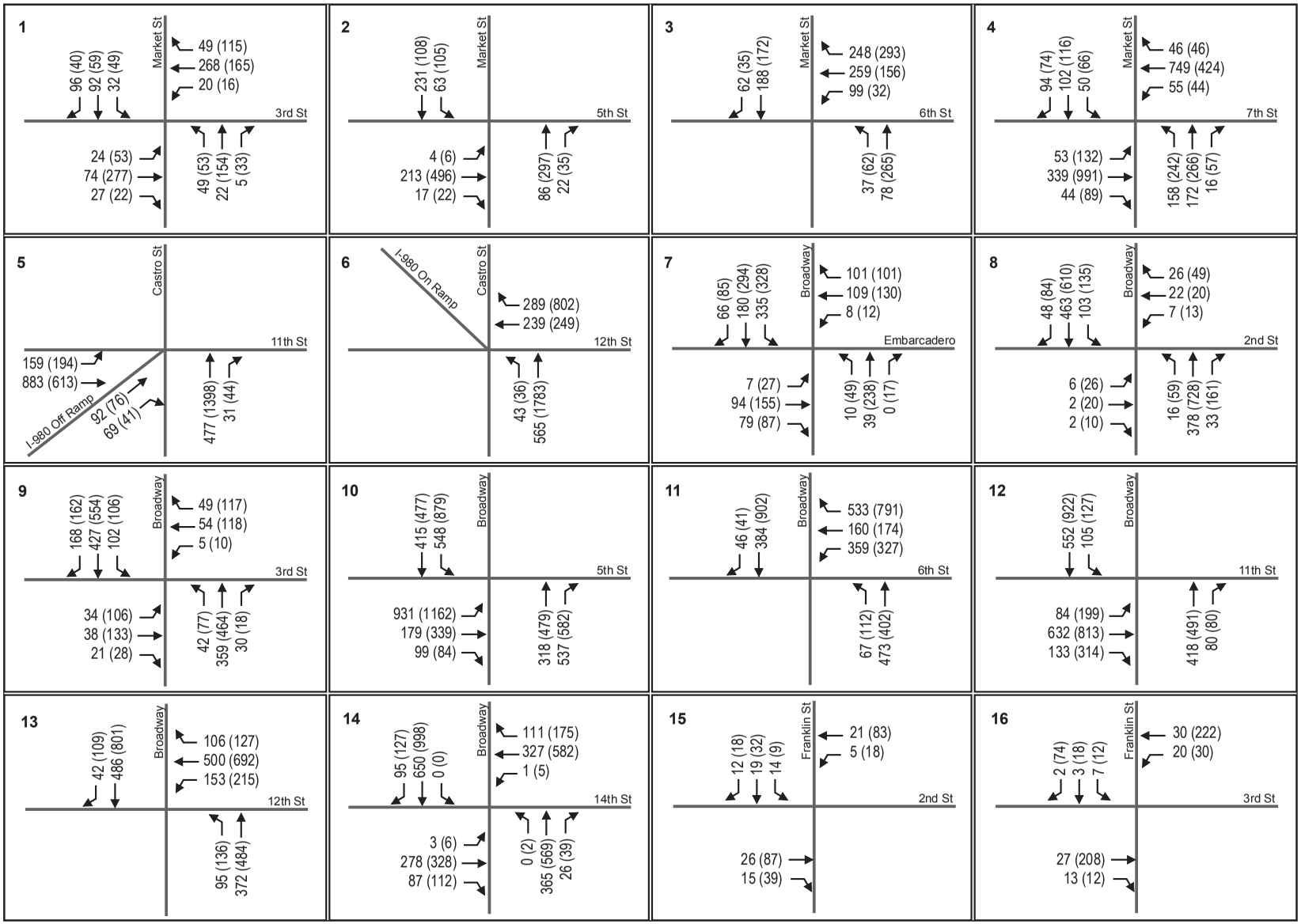
As shown in **Table 4.1-24**, 28 of the 32 study intersections would be expected to operate acceptably under Cumulative Year 2035 Conditions, and would continue to operate acceptably under Cumulative Year 2035 Conditions during the AM and PM peak hours. As such, the project would not result in a potentially significant impact to intersection operations under Cumulative Year 2035 plus Approved Project Conditions at these locations. However, the project would contribute to delays at the following four intersections projected to operate at LOS F:

8. Broadway / 2nd Street;
17. Webster Street / Embarcadero;
25. Oak Street / Embarcadero; and
30. 5th Avenue / Embarcadero.

At the Broadway / 2nd Street intersection, the eastbound stop-controlled approach to the intersection would continue to operate at LOS F conditions with the addition of project-generated traffic, but the criteria of the MUTCD peak hour volume traffic signal warrant would not be met. Thus, the project would not result in a potentially significant impact at this location.

At the Webster Street / Embarcadero, Oak Street / Embarcadero, and 5th Avenue / Embarcadero stop-controlled intersections, the project would contribute trips to the worst stop-controlled approaches to the intersections, and the criteria of the MUTCD peak hour volume traffic signal warrant would be satisfied. As a result, the project would contribute to a potentially significant cumulative impact at these locations. However, it should be noted that the conditions of the MUTCD peak hour volume traffic signal warrant would be satisfied prior to the addition of project-generated trips; as such, these impacts would occur with or without the buildout of the proposed project. Signal warrant worksheets are included in Appendix B to this Addendum.

[9] The Approved Project is evaluated in this section in the context of changed circumstances and new information that has occurred since preparation of the 2004 EIR and in order to compare the findings of the 2014 Modified Project with those in the 2004 EIR.

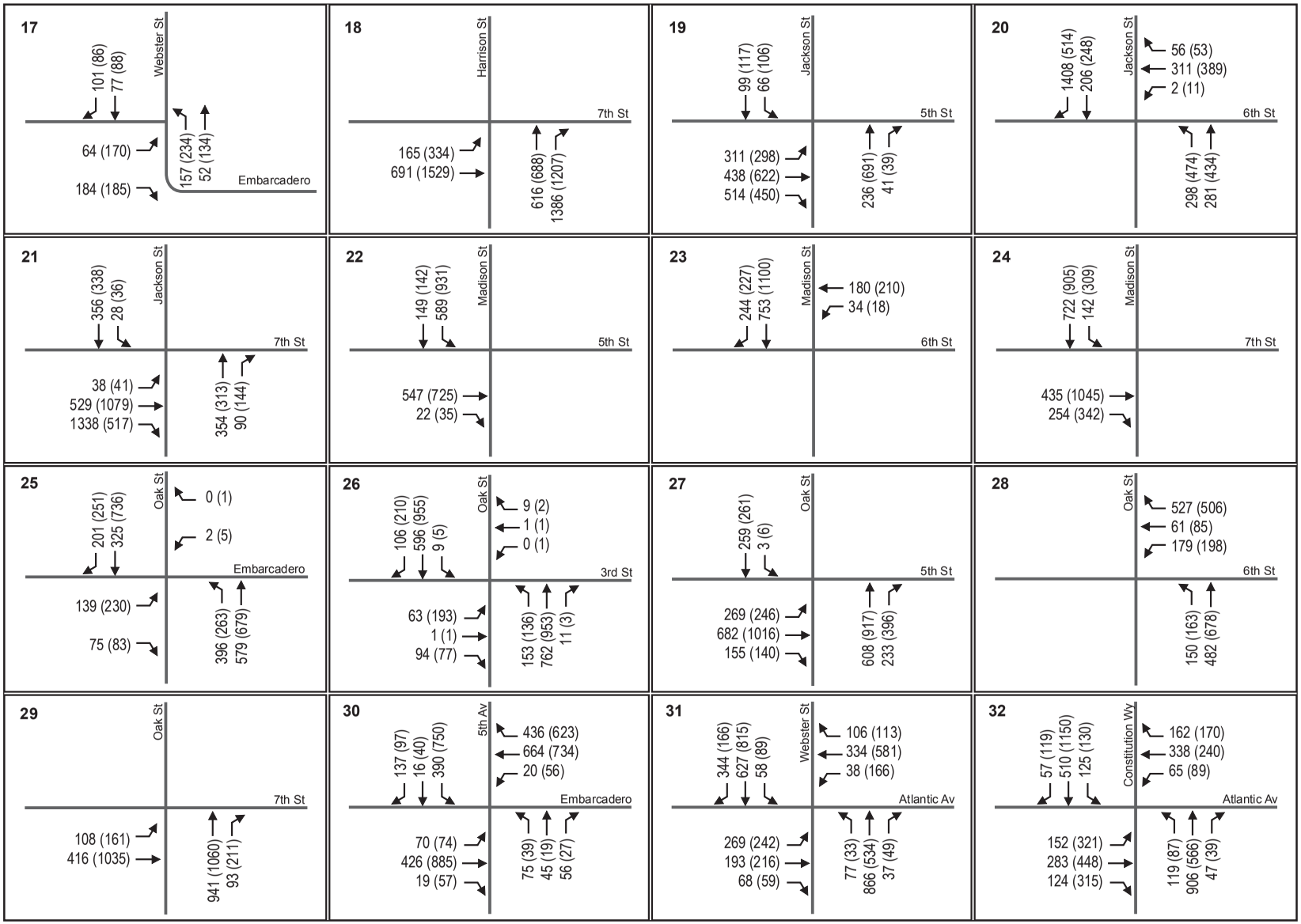


SOURCE: AECOM

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.1-13a

Traffic Volumes: Cumulative Year 2035 + 2004 Approved Project



SOURCE: AECOM

Figure 4.1-13b

Traffic Volumes: Cumulative Year 2035 + 2004 Approved Project

TABLE 4.1-24
INTERSECTION LEVELS OF SERVICE – CUMULATIVE YEAR 2035 PLUS APPROVED PROJECT CONDITIONS

			Cumulative Year 2035 Conditions				Cumulative Year 2035 plus Approved Project Conditions			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Intersection[(1)]	Control	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Market St / 3rd St	TWSC	B	14.5	C	18.7	C	16.0	D	31.8
2	Market St / 5th St	Signal	B	12.8	B	15.7	B	13.3	B	18.0
3	Market St / 6th St	Signal	B	13.9	C	31.1	B	13.7	C	30.2
4	Market St / 7th St	Signal	B	18.2	B	15.9	B	18.0	B	16.4
5	Castro St / 11th St	Signal	C	27.8	C	31.1	C	27.9	C	32.5
6	Castro St / 12th St	Signal	C	23.2	B	11.7	C	23.2	B	11.6
7	Broadway / Embarcadero	AWSC	B	11.8	B	13.0	C	15.6	E	35.1
8	Broadway / 2nd St	TWSC	C	19.9	**F**	**>50.0**	C	22.1	**F**	**>50.0**
9	Broadway / 3rd St	Signal	B	12.3	B	14.9	B	15.6	B	16.6
10	Broadway / 5th St	Signal	C	34.8	D	54.3	C	28.0	E	59.6
11	Broadway / 6th St	Signal	B	16.7	C	31.5	C	22.7	C	33.4
12	Broadway / 11th St	Signal	B	11.4	B	13.3	B	10.9	B	13.6
13	Broadway / 12th St	Signal	B	16.9	B	19.8	B	17.6	B	19.9
14	Broadway / 14th St	Signal	B	13.9	B	18.5	B	12.0	B	18.7
15	Franklin St / 2nd St	OWSC	A	8.9	A	9.9	A	9.1	B	10.1
16	Franklin St / 3rd St	OWSC	A	9.0	B	10.5	A	9.2	B	10.9
17	Webster St / Embarcadero	TWSC	B	10.5	B	10.0	B	14.7	**F**	**>50.0**
18	Harrison St / 7th St	Signal	C	27.6	B	13.6	C	31.1	C	21.7
19	Jackson St / 5th St	Signal	B	14.8	C	23.4	B	15.1	C	33.4
20	Jackson St / 6th St	Signal	B	19.7	B	10.6	B	19.5	B	14.7
21	Jackson St / 7th St	Signal	B	13.5	B	14.1	B	13.6	B	15.7
22	Madison St / 5th St	Signal	A	9.4	B	10.7	A	9.4	B	10.7
23	Madison St / 6th St	Signal	A	8.3	A	9.1	A	8.3	A	9.3
24	Madison St / 7th St	Signal	A	8.5	A	9.1	A	8.8	A	9.2
25	Oak St / Embarcadero	OWSC	**F**	**>50.0**	**F**	**>50.0**	**F**	**>50.0**	**F**	**>50.0**
26	Oak St / 3rd St	Signal	A	5.4	A	6.6	A	6.0	B	15.3
27	Oak St / 5th St	Signal	B	11.2	B	13.7	B	12.0	D	43.5
28	Oak St / 6th St	Signal	A	9.2	B	10.5	A	9.6	B	10.7
29	Oak St / 7th St	Signal	B	14.3	B	12.9	B	14.3	B	13.0
30	5th Ave / Embarcadero	AWSC[(2)]	**F**	**>50.0**	**F**	**>50.0**	**F**	**>50.0**	**F**	**>50.0**
31	Webster St / Atlantic Ave	Signal	C	28.9	C	30.1	C	29.1	C	30.4
32	Constitution Way / Atlantic Ave	Signal	C	30.4	D	44.5	C	31.4	D	46.3

Source: AECOM, 2013.

Notes: Values in **bold** represent intersections operating at unacceptable conditions.
Values shaded represent a potentially significant Project impact.
Delays for intersections operating at LOS F are presented as "**>80.0**" and "**>50.0**" for signalized and unsignalized intersections, respectively, as LOS F represents an over-capacity condition, and associated delays are beyond the meaningful range for the analysis methodology.
OWSC = one-way stop controlled, TWSC = two-way stop controlled, AWSC = all-way stop controlled
(1) Delay presented for one-way and two-way stop controlled intersections is representative of the worst minor approach.
(2) Intersection actually operates as a three-way stop controlled intersection. However, the 2000 HCM methodology does not support this configuration. As such, intersection is evaluated with an all-way stop controlled configuration.

Impact TRANS-4: The addition of Approved Project traffic would result in the intersection meeting the conditions of the MUTCD peak hour volume traffic signal warrant during the PM peak hour at the Webster Street / Embarcadero intersection, which is expected to operate at unacceptable LOS F under Cumulative Year 2035 plus Approved Project Conditions. (Significant)

> **Mitigation Measure TRANS-4:** Implement Mitigation Measure TRANS-1. Implementation of this measure would reduce the impact to a less-than-significant level.

Significance after Implementation of Mitigation: Less than Significant.

Comparison to 2004 EIR: The 2004 EIR identified this impact at the Webster Street / Embarcadero intersection and recommended Mitigation Measures B.2b and B.3b to reduce the impact to less than significant. The updated analysis in this Addendum identifies a different mitigation measure (Mitigation Measure TRANS-1, above) to mitigate the impact to less than significant. The new mitigation measure is warranted given this intersection's placement along a rail line (i.e., active railroad tracks run through the center of Embarcadero); signalization may not be desired. In lieu of signalization, the intersection could be converted into an all-way stop control. Such an improvement would increase opportunities for motorists at the northbound approach to the intersection to complete maneuvers. Further, all-way stop control at this location would reduce average intersection delay to LOS B levels, allowing the minor street approach to operate at LOS C, mitigating the impact. Implementation of this measure would reduce the impact to a less-than-significant level.

Impact TRANS-5: The addition of Approved Project traffic would result in the intersection meeting the conditions of the MUTCD peak hour volume traffic signal warrant during both peak hours at the Oak Street / Embarcadero intersection, which is expected to operate at unacceptable LOS F under Cumulative Year 2035 plus Approved Project Conditions. (Significant)

> **Mitigation Measure TRANS-5:** Implement Mitigation Measure TRANS-2, which requires the installation of traffic signals at the unsignalized Oak Street / Embarcadero intersection. Signalization would reduce average intersection delay to LOS B levels during both AM and PM peak hours, mitigating the project's contribution to the impact at this location.

Significance after Implementation of Mitigation: Less than Significant.

The project sponsor will be required to fund the cost of preparing and implementing these plans. If the City adopts a transportation fee program prior to implementation of this mitigation measure, the project sponsor shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall mitigate this impact to less than significant. To identify the point at which the Cumulative impact would be triggered,

anticipated traffic growth between Existing Conditions and Cumulative Year 2035 Conditions is applied by annual increments. This straight line interpolation of intersection traffic volume between Existing plus Approved Project Conditions, and Cumulative Year 2035 plus Approved Project Conditions, indicates that the impact would be triggered by the year 2015 (i.e., Cumulative growth to the year 2015, plus the full buildout of the proposed project). Investigation of the need for this mitigation shall be studied at the time of construction and every three years thereafter until the year 2035 or until the mitigation measure is implemented, whichever occurs first.

Comparison to 2004 EIR: The 2004 EIR identified an impact at the Oak Street / Embarcadero intersection and recommended the mitigation measure above to reduce the impact to less than significant. Implementation of this measure would reduce the impact to a less-than-significant level.

Impact TRANS-6: The addition of Approved Project traffic would result in the intersection meeting the conditions of the MUTCD peak hour volume traffic signal warrant during both peak hours at the 5th Avenue / Embarcadero intersection, which is expected to operate at unacceptable LOS F under Cumulative Year 2035 plus Approved Project Conditions. (Significant)

> **Mitigation Measure TRANS-6:** Implement Mitigation Measure TRANS-3. Implementation of this measure would reduce the impact to a less-than-significant level.

Significance after Implementation of Mitigation: Less than Significant.

The extent of the impact and mitigation required at the 5th Avenue / Embarcadero intersection is highly dependent on the buildout of the proposed Oak to Ninth Avenue Project (2006), as traffic volumes associated with the Oak to Ninth Avenue Project would comprise the majority of Cumulative traffic growth at this intersection.

Signalization of the 5th Avenue / Embarcadero intersection would be required regardless of whether the Oak to Ninth Avenue Project is constructed in order to reduce average intersection delay to levels lower than Cumulative Year 2035 Conditions (without Approved Project). If the Oak to Ninth Avenue Project were not constructed, then signalization of this intersection would improve the intersection LOS to a satisfactory level, and the cumulative impact at this intersection would be less than significant. Based on analyses performed with respect to the 2004 EIR, the Jack London Square Redevelopment Project was determined to be a contributor to a cumulative traffic impact at this location, and was assessed a fee to fully fund signalizing the intersection. This fee has since been paid, and as such, the 5th Avenue / Embarcadero intersection will be signalized.

With respect to the widening of Embarcadero, this improvement would be necessary to mitigate impacts at this intersection only if the Oak to Ninth Avenue Project (2006) were built out. If the

Oak to Ninth Avenue Project were constructed, then intersection LOS would remain at LOS F even after implementation of the proposed signal, and the cumulative impact at this intersection would remain significant. In order to mitigate this impact, widening of Embarcadero at the 5th Avenue / Embarcadero intersection from one travel lane in each direction into two travel lanes in each direction would be required to reduce the impact to a less than significant level. Such an improvement would reduce delay, and improve intersection LOS to LOS C during the AM peak hour, and LOS E levels during the PM peak hour. The Oak to Ninth project is required by its own conditions of approval to undertake the widening of Embarcadero to mitigate that project's own impacts on the 5th Avenue/Embarcadero intersection. Thus, if the widening is required due to the construction of the Oak to Ninth Avenue Project, it will be undertaken by Oak to Ninth Avenue Project; conversely, if the Oak to Ninth Avenue Project is not built out, then the widening would not be necessary to mitigate cumulative impacts at this intersection.

In light of the information above, the project sponsor has fully funded improvements to alleviate its contribution to the cumulative impact at this intersection and the cumulative impacts at the 5th /Embarcadero intersection will be mitigated to a less than significant level without further contribution by the project sponsor.

Comparison to 2004 EIR: The 2004 EIR identified an impact at the 5th Avenue / Embarcadero intersection and recommended Mitigation Measure B.1b to reduce the impact to less than significant. The updated analysis in this Addendum acknowledges that since the completion of the 2004 EIR, the project sponsor has paid for improvement of this intersection. Also, details regarding the vehicle trip characteristics of the *Oak to Ninth Avenue Project* (2006), which fronts the 5th Avenue / Embarcadero intersection, were finalized, resulting in the changes to the mitigation measure to include the widening of Embarcadero.

Roadway Segment Impacts

Cumulative Year 2035 plus Approved Project Conditions roadway segment operations at locations designated as part of the CMP and MTS roadway networks are summarized in **Table 4.1-25**. As shown, during the AM peak hour, northbound SR 260 (i.e., the Posey Tube) would continue to operate over capacity with the addition of project trips. However, the increase in volume-to-capacity ratio as a result of project trips would be less than 0.03. As such, the project would not result in an impact to this segment location. All other study CMP and MTS roadway segments would be expected to continue to operate at acceptable levels during the AM and PM peak hours. As a result, "Impact B.11" identified in the 2004 EIR, would no longer apply.

TABLE 4.1-25
ROADWAY SEGMENT LEVELS OF SERVICE – CUMULATIVE YEAR 2035 PLUS APPROVED PROJECT CONDITIONS

		Cumulative Year 2035 Conditions				Cumulative Year 2035 plus Approved Project Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Study Location	**Direction**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**
CMP Roadways:									
I-980	NB	0.23	A	0.44	B	0.23	A	0.45	B
north of 18th Street	SB	0.50	B	0.27	A	0.51	C	0.28	A
I-880	EB	0.63	C	0.71	C	0.64	C	0.71	D
west of Market Street	WB	0.64	C	0.66	C	0.65	C	0.67	C
I-880	EB	0.83	D	0.87	D	0.84	D	0.91	E
east of Oak Street	WB	0.73	D	0.83	D	0.75	D	0.86	D
SR 260 (Posey/Webster Tubes)	NB	**1.04**	**F**	0.98	E	**1.06**	**F**	1.00	E
between Alameda city limits and I-880	SB	0.78	D	0.80	D	0.79	D	0.82	D
MTS Roadways:									
Broadway	NB	0.14	A	0.23	A	0.16	A	0.37	B
between Embarcadero West and 2nd Street	SB	0.24	A	0.32	B	0.29	A	0.37	B
Broadway	NB	0.21	A	0.24	A	0.23	A	0.38	B
between 2nd Street and 3rd Street	SB	0.24	A	0.34	B	0.30	A	0.39	B
Broadway	NB	0.34	B	0.37	B	0.36	B	0.49	B
between 3rd Street and 5th Street	SB	0.28	A	0.33	B	0.34	B	0.38	B
Broadway	NB	0.24	A	0.25	A	0.25	A	0.29	A
between 5th Street and 6th Street	SB	0.42	B	0.66	C	0.47	B	0.72	D
Broadway	NB	0.41	B	0.46	B	0.42	B	0.49	B
between 6th Street and 11th Street	SB	0.29	A	0.59	C	0.31	B	0.61	C
Broadway	NB	0.27	A	0.34	B	0.27	A	0.36	B
between 11th Street and 12th Street	SB	0.35	B	0.56	C	0.36	B	0.57	C
Broadway	NB	0.16	A	0.22	A	0.16	A	0.23	A
between 12th Street and 14th Street	SB	0.23	A	0.37	B	0.23	A	0.37	B
Broadway	NB	0.18	A	0.41	B	0.18	A	0.42	B
north of 14th Street	SB	0.27	A	0.62	C	0.28	A	0.63	C
14th Street	EB	0.20	A	0.24	A	0.20	A	0.25	A
between Broadway and Clay Street	WB	0.23	A	0.40	B	0.23	A	0.40	B

TABLE 4.1-25 (CONTINUED)
ROADWAY SEGMENT LEVELS OF SERVICE – CUMULATIVE YEAR 2035 PLUS APPROVED PROJECT CONDITIONS

		Cumulative Year 2035 Conditions				Cumulative Year 2035 plus Approved Project Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Study Location	**Direction**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**	**V/C Ratio**	**LOS**
14th Street between Broadway and Franklin Street	EB	0.17	A	0.10	A	0.17	A	0.10	A
	WB	0.24	A	0.21	A	0.24	A	0.21	A
7th Street between Webster Street and Harrison Street	EB	0.24	A	0.52	C	0.24	A	0.52	C
7th Street between Harrison Street and Alice Street	EB	0.52	C	0.45	B	0.53	C	0.45	B
7th Street between Jackson Street and Madison Street	EB	0.19	A	0.77	D	0.19	A	0.77	D
7th Street between Madison Street and Lakeside Drive	EB	0.15	A	0.44	B	0.15	A	0.44	B
7th Street east of Lakeside Drive	EB	0.28	A	0.44	B	0.28	A	0.46	B
Harrison Street between 6th Street and 7th Street	NB	0.73	D	0.69	C	0.74	D	0.70	D
Harrison Street between 7th Street and 8th Street	NB	0.29	A	0.37	B	0.29	A	0.38	B

Source: AECOM, 2013.

Notes: NB = northbound, SB = southbound, EB = eastbound, and WB = westbound.

Site Access and Circulation

Vehicular traffic under Project conditions (under either the Approved Project or 2014 Modified Project) is expected to be concentrated in the areas surrounding the parking facilities. Parking for the project would be provided in the existing Washington Street garage, which is accessed from Washington Street and Clay Street, between Embarcadero and 2nd Street; the existing underground garage, which is accessible from Broadway and Franklin Street, south of Embarcadero; the proposed garage on Site F2, which would be accessible from Alice Street south of Embarcadero; and the garage on Site G, which would be accessible from 2nd Street east of Harrison Street. The proposed project, specifically at Site D and Site F2 with the 2014 Modified Project would not alter existing parking access points, and as such, would not introduce new conflict points on the adjacent roadways. Nevertheless, both the 2014 Modified Project and the Approved Project would increase vehicle, pedestrian, and transit trips throughout the study area (as compared with Existing Conditions) therefore increasing the potential for conflicts.

Impact TRANS-7 (previously 2004 Impact B.9): The Project (Approved Project or 2014 Modified Project, Maximum Residential Scenario) would increase the potential for conflicts among different traffic streams. (Potentially Significant)

> **Mitigation Measure TRANS-7 (previously 2004 MM B.9a):** The project sponsor shall design vehicular traffic features of project development (e.g., turning radii for buses and service vehicles, project parking garage access driveways, and circulation aisles within the parking garages) to meet the design standards set forth by the American Association of State Highway and Transportation Officials (AASHTO) in *A Policy on Geometric Design of Highways and Streets*, or other design standards deemed appropriate by the City of Oakland.

Significance after Implementation of Mitigation: Less than Significant.

> **Comparison to 2004 EIR:** The 2004 EIR identified this same impact and mitigation measure. Implementation of this measure would reduce the impact to a less-than-significant level.

Since ambient traffic levels have decreased since the completion of the 2004 EIR as shown in **Table 4.1-3**, and since the project (Approved Project or 2014 Modified Project) would result in substantially lower trip generation as shown in **Table 4.1-15**, it is not anticipated that the Project, as currently proposed, would result in new impacts to site access and circulation beyond those identified in the 2004 EIR.

Pedestrian Impacts

Impact TRANS-8: The Project (Approved Project or 2014 Modified Project, Maximum Residential Scenario) would not increase the potential for pedestrian conflicts or expose pedestrians to a permanent and substantial transportation hazard. (Potentially Significant for

Approved Project; Less than Significant for 2014 Modified Project, Maximum Residential Scenario)

The discussion of pedestrian impacts is based on application of Significance Criteria #10 and #11 (previously listed in this section). The project (Approved Project or 2014 Modified Project) would increase both pedestrian activity and vehicular traffic in and around Jack London Square, particularly along Embarcadero. With development sites located south of Embarcadero and much of the existing and proposed parking (Washington Street Garage and the proposed garage on Site G) located to the north of Embarcadero, the project would likely increase the number of pedestrians crossing Embarcadero.

Mitigation Measures for Impact TRANS-8

As noted, the 2004 EIR identified this same impact (2004 Impact B.8) regarding pedestrian safety conflicts, therefore 2004 Mitigation Measure B.8 is now designated as Mitigation Measure TRANS-8 in this Addendum, and would be applicable to the Approved Project only.

> **Mitigation Measure TRANS-8 (previously 2004 MM B.8): Applies to Approved Project Only. Mitigation Measure B.8:** The following measures shall be implemented to mitigate the potential safety impact:
>
> - Install pedestrian signal heads (with adequate time for pedestrians to cross the Embarcadero) when new traffic signals are installed at the intersections along the Embarcadero, at Broadway (see Mitigation Measure B.2a) and at Webster Street (see Mitigation Measure B.2b).
> - Install informational signs to indicate to pedestrians where pedestrian bridges are located.
> - Install warning signs, and/or audible signals, at parking garage access points to alert pedestrians about approaching vehicles.
>
> **Significance after Implementation of Mitigation:** Less than Significant.

Applicable Standard Conditions of Approval for Impact TRANS-8

As noted in the *Site Access and Circulation* section above, the Project, specifically at Site D and Site F2 with the 2014 Modified Project, would not alter existing parking access points, and as such, would not introduce new conflict points on the adjacent roadways. Nevertheless, as the project would increase vehicle, pedestrian, and transit trips throughout the study area, both the 2014 Modified Project and the Approved Project would increase the potential for pedestrian safety conflicts. However, the 2014 Modified Project impacts to pedestrians would not be greater than those identified in the 2004 EIR; and as such, would not represent a permanent substantial decrease in pedestrian safety. Nor are there changed circumstances or new information regarding pedestrian safety or conflicts that would result in a permanent substantial decrease in pedestrian safety. **Comparison to the 2004 EIR:** The 2004 EIR identified a pedestrian safety impact and recommended Mitigation Measure B.8, which this Addendum updates for the 2014 Modified Project and replaces with Mitigation Measure TRANS-8.

Bicycle Facilities Impacts

The discussion of bicycle facilities is based on application of Significance Criteria #10 and #12 (previously listed in this section). Although the existing bikeway network is limited, the planned network improvements, and improvements currently being constructed or designed would improve safety conditions and make bicycling an attractive mode of transportation. The project is expected to generate 50 AM peak hour and 98 PM peak hour bicycle trips under the 2014 Modified Project, and 52 AM peak hour and 111 PM peak hour bicycle trips under the Approved Project. These totals amount to less than one bicyclist added to the surrounding transportation network per minute during the AM peak hour, and less than two bicyclists per minute during the PM peak hour. These totals would represent a minor increase in bicycle traffic on the roadway networks. The existing Class 2 and Class 3 bicycle facilities in the vicinity of the project have excess capacity to handle the increase in bicycle trips as a result of the Project.

Although the project would not propose physical design features that would expose roadway users to a permanent and substantial transportation hazard, the project's increase in vehicular traffic along Broadway will affect bicyclists traveling along 2nd Street (designated as the Bay Trail). However, it should be noted that Project impacts to bicycles would not be greater than those identified in the 2004 EIR; and as such, would not represent a permanent substantial decrease in bicyclist safety. Nor are these changed circumstances or new information that would result in such a decrease. As a result, neither the 2014 Modified Project nor the Approved Project would result in a new impact to bicycle facilities or bicycle operations.

Bus Travel Time

The discussion of transit travel time is based on application of Significance Criterion #9 (previously listed in this section). Travel time along the following corridors was evaluated in order to determine the impacts of project-generated traffic on the operations of key AC Transit trunk lines in Downtown Oakland:

1. 11th Street (eastbound), from Brush Street to Oak Street;
2. 12th Street (westbound), from Oak Street to Brush Street;
3. Broadway (northbound), from 11th Street to 20th Street;
4. Broadway (southbound), from 20th Street to 11th Street;
5. Broadway (northbound), from Embarcadero to 11th Street;
6. Broadway (southbound), from 11th Street to Embarcadero; and
7. 7th Street (eastbound), from Brush Street to Oak Street.

Each corridor is analyzed in both directions during both the AM and PM peak hours. **Table 4.1-26** summarizes the results of the travel time analysis for the AM and PM peak hours. Existing travel time runs were conducted in each direction for each corridor in August 2013, and travel time differentials were obtained from the Synchro networks used in the intersection LOS analysis.

It should be noted that the travel times presented here only represent the time it takes automobiles to travel the length of the corridor. Obtaining a travel time estimate for transit vehicles traveling through corridors can be difficult considering that the travel time for transit vehicles is much more variable than that for automobiles. This variability is due to a wide variety of factors, but primarily involves schedule adherence and on-time performance. A transit vehicle that is already behind schedule can quickly get further behind schedule due to accumulating passenger demand at transit stops, resulting in longer than usual dwell times to allow passengers to board and alight. In addition, because transit vehicles must follow the same route, there is less flexibility than with automobiles in events such as accidents or unexpected congestion, increasing delays further. Given these considerations, the values in **Table 4.1-26** should be viewed as the incremental increase in transit travel time from one analysis scenario to the next.

As shown in **Table 4.1-26**, the project (Approved Project or 2014 Modified Project) would increase AM and PM peak hour travel times along most corridors, mostly as a result of increases in intersection average delay. Some corridors would see average travel time decrease slightly between existing and future-year scenarios and between baseline and Project scenarios, primarily as a result of geometry changes or better-performing movements at intersections. The Broadway (northbound, Embarcadero to 11th Street) corridor is expected to be most affected by the project. Specifically, under Cumulative Year 2035 plus 2014 Modified Project Conditions during the PM peak hour, the project would cause an increase in corridor travel time of 47 seconds as compared with Cumulative Year 2035 Conditions. Under Cumulative Year 2035 plus Approved Project Conditions during the PM peak hour, the project would cause an increase in corridor travel time of 80 seconds as compared with Cumulative Year 2035 Conditions. Overall, the project increases in corridor travel times are not expected to be larger than those of the project as previously analyzed in the 2004 EIR. As a result, the project (Approved Project or 2014 Modified Project) would not generate a new impact to AC Transit travel times. Nor are there changed circumstances surrounding the project site that would or new information that would substantially increase travel times.

TABLE 4.1-26
TRANSIT CORRIDOR TRAVEL TIMES

Route	Corridor Travel Time (Incremental Increase in Seconds)					
	Existing Conditions	Existing plus 2014 Modified Project Conditions (Maximum Residential Scenario)	Existing plus Approved Project Conditions	Cumulative Year 2035 Conditions	Cumulative Year 2035 plus 2014 Modified Project Conditions (Maximum Residential Scenario)	Cumulative Year 2035 plus Approved Project Conditions
AM Peak Hour:						
1 **11th Street Eastbound** Brush Street to Oak Street	3:37	+ 0	+ 0	+ 7	+ 7	+ 7
2 **12th Street Westbound** Oak Street to Brush Street	3:35	+ 0	+ 5	+ 12	+ 12	+ 12
3 **Broadway Northbound** 11th Street to 20th Street	2:24	+ 0	+ 0	+ 0	+ 0	+ 0
4 **Broadway Southbound** 20th Street to 11th Street	2:27	+ 0	+ 0	+ 5	+ 5	+ 5
5 **Broadway Northbound** Embarcadero to 11th Street	2:01	+ 2	+ 1	+ 10	+ 12	+ 19
6 **Broadway Southbound** 11th Street to Embarcadero	2:22	+ 8	+ 9	+ 11	+ 24	+ 21
7 **7th Street Eastbound** Brush Street to Oak Street	2:19	+ 0	+ 0	+ 13	+ 14	+ 15
PM Peak Hour:						
1 **11th Street Eastbound** Brush Street to Oak Street	4:50	+ 0	+ 0	+ 19	+ 19	+ 19
2 **12th Street Westbound** Oak Street to Brush Street	3:44	+ 0	+ 0	+ 10	+ 10	+ 10
3 **Broadway Northbound** 11th Street to 20th Street	3:37	+ 1	+ 2	+ 2	+ 3	+ 5
4 **Broadway Southbound** 20th Street to 11th Street	3:20	+ 1	+ 1	+ 20	+ 22	+ 22
5 **Broadway Northbound** Embarcadero to 11th Street	2:57	+ 4	+ 6	+ 7	+ 11	+ 14
6 **Broadway Southbound** 11th Street to Embarcadero	3:19	+ 13	+ 16	+ 79	+ 126	+ 159
7 **7th Street Eastbound** Brush Street to Oak Street	3:01	+ 5	+ 1	+ 24	+ 25	+ 48

Source: AECOM, 2013.

Emergency Vehicle Access

The discussion of emergency vehicle access and at-grade railroad crossings is based on application of Significance Criterion #14 (listed previously in this section). Development facilitated by the project (Approved Project or 2014 Modified Project) is not expected to modify the roadway network in the project study area. However, it should be noted that the presence of rail tracks along Embarcadero could lead to a scenario where freight trains running on the tracks could obstruct emergency vehicle access. In this instance, emergency vehicles would be required to use an alternate route to reach project components south of the rail tracks. An available alternative route that can be used to access the site would be Embarcadero from the east, utilizing the 16th Avenue overcrossing. The availability of this alternative route would minimize any significant delay in response time in instances where a track blockage occurs, and as such, the project would not result in a significant impact to emergency vehicle access.

Temporary Construction Impacts

Impact TRANS-9 (previously 2004 Impact B.12): Project construction (Approved Project or 2014 Modified Project, Maximum Residential Scenario) would affect traffic flow and circulation, parking, and pedestrian safety. (Potentially Significant for Approved Project; Less than Significant for 2014 Modified Project, Maximum Residential Scenario)

The discussion of temporary construction impacts is based on application of Significance Criterion #16 (listed previously in this section). Potential short-term construction impacts generated by the project (Approved Project or 2014 Modified Project) would include impacts associated with the delivery of construction materials and equipment, removal of construction debris, and parking for construction workers. During the construction period, temporary and intermittent transportation impacts would result from truck movements as well as construction worker vehicles traveling to and from the project site. The construction-related traffic would result in temporary congestion on project area streets because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles.

Truck traffic that occurs during the peak commute hours (7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM) could result in reduced levels of service and higher delays at local intersections compared to off-peak hours. Also, if construction worker vehicle parking cannot be accommodated within the project site, it would temporarily increase on-street parking occupancy levels in the area. Project construction traffic could also temporarily affect the operations of AC Transit, and affect bicycle and pedestrian access to the site.

It should be noted that the 2004 EIR identified this same impact (2004 Impact B.12) regarding construction period traffic and circulation. Therefore, 2004 Impact B.12, and corresponding 2004 Mitigation Measure B.12, would remain applicable for the Approved Project. Thus, the Project's impact as it relates to the Approved Project would be considered potentially significant, and the implementation of the previously identified Mitigation Measure B.12 would be required to reduce the impact to a less than significant level. Since buildout of the 2014 Modified Project would

include the implementation of SCAs TRANS-2 and TRANS-3, the Project's impact as it relates to the 2014 Modified Project would be considered less than significant.

Mitigation Measures for Impact TRANS-9

As noted, the 2004 EIR identified this same impact (2004 Impact B.12) regarding construction period traffic and circulation, therefore 2004 Mitigation Measure B.12 is now designated as Mitigation Measure TRANS-9 in this Addendum, and would be applicable to the Approved Project only. Mitigation Measure TRANS-9 requires the development of a set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs, lane closure procedures, signs, cones for drivers, and designated construction access routes. Traffic management strategies would reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of the project and other nearby projects that could be simultaneously under construction. Therefore, construction-related impacts on the transportation system would be less than significant.

> **Mitigation Measure TRANS-9 (previously 2004 MM B.12): Applies to Approved Project Only.** Prior to the issuance of each building permit, the project applicant and construction contractor shall meet with the Traffic Engineering and Parking Division of the Oakland Public Works Agency and other appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project applicant shall develop a construction management plan for review and approval by the City Traffic Engineering Division. The plan shall include at least the following items and requirements:
>
> - A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. In addition, the information shall include a construction staging plan for any right-of-way used on the Embarcadero, Broadway, and Franklin, Alice, and 2nd Streets, including sidewalk and lane intrusions and/or closures.
> - Identification of any transit stop relocations, particularly along the Embarcadero and 2nd Street.
> - Provisions for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces.
> - Identification of parking eliminations and any relocation of parking for employees and public parking during construction.
> - Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.
> - Provisions for accommodation of pedestrian flow, particularly along Embarcadero.
> - Location of construction staging areas for materials, equipment, and vehicles.

- Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant.
- Temporary construction fences to contain debris and material and to secure the site.
- Provisions for removal of trash generated by project construction activity.
- A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager.

Significance after Implementation of Mitigation: Less than Significant.

Applicable Standard Conditions of Approval for Impact TRANS-9

The 2014 Modified Project, specifically the construction of residential development on Sites D and F2, would be subject to City of Oakland SCAs TRANS-2 and TRANS-3) for construction management, traffic and parking (previously listed in this section. These SCAs update and replace the 2004 Mitigation Measure B.12 (now MM TRANS-9). Specifically, SCA TRANS-2 calls for the development of a construction management plan that outlines the measures required to mitigate project construction impacts. SCA TRANS-3 requires the development of a set of comprehensive traffic as specified in 2004 Mitigation Measure B.12 control measures.

The SCAs will be incorporated and adopted as requirements of the 2014 Modified Project as conditions of approval, if the project is approved by the City. Therefore, the impact would be less than significant. No mitigation measure is required.

Planning-Related Non-CEQA Issues

The following transportation-related topics are not considered under CEQA, but are evaluated in order to inform decision-makers and the public about these issues.

Transit Impacts

One of the stated goals in City of Oakland General Plan LUTE is the promotion of transit ridership and encouragement of transit accessibility and improvement of transit service throughout Oakland. Thus, an increase in transit ridership is not identified as a significant impact.

This discussion evaluates the potential for the project (Approved Project or 2014 Modified Project) to do any of the following:

- Increase the average ridership on AC Transit lines by three percent at bus stops where the average load factor in place would exceed 125 percent over a peak 30- minute period; or
- Increase the peak hour average ridership on BART by three percent where the passenger volume would exceed the standing capacity of BART trains.

- Increase the peak hour average ridership at a BART station by three (3) percent where average waiting time at fare gates would exceed one minute.

Based on the mode shares calculated as part of the trip generation analysis, the project would generate 108 transit trips during the AM peak hour and 209 during the PM peak hour under the 2014 Modified Project, and 112 transit trips during the AM peak hour and 236 during the PM peak hour under the Approved Project. The expected distribution of transit trips was developed based on the trip distributions derived from the ACCMA Travel Demand Model.

For origins and destinations with both BART and AC Transit service, the split of project-generated new transit riders on AC Transit, BART, and ferry services was based on a transit mode split of 3.9 percent AC Transit, 5.8 percent BART, and 0.3 percent ferry (for a total transit share of 10.0 percent). These percentages are determined based on a combination of 2000 BATS data and U.S. Census 2000 Journey to Work data. The results of this analysis are summarized in **Table 4.1-27**.

TABLE 4.1-27
PROJECT WEEKDAY PEAK-HOUR TRANSIT TRIPS

	AM Peak Hour				PM Peak Hour			
Origin / Destination	**BART**	**Ferry**	**AC Transit**	**Total**	**BART**	**Ferry**	**AC Transit**	**Total**
2014 Modified Project (Maximum Residential Scenario)								
San Francisco	11	4	4	**19**	21	6	8	**35**
Hayward / Fremont	25	0	12	**37**	48	0	22	**70**
Downtown Oakland	6	0	8	**14**	10	0	16	**26**
West Oakland	6	0	4	**10**	12	0	10	**22**
East Oakland	6	0	4	**10**	10	0	6	**16**
Alameda	0	0	7	**7**	0	0	14	**14**
North Oakland / Berkeley / Albany / El Cerrito / Richmond	4	0	3	**7**	10	0	6	**16**
Walnut Creek / Pleasant Hill	4	0	0	**4**	10	0	0	**10**
Total	**62**	**4**	**42**	**108**	**121**	**6**	**82**	**209**
Approved Project								
San Francisco	11	4	4	**19**	23	7	9	**39**
Hayward / Fremont	26	0	12	**38**	54	0	27	**81**
Downtown Oakland	5	0	8	**13**	12	0	17	**29**
West Oakland	7	0	4	**11**	14	0	9	**23**
East Oakland	5	0	4	**9**	11	0	7	**18**
Alameda	0	0	8	**8**	0	0	16	**16**
North Oakland / Berkeley / Albany / El Cerrito / Richmond	5	0	4	**9**	11	0	7	**18**
Walnut Creek / Pleasant Hill	6	0	0	**6**	12	0	0	**12**
Total	**65**	**4**	**44**	**113**	**137**	**7**	**92**	**236**

Source: AECOM, 2013.

As shown, the 2014 Modified Project is expected to generate 62 BART trips, 42 AC Transit trips, and four trips by ferry during the AM peak hour; during the PM peak hour, it would generate 121 BART trips, 82 AC Transit trips, and six trips by ferry. The Approved Project is expected to generate 65 BART trips, 44 AC Transit trips, and four trips by ferry during the AM peak hour; during the PM peak hour, it would generate 137 BART trips, 92 AC Transit trips, and seven trips by ferry.

AC Transit Loading

Per **Table 4.1-27**, the 2014 Modified Project is expected to generate 42 AC Transit trips during the AM peak hour and 82 AC Transit trips during the PM peak hour. The Approved Project is expected to generate 44 AC Transit trips during the AM peak hour and 92 AC Transit trips during the PM peak hour.

Based on the current services provided by AC Transit, 71 AC Transit buses along 20 AC Transit routes serve the area during the AM peak hour, and 72 AC Transit buses along 20 AC Transit routes serve the area during the PM peak hour. Based on existing service, the project (Approved Project or 2014 Modified Project) would add an average of less than one passenger per bus during the AM peak hour. During the PM peak hour, the 2014 Modified Project would add an average of slightly over one passenger per bus under the Approved Project or the 2014 Modified project.

Given the current AC Transit ridership levels summarized in **Table 4.1-7**, it is not expected that project-generated AC Transit riders will have a substantial effect on AC Transit ridership levels. During the AM peak hour, AC Transit Routes 12 (southbound) and 51A (northbound) currently operate with the highest maximum load factors (108 percent and 107 percent, respectively). The addition of less than one passenger per bus would represent less than a three percent increase in ridership, and the load factor would not reach 125 percent. During the PM peak hour, AC Transit Routes 51A (southbound) and 72R (northbound) currently operate with the highest maximum load factors (104 percent and 91 percent, respectively). The addition of slightly over one passenger per bus would represent approximately a three percent increase in ridership; however, the load factor would not reach 125 percent.

An additional bus ridership consideration includes the likelihood of project-generated BART riders to use AC Transit services to travel between the 12th Street Oakland City Center BART Station and the project site. Currently, multiple AC Transit routes provide a direct connection between the project site and the 12th Street Oakland City Center BART Station, including 58L, 72, 72M, 72R, and the Broadway Shuttle. However, given the fact that the Broadway Shuttle is a free service that offers short headways (11 minutes), it is expected that the majority of project-generated BART riders using bus to travel between the 12th Street Oakland City Center BART Station and the project site would choose to use the Broadway Shuttle.

Per the *2008 BART Station Profile Study*, 31 percent of home-origin trips to the 12th Street Oakland City Center BART Station came by some form of transit, while 69 percent came by automobile, bicycle, or walking. Additionally, four percent of non-home-origin trips (e.g., work trips, trips to/from retail establishments) to the 12th Street Oakland City Center BART Station

came by transit, while 96 percent came by automobile, bicycle, or walking. Given the mixed-use nature of the proposed project, the percentage of project-generated BART users riding the Broadway Shuttle would likely range between four percent and 31 percent. If it is assumed that 31 percent of project-generated BART users ride the Broadway Shuttle, then it can be deduced from Table **4.1-27** that 19 project BART trips would use the Broadway Shuttle during the AM peak hour and 38 would use the Broadway Shuttle during the PM peak hour under the 2014 Modified Project. Under the Approved Project, 20 project BART trips would use the Broadway Shuttle during the AM peak hour and 42 would use the Broadway Shuttle during the PM peak hour. Given the service frequency of the Broadway Shuttle, these totals correspond to approximately four additional riders per bus during the AM peak hour, and between eight and nine riders per bus during the PM peak hour.

Per **Table 4.1-7**, maximum loads on the Broadway shuttle are 15 passengers in the southbound direction during the AM peak hour (representing a 60 percent load factor), and 16 passengers in the northbound direction during the PM peak hour (representing a 64 percent load factor). The addition of four passengers per bus in the AM peak hour would result in a potential maximum load of 19 passengers in the southbound direction, representing a 76 percent load factor. The addition of eight to nine passengers per bus in the PM peak hour would result in a potential maximum load of 24 or 25 passengers in the northbound direction, representing a 96 to 100 percent load factor. In each case, the ridership increases would represent greater than a three percent increase in ridership; however, the load factor would not reach 125 percent. As a result, the project (Approved Project or 2014 Modified Project) would not be expected to result in a significant impact to AC Transit ridership levels.

AC Transit Facilities

Another consideration for the project with respect to area transit services is project effects on transit facilities, such as nearby bus stops. Buildout of the proposed project (Approved Project or 2014 Modified Project) would not result in alterations to existing parking access points, nor would it introduce design features that would present obstacles for AC Transit operation at bus stops. Nevertheless, existing bus stop facilities are examined to determine whether they can adequately support addition project-generated AC Transit trips.

Bus stops associated with AC Transit routes 58L, 72, 72M, 72R, and the Broadway Shuttle (i.e., routes running within the immediate vicinity of the project site) are provided at multiple locations along Broadway, Embarcadero, 2nd Street, Alice Street, and Jackson Street. Given that the project would encompass multiple blocks within the Jack London Square area, it is anticipated that project-generated AC Transit riders would make use of the bus stops nearest their project origin or destination (e.g., project trips from Site D may be more likely to use bus stops along Broadway, and project trips from Site F2 may be more likely to use bus stops along Embarcadero, 2nd Street, Webster Street, or Alice Street). Specifically, the Broadway bus stop at Embarcadero provides a shelter and bench for riders awaiting a bus. All other bus stops within the immediate project vicinity simply provide signage marking the bus stop location, with no shelter provided. Based on field observations of bus stop operations during peak hours, bus stops within the immediate vicinity of the project site were found to operate acceptably. No overcrowding at

specific stops was found to occur, and no obstructions for pedestrians or motorists were found to occur during bus stop boarding or alighting. Given that the project is expected to add less than one passenger per bus during the AM peak hour and slightly over one passenger per bus under during the PM peak hour, and that project-generated AC Transit riders may use different bus stops within the project vicinity, it not expected that additional project-generated AC Transit trips would substantially affect bus stop operations within the immediate vicinity of the project site.

Bus stops associated with AC Transit routes 11, 31, 51A, 62, and O are provided at multiple locations along 7th Street and 8th Street. It is anticipated that project-generated AC Transit riders would make use of the bus stops located nearest to their project origin or destination. The 7th Street bus stop at Franklin Street and the 8th Street bus stop at Jackson Street provide a shelter and bench for riders awaiting a bus. All other bus stops along 7th Street and 8th Street provide signage marking the bus stop location, with no shelter provided. Bus stops associated with AC Transit routes running in the vicinity of the Oakland City Center (i.e., routes 1, 1R, 12, 14, 18, 20, 26, 40, and 88) are provided at multiple locations along Broadway, 11th Street, 12th Street, and 14th Street. It is anticipated that project-generated AC Transit riders would make use of the bus stops located nearest to their project origin or destination. Throughout the Oakland City Center area, bus stops provide shelters and benches for riders awaiting a bus. Given that the project is expected to add less than one passenger per bus during the AM peak hour and slightly over one passenger per bus under during the PM peak hour, and that project-generated AC Transit riders may use different bus stops within the project vicinity, it not expected that additional project-generated AC Transit trips would substantially affect bus stop operations along 7th Street, 8th Street, or within the Oakland City Center area.

BART Loading

As shown in **Table 4.1-27**, the 2014 Modified Project is expected to generate 62 BART trips during the AM peak hour and 121 BART trips during the PM peak hour. The Approved Project is expected to generate 65 BART trips during the AM peak hour and 137 BART trips during the PM peak hour. The most substantial increase in transit ridership as a result of the project (Approved Project or 2014 Modified Project) would occur along corridors serving San Francisco, and corridors serving points southeast of the project site (e.g., Hayward / Fremont, East Oakland).

As shown in **Table 4.1-6**, the project area is served by Richmond–Daly City/Millbrae and Pittsburg/Bay Point–Daly City/Millbrae trains that carry riders between downtown Oakland and San Francisco. Trains along the Richmond–Daly City/Millbrae route include eight to nine cars per train, and operate on 15-minute headways during peak hours. Trains along the Pittsburg/Bay Point–Daly City/Millbrae route include nine to ten cars per train, and operate on headways ranging from six to 12 minutes during peak hours. In total, 24 trains run between the 12th Street Oakland City Center BART Station and San Francisco during the AM peak hour, and 22 trains run between the 12th Street Oakland City Center BART Station and San Francisco during the PM peak hour.

The project (Approved Project or 2014 Modified Project) would add 11 trips to and from San Francisco during the AM peak hour, corresponding to fewer than one additional passenger per

train. During the PM peak hour, the project would add 21 trips under the 2014 Modified Project or 23 trips under the Approved Project, corresponding to approximately one additional passenger per train. In each peak hour, project BART trips to and from San Francisco would represent less than a one percent increase in BART ridership along these routes. This level of ridership increase is not expected to have a substantial effect on BART ridership levels or operations.

The project area is also served by Richmond–Fremont trains that carry riders between Downtown Oakland and points east of the project site, including east Oakland, Hayward, and Fremont. Trains along the Richmond–Fremont route include six cars per train, and operate on 15-minute headways during peak hours. In total, eight trains run between the 12th Street Oakland City Center BART Station and points east of the project site during each peak hour. The project would add 25 trips under the 2014 Modified Project or 26 trips under the Approved Project to and from points east of the project site via BART during the AM peak hour, corresponding to fewer than four additional passengers per train. These project BART trips to and from points east of the project site would represent less than a one percent increase in BART ridership along these routes. During the PM peak hour, the project would add 48 trips under the 2014 Modified Project or 54 trips under the Approved Project, corresponding to fewer than seven additional passengers per train. These BART trips to and from points east of the project site would represent slightly greater than a one percent increase in BART ridership along these routes. This level of ridership increase is not expected to have a substantial effect on BART ridership levels or operations.

BART Faregate Queuing

Faregate queuing is most critical during the AM peak period exiting 12th Street Oakland City Center BART Station, because passengers disembark from trains within a span of a few seconds. Queuing during the PM peak period is less critical because passengers entering the station tend to be more uniformly distributed over a span of several minutes leading up to the train arrival.

Based on the schedule of arrivals at 12th Street Oakland City Center BART Station, the maximum queues occur when the Fremont–Richmond and SFO–Pittsburg / Bay Point trains arrive at the station at the same time as a result of the timed transfer at this location. This timed transfer is scheduled to occur every 15 minutes. Observations of faregate queuing at the 12th Street Oakland City Center BART Station during the peak period verified that the maximum queues occurred during this period.

It is assumed that all project-generated BART ridership would use the faregate array leading to the station entrance at the northeast and northwest corners of the Broadway / 11th Street intersection. Both entrances lead to a set of faregate arrays that are configured to provide three entry faregates, two exit faregates, and one two-way faregate (for use by disabled persons and bicyclists) during the AM peak hour, and two entry faregates, three exit faregates, and one two-way faregate during the PM peak hour.

Observations indicated that the maximum queues at the faregates closest to the Broadway / 11th Street intersection were about nine patrons in length at each of the exit faregates and the maximum delays experienced by passengers waiting in the queues was about 15 seconds. This

situation is defined as the "peak queuing scenario" for the 12th Street Oakland City Center BART Station.

It should be noted, however, that queues of any significance only formed when both the Richmond-bound train and the Pittsburg / Bay Point-bound train actually arrive at the same time. While the timed transfer schedules both trains to arrive at the same time, this scenario rarely occurs given fluctuations in arrival and departure times. Accordingly, when these two trains arrive at slightly different times (e.g., 30 seconds to one minute apart), the queues generated at the faregates were substantially reduced.

In addition, the maximum observed queue delay is not equivalent to the average queue delay. Because of the large volume of passengers over a short span of time, it is difficult to obtain a measure of average queue delay based simply on visual observations. However, average queue delay is expected to be substantially lower than maximum queue delay, considering that passengers who arrive at the faregates before or after the peak queues would experience little to no queue delay whatsoever.

Based on a combination of the estimates of project BART ridership in **Table 4.1-27** and the inbound / outbound travel characteristics assumed for project trips, the project would add approximately 19 passengers exiting BART trains during the peak queuing scenario under the 2014 Modified Project (13 passengers from the Fremont–Richmond train and six passengers from the SFO–Pittsburg / Bay Point train). The Approved Project would add about 28 passengers exiting BART trains during the peak queuing scenario (20 passengers from the Fremont–Richmond train and eight passengers from the SFO–Pittsburg / Bay Point train). Based on a BART faregate capacity of 25 passengers per minute and assuming that these additional project-generated riders all arrive at the faregates at the same time, the project would theoretically increase the maximum faregate queues by 10 passengers to 14 passengers in length.

The service time required to handle the additional 10 passengers per faregate (under the 2014 Modified Project) is about 24 seconds, increasing the theoretical maximum queue delays to 39 seconds, which is shorter than the maximum queue delay under the one minute performance standard of the City of Oakland. The service time required to handle the additional 14 passengers per faregate (under the Approved Project) is about 34 seconds, increasing the theoretical maximum queue delays to 49 seconds, which also is shorter than the maximum queue delay under the one minute performance standard of the City of Oakland.

However, it should be noted that this methodology represents an extremely conservative model of faregate delay, as it assumes that all project-generated riders arrive at the array at the same time, which does not take into account (1) the walking speed of the passenger; (2) the walking distance (i.e., location of the train doors in relation to concourse level access points and locations of stairs and escalators in relation to the faregate arrays); and (3) the means of concourse access (i.e., stair vs. escalator).

Because of these factors, it is likely that the project (Approved Project or 2014 Modified Project) would increase maximum queue delay by up to five to ten seconds; still keeping the maximum

queue delay under the one minute performance standard of the City of Oakland. Average queue delay would increase by even less, because it is much less than the maximum queue delay.

Collision History

Collision history was examined for the most recent five years of available data (July 2006 to August 2011) at study intersections within the City of Oakland, and the most recent five years of available data (June 2008 to May 2013) at study intersections within the City of Alameda. All collisions involving vehicles, bicycles, and / or pedestrians were noted, and collision rates (collisions per one million entering vehicles) were determined. Average daily traffic volumes are assumed to be ten times the PM peak hour volume. As shown in **Table 4.1-28**, the intersection of Broadway / 5th Street has the highest collision rate, at 1.56 collisions per million entering vehicles, while the average rate for study intersections is 0.75 collisions per million entering vehicles.

Parking Related Impacts

This transportation analysis assesses parking as a non-CEQA issue. Parking impacts are assessed according to the following language, which was developed by the City of Oakland:

> The Court of Appeal has held that parking is not part of the permanent physical environment, that parking conditions change over time as people change their travel patterns, and that unmet parking demand created by a project need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects.[10] Parking supply / demand varies by time of day, day of week, and seasonally. As parking demand increases faster than the supply, parking prices rise to reach equilibrium between supply and demand. Decreased availability and increased costs result in changes to people's mode and pattern of travel. However, the City of Oakland, in its review of development facilitated by the Proposed Amendments, wants to ensure that the project's provision of additional parking spaces along with measures to lessen parking demand (by encouraging the use of non-auto travel modes) would result in minimal adverse effects to project occupants and visitors, and that any secondary effects (such as on air quality due to drivers searching for parking spaces) would be minimized. As such, although not required by CEQA, parking conditions are evaluated in this document.

Parking deficits may be associated with secondary physical environmental impacts, such as air quality and noise effects, caused by congestion resulting from drivers circling as they look for a parking space. However, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, shuttles, taxis, bicycles or travel by foot), may induce drivers to shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service, in particular, would be in keeping with the City's "Transit First" policy.

Additionally, regarding potential secondary effects, cars circling and looking for a parking space in areas of limited parking supply is typically a temporary condition, often offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Hence, any secondary environmental impacts that might result from a shortfall in parking in the vicinity of the project area are considered less than significant.

[10] San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656

TABLE 4.1-28
INTERSECTION COLLISION HISTORY

	Intersection	Involved with				Total	Injuries	Peak Hour Vol.	Collision Rate[4]
		Veh.	Bike[1]	Ped.[2]	Other[3]				
1	Market St / 3rd St	10	0	0	0	10	4	711	0.77
2	Market St / 5th St	26	0	0	2	28	11	1,059	1.45
3	Market St / 6th St	11	0	1	2	14	3	739	1.04
4	Market St / 7th St	26	0	1	0	27	9	1,792	0.83
5	Castro St / 11th St	25	1	0	3	29	12	1,877	0.85
6	Castro St / 12th St	38	0	0	2	40	8	2,353	0.93
7	Broadway / Embarcadero	6	1	0	1	8	1	415	1.06
8	Broadway / 2nd St	4	0	2	1	7	3	696	0.55
9	Broadway / 3rd St	10	0	0	0	10	3	948	0.58
10	Broadway / 5th St	72	2	0	5	79	9	2,772	1.56
11	Broadway / 6th St	27	1	0	2	30	8	2,010	0.82
12	Broadway / 11th St	13	4	0	0	17	7	2,104	0.44
13	Broadway / 12th St	12	3	1	0	16	12	2,011	0.44
14	Broadway / 14th St	25	4	0	3	32	15	2,300	0.76
15	Franklin St / 2nd St	4	1	0	0	5	1	282	0.97
16	Franklin St / 3rd St	7	0	0	1	8	1	529	0.83
17	Webster St / Embarcadero	1	0	0	2	3	1	313	0.53
18	Harrison St / 7th St	34	2	0	7	43	13	1,850	1.27
19	Jackson St / 5th St	19	3	0	1	23	13	1,635	0.77
20	Jackson St / 6th St	30	0	0	0	30	9	1,653	0.99
21	Jackson St / 7th St	21	4	1	0	26	15	1,899	0.75
22	Madison St / 5th St	8	0	0	2	10	3	1,383	0.40
23	Madison St / 6th St	19	0	0	0	19	1	1,227	0.85
24	Madison St / 7th St	33	0	0	0	33	11	1,941	0.93
25	Oak St / Embarcadero	3	1	0	5	9	4	753	0.65
26	Oak St / 3rd St	3	0	0	0	3	1	689	0.24
27	Oak St / 5th St	14	0	0	1	15	5	1,739	0.47
28	Oak St / 6th St	15	1	0	1	17	3	1,237	0.75
29	Oak St / 7th St	18	3	0	0	21	8	1,891	0.61
30	5th Ave / Embarcadero	7	1	0	3	11	4	1,267	0.48
31	Webster St / Atlantic Ave	2	0	0	3	5	1	2,237	0.12
32	Constitution Way / Atlantic Ave	10	0	0	1	11	5	2584	0.23
	Average Rate:	--	--	--	--	--	--	--	**0.75**

Source: City of Oakland, 2013; City of Alameda, 2013; AECOM, 2013.

Notes: [1] Detection (usually video detection) for bicycles is typically a consideration for intersections with collisions involving bicycles.
[2] Pedestrian countdown signals are typically a consideration for intersections with collisions involving pedestrians.
[3] Includes collisions with objects and collisions marked as "Not Stated," "Fixed Object," or "Unknown."
[4] Incident rates in collisions per million vehicles entering the intersection.
Ped. = pedestrian, Vol. = volume, Veh. = vehicle.

In addition, the primary causal factors (e.g., right-of-way violation, unsafe speed, improper turning) of each incident were examined to determine the cause of the collisions. **Table 4.1-29** outlines the results for each intersection. Collision summary data can be found in Appendix B to this Addendum.

TABLE 4.1-29
INTERSECTION COLLISION PRIMARY CAUSAL FACTORS

		Factors					
Intersection		**Auto ROW Violation**	**Traffic Signals and Signs**	**Unsafe Speed**	**Other Hazardous Movement**	**Improper Turning**	**Unknown / Other / Not Stated**
1	Market St / 3rd St	4	1	0	0	2	3
2	Market St / 5th St	10	12	0	0	2	4
3	Market St / 6th St	0	7	0	0	4	3
4	Market St / 7th St	12	5	0	1	5	4
5	Castro St / 11th St	0	16	5	0	1	7
6	Castro St / 12th St	2	16	1	0	16	5
7	Broadway / Embarcadero	3	2	0	0	1	2
8	Broadway / 2nd St	4	1	0	0	0	2
9	Broadway / 3rd St	2	4	2	0	0	2
10	Broadway / 5th St	2	12	7	0	32	26
11	Broadway / 6th St	1	4	7	0	8	10
12	Broadway / 11th St	2	0	2	0	3	10
13	Broadway / 12th St	1	3	4	0	3	5
14	Broadway / 14th St	1	2	7	1	7	14
15	Franklin St / 2nd St	0	0	0	0	2	3
16	Franklin St / 3rd St	1	1	0	0	3	3
17	Webster St / Embarcadero	0	0	0	0	0	3
18	Harrison St / 7th St	1	1	22	0	7	12
19	Jackson St / 5th St	3	6	4	0	5	5
20	Jackson St / 6th St	0	21	5	0	2	2
21	Jackson St / 7th St	3	6	4	0	8	5
22	Madison St / 5th St	0	6	0	0	3	1
23	Madison St / 6th St	0	14	2	0	2	1
24	Madison St / 7th St	2	25	1	0	3	2
25	Oak St / Embarcadero	2	0	2	0	1	4
26	Oak St / 3rd St	0	0	0	0	0	3
27	Oak St / 5th St	0	5	0	1	6	3
28	Oak St / 6th St	0	4	1	0	5	7
29	Oak St / 7th St	1	10	2	0	3	5
30	5th Ave / Embarcadero	3	0	3	0	2	3
31	Webster St / Atlantic Ave	0	0	0	0	0	5
32	Constitution Way / Atlantic Ave	0	0	0	0	0	11

Source: City of Oakland, 2013; City of Alameda, 2013; AECOM, 2013.

Notes: ROW = right-of-way.

The required number of parking spaces to be provided as part of the project is calculated using requirements outlined in the Municipal Code. For informational purposes, the project's parking demand is calculated using information from ITE *Parking Generation*, 3rd Edition.

Municipal Code Parking Requirements

A consideration when evaluating the project's proposed parking supply is how it compares to the City's Municipal Code requirements for off-street parking. For commercial uses, the City's off-street parking requirement (Municipal Code Chapter 17.116) varies depending upon the use. For residential uses, one off-street parking space per residential dwelling unit is required. Municipal Code parking requirements by land use are summarized in **Table 4.1-30**.

The total number of parking spaces required for both scenarios with the project is calculated in **Tables 4.1-31** and **4.1-32**. It should be noted that since the completion of the 2004 EIR, some portions of the project have been constructed and are active uses. Municipal Code parking requirements for these portions of the project are included in **Tables 4.1-31** and **4.1-32**, and are accounted for in the total parking required by Municipal Code.

TABLE 4.1-30
CITY OF OAKLAND OFF-STREET PARKING MUNICIPAL CODE REQUIREMENTS

Land Use	C-45 Zone Requirement	Minimum Size
Office	1 space per 1,400 square feet	10,000 square feet
Retail	1 space per 900 square feet	10,000 square feet
Theater	1 space per 16 seats	1 seat
Residential	1 space per 1 dwelling unit	1 dwelling unit
Hotel	3 spaces per 4 rooms	1 room
Conference	1 space per 450 square feet	3,000 square feet

Source: City of Oakland, Municipal Code, Chapter 17.116.

TABLE 4.1-31
PARKING REQUIRED BY MUNICIPAL CODE – 2014 MODIFIED PROJECT (MAXIMUM RESIDENTIAL SCENARIO)

	Municipal Code Required Parking Totals						
Site	**Office**	**Retail**	**Theater**	**Residential**	**Hotel**	**Conference**	**Total**
2014 Modified Project Code Requirement:							
Site C	0	18	--	--	--	--	**18**
Site D	--	--	--	200	--	--	**200**
Pav. 2	--	16	--	--	--	--	**16**
Water 1	--	28	--	--	--	--	**28**
66 Franklin	60	0	--	--	--	--	**60**
Site F1	14	88	--	--	--	--	**102**
Site F2	--	--	--	465	--	--	**465**
Site F3	--	11	--	--	62	33	**106**
Site G	--	44	--	--	--	--	**44**
Subtotal	**74**	**205**	**--**	**665**	**62**	**33**	**1,040**
Code Requirements Associated with already Constructed / Active Portions of the Project:							
Site C	10	--	--	--	--	--	**10**
Site F1	68	0	--	--	--	--	**68**
Subtotal	**78**	**0**	**--**	**--**	**--**	**--**	**78**
						Total	**1,118**
2014 Modified Project Proposed Supply:							
						Site D	**200**
						Site F2	**465**
						Site G	**1,092**
						Washington St. Garage[(1)]	**293**
						Attendant Parking[(2)]	**618**
						Total	**2,668**
						Potential Parking Surplus	**1,550**

Source: AECOM, 2013.

Notes: [(1)] 30 percent of the existing supply of 978 spaces at the Washington Street Garage would be available for project use.
[(2)] 30 percent additional parking capacity due to valet service is anticipated to be available at Site F2, Site G, and the Washington Street Garage.

As shown, the project would be required to provide a total of 1,118 parking spaces under the 2014 Modified Project, including active portions of the project. Given the proposed supply of 2,668 spaces, the 2014 Modified Project is anticipated to have a 1,550 space surplus of parking spaces. As such, it would meet the parking requirements of the Municipal Code.

TABLE 4.1-32
PARKING REQUIRED BY MUNICIPAL CODE – APPROVED PROJECT

	Municipal Code Required Parking Totals						
Site	**Office**	**Retail**	**Theater**	**Residential**	**Hotel**	**Conference**	**Total**
Approved Project Code Requirement:							
Site C	0	18	--	--	--	--	**18**
Site D	64	65	106	--	--	--	**235**
Pav. 2	--	16	--	--	--	--	**16**
Water 1	--	28	--	--	--	--	**28**
66 Franklin	60	0	--	--	--	--	**60**
Site F1	14	88	--	--	--	--	**102**
Site F2	95	16	--	--	--	--	**111**
Site F3	--	11	--	--	62	33	**106**
Site G	--	44	--	--	--	--	**44**
Subtotal	**233**	**286**	**106**	**--**	**62**	**33**	**720**
Code Requirements Associated with already Constructed / Active Portions of the Project:							
Site C	10	--	--	--	--	--	**10**
Site F1	68	0	--	--	--	--	**68**
Subtotal	**78**	**0**	**--**	**--**	**--**	**--**	**78**
						Total	**798**
Approved Project Proposed Supply:							
						Site D	**0**
						Site F2	**550**
						Site G	**1,092**
						Washington St. Garage[(1)]	**293**
						Attendant Parking[(2)]	**782**
						Total	**2,717**
						Potential Parking Surplus	**1,919**

Source: AECOM, 2013.

Notes: [(1)] 30 percent of the existing supply of 978 spaces at the Washington Street Garage would be available for project use.
[(2)] 30 percent additional parking capacity due to valet service is anticipated to be available at Site F2, Site G, and the Washington Street Garage.

As shown, the project would be required to provide a total of 798 parking spaces under the Approved Project, including active portions of the project. Given the proposed supply of 2,717 spaces, the Approved Project is anticipated to have a 1,919 space surplus of parking spaces. As such, the Approved Project would meet the parking requirements of the Municipal Code.

For the purposes of comparison, the project as analyzed in the 2004 EIR identified a Municipal Code requirement for 1,409 spaces, a proposed parking supply of 1,293 spaces, and an overall parking shortfall of 116 spaces. Both the parking supplies proposed as part of the 2014 Modified Project and the Approved Project would be sufficient to meet the parking requirements as calculated in the 2004 EIR.

Parking Demand

For the proposed land uses, parking demand was determined for the weekday peak period based on data provided in ITE's *Parking Generation*, 3rd Edition. ITE Parking Generation rates by land use are summarized in **Table 4.1-33**. The total anticipated parking demand for both scenarios with the project is calculated in **Tables 4.1-34** and **4.1-35**. It should be noted that since the completion of the 2004 EIR, some portions of the project have been constructed and are active uses. The Parking Demand totals associated with these portions of the project are included in **Tables 4.1-34** and **4.1-35**, and are accounted for in the total parking demand of the project.

TABLE 4.1-33
ITE PARKING GENERATION RATES

Land Use	ITE Land Use Code	Parking Generation Rate
Office	701	2.4 spaces per 1,000 square feet
Retail	820	2.65 spaces per 1,000 square feet
Theater	444	0.26 spaces per 1 seat
Residential	230	1.46 spaces per 1 dwelling unit
Hotel	310	0.91 spaces per 1 room
Conference	931	15.4 spaces per 1,000 square feet

Source: Parking Generation, 3rd Edition.

TABLE 4.1-34
PROJECT PARKING DEMAND – 2014 MODIFIED PROJECT (MAXIMUM RESIDENTIAL SCENARIO)

	Parking Demand Totals						
Site	**Office**	**Retail**	**Theater**	**Residential**	**Hotel**	**Conference**	**Total**
2014 Modified Project Parking Demand:							
Site C	2	45	--	--	--	--	**47**
Site D	--	--	--	292	--	--	**292**
Pav. 2	--	40	--	--	--	--	**40**
Water 1	--	69	--	--	--	--	**69**
66 Franklin	205	6	--	--	--	--	**211**
Site F1	48	212	--	--	--	--	**260**
Site F2	--	--	--	680	--	--	**680**
Site F3	--	27	--	--	228	231	**486**
Site G	--	106	--	--	--	--	**106**
Subtotal	**255**	**505**	**--**	**972**	**228**	**231**	**2,191**
Parking Demand Associated with already Constructed / Active Portions of the Project:							
Site C	36	--	--	--	--	--	**36**
Site F1	230	11	--	--	--	--	**241**
Subtotal	**78**	**0**	**--**	**--**	**--**	**--**	**277**
						Total	**2,468**
2014 Modified Project Proposed Supply:							
						Site D	**200**
						Site F2	**465**
						Site G	**1,092**
						Washington St. Garage[(1)]	**293**
						Attendant Parking[(2)]	**618**
						Total	**2,668**
						Potential Parking Surplus	**200**

Source: AECOM, 2013.

Notes: [(1)] 30 percent of the existing supply of 978 spaces at the Washington Street Garage would be available for project use.
[(2)] 30 percent additional parking capacity due to valet service is anticipated to be available at Site F2, Site G, and the Washington Street Garage.

As shown, the 2014 Modified Project would generate a demand for 2,468 parking spaces, including the active portions of the project. Given the proposed supply of 2,668 spaces, the 2014 Modified Project would have a surplus of 200 parking spaces.

TABLE 4.1-35
PROJECT PARKING DEMAND – APPROVED PROJECT

	Parking Demand Totals						
Site	**Office**	**Retail**	**Theater**	**Residential**	**Hotel**	**Conference**	**Total**
Approved Project Parking Demand:							
Site C	2	45	--	--	--	--	**47**
Site D	216	156	442	--	--	--	**814**
Pav. 2	--	40	--	--	--	--	**40**
Water 1	--	69	--	--	--	--	**69**
66 Franklin	205	6	--	--	--	--	**211**
Site F1	48	212	--	--	--	--	**260**
Site F2	322	40	--	--	--	--	**362**
Site F3	--	27	--	--	228	231	**486**
Site G	--	106	--	--	--	--	**106**
Subtotal	**793**	**701**	**442**	**--**	**228**	**231**	**2,395**
Parking Demand Associated with already Constructed / Active Portions of the Project:							
Site C	36	--	--	--	--	--	**36**
Site F1	230	11	--	--	--	--	**241**
Subtotal	**78**	**0**	**--**	**--**	**--**	**--**	**277**
						Total	**2,672**
Approved Project Proposed Supply:							
						Site D	**0**
						Site F2	**550**
						Site G	**1,092**
						Washington St. Garage[(1)]	**293**
						Attendant Parking[(2)]	**782**
						Total	**2,717**
						Potential Parking Surplus	**45**

Source: AECOM, 2013.

Notes: [(1)] 30 percent of the existing supply of 978 spaces at the Washington Street Garage would be available for project use.
[(2)] 30 percent additional parking capacity due to valet service is anticipated to be available at Site F2, Site G, and the Washington Street Garage.

As shown, the Approved Project would generate a demand for 2,672 parking spaces, including the active portions of the project. Given the proposed supply of 2,717 spaces, the Approved Project would have a surplus of 45 parking spaces.

For the purposes of comparison, the project as analyzed in the 2004 EIR identified a parking demand for 3,254 parking spaces. Though the parking supplies proposed as part of the project (Approved Project or 2014 Modified Project) would be sufficient to meet parking demand calculated in **Tables 4.1-34** and **4.1-35**, they would not be sufficient to meet the demand as calculated in the 2004 EIR. However, it should be noted that similar to trip generations rates published in ITE's *Trip Generation*, parking demand rates published in ITE's *Parking Generation* over-estimates parking demand related to dense, urban environments such as the Jack London Square neighborhood in Oakland. Parking demand rates presented in ITE's *Parking Generation* are derived from studies conducted in suburban sites with ample free parking, little public transit availability, and minimal pedestrian facilities. Moreover, mixed-use developments that combine origins and destinations in close proximity may encourage "internal" trips made entirely within a given development, minimizing the need to move from one parking facility to another. As such, due to the urban setting, access to local and regional public transit, pedestrian access, and the mixed-use nature of the project, it is expected that the project's actual demand for parking would be lower than totals calculated using ITE *Parking Generation* rates.

Loading Requirements

A consideration when evaluating the project's proposed loading supply is how it compares to the City's Municipal Code requirements for off-street loading. City of Oakland Municipal Code loading requirements by land use are summarized in **Table 4.1-36**, and the total number of loading spaces required is calculated in **Table 4.1-37**.

TABLE 4.1-36
CITY OF OAKLAND OFF-STREET LOADING MUNICIPAL CODE REQUIREMENTS

Land Use	C-45 Zone Requirement
Office	No berths required for less than 50,000 square feet; 1 berth per 50,000-299,999 square feet
Retail	No berths required for less than 10,000 square feet; 1 berth per 10,000-24,999 square feet; 2 berths per 25,000-49,999 square feet; 3 berths required per 50,000-99,999 square feet
Theater	2 berths per 25,000-49,999 square feet
Residential	2 berth per 150,000-299,999 square feet, and 1 additional berth per 300,000 additional square feet (or fraction thereof)
Hotel	1 berth per 150,000-299,999 square feet
Conference	1 berth per 10,000-24,999 square feet

Source: City of Oakland, Municipal Code, Chapter 17.116.

TABLE 4.1-37
PROJECT REQUIRED LOADING TOTALS

	Municipal Code Required Loading Totals by Site									
Land Use	**Site C**	**Site D**	**Pav. 2**	**Water 1**	**66 Franklin**	**Site F1**	**Site F2**	**Site F3**	**Site G**	**Total**
2014 Modified Project (Maximum Residential Scenario)										
Office	0	----	----	----	1	1	----	----	----	**2**
Retail	1	----	1	2	0	3	----	1	2	**10**
Theater	----	----	----	----	----	----	----	----	----	**----**
Residential	----	2	----	----	----	----	2	----	----	**4**
Hotel	----	----	----	----	----	----	----	1	----	**1**
Conference	----	----	----	----	----	----	----	1	----	**1**
Total	**1**	**2**	**1**	**2**	**1**	**4**	**2**	**3**	**2**	**18**
Approved Project										
Office	0	1	----	----	1	0	1	----	----	**3**
Retail	1	3	1	2	0	3	1	1	2	**14**
Theater	----	2	----	----	----	----	----	----	----	**2**
Residential	----	----	----	----	----	----	----	----	----	**----**
Hotel	----	----	----	----	----	----	----	1	----	**1**
Conference	----	----	----	----	----	----	----	1	----	**1**
Total	**1**	**6**	**1**	**2**	**1**	**3**	**2**	**3**	**2**	**21**

Source: AECOM, 2013.

As shown, the project would be required to provide a total of 18 loading berths under the 2014 Modified Project, and 21 loading berths under the Approved Project. At this time, the project sponsor is considering multiple project variants, and as such, the proposed loading supply has not been finalized. As portions of the project are constructed, the project sponsor will be required to demonstrate that loading spaces will be provided in accordance with City of Oakland Municipal Code requirements.

Bicycle Parking

Table 4.1-38 specifies the City of Oakland Municipal Code requirements for the provision of short- and long-term bicycle parking facilities. **Tables 4.1-39** and **4.1-40** calculate the total number of loading spaces required by site.

TABLE 4.1-38
CITY OF OAKLAND BICYCLE PARKING MUNICIPAL CODE REQUIREMENTS

Land Use	Long-Term Requirement	Short-Term Requirement
Office	1 space per 10,000 square feet	1 space per 20,000 square feet
Retail	1 space per 12,000 square feet	1 space per 5,000 square feet
Theater	Number of long-term spaces to be prescribed by the Director of City Planning	Number of short-term spaces to be prescribed by the Director of City Planning
Residential	1 space per each 4 dwelling units	1 space per each 20 dwelling units
Hotel	1 space per each 20 rooms	1 space per each 20 rooms
Conference	1 space per 12,000 square feet	1 space per 2,000 square feet

Source: City of Oakland, Municipal Code, Chapter 17.117.

TABLE 4.1-39
PROJECT REQUIRED BICYCLE PARKING TOTALS – 2014 MODIFIED PROJECT (MAXIMUM RESIDENTIAL SCENARIO

	Municipal Code Required Bicycle Parking Totals by Site									
Land Use	**Site C**	**Site D**	**Pav. 2**	**Water 1**	**66 Franklin**	**Site F1**	**Site F2**	**Site F3**	**Site G**	**Total**
Long-Term Bicycle Parking:										
Office	0	----	----	----	8	2	----	----	----	**10**
Retail	1	----	1	2	0	6	----	0	3	**13**
Theater	----	----	----	----	----	----	----	----	----	**----**
Residential	----	50	----	----	----	----	116	----	----	**166**
Hotel	----	----	----	----	----	----	----	12	----	**12**
Conference	----	----	----	----	----	----	----	1	----	**1**
Total	**1**	**50**	**1**	**2**	**8**	**8**	**116**	**13**	**3**	**202**
Short-Term Bicycle Parking:										
Office	0	----	----	----	4	1	----	----	----	**5**
Retail	3	----	3	5	0	16	----	2	8	**37**
Theater	----	----	----	----	----	----	----	----	----	**----**
Residential	----	10	----	----	----	----	23	----	----	**33**
Hotel	----	----	----	----	----	----	----	12	----	**12**
Conference	----	----	----	----	----	----	----	7	----	**7**
Total	**3**	**10**	**3**	**5**	**4**	**17**	**23**	**21**	**8**	**94**

Source: AECOM, 2013.

TABLE 4.1-40
PROJECT REQUIRED BICYCLE PARKING TOTALS – APPROVED PROJECT

	Municipal Code Required Loading Totals by Site									
Land Use	**Site C**	**Site D**	**Pav. 2**	**Water 1**	**66 Franklin**	**Site F1**	**Site F2**	**Site F3**	**Site G**	**Total**
Long-Term Bicycle Parking:										
Office	0	9	----	----	8	2	13	----	----	**32**
Retail	1	4	1	2	0	6	1	0	3	**18**
Theater	----	----[(1)]	----	----	----	----	----	----	----	**----**[(1)]
Residential	----	----	----	----	----	----	----	----	----	**----**
Hotel	----	----	----	----	----	----	----	12	----	**12**
Conference	----	----	----	----	----	----	----	1	----	**1**
Total	**1**	**13**	**1**	**2**	**8**	**8**	**14**	**13**	**3**	**63**
Short-Term Bicycle Parking:										
Office	0	4	----	----	4	1	6	----	----	**15**
Retail	3	11	3	5	0	16	3	2	8	**51**
Theater	----	----[(1)]	----	----	----	----	----	----	----	**----**[(1)]
Residential	----	----	----	----	----	----	----	----	----	**----**
Hotel	----	----	----	----	----	----	----	12	----	**12**
Conference	----	----	----	----	----	----	----	7	----	**7**
Total	**3**	**15**	**3**	**5**	**4**	**17**	**9**	**21**	**8**	**85**

Source: AECOM, 2013.

Notes: [(1)] The number of long-term and short-term bicycle spaces required of the theater use is to be prescribed by the Director of Planning.

As shown, the project would be required to provide a total of 202 long-term bicycle parking spaces and 94 short-term bicycle parking spaces under the 2014 Modified Project, and 63 long-term bicycle parking spaces and 85 short-term bicycle parking spaces under the Approved Project. However, it should be noted that under the Approved Project, required bicycle parking totals for the proposed theater use would be prescribed by the Director of Planning, and as such, the required long-term and short-term bicycle parking totals may increase. At this time, the project sponsor is considering multiple project variants, and as such, the proposed bicycle parking supply has not been finalized. As portions of the project are constructed, the project sponsor will be required to demonstrate that sufficient bicycle parking spaces will be provided in accordance with City of Oakland Municipal Code requirements.

References

American Association of State Highway and Transportation Officials, *Highway Safety Manual*, 2010.

Bay Area Rapid Transit, Monthly Ridership Report, September 2013, available online at: www.bart.gov/about/reports/ridership.aspx, 2013.

Bay Area Rapid Transit, 2008 BART Station Profile Study, 2008.

California Department of Transportation (Caltrans), Performance Measurement System, Available online at http://pems.dot.ca.gov, 2013.

California Department of Transportation (Caltrans), California Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways, Available online at: www.dot.ca.gov/hq/traffops/signtech/mutcdsupp, 2012.

City of Oakland, *Bicycle Master Plan Update*, 2007.

City of Oakland, *Envision Oakland, City of Oakland General Plan, Land Use and Transportation (LUTE) Element*, as amended through March 24, 1998.

City of Oakland, *Pedestrian Master Plan*, 2002.

Metropolitan Transportation Commission, *Plan Bay Area: Strategy for a Sustainable Region*, 2013.

Institute of Transportation Engineers (ITE), 2012. *Trip Generation*, 9th Edition.

Transportation Research Board (TRB), 1985. *Highway Capacity Manual*.

Transportation Research Board (TRB), 2000. *2000 Highway Capacity Manual*.

4.2 Air Quality

This section provides sufficient analysis and, as necessary, updates to confirm that the "project changes" proposed with the 2014 Modified Project would not result in new significant impacts or a substantial increase in the severity of previously identified air quality impacts, compared with those identified in the 2004 EIR.

As previously stated in Chapter 1, *Introduction*, since certain information regarding air quality issues was known, or could have been known, when the 2004 EIR was being prepared, it does not constitute "new information" as defined under CEQA. However, in order to provide maximum information to decision-makers and members of the public, an analysis of the 2014 Modified Project has nevertheless been conducted. For purposes of CEQA, the air quality significance determinations for the 2014 Modified Project are based on the City's significance thresholds from the 2004 EIR (which were based upon BAAQMD 1999 CEQA Thresholds). However, this analysis also assesses the 2014 Modified Project's effects under the City's current thresholds (which are based upon the BAAQMD May 2011 CEQA Thresholds) to determine if the significance thresholds are exceeded, in which case the City's most recently adopted *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) should apply to the 2014 Modified Project in connection with residential uses on Sites D and F2. The assessment that relies on the City's current significance thresholds for toxic air contaminants (TACs) is also appropriate in this section because the new potential to expose new sensitive receptors (residents) on Sites D and F2 to substantial levels of TACs would result specifically as a result of "change proposed in the project" considered under CEQA Guidelines Section 15162.

This section also provides relevant updates to the environmental and regulatory settings regarding air quality.

Additionally, CEQA requires the analysis of potential adverse effects of the project on the environment. Potential effects of the environment on the project are legally not required to be analyzed or mitigated under CEQA. However, this section nevertheless analyzes potential effects of the air quality environment on the project in order to provide information to the public and decision-makers. Where a potential significant effect of the environment on the project is identified, the document, as appropriate, identifies City SCAs and/or project-specific non-CEQA recommendations to address these issues.

Previous Environmental Analysis

The previous environmental analysis determined that air quality impacts from construction under the Approved Project would have a significant air quality impact. This impact would result from activities associated with demolition, site preparation and construction that would generate short-term fugitive dust emissions, primarily because residential land uses are located as close as 300 feet from the boundaries of the project site. This impact was determined to be reduced to a less than significant level with the implementation of mitigation measures. Construction-related

effects associated with emissions of criteria pollutants and equipment exhaust emissions were found to be less than significant.

For project operations, the environmental analysis of the Approved Project determined that air quality emissions from motor vehicle trips, diesel delivery trucks, and other on-site stationary sources would result in an increase in criteria pollutant emissions that would exceed the City's significance thresholds and result in a significant unavoidable impact to regional air quality. Project-generated traffic would contribute to, but did not exceed thresholds for carbon monoxide (CO) concentrations.

For ease of review and comparison of the impacts identified in the 2004 EIR and this Addendum, relevant impacts and mitigation measures from the 2004 EIR are discussed within the *Analysis of the 2014 Modified Project* section, below.

Standard Conditions of Approval

The City of Oakland SCAs that directly pertain to air quality impacts are SCA AIR-1 (Construction-Related Air Pollution Controls [Dust and Equipment Emissions]), listed fully below; and SCA B (Exposure to Air Pollution – TACs), summarized below. SCA AIR-1 is generally consistent with, and substantially expands the requirements of (to address construction emissions), 2004 Mitigation Measure C.1a (Construction – Basic Control Measures) to address construction period dust associated with the Approved Project. If the City approves the 2014 Modified Project, SCA AIR-1 would be incorporated and required as part of the project in connection with residential uses on Sites D and F2, and will ensure that no significant impacts occur regarding construction period dust (or emissions). SCA B specifies health risk reduction measures that would apply to all projects that meet three specific criteria, and the 2014 Modified Project does not meet one of the criteria and is therefore not subject to SCA B.

- **SCA AIR-1: Construction-Related Air Pollution Controls (Dust and Equipment Emissions)**

  Ongoing throughout demolition, grading, and/or construction. During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the BAAQMD:

  a) Water all exposed surfaces of active construction areas at least twice daily (using reclaimed water if possible). Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.

  b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).

  c) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d) Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

e) Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).

f) Limit vehicle speeds on unpaved roads to 15 miles per hour.

g) Idling times on all diesel-fueled commercial vehicles over 10,000 lbs. shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations. Clear signage to this effect shall be provided for construction workers at all access points.

h) Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes and fleet operators must develop a written idling policy (as required by Title 13, Section 2449 of the California Code of Regulations.)

i) All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

j) Post a publicly visible sign that includes the contractor's name and telephone number to contact regarding dust complaints. When contacted, the contractor shall respond and take corrective action within 48 hours. The telephone numbers of contacts at the City and the BAAQMD shall also be visible. This information may be posted on other required on-site signage.

k) All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

l) All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph.

m) Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

n) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).

o) Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress.

p) Install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of the construction site to minimize wind blown dust. Wind breaks must have a maximum 50 percent air porosity.

q) Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

r) The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

s) All trucks and equipment, including tires, shall be washed off prior to leaving the site.

t) Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.

u) Minimize the idling time of diesel-powered construction equipment to two minutes.

v) All equipment to be used on the construction site and subject to the requirements of Title 13, Section 2449 of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations") must meet Emissions and Performance Requirements one year in advance of any fleet deadlines. The project applicant shall provide written documentation that the fleet requirements have been met. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings).

w) All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of NO_x and PM.

x) Off-road heavy diesel engines shall meet the CARB's most recent certification standard.

- **SCA B: Exposure to Air Pollution (Toxic Air Contaminants)**

  SCA B applies to projects that (1) involve sensitive land uses that include residential and schools, daycare centers, parks, nursing homes, or medical facilities; (2) is located within 1,000 feet of one or more specific and substantial sources of air pollution; and (3) exceeds the health risk screening criteria conducted in accordance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines. The 2014 Modified Project does not meet criterion #3, as discussed in this section of the Addendum.

Additional Relevant SCA

- **SCA TRANS-1 (Parking and Transportation Demand Management)**

  SCA TRANS-1 addresses parking transportation demand management and would apply to residential uses on Sites D and F2 under the 2014 Modified Project. However, the project sponsor is already required to comply with Mitigation Measures C.2 and C.5 (Rideshare, Transit, Shuttle, Bicycle/Pedestrian Measures) in the 2004 EIR, which already address the preparation of a parking and transportation demand management plan that would satisfy the requirements of SCA TRANS-1. The project sponsor has a continuing obligation to maintain the existing TDMP pursuant to Mitigation Measures C.2 and C.5, and is now

required to update its existing plan for City review and approval in order to fully satisfy SCA TRANS-1 for the 2014 Modified Project.

2014 Existing Conditions

Air quality conditions in the San Francisco Bay Area Air Basin have improved significantly since the previous environmental analysis, and ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen dramatically. Notable changes to the regional air quality setting since preparation of the 2004 EIR include the following:

- Since 2004, ozone levels, measured by peak concentrations and the number of days over the State 1-hour standard have declined substantially as a result of aggressive programs by the BAAQMD and other regional, State and federal agencies. The reduction of peak concentrations represents progress in improving public health; however, the Bay Area still exceeds the State standard for 1- hour ozone. Since 2004, U.S. EPA has introduced an 8-hour average ozone standard and revoked the 1-hour ozone standard. The Bay Area Basin was designated as non-attainment for this new standard in 2012.

- Since 2004, levels of particulate matter (PM_{10} and fine particulate matter, $PM_{2.5}$) in the Bay Area have exceeded State standards at least two times per year during the past three years. The Bay Area is considered a non-attainment area for PM_{10} and $PM_{2.5}$ relative to the respective State standards and for the federal $PM_{2.5}$ standard. Since 2004, U.S. EPA has strengthened the federal standard for $PM_{2.5}$ from 65 to 35 micrograms per cubic meter and designated the Bay Area Basin as non-attainment for this new standard in 2012.

Air Quality Standards and Existing Conditions

Both State and federal governments have established health-based Ambient Air Quality Standards for six air pollutants: CO; ozone (O3), NO_x, sulfur dioxide (SO_2), lead (Pb) and suspended PM. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. These standards are designed to protect public health and welfare with a reasonable margin of safety. In addition to primary and secondary Ambient Air Quality Standards, the State of California has established a set of episode criteria for O3, CO, NO_2, SO_2 and PM. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. Health effects are progressively more severe as pollutant levels increase. California and national Ambient Air Quality Standards for the criteria pollutants are listed in **Table 4.2-1**.

Changes to the State and federal air quality standards which occurred between the certification of the 2004 EIR and 2013 include the following:

- The U.S. EPA revoked the federal 1-hour ozone standard in June 15, 2005;
- CARB implemented the State 8-hour ozone standard on May 17, 2005;

- The U.S. EPA implemented a more stringent federal 24-hour $PM_{2.5}$ standard, revising it from 65 micrograms per cubic meter to 35 micrograms per cubic meter and revoked the federal annual average PM_{10} standard, on December 17, 2006;
- The U.S. EPA implemented a more stringent federal 8-hour ozone standard, revising it from 0.08 to 0.075 parts per million on May 17, 2008.
- The U.S. EPA implemented a new 1-hour NO_2 standard of 100 parts per billion and a new 1-hour SO_2 standard of 100 parts per billion of 75 parts per billion in 2010. The previous 24-hour and annual average SO_2 standards were revoked.
- CARB implemented a more stringent 1-hour NO_2 standard in 2010, revising it from 0.25 parts per million to 0.18 parts per million.

As of 2013, the Bay Area Air Basin, which includes the project site, is still considered a non-attainment area for the State 1-hour ozone standard, remains a non-attainment area for the federal 8-hour ozone standard revised in 2006, and is now designated as a non-attainment area for the State 8-hour ozone standard implemented in 2008. The Basin continues to be a non-attainment area for the State PM_{10} and $PM_{2.5}$ standards and is now designated as a non-attainment area for the federal $PM_{2.5}$ standard. **Table 4.2-2** presents the current State and federal air quality standards in place of 2012 and the health effects and sources associated with each pollutant. Table 4.2-2 presents the existing attainment status for the San Francisco Bay Area Air Basin.

The BAAQMD operates a regional monitoring network that measures the ambient concentrations of the six criteria air pollutants. Existing and probable future levels of air quality in Oakland can generally be inferred from ambient air quality measurements conducted by the BAAQMD at its nearby monitoring stations. The monitoring stations closest to the project site are the West Oakland and International Boulevard stations in Oakland, 1.0 mile southwest and 7.3 miles southeast from the 2014 Modified Project site, respectively. The West Oakland station began monitoring $PM_{2.5}$, NO_x, and SO_2 in 2009, O3 (1-hour and 8-hour) in 2010, and the International Boulevard station monitors these same pollutants and for previous years.

Since the major pollutants of concern in the San Francisco Bay Area are O_3 and PM, **Table 4.2-3** shows a four-year summary of monitoring data (2008 through 2011) for these pollutants from the West Oakland and International Boulevard stations. Due to the proximity of the project site to the stations in Oakland, air quality measurements gathered in Oakland are understood to be generally representative of conditions at the project site. Table 4.2-3 also compares measured pollutant concentrations with State and national ambient air quality standards.

TABLE 4.2-1
STATE AND NATIONAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone (O3)	1 hour	0.09 ppm	---	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases (ROG) and nitrogen oxides (NO_x) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
	8 hours	0.07 ppm	0.075 ppm		
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Classified as a chemical asphyxiant, CO interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm		
Nitrogen Dioxide (NO_2)	1 hour	0.18 ppm	0.100 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
	Annual Avg.	0.030	0.053 ppm		
Sulfur Dioxide (SO_2)	1 hour	0.25 ppm	.075 ppm	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	3 hours	---	0.5 ppm		
	24 hours	0.04 ppm	0.14 ppm		
	Annual Avg.	---	0.03 ppm		
Respirable Particulate Matter (PM_{10})	24 hours	50 $\mu g/m^3$	150 $\mu g/m^3$	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	Annual Avg.	20 g/m^3	---		
Fine Particulate Matter ($PM_{2.5}$)	24 hours	---	35 $\mu g/m^3$	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NO_x, sulfur oxides, and organics.
	Annual Avg.	12 $\mu g/m^3$	15 $\mu g/m^3$		
Lead (Pb)	30-Day Avg.	1.5 $\mu g/m^3$	---	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	---	1.5 $\mu g/m^3$		
	Rolling 3-Month Avg.		.15 $\mu g/m^3$		
Hydrogen Sulfide	1 hour	0.03 ppm	No National Standard	Geothermal Power Plants, Petroleum Production and refining	Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations)
Sulfates	24 hour	25 $\mu g/m^3$	No National Standard	Produced by the reaction in the air of SO2.	Breathing difficulties, aggravates asthma, reduced visibility
Visibility Reducing Particles	8 hour	Extinction of 0.23/km; visibility of 10 miles or more	No National Standard	Reduces visibility, reduced airport safety, lower real estate value, and discourages tourism.	See $PM_{2.5}$

ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.

SOURCE: California Air Resources Board, 2012, http://www.arb.ca.gov/research/aaqs/aaqs2.pdf

TABLE 4.2-2
BAY AREA ATTAINMENT STATUS

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone (O3) – one hour	No Federal Standard[1]	Nonattainment
Ozone (O3)– eight hour	Nonattainment	Nonattainment
PM_{10}	Unclassified	Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Maintenance	Attainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead (Pb)	No Designation	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified

1 Federal One Hour Ozone National Ambient Air Quality Standard was revoked on June 15, 2005.
2 The State 8-hour ozone standard was approved by the CARB on April 28, 2005, and became effective May 17, 2006.

SOURCE: BAAQMD, 2012a.

TABLE 4.2-3
AIR QUALITY DATA SUMMARY (2008-2011) FOR THE PROJECT AREA[a]

Pollutant	State Standard[b]	National Standard[b]	Monitoring Data by Year			
			2008	2009	2010	2011
Ozone hourly						
Highest 1-hour average, ppm[c]	0.09	NA	0.086	0.092	0.040	0.057
Days over State Standard			0	0[f]	0	0
Ozone 8-hour						
Highest 8-hour average, ppm[c]	0.07	0.075	0.064	0.062	0.035	0.048
Days over National Standard			0	0	0	0
Days over State Standard			0	0	0	0
Carbon Monoxide (CO) 8-hour						
Highest 8-hour average, ppm[c]	9.0	9	1.63	1.96	1.69	2.65
Days over National Standard			0	0	0	0
Days over State Standard			0	0	0	0
Nitrogen Dioxide (NO_2)						
Highest 1-hour concentration, ppm[c]	0.18	0.10	0.070	0.057	0.069	0.062
Days over National Standard			0	0	0	0
Days over State Standard			0	0	0	0
Sulfur Dioxide (SO_2)						
Highest 24-hourconcentration, ppm[c]	0.04	0.14	NA	0.005	0.004	0.003
Days over National Standard			0	0	0	0
Days over State Standard			0	0	0	0
$PM_{2.5}$						
Highest 24-hour average, µg/m3[c]	NA	35	30.1	27.9	35.2	43.1
Estimated days over National Standard[d]			0	0	0	1

[a] Ozone data for 2008 and 2009 are from the BAAQMD's International Boulevard station in Oakland, approximately 5.5 mile east of the Project Site; data for 2010 and 2011 are from the BAAQMD's West Oakland station at 1100 21st Street in Oakland, approximately 1.2 miles northwest of the Project Site; All other pollutant data are from West Oakland for 2009 through 2011 and International Boulevard for 2008. PM_{10} data was not available near the Project Site.
[b] Generally, State standards and national standards are not to be exceeded more than once per year.
[c] ppm = parts per million; μg/m3 = micrograms per cubic meter.
[d] Exceedance based on the previous National Standard of 65μg/m3.
[e] The CARB states that an exceedance is not necessarily a violation.
[f] A violation occurs only if the standard is exceeded. Because 0.092 rounds to 0.09, it is not considered a violation. A recorded concentration of 0.095 or greater would constitute a violation of the State standard.

NA = Not Available or Not Applicable.

SOURCE: CARB, 2012b.

California Air Resources Board (CARB) Air Quality and Land Use Handbook

In April 2005, the CARB prepared the *Air Quality and Land Use Handbook* (CARB Handbook) which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. The CARB Handbook recommends that planning agencies strongly consider proximity to these sources when finding new locations for "sensitive" land uses such as homes, medical facilities, daycare centers, schools and playgrounds.

Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners and large gasoline service stations. Key recommendations in the Handbook include taking steps to avoid siting new, sensitive land uses (including residences, day care centers, playgrounds or medical facilities):

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day.
- Within 1,000 feet of a major service and maintenance rail yard.
- Immediately downwind of ports (in the most heavily impacted zones) and petroleum refineries.
- Within 300 feet of any dry cleaning operation.
- Within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater).

The CARB Handbook specifically states that its recommendations are advisory. It also acknowledges that land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

Proposed residents that would be located on the project site would be considered sensitive land uses. The nearest freeway (I-980) is located more than 1,000 feet to the north of the project site and would be outside the screening distance recommendation of the CARB. Roadway volumes on Broadway are substantially below the 100,000 vehicle per day threshold. The project would similarly be outside the screening distance recommendation of the CARB for the other significant air pollution sources listed above.

Bay Area Air Quality Management District (BAAQMD) 2010 Clean Air Plan

For State air quality planning purposes, the Bay Area is classified as a serious non-attainment area for ozone. The "serious" classification triggers various plan submittal requirements and transportation performance standards. One such requirement is that the Bay Area update the Clean Air Plan every three years to reflect progress in meeting the air quality standards and to incorporate new information regarding the feasibility of control measures and new emission inventory data. The Bay Area's record of progress in implementing previous measures must also be reviewed. On September 15, 2010, the BAAQMD adopted the most recent revision to the Clean Air Plan. The goals of the 2010 Clean Air Plan are:

- Update the Bay Area 2005 Ozone Strategy in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone;
- Consider the impacts of ozone control measures on PM_{10} and $PM_{2.5}$, TACs, and GHGs, in a single, integrated plan;
- Review progress in improving air quality in recent years; and
- Establish emission control measures to be adopted or implemented in the 2009−2012 timeframe.

BAAQMD CEQA Guidelines and Thresholds of Significance

In December 1999, the BAAQMD adopted its *CEQA Guidelines – Assessing the Air Quality Impacts of Projects and Plans*, as a guidance document to provide lead government agencies, consultants, and project proponents with uniform procedures for assessing air quality impacts and preparing the air quality sections of environmental documents for projects subject to CEQA. The *BAAQMD CEQA Guidelines* is an advisory document and local jurisdictions are not required to utilize the methodology outlined therein. The document describes the criteria that the BAAQMD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for use in determining whether projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts.

The BAAQMD updated the 1999 CEQA Air Quality Guidelines in 2010. In May of 2011, the BAAQMD adopted an updated version of its Thresholds of Significance for use in determining the significance of projects' environmental effects under CEQA (Thresholds), and published its CEQA Guidelines for consideration by lead agencies. The Thresholds lowered the previous (1999) thresholds of significance for annual emissions of ROG, NO_X, and PM_{10}, and set a standard for $PM_{2.5}$ and fugitive dust. The 2011 CEQA Guidelines also include methodologies for evaluating risks and hazards for the siting of stationary sources and of sensitive receptors.

The BAAQMD has subsequently updated its CEQA Air Quality Guidelines in May of 2012 which continues to provide direction on recommended analysis methodologies but no longer recommend quantitative significance thresholds. In the revised Guidelines, the air district recommends that lead agencies develop their own thresholds of significance. The BAAQMD

offers, as possibilities, its previous 1999 Guidelines thresholds and also presents a table of thresholds promulgated by other California air districts, as well as a reference to California Air Pollution Control Officers Association and State Air Resources Board guidance. Lead agencies may also reference the BAAQMD CEQA Thresholds Options and Justification Report developed by district staff in 2009. This latter option provides lead agencies with a justification for continuing to rely on the BAAQMD 2011 thresholds. As such, the current City Thresholds for air quality are based upon the BAAQMD 2011 CEQA Guidelines and Thresholds.[1]

A summary of the 1999 and 2011 thresholds of significance for the various pollutants is presented in **Table 4.2-4**, and the thresholds applied in this analysis are indicated in this table.

To summarize from Table 4.2-4, according to the 1999 Thresholds of significance for criteria pollutants and precursors, a project would result in a significant impact if operational emissions were to exceed the following thresholds: more than 80 pounds per day of ROG, NO_x, and PM_{10} (exhaust emissions only). The 1999 Thresholds do not apply to construction emissions, although the 1999 Guidelines indicate that construction emissions are considered to be less than significant if BAAQMD-recommended dust and exhaust control measures are implemented. Although not applicable to the 2014 Modified Project for CEQA considerations, under the 2011 Thresholds for criteria pollutants and precursors, a project would result in a significant impact if construction-related or operational emissions were to exceed the following thresholds: more than 54 pounds per day of ROG, NO_x, and PM_{10} (exhaust emissions only). In addition, the 2011 Thresholds for criteria pollutant emissions associated with project operation include the following: more than 10 tons per year of ROG, NO_x, and $PM_{2.5}$ (exhaust emissions only), or 15 tons per year of PM_{10} (exhaust emissions only). The 1999 Thresholds which apply to the 2014 Modified Project for CEQA purposes are 15 tons per year of ROG, NO_x, and PM_{10}.

The 1999 and 2011 Thresholds for TACs are both an increased cancer risk of more than 10 in 1 million for a person with maximum exposure potential and increased non-cancer risk of 1.0 Hazard Index (chronic or acute). The 2011 Thresholds also include the following additional criterion: not to exceed the annual average ambient $PM_{2.5}$ concentration of 0.3 $\mu g/m^3$. The 2011 Thresholds apply to construction emissions. The 2011 Thresholds also require a cumulative evaluation when siting a new source or receptor, and BAAQMD cumulative TAC thresholds for both construction-related and operational emissions (considering all sources within s 1,000 foot radios) are an increased cancer risk of more than 100 in 1 million for a person with maximum exposure potential, increased non-cancer risk of 1.0 Hazard Index (chronic or acute), and increase in annual average ambient $PM_{2.5}$ of 0.8 $\mu g/m^3$ (see Table 4.2-4). As previously discussed, the analysis in this Addendum evaluates the 2014 Modified Project under the 2011 Thresholds specifically for TACs because the 2014 Modified Project would introduce and expose sensitive receptors on Sites D and F2.

[1] As previously stated, the analysis in this document uses the City's 1999 Thresholds to determine significant impacts but will also provide information related to the 2011 Guidelines specifically to determine whether the City's recent SCA's apply to the 2014 Modified Project's residential uses on Sites D and F2.

TABLE 4.2-4
SUMMARY OF CITY OF OAKLAND CEQA SIGNIFICANCE THRESHOLDS APPLIED IN THIS ANALYSIS

	1999 Construction-Related Thresholds of Significance[a]	2011 Construction-Related Thresholds of Significance	1999 Operational Thresholds of Significance		2011 Operational Thresholds of Significance		Thresholds Applied in this Analysis
		Maximum Daily Emissions (pounds/day)	Maximum Daily Emissions (pounds/day)	Annual Emissions (tons/year)	Maximum Daily Emissions (pounds/day)	Annual Emissions (tons/year)	
Criteria Pollutants and Precursors (Regional)							
ROG	None	54	**80**	**15**	54	10	**Construction: 1999 Thresholds** **Operational: 1999 Thresholds**
NO_x	None	54	**80**	**15**	54	10	
PM_{10} (Particulate Matter Exhaust)	None	82	**80**	**15**	82	15	
$PM_{2.5}$ (Particulate Matter Exhaust)	None	54	**None**	**None**	54	10	
$PM_{10}/PM_{2.5}$ (Fugitive Dust)	None	Best Management Practices (BMP)	**None**	**None**	None	None	
Criteria Air Pollutants and Precursors (Local)							
CO	None	None	**9.0 ppm (8-hour average)** **20.0 ppm (1-hour average)**		9.0 ppm (8-hour average) 20.0 ppm (1-hour average)		**Construction: None** **Operational: 1999/2011 Thresholds (Same)**
Risks and Hazards							
Siting a New Source or Receptor (Individual Project)	None	Cancer Risk: >10 in a million Non-Cancer Hazard Index: >1.0 $PM_{2.5}$ Level: >0.3 µg/m^3 annual average	**Cancer Risk: >10 in a million** **Non-Cancer Hazard Index: >1.0**		Cancer Risk: >10 in a million Non-Cancer Hazard Index: >1.0 $PM_{2.5}$ Level: >0.3 µg/m^3 annual average		**Construction: 1999 Thresholds / 2011 for 2014 Modified Project** **Operational: 1999 Cancer Thresholds / 2011 for 2014 Modified Project**

NOTES: This analysis section evaluates the proposed project (Approved Project and 2014 Modified Project, Maximum Residential Scenario) effects under the City's current Thresholds (based on the BAAQMD 2011 Thresholds) for non-CEQA purposes (applying City SCAs), except for the assessment of TACs, which are evaluated for CEQA purposes given that the project "change" is the introduction of sensitive receptors to the site. These and other thresholds applied in this analysis to determine threshold exceedances for CEQA purposes are in **bold** and are based on the 2014 Modified Project's effects under the City's 2004 Thresholds (based on the BAAQMD 1999 Thresholds).

[a] The 1999 BAAQMD CEQA Thresholds do not specify quantitative significance thresholds for construction-related emissions, but considers construction-related emissions to be a significant impact unless BAAQMD-recommended dust control measures are implemented during construction. While the impact analysis compares project impacts to both the 1999 non-quantitative threshold and 2011 threshold, the significance of project-related construction emissions is determined using the 1999 non-quantitative threshold.

SOURCE: BAAQMD, 1999 and BAAQMD, 2011.

BAAQMD CARE Program

Under the Community Air Risk Evaluation (CARE) program, BAAQMD began identifying areas with high TAC emissions and sensitive populations that could be affected by such emissions, and using this information to establish policies and programs to reduce TAC emissions and exposures. During Phase 1 of CARE, BAAQMD developed a preliminary Bay-Area-wide TAC emissions inventory (for the year 2000) and compiled demographics and health statistics data to identify sensitive populations. Five TACs (DPM, 1.3-butadiene, benzene, hexavalent chromium, and formaldehyde) were estimated to be responsible for about 97 percent of the Bay Area's cumulative cancer risk, and DPM alone accounts for about 80 percent of this cancer risk. Major sources of DPM include on-road and off-road heavy-duty diesel trucks and construction equipment. The highest DPM emissions occur in the urban core areas of eastern San Francisco, western Alameda, and northwestern Santa Clara Counties.

Significance Criteria / Thresholds

The City's significance criteria listed below are the CEQA thresholds of significance used in the 2004 EIR (based on the BAAQMD 1999 Thresholds). (The City's updated significance criteria/thresholds are addressed separately, further below in this section and for non-CEQA purposes.)

Therefore, the 2014 Modified Project would have a significant impact on the environment if it were to:

1) Conflict with or obstruct implementation of the applicable air quality plan;

2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

3) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

4) Expose sensitive receptors to substantial pollutant concentrations;

5) Create objectionable odors affecting a substantial number of people;

6) Contribute to CO concentrations exceeding the State ambient air quality standard of 9 ppm averaged over 8 hours and 20 ppm for 1 hour;

7) Result in total emissions of ROG, NOx, or PM-10 of 15 tons per year or greater, or 80 pounds (36 kilograms) per day or greater;

8) Result in potential to expose persons to substantial levels of toxic air contaminants (TACs), such that the probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 10 in one million; or

9) Result in ground level concentrations of non-carcinogenic toxic air contaminants such that the Hazard Index would be greater than 1 for the MEI;

10) Result in a fundamental conflict with the local general plan, when the general plan is consistent with the regional air quality plan. When the general plan fundamentally conflicts with the regional air quality plan, then if the contribution of the proposed project is cumulatively considerable when analyzed, the impact to air quality should be considered significant.

Analysis of the 2014 Modified Project

Project Impacts

1) Criterion #1: Would the project conflict with or obstruct implementation of the applicable air quality plan? (Not previously addressed explicitly in the previous analyses, but considered as part of 2004 Impact C.2.)

The applicable air quality plan in the 2004 EIR was the BAAQMD's 2000 Clean Air Plan (2000 CAP). The Approved Project was consistent with the 2000 CAP because it would directly and positively achieve the intent of several plans and policies, including the Oakland General Plan Land Use and Transportation Element and the Open Space, Conservation and Recreation Element. The current air quality plan is the BAAQMD's 2010 Clean Air Plan (2010 CAP), which was adopted on September 15, 2010, and is an update to the 2000 Clean Air Plan. The 2010 CAP is a comprehensive plan to improve Bay Area air quality and protect public health. The 2010 CAP defines a control strategy to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce greenhouse gas emissions to protect the climate. Consistency with the 2010 CAP can be determined if a project does the following: a) supports the goals of the 2010 CAP; b) includes applicable control measures from the 2010 CAP; and c) would not disrupt or hinder implementation of any control measures from the 2010 CAP. Each is evaluated below.

a) Does the 2014 Modified Project support the goals of the 2010 CAP?

The primary goals of the 2010 CAP are to attain air quality standards, reduce population exposure to air pollutants and protect public health in the Bay Area, and reduce greenhouse gas emissions and protect the climate.

The 1999 and 2011 BAAQMD Thresholds for project-level operational impacts (upon which the City's thresholds are based) were established such that if a project exceeds these thresholds it would be considered to contribute to an adverse impact on the region's attainment of air quality standards. The health and hazards thresholds were established to help protect public health. Per BAAQMD's 2012 version of its CEQA Air Quality Guidelines, if approval of a project would not result in significant and unavoidable air quality impacts, after implementation of all feasible mitigation, the project may be considered consistent with the 2010 CAP.

As discussed in the remainder of this section, consistent with impacts identified in the 2004 EIR, the 2014 Modified Project would result in less-than-significant construction emission impacts, but would result in a significant operational emission impact (see Criterion #2, Operations, below) and would therefore be considered inconsistent with the goals of the 2010 CAP.

b) Does the 2014 Modified Project include applicable Control Measures from the 2010 CAP?

The control strategies of the 2010 CAP include measures in the traditional categories of stationary source measures, mobile source measures, and transportation control measures. The 2010 CAP further identifies two new subcategories of control measures, including land use and local impact measures, and energy and climate measures. Stationary source measures are not specifically applicable to the 2014 Modified Project. The project's consistency with other measures in the 2010 CAP is discussed below.

Transportation and Mobile Source Control Measures. The transportation control measures in the 2010 CAP are designed to reduce emissions from motor vehicles by reducing vehicle trips and vehicle miles traveled (VMT) in addition to vehicle idling and traffic congestion. The 2014 Modified Project would implement transportation-related SCAs which would require a transportation demand management (TDM) program that would reduce VMT associated with the project (see Section 4.1 *Transportation and Circulation*; 2004 Mitigation Measure C.2.a requiring a parking and transportation demand management plan). Additionally, the 2014 Modified Project would implement Transportation Control Measure D-3 by virtue of its development of residential uses in proximity to transit which promotes land use patterns, policies, and infrastructure investments that support higher density mixed-use, residential and employment development near transit in order to facilitate walking, bicycling and transit use. Therefore, the 2014 Modified Project would not conflict with any of the Transportation and Mobile Source Control Measures of the 2010 CAP.

Land Use and Local Impact Measures. The 2010 CAP includes Land Use and Local Impacts Measures (LUMs) to achieve the following: promote mixed-use, compact development to reduce motor vehicle travel and emissions; and ensure that planned growth is focused in a way that protects people from exposure to air pollution from stationary and mobile sources of emissions. The 2014 Modified Project would be a mixed-use compact development and would therefore by consistent with the implementation of LUMs. Therefore, the 2014 Modified Project would not conflict with any of the LUMs of the 2010 CAP.

Energy Measures. The 2010 CAP also includes Energy and Climate Control Measures (ECMs), which are designed to reduce ambient concentrations of criteria pollutants and reduce emissions of carbon dioxide (CO_2). Implementation of these measures is intended to promote energy conservation and efficiency in buildings throughout the community, promote renewable forms of energy production, reduce the "urban heat island" effect by increasing reflectivity of roofs and parking lots, and promote the planting of (low-VOC-emitting) trees to reduce biogenic emissions, lower air temperatures, provide shade, and absorb air pollutants.

The City of Oakland has implemented mandatory Green Building standards for private development projects which would apply to the 2014 Modified Project (Section 18.02 of the Building Code). Green building certification required under the ordinance will result in a project that is energy efficient and implement goals of the ECM. Therefore, the 2014 Modified Project would not conflict with the goals of the ECMs.

c) Does the 2014 Modified Project disrupt or hinder implementation of control measures of the 2010 CAP?

If approval of a project would not cause the disruption, delay or otherwise hinder the implementation of any air quality plan control measure, it may be considered consistent with the 2010 CAP. As an example, a project may cause the disruption or delay of control measures if it precludes an extension of a transit line or bike path, or proposes excessive parking beyond parking requirements. The 2014 Modified Project would redevelop a currently developed urban area and would not interfere with any current or future efforts to extend transit or bicycle paths. Therefore, the 2013 Modified would not be considered to disrupt or hinder implementation of control measures of the 2010 CAP.

Overall, while the 2014 Modified Project would develop residential uses in proximity to transit which would align with the 2010 CAP, it would be inconsistent with the 2010 CAP only to the extent that it would exceed the City's 1999 and 2011 Thresholds and its 2012 CEQA Air Quality Guidelines for project-level operational emissions. However, the 2014 Modified Project would maintain the same significant impact regarding consistency with air quality plans as was identified in the 2004 EIR (2004 Impact C.2, discussed under Criterion #2, below). No new mitigation is required; the project sponsor would be required to update and continue maintaining its parking and transportation demand management plan in compliance with SCA TRANS-1 and 2004 Mitigation Measure C.2, as discussed below).

2) Criterion #2: Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Previously addressed in 2004 Impact C.2.)

As previously shown in Table 4.2-2 above, the 2014 Modified Project is in a nonattainment area for ozone and particulate matter. Construction and operation of the 2014 Modified Project would result in the release of emissions that could contribute to these existing air quality violations, as was found in the 2004 EIR.[2]

Construction Emissions

With regard to construction-related emissions, the 1999 BAAQMD Guidelines acknowledge that although construction equipment emits CO and ozone precursors (ROG and NO_x), "these emissions are included in the emissions inventory that is the basis for regional air quality plans, and are not expected to impede attainment or maintenance of ozone or CO standards in the Bay Area." Consequently, the thresholds used in the 2004 EIR analysis for construction-related activities only pertain to whether the project would incorporate the best management practices, (see Table 4.2-4) and pursuant to the City's Municipal Code, for the control of fugitive dust. Therefore, construction emissions were not quantified in the 2004 EIR.

Nonetheless, the analysis below includes a calculation of the construction related emissions of the 2014 Modified Project and compares them to (1) the best management practice (qualitative)

[2] For purposes of comparing the emissions estimated for the 2014 Modified Project (Maximum Residential Scenario) and the Approved Project, the operational emissions for the Approved Project were recalculated using the latest version of CalEEMod (Version 2013.2).

construction threshold of the 2004 EIR (which is based on the BAAQMD's 1999 Guidelines) and to (2) the City's current thresholds, for for purposes of assessing whether the City's recent SCAs should apply to the 2014 Modified Project in connection with the constructing residential uses on Sites D and F2.

Construction of the 2014 Modified Project has the potential to create regional air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the 2014 Modified Project site. In addition, fugitive dust emissions would result from site preparation and grading activities. Mobile source emissions, primarily NO_X, would result from the use of construction equipment such as excavators, bulldozers, wheeled loaders, and cranes. During the finishing phase, paving operations and the application of asphalt, architectural coatings (i.e., paints) and other building materials would release reactive organic compounds. The assessment of construction-related air quality impacts considers each of these potential sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

As mentioned above, construction emission estimates were not quantified as part of the 2004 EIR as it was not required at that time. For comparison purposes in this Addendum, construction emissions were estimated for the 2014 Modified Project and for the Approved Project analyzed in the 2004 EIR.

Construction emissions were estimated using the CalEEMod land use emissions inventory model. The CalEEMod model separates the construction process into six stages: Demolition, Site Preparation, Grading, Building Construction, Paving and Architectural Coating. The demolition and grading phases include emissions from fugitive dust; off-road equipment; on-road trucks off-hauling demolition debris; and worker vehicle trips. The paving phase estimates emissions from off-road equipment; on-road trucks; worker vehicle trips; as well as off-gassing of VOC emissions from application of asphalt surfaces. Emissions from building construction consist of off-road equipment emissions; worker vehicle trips; and vendor vehicle trips. The default CalEEMod equipment mix was assumed for each phase. The duration of each phase was provided by the project sponsor and the model was adjusted to accommodate this project-specific information. Detailed CalEEMod output printout sheets are located in **Appendix D** to this Addendum.

Daily construction-related regional emissions for the 2014 Modified Project are presented in **Table 4.2-5**. As shown, annual average daily construction emissions for the 2014 Modified Project would not exceed the currently adopted City Thresholds for ROG, NO_X, PM_{10} or $PM_{2.5}$.

TABLE 4.2-5
UNMITIGATED EMISSIONS FROM CONSTRUCTION (average lbs per day)[a]

Construction Year (phase)	ROG	NO_x	PM_{10}	$PM_{2.5}$
2014 Modified Project (Maximum Residential Scenario - Sites D and F2)[b,]				
2015 Construction Emissions	7.18	35.65	9.92	2.37
2016 Construction Emissions	42.35	29.24	7.80	1.97
BAAQMD Threshold in 2004	BMP	BMP	BMP	BMP
(Relevant to this CEQA Analysis) **Significant (Yes or No)?** [c]	**Yes**	**Yes**	**Yes**	**Yes**
BAAQMD 2011 Thresholds	54	54	82	54
(Relevant to SCA Application only) **Threshold Exceeded (Yes or No)?**	**No**	**No**	**No**	**No**
Approved Project (Sites D and F2)[b,c]				
2015 Construction Emissions	6.56	47.10	12.06	3.59
2016 Construction Emissions	18.33	31.21	3.33	1.89
Threshold in 2004	BMP	BMP	BMP	BMP
(Relevant to this CEQA Analysis) **Significant (Yes or No)?** [c]	**Yes**	**Yes**	**Yes**	**Yes**
BAAQMD 2011 Thresholds	54	54	82	54
Threshold Exceeded (Yes or No)?	**No**	**No**	**No**	**No**
2004 EIR Project (Sites D and F2) [b,c]				
2015 Construction Emissions	6.64	47.86	13.13	3.66
2016 Construction Emissions	18.33	31.21	3.33	1.89
Threshold in 2004	BMP	BMP	BMP	BMP
(Relevant to this CEQA Analysis) **Significant (Yes or No)?** [c]	**Yes**	**Yes**	**Yes**	**Yes**
2011 Thresholds	54	54	82	54
Threshold Exceeded (Yes or No)?	**No**	**No**	**No**	**No**

[a] Project construction emissions estimates were made using CalEEMod, version 2011.1.1. Emissions are average daily pounds per day during the construction year indicated.

[b] Due to the different construction schedules for the various sites (i.e., D, Pavilion 2, Water I Expansion, F2) associated with the proposed project (Approved Project or 2014 Modified Project), the highest daily construction emissions that would be generated from the project would occur when construction activities overlap at the sites. Based on a review of the construction schedules for the various sites, it was determined that the highest daily construction emissions for both the 2014 Modified Project (Maximum Residential Scenario) and the Approved Project would occur during the concurrent construction activities at Sites D and F2. The construction activities at the remaining project sites would all occur separately from each other and at different time periods. Thus, the concurrent construction activities at Sites D and F2 represents the worst-case construction scenario to be analyzed to determine the average daily construction emissions generated by either scenario.

[c] The slight variation in construction emissions levels between the Approved Project and the 2004 EIR analysis reflects the reallocation of office and retail uses and the change in the City's approach to calculating trip generation (accounting for mode split and internal capture) since 2004. However, the land use reallocation does not exceed the total amount of development set forth and analyzed in the 2004 EIR.

[d] The 2014 Modified Project (Maximum Residential Scenario) is less than significant under the current City thresholds (<54 lbs per day), however, the CEQA determination is not made per the current thresholds. Project construction is significant without mitigation under the 2004 thresholds. The mitigation measure required BMPs for the Approved Project. BMPs are now City of Oakland SCAs, which may be applied to the development of the residential component of the 2014 Modified Project. Thus, the impact remains less than significant.

SOURCE: ESA, 2013.

Under the 2004 Thresholds used in the previous analysis, fugitive dust was be considered significant without mitigation measures. (Construction emissions were not considered significant given the approach that such emissions were included in the emissions inventory that is the basis for regional air quality plan, as discussed in the 2004 EIR, page IV.C-14.) SCA AIR-1 would apply to

the residential component of the 2014 Modified Project as a replacement for 2004 Mitigation Measure C.1a. Implementation of SCA AIR-1, which is consistent with the BAAQMD's currently recommended construction measures, contains measures more stringent than those recommended in the 1999 Guidelines, and would further reduce construction emissions by minimizing idling time of equipment. Additionally, SCA AIR-1 requires all construction equipment, diesel trucks, and generators would be equipped with Best Available Control Technology for emission reductions of NO_x and PM. Thus, if the City approves the 2014 Modified Project, this SCA will be incorporated and required with respect to construction of the residential component of the 2014 Modified Project and will ensure that no significant impacts would occur regarding construction period dust (or emissions).

With respect to the non-residential portions of the 2014 Modified Project, the imposition of 2004 Mitigation Measure C.1a will continue to ensure that construction air quality impacts will be less than significant after mitigation.

Operational Emissions

Regional air pollutant emissions associated with project operations would be generated by the consumption of electricity and natural gas and by the operation of on-road vehicles. Motor vehicle emissions would be the largest source of pollutants resulting from operation of the 2014 Modified Project and were estimated using the most recent CalEEMod version 2013.2 emissions inventory model using trip generation applied in the transportation analysis. Average trip lengths were CalEEMod default trip lengths for San Francisco Bay Area.

Table 4.2-6 presents an inventory of air pollutant emissions associated with the operation of both the 2014 Modified Project (Maximum Residential Scenario) and the Approved Project. As shown in Table 4.2-6, annual average daily regional emissions for both scenarios would exceed the 1999 Thresholds (as well as the City's currently adopted City Thresholds) for ROG and NO_X. Therefore, the 2014 Modified Project would result in a significant operational emissions impact as was identified in the 2004 EIR findings.

TABLE 4.2-6
UNMITIGATED EMISSIONS FROM OPERATION (LBS PER DAY)[a]

Project Component	ROG	NO_x	PM_{10}	$PM_{2.5}$
2014 Modified Project (Maximum Residential Scenario)				
Area Source Emissions	33.76	0.63	0.31	0.31
Energy Emissions	0.82	7.32	0.56	0.56
Project Vehicle Emissions[b]	89.27	77.60	72.68	20.64
Total Emissions	**123.85**	**85.55**	**73.55**	**21.51**
1999 Thresholds of Significance	80	80	80	None
(Relevant to this CEQA Analysis) **Significant (Yes or No)?**	**Yes**	**Yes**	**No**	**No**
2011 Thresholds	54	54	82	54
(Relevant to SCA Application only) **Threshold Exceeded (Yes or No)?**	**Yes**	**Yes**	**No**	**No**
Approved Project[c]				
Area Source Emissions	24.81	0.00	0.00	0.00
Energy Emissions	0.82	7.43	0.56	0.56
Project Vehicle Emissions[b]	93.01	81.18	75.45	21.43
(Relevant to this CEQA Analysis) **Total Emissions**	**118.63**	**88.61**	**76.01**	**21.99**
1999 Thresholds of Significance	80	80	80	None
Significant (Yes or No)?	**Yes**	**Yes**	**No**	**No**
2011 Thresholds	54	54	82	54
Threshold Exceeded (Yes or No)?	**Yes**	**Yes**	**No**	**No**
2004 EIR Project [c]				
Area Source Emissions	25.13	0.00	0.00	0.00
Energy Emissions	0.79	7.20	0.55	0.55
Project Vehicle Emissions[b]	89.14	77.81	72.30	20.54
Total Emissions	**115.06**	**85.01**	**72.85**	**21.09**
1999 Thresholds of Significance	80	80	80	None
(Relevant to this CEQA Analysis) **Significant (Yes or No)?**[d]	**Yes**	**Yes**	**No**	**No**
2011 Thresholds	54	54	82	54
Threshold Exceeded (Yes or No)?	**Yes**	**Yes**	**No**	**No**
Difference in Total Emissions: 2014 Modified Project (Maximum Residential Scenario) and 2004 EIR Findings	8.79	0.54	0.70	0.42
Difference in Total Emissions: Approved Project and 2004 EIR Findings	3.57	3.60	3.16	0.90

a Project operational emissions estimates were made using CalEEMod, version 2013.2.
b The vehicle trip rates used to calculate the emissions accounts for mode split and internal capture as required by the City of Oakland for projects located in dense, urban environments such as the Jack London Square neighborhood in Oakland.
c The slight variation in operational emissions levels between the Approved Project and the 2004 EIR analysis reflects the reallocation of office and retail uses and the change in the City's approach to calculating trip generation (accounting for mode split and internal capture) since 2004. However, the land use reallocation does not exceed the total amount of development set forth and analyzed in the 2004 EIR.
d The analysis in the 2004 EIR reported significant and unavoidable PM_{10} at 113 pounds per day compared to the 2004 threshold of 80 pounds per day. However, for the purposes of comparison with the operational emissions estimated for the 2014 Modified Project (Maximum Residential Scenario), the operational emissions in the 2004 EIR were recalculated using the latest version of CalEEMod. Based on the results of this updated CalEEMod model run, the 2004 EIR findings would not exceed the 1999 or 2011 threshold for PM_{10}, but would exceed both the BAAQMD's 1999 and 2011 thresholds for ROG and NOx.

SOURCE: ESA, 2013.

Updates since 2004. The 2004 EIR findings, which unlike the results presented in Table 4.2-6 for the 2004 EIR Project and using the most recent available model and emission factors, reported an exceedance of $PM_{10,}$ but not for ROG or NOx. This variation from the Approved Project emissions is primarily due to emission factors and accepted methodologies (including the City's trip generation approach) having evolved since 2004 and that are assumed in the analysis of the 2014 Modified Project (Maximum Residential Scenario). Therefore it is not meaningful to compare the emissions stated in the 2004 EIR and the current analysis of the 2014 Modified Project. The project sponsor's implementation of an updated parking and transportation demand management plan as required by SCA TRANS-1 and the existing 2004 Mitigation Measure C.2 will reduce mobile emissions.

In summary, the 2014 Modified Project would not result in any new or more severe significant air quality impacts related to violation of an air quality standard or contribution to an existing or projected air quality violation. Impacts regarding construction and operations would be similar to or less severe than those identified in the 2004 EIR. Construction impacts would continue to be less than significant with the application of either SCAs addressing dust control, construction emissions and stormwater and water quality measures or 2004 Mitigation Measure C.1a (as applicable). Operational impacts would continue to be significant and unavoidable, even with the project sponsor's implementation of an updated parking and transportation demand management plan that aligns with SCA TRANS-1 and 2004 Mitigation Measure C.2. No new information of substantial importance shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

3) Criterion #3: Would the project result in a cumulatively considerable net increase of any criteria air pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (Previously addressed in the 2004 Impact C.5.)

According to the 1999 and 2011 guidance from the BAAQMD, regional air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Therefore, if daily average or annual emissions of operational-related criteria air pollutants exceed any applicable threshold established by the BAAQMD, a project would result in a cumulatively significant impact.

As shown at the bottom of Table 4.1-6, the 2014 Modified Project would have slightly greater total operational emissions than reported in the 2004 EIR. Therefore, the 2014 Modified Project's cumulative contribution of operational emissions would be slightly increased compared to the 2004 EIR findings. However, the 2014 Modified Project impact would continue to result in the same significant and unavoidable cumulative air quality impact with respect to the net increase of criteria air pollutants (2004 Impact C.5).

As described above for Criterion #2, the project sponsor will update a parking and transportation demand management plan previously prepared in compliance with 2004 Mitigation Measure C.5 (which requires implementation of 2004 Mitigation Measure C.2) and, with necessary updates, SCA TRANS-1. No new information of substantial importance shows 1) new significant impacts with respect to Criterion #3, or 2) a substantial increase in the severity of previously identified significant impacts with respect to Criterion #3, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

4) Criterion #4: Would the project expose sensitive receptors to substantial pollutant concentrations? (Previously addressed in 2004 Impacts C.1 and C.3.)

Construction Emissions

At the time of the 2004 EIR, construction-related emissions were considered less than significant with implementation of best management practices to control fugitive dust. The City's current Thresholds require quantification to assess a project's gaseous construction emissions under this criterion.

Construction-related emissions of TACs, primarily diesel particulate matter (DPM) from diesel powered trucks and construction equipment, were not commonly assessed in the CEQA review process for mixed-use development when the 2004 EIR was prepared. Also, the BAAQMD CEQA Guidelines in use when the 2004 EIR was prepared did not address DPM emissions. Consequently, an assessment of construction-related health risks and hazards was not included in the 2004 EIR.

The 2014 Modified Project would result in fewer DPM emissions than reported in the 2004 EIR, as suggested by the construction-related $PM_{2.5}$ emission presented in Table 4.2-5. The 2014 Modified Project would also benefit from the more stringent on-road and off-road diesel equipment emission regulations existing in 2013 and that improve truck and equipment fleet emissions over time. This would reduce health risk impacts substantially over those that would have occurred at the time the 2004 EIR was prepared.

Results of the 2014 Modified Project construction health risk assessment are discussed under Criterion #8 below. Results indicate that the maximum excess lifetime cancer risk estimated for the 2014 Modified Project would not exceed the 2004 Thresholds and, for informational purposes, the currently adopted City Thresholds at most receptor locations. Thus, the impact would be less severe than what would have been disclosed in the 2004 EIR, based on the comparison of construction-related $PM_{2.5}$ emissions, had this threshold applied at that time. The impact would be less than significant. No new mitigation measures are required.

Operational Emissions

The 2014 Modified Project would result in residences at Sites D and F2 that would be located within 1,000 feet of existing TAC sources. Existing TAC sources include stationary sources

within 1,000 feet of Sites D and F2, plus locomotive and ferry emissions. As addressed under Criterion #8 below, there are 7 stationary sources within a 1,000 foot radius of Site D, and two stationary sources within a 1,000 foot radius of Site F2. Increased cancer risks associated with these sources were estimated using BAAQMD databases and calculating the reduction in risk. These risks are summarized under Criterion #8 (see Tables 4.2-9 and 4.2-10). As indicated there, the exposure to the 2014 Modified Project residents would be less than the City of Oakland's project specific and cumulative cancer risk thresholds, and the impact would be less than significant. These data are presented for informational purposes only, as this assessment methodology was not developed in the 1999 BAAQMD Guidelines in affect at the time of the 2004 EIR. No new mitigation measures are required. No new information of substantial importance shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the 2004 EIR) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

See the assessment of operational CO emissions in Criterion #6, below.

5) Criterion #5: Would the project frequently create substantial objectionable odors affecting a substantial number of people? (Previously addressed qualitatively in the 2003 DEIR discussion.)

The 2004 EIR determined that because any sources of odor proposed as part of the Approved Project would be subject to the requirements of BAAQMD Regulation 7 – Odorous Substances, any odor impacts would be mitigated by this regulation. Consistent with the 2004 EIR finding, exposure to odors associated with the 2014 Modified Project would likewise be subject to the requirements of BAAQMD Regulation 7 – Odorous Substances, which requires collection and analysis of air samples if odor complaints are consistently received by the BAAQMD. Therefore odor impacts from project operations will be less than significant.

Some construction activities generate odors such as application of tar for water sealing of roofs and shower pans as well as application of asphalt. Exhaust emissions from diesel powered construction equipment have also been documented to have a noticeable odor (Partridge et.al., 1987). These odor sources would be temporary and would only occur during discrete phases of the construction period and would not be considered substantial odor sources.

The 2014 Modified Project would not result in any new or more severe significant air quality impacts associated with odors, and the impact would continue to be less than significant. No new mitigation measures are required.

6) Criterion #6: Would the project contribute to CO concentrations exceeding the State Ambient Air Quality Standards of 9 ppm averaged over 8 hours and 20 ppm averaged over 1 hour? (Previously addressed in 2004 Impacts C.2, C.3 and C.4.)

Modeling conducted in the 2003 DEIR demonstrated that resultant total CO concentrations for "hotspots" at the most congested intersections would be less than half of the State and federal

ambient CO standards (2004 Impact C.3), even though the total CO emissions from motor vehicles would slightly exceed the 2004 Threshold (2004 Impact C.2).[3] Detailed modeling was not conducted in the 2004 EIR analysis given the reduction in vehicle trips compared to the project analyzed in the 2003 DEIR.

As discussed under Criterion #4, a qualitative assessment has been prepared in this Addendum for the 2014 Modified Project based on the comparative total CO emissions, the CO emissions generated by motor vehicles, and changes in CO concentrations since the 2004 EIR analysis was conducted.

Total CO emissions of the 2014 Modified Project would be higher than those reported in the 2004 EIR, as shown in **Table 4.2-7** and as modeled with 2012 emission factors. CO concentrations have declined substantially since 2004, largely due to wintertime gasoline formulation requirements. Therefore it can be reasonably determined qualitatively that the 2014 Modified Project would not contribute to a violation of the standards for CO, as follows. Table 4.2-7 shows that the 2014 Modified Project would have mobile CO emissions that are approximately 4 and 10 percent higher than estimated in the 2004 EIR and for the Approved Project, respectively. However, the total emissions of the 2014 Modified Project is estimated to not exceed the federal and State 1-hour and 8-hour ambient air quality standards for CO given that the comparative levels reported in the 2004 EIR were 75 and 62 percent less than the significance thresholds (2004 Impacts C.3 and C.4). Moreover, BAAQMD identifies a traffic volume of 44,000 vehicles per hour as the threshold for a significant contribution to a violation of the CO standards; for comparison, the 2014 Modified Project's traffic volumes per hour under the Cumulative Year 2035 plus Approved Project Conditions would be substantially less than that at its worst-case nearby intersections, such as 4,002 vehicles per hour at Broadway and 5th Street (see Section 4.1, *Transportation and Circulation)*. Therefore, the 2014 Modified Project would not result in any new or more severe significant air quality impacts associated with CO concentrations or total emissions, and the impacts would continue to be less than significant. No new mitigation measures are required.

[3] CO emissions were not calculated for the in the 2004 FEIR because traffic volumes were less than with the project analyzed in the 2003 DEIR. Projects for which mobile source CO emissions exceed the 2004 Threshold of 550 pounds per day do not necessarily have a significant air quality impact, but are required to estimate localized CO concentrations, as shown in 2004 Impact C.3.

TABLE 4.2-7
CARBON MONOXIDE EMISSIONS

Project Component	CO[a]
2014 Modified Project (Maximum Residential Scenario)	
Mobile Emissions	418
Stationary and Area Source Emissions	60
Total Emissions	**478**
1999 Threshold	550[b]
Approved Project	
Mobile Emissions	441
Stationary and Area Source Emissions	6
Total Emissions	**447**
1999 Threshold	550[b]
2004 EIR Project	
Mobile Emissions	422
Stationary and Area Source Emissions	6
Total Emissions	**428**
1999 Threshold	550[b]
Difference in Total Emissions: 2014 Modified Project (Maximum ResidentialScenario) and 2004 EIR Findings	50
Difference in Total Emissions: Approved Project and 2004 EIR Findings	19

a As modeled with 2012 emission factors.
b Projects for which mobile source CO emissions exceed the 2004 Threshold of 550 pounds per day do not necessarily have a significant air quality impact, but are required to estimate localized CO concentrations.

SOURCE: ESA 2013.

7) Criterion #7: Would the project result in total emissions of ROG, NO_x, or PM_{10} exceeding 15 tons per year or 80 pounds per day? (Previously addressed in 2004 Impact C.2, analysis updated for informational purposes only.)

The assessment of total emissions estimated for the 2014 Modified Project is described under Criterion #2 above and shown in Table 4.2-6. Using the most recent available model and emission factors, the 2014 Modified Project (as assessed by its most intensive variant, the Maximum Residential Scenario) would result in operational emissions of 124 pounds per day of ROG, 86 pounds per day of NO_x and 74 pounds per day of PM_{10}. The PM_{10} emissions would be below the 80 pounds per day threshold of the 1999 BAAQMD CEQA Guidelines in use at the time the previous analysis was prepared, but the ROG and NO_x emissions would exceed that threshold. Thus, the operational emissions impacts of the 2014 Modified Project would continue to be significant and unavoidable due to an exceedance of ROG and NO_x, even with the implementation of a parking and transportation demand management plan in compliance with SCA TRANS-1 and 2004 Mitigation Measure C.2.

As also discussed under Criterion #2, construction emissions impacts would continue to be less than significant with the application of SCA AIR-1 and/or 2004 Mitigation Measure C.1a, as applicable, to address dust control and construction emissions. As also previously discussed, the City adopted more stringent significance thresholds in 2011 that were not in effect at the time of the 2004 EIR. As shown in Table 4.2-6 (and Table 4.2-4), these updated thresholds are 54 pounds per day of ROG, NO_x and $PM_{2.5}$ (a newly addressed pollutant) and 80 pounds per day of PM_{10}. The ROG and NO_x exceedances continue to occur with the 2014 Modified Project.

These revised 2011 thresholds also include criteria for construction-related emissions. For informational purposes, construction-related emissions of the 2014 Modified Project also would not exceed the updated thresholds.

In summary, the 2014 Modified Project would not result in any new or more severe significant air quality impacts associated with total emissions from operations or construction than reported in the 2004 EIR analysis was conducted. No new mitigation measures are required.

8) Criterion #8: Would the project result in the potential to expose persons to substantial levels of Toxic Air Contaminants (TAC), such that the probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 10 in one million? (Not previously addressed, however addressed here under current thresholds for CEQA purposes within the context of "changes to the project".)

In 2004, this significance threshold was included for the purpose of analyzing effects of new sources of TACs. Neither the Approved Project nor the 2014 Modified Project would result in a new emission source of TACs. As such, no impact was identified in the previous environmental analysis or results from the 2014 Modified Project; the only change between the Approved Project and the 2014 Modified Project is the introduction of residential uses (instead of commercial only, as analyzed in 2004), which would not include emission sources of TACs not previously considered with commercial uses.

For this Addendum, a health risk assessment (HRA) was conducted in accordance with technical guidelines developed by federal, State, and regional agencies, including US Environmental Protection Agency (USEPA), California Environmental Protection Agency (CalEPA), California Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Guidance*, and the BAAQMD *Health Risk Screening Analysis Guidelines* (BAAQMD, 2005; OEHHA, 2003). Detailed assumptions and methodology for the HRA are included in Appendix D.

The significance of the impact to sensitive receptors is dependent on the chance of contracting cancer from exposure to air toxics such as DPM or of having adverse health effects from exposure to non-carcinogenic air toxics. A project is considered to have a significant impact if the incremental cancer risk at a receptor exceeds 10 in a million. The non-cancer hazard index significance threshold of 1.0 is defined in the BAAQMD *CEQA Air Quality Guidelines* (BAAQMD, 2012). The BAAQMD has also established a separate significance threshold for particulate matter equal to or less than 2.5 micrometers ($PM_{2.5}$) emissions to protect public health.

For individual projects, the BAAQMD significance threshold for $PM_{2.5}$ impacts is an average annual increase of 0.3 $\mu g/m^3$.

The 2014 Modified Project would develop residences which would be considered a new sensitive receptor with regard to exposure to TAC. Unlike the other air quality related topics addressed in this section for informational purposes only with regard to CEQA, this section includes the additional analysis of the exposure of new sensitive receptors associated with the 2014 Modified Project to existing sources of TACs. As discussed in Chapter 1, *Introduction,* and at the start of this section, because the "change proposed to the project" is in fact the introduction of new sensitive receptors that could result in impacts to the environment, this assessment is considered for CEQA purposes in this Addendum pursuant to CEQA Guidelines Section 15162.

As described below, occupants of the proposed residences would be exposed to stationary emission sources, but none resulting in a risk greater than 10 in one million excess cancer cases. Occupants of the proposed residences would not be exposed to any roadway sources of TACs resulting in a risk greater than 10 in one million excess cancer cases. Occupants of the proposed residences also would be exposed to railroad locomotive and ferry boat emissions. Sensitive receptors in the project area include the residential units located in the Mixed Use and Waterfront Warehouse District to the north/northeast, and the residential units adjacent to the east of the project site (Site F2).

Construction Health Risks

An evaluation of the 2014 Modified Project was conducted to determine the potential health risks (cancer and non-cancer) associated with TACs produced from construction of the 2014 Modified Project. Additional details related to this analysis are provided in Appendix D.

Table 4.2-8 shows the health risks to existing residents located within 1,000 feet of Sites D and F2 construction under the 2014 Modified Project. Project construction activities would produce DPM and $PM_{2.5}$ emissions due to combustion equipment such as loaders, backhoes, and cranes, as well as haul truck trips. These emissions could result in elevated concentrations of DPM and $PM_{2.5}$ at nearby receptors (existing residences). These elevated concentrations could lead to an increase in the risk of cancer or other health impacts. As shown in Table 4.2-8, the cancer risks to residents within 1,000 feet of Sites D and F2 would not exceed the City of Oakland's significance thresholds.

TABLE 4.2-8
UNMITIGATED CONSTRUCTION-RELATED HEALTH IMPACTS TO EXISTING RESIDENTS NEAR SITES D AND F2

Facility Type	Source Type	Cancer Risk (persons per million)	Chronic Health Index	Acute Index	$PM_{2.5}$ Concentration ($\mu g/m^3$)
Site D Construction	Construction DPM	6.0	0.006		0.032
Site F2 Construction	Construction DPM	8.3	0.009		0.044
Significance Threshold		100	1.0	1.0	12
Significant Impact?		**No**	**No**	**No**	**No**

SOURCE: ESA, 2013.

Operational Health Risks

The HRA also evaluated the health risks of 2014 Modified Project operations. Operational health risks are those resulting from the exposure of Site D and F2 residents to existing sources of TACs. As previously mentioned, existing TAC sources include stationary sources within 1,000 feet of Sites D and F2 plus locomotive and ferry emissions.

The HRA analysis does not include emissions from motor vehicles. For future sensitive receptors, such as those that would be residing at Sites D and F2, BAAQMD recommends evaluating roadways with volumes exceeding 10,000 vehicles per day and that are within 1,000 feet of those proposed residences. The closest roadways to Sites D and F2 that exceed 10,000 vehicles include I-980 and the Posey and Webster tubes. However, each is located more than 1,000 feet from the Sites D and F2. For the Posey and Webster tubes, the distance was measured from Sites D and F2 to the Tube entry/exit points.

For locomotives and ferries, DPM emissions for each source were estimated. Using those estimates, the ISCST model was used to calculate DPM concentrations at Sites D and F2. Finally, DPM concentrations were converted to carcinogenic health risks, chronic health hazards, and $PM_{2.5}$ concentrations.

Site D

Table 4.2-9 shows how existing sources of TACs would affect the health risks of future Site D residents under the 2014 Modified Project. Several stationary sources are located within 1,000 feet of Site D. The health risks from each stationary source were identified using BAAQMD's stationary source analysis screening tool. BAAQMD found no health risks for two of these sources: Jemco and the Fire Station. For five of the sources, BAAQMD estimated some level of health risk. These included the GSA building at 480 4th Street, the PPD building, the Alameda County building at 400 Broadway, the Oakland Marina, and a generator at the Port of Oakland. BAAQMD's estimate of cancer risk for each source was adjusted based on distance using BAAQMD's protocol.

Table 4.2-9 also shows the Site D health risks from railroad locomotive and ferry boat emissions. These two sources represent the highest cancer risks to future residents of Site D. The risks from locomotives and boats were estimated using the ISCST3 dispersion model and health risk guidance developed by the California Office of Environmental Health Hazard Assessment (Cordova, J., BAAMD; OEHHA, 2012; OEHHA, 2003).

For Site D, the total cumulative cancer health risk equals 80.8 per million, which is less than the City of Oakland's project specific and cumulative cancer risk threshold of 100 per million.

TABLE 4.2-9
OPERATIONAL HEALTH RISK ESTIMATES

2014 MODIFIED PROJECT SITE D

BAAQMD Map ID No.	Facility Type	Source Type	Cancer Risk (persons per million)[a]	Chronic Health Index	$PM_{2.5}$ Concentration (µg/m3)
10998	County of Alameda - GSA	Stationary – Generator	3.35	0.17	0.02114
G11332	Oakland Marinas	Stationary - Fuel Dispensing	0.22	0.000264	N/A
G9903	OFD Fire Station	Stationary - Fuel Dispensing	N/A	N/A	N/A
18788	PPD 222 Broadway I, LLC	Stationary – Unknown	3.74	0.001	0.0039
19002	Jemco	Stationary – Unknown	0.00	0	0
13912	County of Alameda - GSA	Stationary – Generator	1.95	0.01	0.00042
132682	Port of Oakland	Stationary – Generator	5.90	0.018	0.01056
N/A	Ferries	Mobile – Marine	12.05	4.00E-03	0.020
N/A	Trains	Mobile – Locomotives	53.62	1.78E-02	0.089
		Cumulative Total	**80.83**	**0.2**	**0.1**
		Oakland Significance Threshold	100	10	0.8
		Exceed Threshold?	**No**	**No**	**No**

[a] Cancer risk adjusted to reflect distance of source from site.

SOURCE: BAAQMD, 2013; ESA, 2013

Site F2

Table 4.2-10 shows how existing sources of TACs would affect the health risks of future Site F2 residents under the Maximum Residential Scenario of the 2014 Modified Project. Of these sources, BAAQMD has estimated no health risks for the Fire Station. The Oakland Marina has an adjusted cancer risk of 0.09, well below the cumulative threshold of 100 per million. For Site F2, TAC emissions from the Oakland Ferry Terminal do not need to be considered since this facility is more than 1,000 feet away. Cancer risks from locomotives equal 28.3 per million, that when combined with the risk from the Oakland Marinas, results in a total cancer risk well below Oakland's significance threshold (based on the 2011 BAAQMD threshold of 0.3 µg/m3) and hence would be less than significant.

TABLE 4.2-10
OPERATIONAL HEALTH RISK ESTIMATES

2014 MODIFIED PROJECT SITE F2

BAAQMD Map ID No.	Facility Type	Source Type	Cancer Risk (persons per million)[a]	Chronic Health Index	$PM_{2.5}$ Concentration (µg/m3)
G9903	OFD Fire Station	Stationary - Fuel Dispensing	N/A	N/A	N/A
G11332	Oakland Marinas	Stationary - Unknown	0.09	0.0001	N/A
N/A	Trains	Mobile - Locomotives	28.3	0.009	0.05
		Cumulative Total	**28.4**	**0.01**	**0.1**
		Oakland Significance Threshold	100	1	0.8
		Exceed Threshold?	**No**	**No**	**No**

9) Criterion #9: Would the project result in ground level concentrations of non-carcinogenic TACs such that the Hazard Index would be greater than 1 for the MEI?

Construction Health Hazards and $PM_{2.5}$ Concentrations

The City of Oakland's health risk thresholds require that a project's construction-related chronic health hazards be evaluated for sensitive receptors located within 1,000 feet of a project. Tables 4.2-9 and 4.2-10 show that construction of Sites D and F2 would have less than significant chronic health hazards on the closest sensitive receptors to each site.

The City of Oakland's health risk thresholds require that a project's maximum construction-related $PM_{2.5}$ concentrations be estimated for sensitive receptors located within 1,000 feet of a project. Table 4.2-8 shows that the construction of Sites D and F2 would have less than significant $PM_{2.5}$ concentrations on the closest sensitive receptors to each site.

Operational Health Hazards and $PM_{2.5}$ Concentrations

The City of Oakland's health risk thresholds require that non-carcinogenic health risks be evaluated for new sensitive receptors that would be located within 1,000 feet of significance sources of TACs. For Site D, the chronic health hazard equals 0.2, which is less than the City of Oakland's project specific and cumulative threshold of 1.0 (see Table 4.2-9). For Site F2, the chronic health hazard equals 0.2, which is less than the City of Oakland's project specific and cumulative threshold of 1.0 (see Table 4.2-10). Consequently, the location of residences at Sites D and F2 would not result in ground level concentrations of non-carcinogenic TACs exceeding Oakland's chronic health hazard of 1.0 micrograms per cubic meter.

The City of Oakland's health risk thresholds require that $PM_{2.5}$ concentrations be estimated at any new sensitive receptors that would be located within 1,000 feet of significant sources of $PM_{2.5}$. The total $PM_{2.5}$ concentration of all existing sources at Site D equals 0.1 micrograms per cubic meter, which is less than the City of Oakland's project specific and cumulative threshold of 12.0 micrograms PM2.5 per cubic meter (see Table 4.2-8). For Site F2, the total $PM_{2.5}$ concentration of

all existing TAC sources equals 0.1 micrograms per cubic meter, which is less than the City of Oakland's cumulative threshold of 12.0 micrograms per cubic meter (see Table 4.2-8). Consequently, the location of residences at Sites D and F2 would not result in ground level concentrations of $PM_{2.5}$ that exceed Oakland's maximum allowed concentration of 12.0 micrograms per cubic meter at the MEI.

Overall, the 2014 Modified Project would not result in a significant air quality impact associated with ground level concentrations of non-carcinogenic TACs because it would not exceed the City's thresholds, and the impact would continue to be less than significant. No new mitigation measures are required.

Cumulative Impacts

10) Criterion #10: Would the project result in a fundamental conflict with the local general plan, when the general plan is consistent with the regional air quality plan? When the general plan fundamentally conflicts with the regional air quality plan, then if the contribution of proposed project is cumulatively considerable when analyzed, the impact to air quality should be considered significant. (Previously addressed in the 2004 Impact C.5)

The applicable air quality plan in the 2004 EIR was the BAAQMD's 2000 Clean Air Plan (2000 CAP). The approach described in the 2004 EIR was that, for projects that would not lead to a significant increase of ROG, NO_x, or PM_{10} emissions, the cumulative effect of the project is evaluated based on a determination of the consistency of the project with the regional Clean Air Plan.

The Approved Project would be generally consistent with the Oakland General Plan and it was consistent with the Clean Air Plan in affect at that time, which encouraged local governments to promote high density residential developments in proximity to transit.

The Land Use and Transportation Element of the Oakland General Plan has not substantially changed since certification of the 2004 EIR. The regional air quality plan has been updated twice in the intervening years, with the most recent being the 2010 CAP. As demonstrated above in the discussion of Criterion #1.a, the 2014 Modified Project would be consistent with both the 2000 CAP and measures in the most recent 2010 CAP, it would result in the same significant and unavoidable cumulative impact regarding operational emissions. There is no substantial increase in the severity of previously identified cumulative impacts compared with those identified in the 2004 EIR. No new mitigation is required; the project sponsor would update and continue to maintain a parking and transportation demand management plan prepared pursuant to 2004 Mitigation Measure C.2 to address this impact and comply with SCA TRANS-1, although not reducing the impact to less than significant, as discussed above.

The 2011 update to this threshold (presented here for informational purposes and to assess the applicability of the City's SCAs separate from environmental impacts under CEQA) added a consideration that if the City's General Plan is not consistent with the Air Quality Plan then a

cumulative impact would occur if the project makes a cumulatively considerable contribution as analyzed in Criterion #7. As indicated above and in response to Criteria #7, the latter condition would not occur under the 2014 Modified Project.

Significance Criteria / Thresholds (updates since 2004)

To assess the applicability of the City's SCA's separate from environmental considerations under CEQA, this analysis also includes an assessment of the 2014 Modified Project's effects under the City's current significance thresholds listed below. The City's current significance thresholds include the criteria previously addressed in this section, in Criteria #11 through #13 below. In addition, Criteria #3, #7 and #10 discussed above have changed in the City's current significance thresholds as listed below. An assessment of the 2014 Modified Project's effects under the 2011 thresholds for Criteria #3, #7 and #10 is included within the discussions above for those criteria above.

Project

7. (Changed from the 2004 threshold above) During project construction result in average daily emissions of 54 pounds per day of ROG, NO_x, or $PM_{2.5}$ or 82 pounds per day of PM_{10}; During project operation result in average daily emissions of 54 pounds per day of ROG, NOx, or $PM_{2.5}$ or 82 pounds per day of PM_{10}; or result in maximum annual emissions of 10 tons per year of ROG, NOx, or $PM_{2.5}$ or 15 tons per year of PM_{10}.

11. (New) Result in a substantial increase in diesel emissions.

Cumulative Impacts

10. (Changed from the 2004 threshold above) Result in a fundamental conflict with the local general plan, when the general plan is consistent with the regional air quality plan. When the general plan fundamentally conflicts with the regional air quality plan, then if the contribution of proposed project is cumulatively considerable when analyzed, the impact to air quality should be considered significant.

12. (New) Result in any individually significant impact; or

13. (New) Result in a cumulatively considerable net increase of any criteria air pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

11) Criterion #11: Would the project result in result in a substantial increase in diesel emissions? (Not previously addressed, nor currently considered for CEQA purposes since information regarding this topic was known, or could have been known, in 2004 and is therefore not "changed circumstances" or "new information".)

Neither the 2004 EIR Project nor the 2014 Modified Project would result in a new stationary source of diesel emissions. Some of the proposed commercial uses would generate truck trips for deliveries a percentage of which would be diesel fueled. However, the frequency of these trips

would not be substantial enough to significantly increase diesel emissions such as might occur with a distribution warehouse or port expansion, where the number of daily truck trips would exceed 100 per day. The 2014 Modified Project would not result in any new or more severe significant air quality impacts associated with an increase in diesel emissions, and the impact would be less than significant. No new mitigation measures are required.

12) Criterion #12: Would the project result in any individually significant impact? (Not previously addressed, nor currently considered for CEQA purposes since information regarding this topic was known, or could have been known, in 2004 and is therefore not "changed circumstances" or "new information".)

According to the 1999 and 2011 guidance from the BAAQMD, regional air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Therefore, if daily average or annual emissions of construction or operational-related criteria air pollutants exceed any applicable threshold established by the BAAQMD, the 2014 Modified Project would result in a cumulatively significant impact. The analysis presented under Criteria #1 through #10 above demonstrates that the 2014 Modified Project would have an individually significant air quality impacts that could not be mitigated through implementation of applicable SCAs (2004 Impacts C.2 and C.5). Therefore, the 2014 Modified Project would result in a considerable contribution to cumulative air quality impacts.

13) Criterion #13: Would the project result in a cumulatively considerable net increase of any criteria air pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (Not previously addressed, nor currently considered for CEQA purposes since information regarding this topic was known, or could have been known, in 2004 and is therefore not "changed circumstances" or "new information".)

The analysis of the 2004 EIR Project would result in a cumulative contribution to an air quality standard. The analysis presented above under Criterion #3 demonstrates that the 2014 Modified Project, would have a cumulatively considerable contribution of ozone precursors ROG and NO_x. Therefore, the 2014 Modified Project would result in a considerable contribution to cumulative air quality impacts associated with an increase in criteria air pollutants.

The 1999 CEQA Guidelines on which the 2004 EIR analysis is based did not include a cumulative health risk threshold. Because the currently adopted City Thresholds (based upon the BAAQMD 2011 CEQA Guidelines and Thresholds) include such a threshold, a discussion of the cumulative health risk associated with the 2014 Modified Project has been provided above for informational purposes under Criteria #4, #8, and #9.

For the purposes of this CEQA analysis, the 2014 Modified Project would not be considered to result in a new significant impact to cumulative health risks. The 2014 Modified Project would not result in any new or more severe significant cumulative air quality impacts than identified in previous analysis. Consistent with the conclusions in the 2004 EIR, all cumulative air quality

impacts of the 2014 Modified Project would continue to be less than significant, except for the cumulatively considerable contribution of ozone precursors. No new mitigation measures are required; update of the project sponsor's previously prepared parking and transportation demand management plan to comply with SCA TRANS-1 and 2004 Mitigation Measure C.5 regarding cumulative regional air pollution would reduce, but would not eliminate, the significant effect.

References – Air Quality

Bay Area Air Quality Management District (BAAQMD), BAAQMD Health Risk Screening Analysis Guidelines, June 2005, http://www.baaqmd.gov/pmt/air_toxics/risk_procedures_policies/hrsa_guidelines.pdf.

BAAQMD, CEQA Air Quality Guidelines, May 2012, http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_Final_May%202012.ashx?la=en.

California Office of Environmental Health Hazard Assessment. August 2012. Air Toxics Hot Spots Program Risk Assessment Guidelines, Technical Support Document for Exposure Assessment and Stochastic Analysis.

California Office of Environmental Health Hazard Assessment. August 2003. Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.

Cordova, J., Meteorologist, Bay Area Air Quality Management District. August 19, 2013 – e-mail recommending the use of the ISCST3 model.

Office of Environmental Health Hazard Assessment (OEHHA), *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, August 2003, http://www.oehha.org/air/hot_spots/pdf/HRAguidefinal.pdf.

Partridge, Patricia, et al., Characterization and Analysis of Diesel Exhaust Odor, Environmental Science Technology, Vol.21, No.4, 1987.

4.3 Greenhouse Gas Emissions / Global Climate Change

Previous Environmental Analysis

Climate change and greenhouse gas emissions were not expressly addressed in the 2004 EIR. However, since information on climate change and greenhouse gas emissions was known, or could have been known, in 2004, it does not constitute "new information" as defined under CEQA and thus is not legally required to be analyzed as a part of this Addendum. However, an analysis of the 2014 Modified Project using the City's current significance thresholds (which are based upon the May 2011 BAAQMD CEQA Guidelines and Thresholds) has been conducted to provide more information to the public and decision-makers and to assess the potential applicability of the City's most recently adopted *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) separate from CEQA purposes. Although the analysis in this Addendum evaluates climate change and greenhouse gas emissions, there is no resulting significant CEQA impact.

This section evaluates the potential greenhouse gas emissions impacts of the 2014 Modified Project. This analysis specifically considers whether the 2014 Modified Project (in total or only with respect to residential development on Sites D and F2) and for comparison, the Approved Project and the project analyzed in the 2004 EIR, would exceed the City's current thresholds of significance for greenhouse gas emissions.

Standard Conditions of Approval

The City's form of Standard Conditions of Approval includes one SCA relating to GHG emissions: SCA GHG-1, which requires a greenhouse gas reduction plan to be prepared and adhered to for projects that would have a significant climate change impact under CEQA. /Also, the City's 2007-2014 Housing Element included a finding that that no operational emissions from any individual residential development project constructed pursuant to the Housing Element (regardless of size) would result in a significant climate change impact.[1]

As shown in Table 4.3-6, the greenhouse gas emissions from the maximum of 665 residential units proposed as part of the 2014 Modified Project would not exceed BAAQMD's threshold of 4.6 MT CO_2e per service population per year. Further, as shown in Table 4.3-5, development of the Maximum Residential Scenario would actually result in a decrease in the amount of greenhouse gas emissions in comparison to construction of the previously approved, non-residential variants on both D and F2**.** Based on the data and the policy underlying the City's climate change thresholds of significance, the City has determined that development of the new residential elements would have a less than significant climate change impact, and thus SCA GHG-1 does not apply to the Jack London Square Project.

[1] *See* p. 3.5-35, Discussion of Future Development Projects, *City of Oakland 2007-2014 Housing Element Draft EIR*: "[P]roject-level GHG impacts associated with all future residential development projects under the 2007-2014 Housing Element would be less than significant and no project-specific GHG analysis would be required."

Other SCAs that pertain to greenhouse gases and that apply to the 2014 Modified Project are described below and presented in full in other sections of this Addendum.

- **SCA TRANS-1: Parking and Transportation Demand Management**

  SCA TRANS-1 addresses parking transportation demand management and would apply to residential uses on Sites D and F2 under the 2014 Modified Project. However, the project sponsor is already required to comply with Mitigation Measures C.2 and C.5 (Rideshare, Transit, Shuttle, Bicycle/Pedestrian Measures) in the 2004 EIR, which already address the preparation of a parking and transportation demand management plan that would satisfy the requirements of SCA TRANS-1. The project sponsor has a continuing obligation to maintain the existing TDMP pursuant to Mitigation Measures C.2 and C.5, and is now required to update its existing plan for City review and approval in order to fully satisfy SCA TRANS-1 for the 2014 Modified Project.

- **SCA UTL-3: Compliance with the Green Building Ordinance, OMC Chapter 18.02**

  SCA UTL-3 applies to new construction of non-residential buildings over 25,000 square feet of total floor area. SCA UTL-3 requires that the applicant comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the Green Building Ordinance. The Green Building Ordinance establishes checklist requirements for developers based on LEED or Build it Green. LEED certification requires a 10 percent reduction in the Title 24 energy standards. (See SCA UTL-3 in Section 4.5.8, *Utilities and Service Systems,* of this Addendum.)

- **SCA UTL-1: Waste Reduction and Recycling**

  SCA UTL-1 requires a project applicant to submit a Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP) for review and approval by the Oakland Public Works Agency. Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include all new construction and all demolition. (See SCA UTL-1 in Section 4.5.8, *Utilities and Service Systems,* of this Addendum.)

- **Several SCAs Regarding Landscape Requirements and Tree Replacement**

  Several SCAs address landscape requirements for frontages of new buildings and replacement of trees removed as part of a project. Projects are required to install one tree for every 25 feet of street frontage in cases where sidewalks have adequate width. Additionally, SCAs generally require the replacement of native trees removed as part of a project. Together, these SCAs maintain and increase landscaping and trees, create a cooler climate, reduce excessive solar gain, and absorb CO_2e emissions for a contribution to emission reductions. (See SCA AES-1 in Section 4.5.6, *Aesthetics, Shadow and Wind,* of this Addendum. See SCA BIO-2 in Section 4.5.10, *Biological Resources,* of this Addendum.)

- **Several SCAs Regarding Stormwater Management**

  Consistent with regional stormwater management programs and requirements that projects must comply with, the City has several SCAs that aim to reduce post construction stormwater runoff

that could affect the ability to accommodate potentially increased storms and flooding within existing floodplains and infrastructure systems. These SCAs are relevant as climate change can result in increased flooding due to warmer climate (e.g., earlier and greater melting of snowpack) and inadequate infrastructure. (See SCA HYD-1 through SCA HYD-3 in Section 4.54, *Hydrology and Water Quality*, of this Addendum.)

2014 Existing Conditions – Environmental Setting

There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of GHGs that keep the Earth's surface warm by trapping heat in the Earth's atmosphere (USEPA, 2000) in much the same way as glass in a greenhouse. While many studies show evidence of warming over the last century and predict future global warming, the precise causes of such warming and its potential effects are far less certain.[2] While the greenhouse effect is responsible for maintaining a habitable climate on Earth, human activity has caused increased concentrations of these gases in the atmosphere, contributing to an increase in global temperatures and alterations of climactic conditions.

The USEPA has recently concluded that scientists have a good understanding of the following relationship and data supporting the following:

- "Human activities are changing the composition of Earth's atmosphere. Increasing levels of greenhouse gases like carbon dioxide (CO_2) in the atmosphere since pre-industrial times are well-documented."
- The atmospheric buildup of CO_2 and other greenhouse gases is largely the result of human activities such as the burning of fossil fuels.
- A warming trend of approximately 0.7 to 1.5°F occurred during the 20th century. Warming occurred in both the northern and southern hemispheres, and over the oceans.
- "The key greenhouse gases emitted by human activities remain in the atmosphere for periods ranging from decades to centuries." It is therefore virtually certain that atmospheric concentrations of greenhouse gases will continue to rise over the next few decades. Increasing greenhouse gas concentrations tend to warm the planet. (USEPA, 2000)

At the same time, there is much uncertainty concerning the magnitude and rate of the warming. Specifically, the United Stated Environmental Protection Agency (USEPA) notes that "important scientific questions remain about how much warming will occur; how fast it will occur; and how the warming will affect the rest of the climate system, including precipitation patterns and storms. Answering these questions will require advances in scientific knowledge in a number of areas:

- Improving understanding of natural climatic variations, changes in the sun's energy, land-use changes, the warming or cooling effects of pollutant aerosols, and the impacts of changing humidity and cloud cover.

[2] "Global climate change" is a broad term used to describe any worldwide, long-term change in the earth's climate. "Global warming" is more specific and refers to a general increase in temperatures across the earth, although it can cause other climatic changes, such as a shift in the frequency and intensity of weather events and even cooler temperatures in certain areas, even though the world, on average, is warmer.

- Determining the relative contribution to climate change of human activities and natural causes.
- Projecting future greenhouse emissions and how the climate system will respond within a narrow range.
- Improving understanding of the potential for rapid or abrupt climate change." (USEPA, 2000)

Greenhouse Gases (GHGs)

Carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) are the principal GHGs, and when concentrations of these gases exceed natural concentrations in the atmosphere, the greenhouse effect may be enhanced. CO_2, CH_4 and N_2O occur naturally, but are also generated through human activity. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Other human generated GHGs, which have much higher heat-absorption potential than CO_2, include fluorinated gases such as hydrofluorocarbons (HFCs), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6) which are byproducts of certain industrial processes.

Potential Effects of Human Activity on GHG Emissions

Fossil fuel combustion, especially for the generation of electricity and powering of motor vehicles, has led to substantial increases in CO_2 emissions (and thus substantial increases in atmospheric concentrations). In 1994, atmospheric CO_2 concentrations were found to have increased by nearly 30 percent above pre-industrial (c.1860) concentrations.

The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential (GWP),[3] and is expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of carbon dioxide equivalents (CO_2e).[4]

Global Emissions

Worldwide emissions of GHGs in 2004 were 30 billion tons of CO_2e per year (UNFCCC, 2007) (including both ongoing emissions from industrial and agricultural sources, but excluding emissions from land-use changes).

U.S. Emissions

In 2004, the United States emitted about 8 billion tons of CO_2e or about 25 tons/year/person. Of the four major sectors nationwide — residential, commercial, industrial and transportation — transportation accounts for the highest fraction of GHG emissions (approximately 35 to 40 percent); these emissions are entirely generated from direct fossil fuel combustion (USEPA, 2000).

3 Global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere.

4 CO_2 equivalents ("CO_2e") are calculated as the product of the mass emitted of a given GHG and its specific global warming potential (GWP). While CH_4 and N_2O have much higher GWPs than CO_2, CO_2 is emitted in such vastly higher quantities that it accounts for the majority of GHG emissions in CO_2e, both from residential developments and human activity in general.

State of California Emissions

In 2004, California emitted approximately 550 million tons of CO_2e, or about six percent of the U.S. emissions. This large number is due primarily to the sheer size of California compared to other states. By contrast, California has one of the four lowest per capita GHG emission rates in the country, due to the success of its energy-efficiency and renewable energy programs and commitments that have lowered the State's GHG emissions rate of growth by more than half of what it would have been otherwise (CEC, 2007). Another factor that has reduced California's fuel use and GHG emissions is its mild climate compared to that of many other states.

The California Environmental Protection Agency (CalEPA) Climate Action Team stated in its March 2006 report that the composition of gross climate change pollutant emissions in California in 2002 (expressed in terms of CO_2e) were as follows:

- Carbon dioxide (CO_2) accounted for 83.3 percent;
- Methane (CH_4) accounted for 6.4 percent;
- Nitrous oxide (N_2O) accounted for 6.8 percent; and
- Fluorinated gases (HFCs, PFC, and SF_6) accounted for 3.5 percent (CalEPA, 2006).

The California Energy Commission (CEC) found that transportation is the source of approximately 41 percent of the State's GHG emissions, followed by electricity generation (both in-State and out-of-State) at 23 percent, and industrial sources at 20 percent. Agriculture and forestry is the source of approximately 8.3 percent, as is the source categorized as "other," which includes residential and commercial activities (CEC, 2007).

Bay Area Emissions

In the Bay Area, fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of the GHG emissions, accounting for just over half of the Bay Area's 85 million tons of GHG emissions in 2002. Industrial and commercial sources were the second largest contributors of GHG emissions with about 25 percent of total emissions. Domestic sources (e.g., home water heaters, furnaces, etc.) account for about 11 percent of the Bay Area's GHG emissions, followed by power plants at seven percent. Oil refining currently accounts for approximately six percent of the total Bay Area GHG emissions (BAAQMD, 2008b).

Oakland Emissions

The City of Oakland, in partnership with ICLEI – Local Governments for Sustainability, has developed a GHG emissions inventory estimating citywide GHG emissions for the year 2005 at approximately three million metric tons of CO_2e (City of Oakland, 2009). This citywide GHG emissions inventory reflects all the energy used and waste produced within the Oakland city limits. When emissions from highway transportation are considered in this total, approximately 58 percent of Oakland's annual GHG emissions are associated with the transportation sector. Natural gas consumption represents approximately 22 percent of Oakland's GHG emissions,

while electricity use and waste decomposition represent 16 percent and four percent of Oakland's total GHG emissions, respectively. As shown in **Table 4.3-1**, Oakland emitted approximately three million metric tons of CO_2e in 2005 from all major sources, more than half of which were from transportation.

TABLE 4.3-1
OAKLAND COMMUNITY-WIDE GHG EMISSIONS SUMMARY – 2005 (TONS/YEAR)

GHG Emissions Source	Metric Tons of Carbon Dioxide Equivalent (CO_2e)	Percent of Total
Non-Highway Transportation	759,884	25%
Highway Transportation	1,006,911	33%
Commercial/Industrial Electricity	320,151	11%
Commercial/Industrial Natural Gas	288,514	10%
Residential Electricity	150,077	5%
Residential Natural Gas	350,162	12%
Landfilled Solid Waste	126,361	4%
Total	**3,002,060**	**100%**

SOURCE: City of Oakland, 2009.

Potential Effects of Global Climate Change

Globally, climate change has the potential to impact numerous environmental resources through anticipated, though uncertain, impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. A warming of about 0.2°C (0.36°F) per decade is projected, and there are identifiable signs that global warming is taking place, including substantial loss of ice in the Arctic (IPCC, 2000).

However, the understanding of GHG emissions, particulate matter, and aerosols on global climate trends remains uncertain. In addition to uncertainties about the extent to which human activity rather than solar or volcanic activity is responsible for increasing warming, there is also evidence that some human activity has cooling, rather than warming, effects, as discussed in detail in numerous publications by the International Panel on Climate Change (IPCC), namely "Climate Change 2001, The Scientific Basis"(2001).[5]

Acknowledging uncertainties regarding the rate at which anthropogenic GHG emissions would continue to increase (based upon various factors under human control, such as future population growth and the locations of that growth; the amount, type, and locations of economic development; the amount, type, and locations of technological advancement; adoption of alternative energy sources; legislative and public initiatives to curb emissions; and public awareness and acceptance of

[5] The IPCC was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme to assess scientific, technical and socio-economic information relevant for the understanding of climate change, its potential impacts and options for adaptation and mitigation.

methods for reducing emissions), and the impact of such emissions on climate change, the IPCC devised a set of six "emission scenarios" which utilize various assumptions about the rates of economic development, population growth, and technological advancement over the course of the next century (IPCC, 2000). These emission scenarios are paired with various climate sensitivity models to attempt to account for the range of uncertainties which affect climate change projections. The wide range of temperature, precipitation, and similar projections yielded by these scenarios and models reveal the magnitude of uncertainty presently limiting climate scientists' ability to project long-range climate change (as previously discussed).

The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects, according to the IPCC (IPCC, 2000):

- Snow cover is projected to contract, with permafrost areas sustaining thawing;
- Sea ice is projected to shrink in both the Arctic and Antarctic;
- Hot extremes, heat waves, and heavy precipitation events are likely to increase in frequency;
- Future tropical cyclones (typhoons and hurricanes) will likely become more intense;
- Non-tropical storm tracks are projected to move poleward, with consequent changes in wind, precipitation, and temperature patterns. Increases in the amount of precipitation are very likely in high-latitudes, while decreases are likely in most subtropical regions; and
- Warming is expected to be greatest over land and at most high northern latitudes, and least over the Southern Ocean and parts of the North Atlantic Ocean.

Potential secondary effects from global warming include global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

Potential Effects of Climate Change on the State of California

According to the California Air Resource Board (CARB), some of the potential impacts in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CARB, 2006). Several recent studies have attempted to explore the possible negative consequences that climate change, left unchecked, could have in California. These reports acknowledge that climate scientists' understanding of the complex global climate system, and the interplay of the various internal and external factors that affect climate change, remains too limited to yield scientifically valid conclusions on such a localized scale. Substantial work has been done at the international and national level to evaluate climatic impacts, but far less information is available on regional and local impacts. In addition, projecting regional impacts of climate change and variability relies on large-scale scenarios of changing climate parameters, using information that is typically at too general a scale to make accurate regional assessments (Kiparsky, 2003).

Some of the potential effects that could be experienced in California as a result of global warming and climate change, as reported in an array of studies, are summarized below:

- ***Air Quality.*** Higher temperatures, conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. For other pollutants, the effects of climate change and/or weather are less well studied, and even less well understood.[6] If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the State (CCCC, 2006).

- ***Water Supply.*** Uncertainty remains with respect to the overall impact of global climate change on future water supplies in California. For example, models that predict drier conditions (i.e., parallel climate model [PCM]) suggest decreased reservoir inflows and storage and decreased river flows, relative to current conditions. By comparison, models that predict wetter conditions (i.e., HadCM2) project increased reservoir inflows and storage, and increased river flows (Brekke, et al., 2004).

  A July 2006 technical report prepared by the California Department of Water Resources (DWR) addresses the State Water Project (SWP), the Central Valley Project, and the Sacramento-San Joaquin Delta. Although the report projects that "[c]limate change will likely have a significant effect on California's future water resources . . . [and] future water demand," it also reports that "much uncertainty about future water demand [remains], especially [for] those aspects of future demand that will be directly affected by climate change and warming.

  While climate change is expected to continue through at least the end of this century, the magnitude and, in some cases, the nature of future changes is uncertain. This uncertainty serves to complicate the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood (DWR, 2006)." DWR adds that "[i]t is unlikely that this level of uncertainty will diminish significantly in the foreseeable future (DWR, 2006)." Still, changes in water supply are expected to occur, and many regional studies have shown that large changes in the reliability of water yields from reservoirs could result from only small changes in inflows (Kiparsky, 2003; DWR, 2006; Cayan et al., 2006).

  Water purveyors, such as the East Bay Municipal Utilities District (EBMUD), are required by State law to prepare Urban Water Management Plans (UWMPs) (discussed below, under Regulatory Setting) that consider climatic variations and corresponding impacts on long-term water supplies (California Water Code, Section 10631[c]). DWR has published a 2005 SWP Delivery Reliability Report, which presents information from computer simulations of the SWP operations based on historical data over a 73-year period (1922–1994). The DWR notes that the results of those model studies "represent the best available assessment of the delivery capability of the SWP."

6 USEPA, 2007, op. cit.

In addition, the DWR is continuing to update its studies and analysis of water supplies. EBMUD would incorporate this information from DWR in its update of its current UWMP 2005 (required every five years per the California Water Code), and information from the UWMP can be incorporated into Water Supply Assessments (WSAs) and Water Verifications prepared for certain development projects in accordance with California Water Code Section 10910, et seq. and California Government Code Section 66473.7, et seq.

- ***Hydrology.*** As discussed above, climate change could potentially affect the following: the amount of snowfall, rainfall and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea level rise can be a product of global warming through two main processes—expansion of sea water as the oceans warm and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could also jeopardize California's water supply. In particular, saltwater intrusion would threaten the quality and reliability of the State's major fresh water supply that is pumped from the southern portion of the Sacramento/San Joaquin River Delta. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

- ***Agriculture.*** California has a $30 billion agricultural industry that produces half the country's fruits and vegetables. The CCCC notes that higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase, crop-yield could be threatened by a less reliable water supply, and greater ozone pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year that certain crops, such as wine grapes, bloom or ripen, and thus affect their quality (CCCC, 2006).

- ***Ecosystems and Wildlife.*** Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. In 2004, the Pew Center on Global Climate Change released a report examining the possible impacts of climate change on ecosystems and wildlife (Parmesan and Galbraith, 2004). The report outlines four major ways in which it is thought that climate change could affect plants and animals: (1) timing of ecological events; (2) geographic range; (3) species' composition within communities; and (4) ecosystem processes such as carbon cycling and storage.

2014 Existing Conditions – Regulatory Setting

International and Federal

Kyoto Protocol. The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated five percent from 1990 levels during the first commitment period of 2008–2012. It should be noted that although the United States is a signatory to the Kyoto Protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments.

Copenhagen Summit. The 2009 United Nations Climate Change Conference, i.e., Copenhagen Summit, was held in Denmark in December 2009. The conference included the 15th Conference of the Parties (COP 15) to the United Nations Framework Convention on Climate Change and the 5th Meeting of the Parties (COP/MOP 5) to the Kyoto Protocol. A framework for climate change mitigation beyond 2012 was to be agreed there. The Copenhagen Accord was drafted by the US, China, India, Brazil and South Africa on December 18, and judged a "meaningful agreement" by the United States government. It was "taken note of", but not "adopted", in a debate of all the participating countries the next day, and it was not passed unanimously. The document recognized that climate change is one of the greatest challenges of the present day and that actions should be taken to keep any temperature increases to below 2°C. The document is not legally binding and does not contain any legally binding commitments for reducing CO_2 emissions.

Climate Change Technology Program. The United States has opted for a voluntary and incentive-based approach toward emissions reductions in lieu of the Kyoto Protocol's mandatory framework. The Climate Change Technology Program (CCTP) is a multi-agency research and development coordination effort (which is led by the Secretaries of Energy and Commerce) that is charged with carrying out the President's National Climate Change Technology Initiative (CCTP, 2006).

U.S. Environmental Protection Agency (USEPA). To date, the USEPA has not regulated GHGs under the Clean Air Act (discussed above) based on its assertion in *Massachusetts et al. v. Environmental Protection Agency (EPA) et al.*(U.S. Supreme Court, 2007) that the "Clean Air Act does not authorize it to issue mandatory regulations to address global climate change and that it would be unwise to regulate GHG emissions because a causal link between GHGs and the increase in global surface air temperatures has not been unequivocally established," However, in the same case, (*Massachusetts v. EPA*) the U.S. Supreme Court held that the USEPA can, and should, consider regulating motor-vehicle GHG emissions.

State of California

AB 1493 and Amended "Pavley" Regulations. On July 1, 2002, the California Assembly passed Bill 1493 (AB 1493) (signed into law on July 22, 2002), requiring the CARB to "adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." The regulations were to be adopted by January 1, 2005, and apply to 2009 and later model-year vehicles. In September 2004, CARB responded by adopting "CO_2-equivalent fleet average emission" standards. The standards will be phased in from 2009 to 2016, reducing emissions by 22 percent in the "near term" (2009–2012) and 30 percent in the "mid term" (2013–2016), as compared to 2002 fleets.

Executive Order (E.O.) S-3-05. On June 1, 2005, Governor Arnold Schwarzenegger signed E.O. S-3-05, establishing statewide GHG emission reduction targets. This E.O. provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent below 1990 levels. The Secretary of the CalEPA is charged with coordinating oversight of efforts to meet these targets and formed the Climate Action Team (CAT) to carry out the E.O. Several of the programs developed by the CAT to meet

the emission targets are relevant to residential construction and are outlined in a March 2006 report (CalEPA, 2006). These include prohibition of idling of certain classes of construction vehicles, provision of recycling facilities within residential buildings and communities, compliance with the CEC's building and appliance energy efficiency standards, compliance with California's Green Buildings and Solar initiatives, and implementation of water-saving technologies and features.

AB 32. On August 31, 2006, the California Assembly passed Bill 32 (AB 32) (signed into law on September 27, 2006), the California Global Warming Solutions Act of 2006. AB 32 commits California to reduce GHG emissions to 1990 levels by 2020 and establishes a multi-year regulatory process under the jurisdiction of the CARB to establish regulations to achieve these goals. The regulations shall require monitoring and annual reporting of GHG emissions from selected sectors or categories of emitters of GHGs. By January 1, 2008, CARB was required to adopt a statewide GHG emissions limit equivalent to the statewide GHG emissions levels in 1990, which must be achieved by 2020. CARB has adopted numerous rules and regulations including the low carbon fuel standard, the renewable portfolio standard, and renewable electricity standard, among others which became operative prior to January 1, 2012, to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

On April 20, 2007, CARB published *Proposed Early Actions to Mitigate Climate Change in California* (CARB, 2007). There are no early action measures specific to residential development included in the list of 36 measures identified for CARB to pursue during calendar years 2007, 2008, and 2009. Also, this publication indicated that the issue of GHG emissions in CEQA and General Plans was being deferred for later action, so the publication did not discuss any early action measures generally related to CEQA or to land use decisions. As noted in that report, "AB 32 requires that all GHG reduction measures adopted and implemented by the Air Resources Board be technologically feasible and cost effective (CARB, 2007)." The law permits the use of market-based compliance mechanisms to achieve those reductions and also requires that GHG measures have neither negative impacts on conventional pollutant controls nor any disproportionate socioeconomic effects (among other criteria).

On December 11, 2008, CARB adopted its *Climate Change Scoping Plan* (Scoping Plan), which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations (CARB, 2008). The Scoping Plan contains the main strategies California will implement to reduce CO_2e emissions by 174 million metric tons (MMT), or approximately 30 percent, from the State's projected 2020 emissions level of 596 MMT of CO_2e under a business-as-usual scenario. The Scoping Plan also breaks down the amount of GHG emissions reductions CARB recommends for each emissions sector of the State's GHG inventory. While CARB has identified a GHG reduction target of 15 percent for local governments themselves, it has not yet determined what amount of GHG emissions reductions it recommends from local government land use decisions. However, the Scoping Plan does state that successful implementation of the plan relies on local governments' land use planning and urban growth decisions because local governments have primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions. CARB further acknowledges that decisions on how land is used will have large effects on the GHG

emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. The measures approved by CARB were developed over the past three years and are now largely in place.

The Scoping Plan also includes recommended measures that were developed to reduce GHG emissions from key sources and activities while improving public health, promoting a cleaner environment, preserving our natural resources, and ensuring that the impacts of the reductions are equitable and do not disproportionately impact low-income and minority communities. These measures, shown below in **Table 4.3-2** by sector, also put the State on a path to meet the long-term 2050 goal of reducing California's GHG emissions to 80 percent below 1990 levels.

California Senate Bill 1368 (SB 1368). On August 31, 2006, the California Senate passed SB 1368 (signed into law on September 29, 2006), which required the Public Utilities Commission (PUC) to develop and adopt a "greenhouse gases emission performance standard" by February 1, 2007, for the private electric utilities under its regulation. The PUC adopted an interim standard on January 25, 2007, but formally requested a delay until September 30, 2007, for the local publicly-owned electric utilities under its regulation. These standards apply to all long-term financial commitments entered into by electric utilities. The CEC adopted a consistent standard in August, 2007. (NRDC, 2007)

California Senate Bill 97 (SB 97). Governor Schwarzenegger signed SB 97 (Chapter 185, Statutes 2007) into law on August 24, 2007. The legislation provides partial guidance on how greenhouse gases should be addressed in certain CEQA documents.

SB 97 required the Governor's Office of Planning and Research (OPR) to prepare CEQA Guidelines for the mitigation of GHG emissions, including, but not limited to, effects associated with transportation or energy consumption. The Resources Agency adopted the guidelines, and the relevant amendments became effective April, 2010, as discussed below. OPR and the Resources Agency are required to periodically review the guidelines to incorporate new information or criteria adopted by CARB facilitated by the Global Warming Solutions Act.

In April 2009, OPR forwarded the draft revisions to the California Natural Resources Agency for review and proposed adoption. On July 3, 2009, the California Natural Resources Agency began the formal rulemaking process for adopting the CEQA Guidelines. The Secretary for Natural Resources adopted Amendments to the CEQA Guidelines addressing GHG emissions on December 30, 2009. The Amendments became effective on March 18, 2010, with a 120-day grace period.

2008 CAPCOA "White Paper". In January 2008, the California Air Pollution Control Officers Association (CAPCOA) issued a "white paper" on evaluating and addressing GHGs under CEQA. This resource guide was prepared to support local governments as they develop their programs and policies around climate change issues. The paper was not a guidance document. It was not intended to dictate or direct how any agency chooses to address GHG emissions. Rather, it was intended to provide a common platform of information about key elements of CEQA as they pertain to GHG, including an analysis of different approaches to setting significance thresholds.

TABLE 4.3-2
LIST OF RECOMMENDED ACTIONS BY SECTOR

Measure No.	Measure Description	GHG Reductions (Annual MMT CO_2e)
Transportation		
T-1	Pavley I and II – Light Duty Vehicle Greenhouse Gas Standards	31.7
T-2	Low Carbon Fuel Standard (Discrete Early Action)	15
T-3[a]	Regional Transportation-Related Greenhouse Gas Targets	5
T-4	Vehicle Efficiency Measures	4.5
T-5	Ship Electrification at Ports (Discrete Early Action)	0.2
T-6	Goods Movement Efficiency Measures. • Ship Electrification at Ports • System-Wide Efficiency Improvements	3.5
T-7	Heavy-Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	0.93
T-8	Medium- and Heavy-Duty Vehicle Hybridization	0.5
T-9	High Speed Rail	1
Electricity and Natural Gas		
E-1	Energy Efficiency (32,000 GWh of Reduced Demand) • Increased Utility Energy Efficiency Programs • More Stringent Building & Appliance Standards Additional Efficiency and Conservation Programs	15.2
E-2	Increase Combined Heat and Power Use by 30,000 GWh (Net reductions include avoided transmission line loss)	6.7
E-3	Renewables Portfolio Standard (33% by 2020)	21.3
E-4	Million Solar Roofs (including California Solar Initiative, New Solar Homes Partnership and solar programs of publicly owned utilities) • Target of 3000 MW Total Installation by 2020	2.1
CR-1	Energy Efficiency (800 Million Therms Reduced Consumptions) • Utility Energy Efficiency Programs • Building and Appliance Standards • Additional Efficiency and Conservation Programs	4.3
CR-2	Solar Water Heating (AB 1470 goal)	0.1
Green Buildings		
GB-1	Green Buildings	26
Water		
W-1	Water Use Efficiency	1.4†
W-2	Water Recycling	0.3†
W-3	Water System Energy Efficiency	2.0†
W-4	Reuse Urban Runoff	0.2†
W-5	Increase Renewable Energy Production	0.9†
W-6	Public Goods Charge (Water)	TBD†
Industry		
I-1	Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	TBD
I-2	Oil and Gas Extraction GHG Emission Reduction	0.2
I-3	GHG Leak Reduction from Oil and Gas Transmission	0.9
I-4	Refinery Flare Recovery Process Improvements	0.3
I-5	Removal of Methane Exemption from Existing Refinery Regulations	0.01

[a] This is not the SB 375 regional target. CARB will establish regional targets for each MPO region following the input of the regional targets advisory committee and a consultation process with MPO's and other stakeholders per SB 375
† GHG emission reduction estimates are not included in calculating the total reductions needed to meet the 2020 target

The paper noted that for a variety of reasons local agencies may decide not to have a CEQA threshold. Local agencies may also decide to assess projects on a case-by-case basis when the projects come forward. The paper also discussed a range of GHG emission thresholds that could be used. The range of thresholds discussed includes a GHG threshold of zero and several non-zero thresholds. Non-zero thresholds include percentage reductions for new projects that would allow the State to meet its goals for GHG emissions reductions by 2020 and perhaps 2050. These would be determined by a comparison of new emissions versus business as usual emissions and the reductions required would be approximately 30 percent to achieve 2020 goals and 90 percent (effectively immediately) to achieve the more aggressive 2050 goals. These goals could be varied to apply differently to new projects, by economic sector, or by region in the State.

2008 OPR Technical Advisory. On June 19, 2008, OPR published a technical advisory on CEQA and climate change. The advisory provided OPR's perspective on the emerging role of CEQA in addressing climate change and greenhouse gas emissions, while recognizing that approaches and methodologies for calculating greenhouse gas emissions and addressing environmental impacts through CEQA review are rapidly evolving. The advisory recognized that OPR will develop, and the Resources Agency will adopt, amendments to the CEQA Guidelines pursuant to SB 97. In the interim, the technical advisory "offers informal guidance regarding the steps lead agencies should take to address climate change in their CEQA documents."

The technical advisory pointed out that neither CEQA nor the CEQA Guidelines prescribe thresholds of significance or particular methodologies for performing an impact analysis. The advisory stated, "This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable." OPR recommended that "the global nature of climate change warrants investigation of a statewide threshold of significance for GHG emissions." Until such a standard is established, OPR advises that each lead agency should develop its own approach to performing an analysis for projects that generate greenhouse gas emissions.

2010 Amendments to the CEQA Guidelines. In January 2009, OPR released preliminary proposed amendments to the CEQA Guidelines regarding GHG emissions. No significance threshold was included in the draft and the guidelines afforded the customary deference provided to lead agencies in their analysis and methodologies. The introductory preface to the amendments recommended that CARB set statewide thresholds of significance. OPR emphasized the necessity of having a consistent threshold available to analyze projects, and the analyses should be performed based on the best available information. The proposed revisions included a new section specifically addressing the significance of GHG emissions, building upon OPR's 2008 technical advisory. Like the advisory, the proposed Guidelines section calls for quantification of GHG emissions. The proposed section states that the significance of GHG impacts should include consideration of the extent to which the project would result in the following:

- Help or hinder compliance with AB32 goals;
- Increase energy use, especially energy use generated by fossil fuel combustion;
- Improve energy efficiency; and
- Result in emissions that would exceed any applicable significance threshold.

Among the changes included in these recent CEQA Guidelines amendments are guidance for determining the significance of impacts from greenhouse gas emissions (CEQA Guidelines §15064.4). These guidelines indicate that "The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency . . . A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." A lead agency shall have discretion to determine, in the context of a particular project, whether to use a model or other methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use, or whether to rely on a qualitative analysis or performance based standard.

California Senate Bill 375 (SB 375). Governor Schwarzenegger signed SB 375 into law in September 2008 (Chapter 728, Statutes of 2008). The legislation aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) that will prescribe land use allocation in the MPO's regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

California Urban Water Management Act. The California Urban Water Management Planning Act requires various water purveyors throughout the State of California (such as EBMUD) to prepare UWMPs, which assess the purveyor's water supplies and demands over a 20-year horizon (California Water Code, Section 10631 *et seq*.). As required by that statute, UWMPs are updated by the purveyors every five years. As discussed above, this is relevant to global climate change which may affect future water supplies in California, as conditions may become drier or wetter, affecting reservoir inflows and storage and increased river flows (Brekke, 2004).

Bay Area Air Quality Management District (BAAQMD). The BAAQMD is responsible for improving air quality within the San Francisco Bay Area Basin. The most substantive changes in the regulatory setting that have occurred since the 2004 EIR was certified involve the BAAQMD's update of the 1999 CEQA Air Quality Guidelines in 2011. In May of 2011, the BAAQMD adopted the latest version of its Thresholds of Significance for use in determining the significance of projects' environmental effects under CEQA (Thresholds), and published their latest version of CEQA Guidelines for consideration by lead agencies. The BAAQMD's prior CEQA Guidelines, which were last updated in 1999, contained no thresholds of significance for GHG emissions. The 2011 Thresholds of Significance of the BAAQMD identified a project-specific threshold of 1,100 metric tons per year, and an efficiency-based threshold of 4.6 metric tons per year per service

population (residents and employees) as resulting in a cumulatively considerable contribution of GHG emission and a cumulatively significant impact to global climate change.[7]

City of Oakland

City of Oakland General Plan

Oakland Energy and Climate Action Plan. An Oakland Energy and Climate Action Plan (ECAP) has been developed to identify, evaluate and recommend prioritized actions to reduce energy consumption and GHG emissions in Oakland. The ECAP identifies energy and climate goals, clarify policy direction, and identifies priority actions for reducing energy use and GHG emissions. On July 7, 2009, the Oakland City Council directed staff to develop the draft Oakland ECAP using a GHG reduction target equivalent to 36 percent below 2005 GHG emissions by 2020 (City of Oakland, Resolution No. 82129 C.M.S., 2009). The City adopted the ECAP on December 4, 2012

Land Use and Transportation Element (LUTE). The LUTE (which includes the Pedestrian Master Plan and Bicycle Master Plan) of the Oakland General Plan contains the following policies that address issues related to GHG emissions and climate change:

- ***Policy T.2.1:*** Transit-oriented development should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city or commuter rail.

- ***Policy T.2.2:*** Transit-oriented developments should be pedestrian-oriented, encourage night and day time use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods.

- ***Policy T3.5:*** The City should include bikeways and pedestrian ways in the planning of new, reconstructed, or realigned streets, wherever possible.

- ***Policy T3.6:*** The City should encourage and promote use of public transit in Oakland by expediting the movement of and access to transit vehicles on designated "transit streets" as shown on the Transportation Plan.

- ***Policy T4.2:*** Through cooperation with other agencies, the City should create incentives to encourage travelers to use alternative transportation options.

- ***Policy N3.2:*** In order to facilitate the construction of needed housing units, infill development that is consistent with the General Plan should take place throughout the City of Oakland.

- ***Policy T4.5:*** The City should prepare, adopt, and implement a Bicycle and Pedestrian Master Plan as a part of the Transportation Element of [the] General Plan.

[7] As previously stated, the City will be using the 1999 Thresholds to determine significant impacts but will utilize the 2011 BAAQMD Guidelines to provide information related to the City's current Thresholds which are not applicable here for CEQA purposes.

Open Space, Conservation and Recreation Element (OSCAR). The OSCAR Element includes policies that address GHG reduction and global climate change. Listed below are the following types of OCASR policies: policies that encourage the provision of open space, which increases vegetation area (trees, grass, landscaping, etc.) to effect cooler climate, reduce excessive solar gain, and absorb CO_2; policies that encourage stormwater management, which relates to the maintenance of floodplains and infrastructure to accommodate potential increased storms and flooding; and policies that encourage energy efficiency and use of alternative energy sources, which directly address reducing GHG emissions.

- ***Policy OS-1.1:*** Conserve existing City and Regional Parks characterized by steep slopes, large groundwater recharge areas, native plant and animal communities, extreme fire hazards, or similar conditions.

- ***Policy OS-2.1:*** Manage Oakland's urban parks to protect and enhance their open space character while accommodating a wide range of outdoor recreational activities.

- ***Policy CO-5.3:*** Employ a broad range of strategies, compatible with the Alameda Countywide Clean Water Program.

- ***Policy CO-12.1:*** Promote land use patterns and densities which help improve regional air quality conditions by: (a) minimizing dependence on single passenger autos; (b) promoting projects which minimize quick auto starts and stops, such as live-work development, mixed use development, and office development with ground floor retail space; (c) separating land uses which are sensitive to pollution from the sources of air pollution; and (d) supporting telecommuting, flexible work hours, and behavioral changes which reduce the percentage of people in Oakland who must drive to work on a daily basis.

- ***Policy CO-12.3:*** Expand existing transportation systems management and transportation demand management strategies which reduce congestion, vehicle idling, and travel in single passenger autos.

- ***Policy CO-12.4:*** Require that development projects be designed in a manner which reduces potential adverse air quality impacts. This may include: (a) the use of vegetation and landscaping to absorb carbon monoxide and to buffer sensitive receptors; (b) the use of low-polluting energy sources and energy conservation measures; and (c) designs which encourage transit use and facilitate bicycle and pedestrian travel.

- ***Policy CO-12.5:*** Require new industry to use best available control technology to remove pollutants, including filtering, washing, or electrostatic treatment of emissions.

- ***Policy CO-13.2:*** Support public information campaigns, energy audits, the use of energy-saving appliances and vehicles, and other efforts which help Oakland residents, businesses, and City operations become more energy efficient.

- ***Policy CO-13.3:*** Encourage the use of energy-efficient construction and building materials. Encourage site plans for new development which maximize energy efficiency.

- ***Policy CO-13.4:*** Accommodate the development and use of alternative energy resources, including solar energy and technologies which convert waste or industrial byproducts to

energy, provided that such activities are compatible with surrounding land uses and regional air and water quality requirements.

Historic Preservation Element (HPE). A key HPE policy relevant to climate change encourages the reuse of existing building (and building materials) resources, which could reduce landfill material (a source of methane, a GHG), avoid the incineration of materials (which produces CO_2 as a by-product), avoid the need to transport materials to disposal sites (which produces GHG emissions), and eliminate the need for materials to be replaced by new product (which often requires the use of fossil fuels to obtain raw and manufacture new material) (USEPA 2012a).

Safety Element. Safety Element policies that address wildfire hazards related to climate change in that increased temperatures could increase fire risk in areas that become drier due to climate change (USEPA, 2012b). Also, wildfire results in the loss of vegetation; carbon is stored in vegetation, and when the vegetation burns, the carbon returns to the atmosphere (NASA, 2004). The occurrence of wildfire also emits particulate matters into the atmosphere. Safety Element policies also address storm-induced flooding hazards related to the potential to accommodate potential increase in storms and flooding as a result of climate change. Pertinent safety Element policies including the following:

- ***Policy FI-3:*** Prioritize the reduction of the wildfire hazard, with an emphasis on prevention.
- ***Policy FL-1:*** Enforce and update local ordinances and comply with regional orders that would reduce the risk of storm-induced flooding.
- ***Policy FL-2:*** Continue or strengthen city programs that seek to minimize the storm-induced flooding hazard.

Other City of Oakland Programs and Policies

The City of Oakland has supported and adopted a number of programs and policies designed to reduce GHG emissions and continue Oakland's progress toward becoming a model sustainable city. Other relevant programs and policies include:

- ***Sustainable Oakland Program.*** Oakland's sustainability efforts are coordinated through the Sustainable Oakland program, a product of the Oakland Sustainability Community Development Initiative (SDI) created in 1998 (Ordinance 74678 C.M.S.).
- ***Green Building.*** The City of Oakland has implemented Green Building principles in City buildings through the following programs: Civic Green Building Ordinance (Ordinance No. 12658 C.M.S., 2005), requiring, for certain large civic projects, techniques that minimize the environmental and health impacts of the built environment through energy, water and material efficiencies and improved indoor air quality, while also reducing the waste associated with construction, maintenance and remodeling over the life of the building; Green Building Guidelines (Resolution No. 79871, 2006) which provides guidelines to Alameda County residents and developers regarding construction and remodeling; and Green Building Education Incentives for private developers.

- ***Downtown Housing.*** The 10K Downtown Housing Initiative has a goal of attracting 10,000 new residents to downtown Oakland by encouraging the development of 6,000 market-rate housing units. This effort is consistent with Smart Growth principles.

- ***Waste Reduction and Recycling.*** The City of Oakland has implemented a residential recycling program increasing collection of yard trimmings and food waste. This program has increased total yard trimming collections by 46 percent compared to 2004, and recycling tonnage by 37 percent. The City also adopted Construction and Demolition Recycling, for which the City passed a resolution in July 2000 (Ordinance 12253. OMC Chapter 15.34), requiring certain nonresidential or apartment house projects to recycle 100 percent of all Asphalt & Concrete (A/C) materials and 65 percent of all other materials.

- ***Polystyrene Foam Ban Ordinance.*** In June 2006 the Oakland City Council passed the Green Food Service Ware Ordinance (Ordinance 14727, effective as of January 1, 2007), which prohibits the use of polystyrene foam disposable food service ware and requires, when cost neutral, the use of biodegradable or compostable disposable food service ware by food vendors and City facilities.

- ***Zero Waste Resolution.*** In March 2006 the Oakland City Council adopted a Zero Waste Goal by 2020 Resolution (Resolution 79774 C.M.S.), and commissioned the creation of a Zero Waste Strategic Plan to achieve the goal.

- ***Stormwater Management.*** On February 19, 2003, the Regional Water Quality Control Board, San Francisco Bay Region, issued a municipal stormwater permit under the National Pollutant Discharge Elimination System (NPDES) permit program to the Alameda Countywide Clean Water Program (ACCWP). The purpose of the permit is to reduce the discharge of pollutants in stormwater to the maximum extent practicable and to effectively prohibit non-stormwater discharges into municipal storm drain systems and watercourses. The City of Oakland, as a member of the ACCWP, is a co-permittee under the ACCWP's permit and is, therefore, subject to the permit requirements.

- ***Provision C.3 of the NPDES permit*** is the section of the permit containing stormwater pollution management requirements for new development and redevelopment projects. Among other things, Provision C.3 requires that certain new development and redevelopment projects incorporate post-construction stormwater pollution management measures, including stormwater treatment measures, stormwater site design measures, and source control measures, to reduce stormwater pollution after the construction of the project. These requirements are in addition to standard stormwater-related best management practices (BMPs) required during construction.

- ***Community Gardens and Farmer's Markets.*** Community Garden locations include Arroyo Viejo, Bella Vista, Bushrod, Golden Gate, Lakeside Horticultural Center, Marston Campbell, Temescal, and Verdese Carter. Weekly Farmer's Markets locations include the Jack London Square (the project site), Old Oakland, Grand Lake, Mandela, and Temescal districts. Both efforts promote and facilitate the principal of growing and purchasing locally, which effects reductions in truck and vehicle use and GHG emissions.

Significance Criteria / Thresholds

As stated previously, there were no significance criteria for greenhouse gas emissions in 2004. Listed below are the City's current quantitative significance criteria/thresholds (based on the BAAQMD 2011 Thresholds). The 2014 Modified Project would exceed these current significance criteria/thresholds if it were to:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, specifically:

    a) For a project involving a stationary source, produce total emissions of more than 10,000 metric tons of CO_2e annually.

    b) For a project involving land use development, produce total emissions of more than 1,100 metric tons of CO_2e annually and more than 4.6 metric tons of CO_2e per service population annually.

2. Conflict with an applicable plan, policy or regulation adopted for the purposes of reducing greenhouse gas emissions.

The analysis that follows for the 2014 Modified Project, and for comparison, the Approved Project and the project analyzed in the 2004 FEIR, is based on the significance thresholds listed above, although comparison of project emissions with these thresholds is provided for solely to determine the applicability of the City's GHG-related SCAs to the 2014 Modified Project.

Analysis of the 2014 Modified Project

GHG emissions are, by their nature, cumulative impacts, since they are the combined effect of numerous combined sources. Consequently, the following analysis is cumulative; there is no separate project-level analysis for GHG emissions and climate change.

1) Criterion #1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Not previously addressed in the 2004 analysis nor currently considered for CEQA purposes since information regarding this topic was known, or could have been known, in 2004 and is therefore not "changed circumstances" or "new information".)

Construction Emissions

During construction of a project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil based fuels to operate. The combustion of fossil-based fuels creates greenhouse gases such as CO_2, CH_4, and N_2O. Also, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Anticipated construction activities and resulting construction GHG emissions were not estimated in the 2004 EIR. Therefore, construction emissions from activities on Sites D and F2 as envisioned for the 2014 Modified Project, as well as the Approved Project and the project analyzed in the 2004 EIR, were calculated using CalEEMod emission model version 2013.2. Results are presented in **Table 4.3-3** and indicate that, based on the anticipated construction schedule, and equipment usage, greenhouse gas emissions associated with construction of the 2014 Modified Project on Sites D and F2 (as assessed by its most intensive variant, the Maximum Residential Scenario) are estimated to total approximately 1,096 total metric tons of CO_2e in the peak construction year (2016); total emission would be 898 metric tons of CO_2e in the peak construction year (2015).

TABLE 4.3-3
GHG EMISSIONS FROM CONSTRUCTION AT SITES D AND F2

(metric tons per year)[a]

Construction Year (phase)	CO_2e
2014 Modified Project (Maximum Residential Scenario) (Sites D and F2)[b]	
2015 Construction Emissions	1,054
2016 Construction Emissions	1,096
Subtotal	2,150
2004 Approved Project (Sites D and F2)[b]	
2015 Construction Emissions	898
2016 Construction Emissions	702
Subtotal	1,600
2004 EIR Project (Sites D and F2)[b]	
2015 Construction Emissions	915
2016 Construction Emissions	702
Subtotal	1,617

[a] Project construction emissions estimates were made using CalEEMod, version 2011.1.1.

[b] Due to the different construction schedules for the various sites (i.e., D, Pavilion 2, Water I Expansion, F2, etc.) associated with the proposed project, the highest annual construction emissions that would be generated from the project would occur when construction activities overlap at the sites. Based on a review of the construction schedules for the various sites, it was determined that the highest annual construction emissions for both the 2014 Modified Project, the Approved Project, and the 2004 EIR Project would occur during the concurrent construction activities at Sites D and F2. The construction activities at the remaining project sites would all occur separately from each other and at different time periods. Thus, the concurrent construction activities at Sites D and F2 represents the worst-case construction scenario to be analyzed to determine the annual construction emissions generated by the 2014 Modified Project, the Approved Project, and the 2004 EIR Project.

SOURCE: ESA, 2013.

These emissions are then annualized for a 40 year project life and added to operational emissions for assessment in **Table 4.3-4**. As shown in the table, the 2014 Modified Project would have greater construction-related GHG emissions compared to that from construction of the Approved Project and the project analyzed in the 2004 EIR (the latter two having essentially the same development program and thus similar construction activities[8]).

TABLE 4.3-4
TOTAL GHG EMISSIONS FROM CONSTRUCTION - ALL UNBUILT SITES (metric tons per year)[a]

Project Component	CO_2e
2014 Modified Project (Maximum Residential Scenario)	
Sites D and F2	2,150
Site F3	710
Pavilion 2 Site	48
66 Franklin Site	283
Water I Expansion Site	84
Total GHG Emissions	**3,275**
Annualized Construction Emissions (Over 40 Years)	**82**
2004 Approved Project	
Sites D and F2	1,600
Site F3	630
Pavilion 2 Site	43
66 Franklin Site	251
Water I Expansion Site	74
Total GHG Emissions	**2,598**
Annualized Construction Emissions (Over 40 Years)	**65**
2004 EIR Project	
Sites D and F2	1,617
Site F3	636
Pavilion 2 Site	43
66 Franklin Site	254
Water I Expansion Site	75
Total GHG Emissions	**2,625**
Annualized Construction Emissions (Over 40 Years)	**66**

[a] Total project construction GHG emissions estimates were scaled from the total construction GHG emissions associated with Sites D and F2 (see Table 4.3-3) based on the gross building square footage proposed at each individual site under the 2014 Modified Project, the Approved Project, and the 2004 EIR Project. Sites that are already constructed (Sites C, G, and F1) are not included in this construction emissions estimate.

SOURCE: ESA, 2013.

[8] The slight variation in GHG emission between the Approved Project and the 2004 EIR analysis reflects the reallocation of office and retail uses and the change in the City's approach to calculating trip generation (accounting for mode split and internal capture) since 2004. However, the land use reallocation does not exceed the total amount of development set forth and analyzed in the 2004 EIR.

Operational Emissions

GHG emissions associated with project operations would be generated by the consumption of electricity and natural gas, new on-road vehicle trips, increased electrical, water and wastewater demand and increased generation of solid waste. GHG emissions from operation of 2014 Modified Project (all Sites) 2014 Modified Project, as well as the Approved Project, and the project analyzed in the 2004 EIR, were estimated using the most current CalEEMod version 2013.2 emissions inventory model, using trip generation applied in the transportation analysis in Section 4.1, *Transportation and Circulation*, of this Addendum. Additionally, emissions were estimated for the existing automobile repair land uses to be removed.

The total operational GHG emissions for each scenario are presented in **Table 4.3-5**. The emissions shown consider the entire project (all Sites). As shown, the 2014 Modified Project, the Approved Project, and the 2004 EIR Project would exceed the threshold of 1,100 metric tons of CO_2e per year and would also exceed the threshold of 4.6 metric tons of CO_2e per service population threshold (the sum of employees and residents for a mixed use project). If the current thresholds were to apply in this Addendum, this would be considered a significant CEQA impact in each case.

Comparatively, the 2014 Modified Project would generate slightly less total GHG emissions (-302 metric tons) than the 2004 EIR Project. However, the Approved Project would generate slightly higher total GHG emissions (+572 metric tons) than the 2004 EIR Project – the variation between the two being minor differences in the distribution of office and retail uses proposed in each (see footnote #7 above).

TABLE 4.3-5
GHG EMISSIONS FROM OPERATION – ALL SITES (metric tons per year)[a]

Project Component	CO_2e
2014 Modified Project (Maximum Residential Scenario)	
Area Source Emissions	8.25
Energy Emissions	4,822.06
Mobile Emissions	11,252.76
Solid Waste	392.66
Water and Wastewater	364.83
Annualized Construction Emissions (Over 40 Years)	82
Total Increase	**16,923**
2011 Threshold	1,100
Total Emissions per Service Population (2,072 residents & employees)	**8.16**
2011 Threshold (Service Population)	4.6
2004 Approved Project	
Area Source Emissions	0.02
Energy Emissions	5,379.81
Mobile Emissions	11,444.87
Solid Waste	489.72
Water and Wastewater	418.05
Annualized Construction Emissions (Over 40 Years)	65
Total Increase	**17,797**
2011 Threshold	1,100
Total Emissions per Service Population (1,908 employees)	**9.33**
2011 Threshold (Service Population)	4.6
2004 FEIR Project	
Area Source Emissions	0.02
Energy Emissions	5,297.61
Mobile Emissions	10,951.59
Solid Waste	492.72
Water and Wastewater	398.40
Annualized Construction Emissions (Over 40 Years)	85
Total Increase	**17,225**
2011 Threshold	1,100
Total Emissions per Service Population (2,211 employees)	**7.79**
2011 Thresholds (Service Population)	4.6
Difference in Total Emissions: 2014 Modified Project (Maximum Residential Scenario) and 2004 FEIR Project	**- 302**
Difference in Total Emissions: Approved Project and 2004 EIR Project)	**572**

[a] Project operational emissions estimates were made using CalEEMod, version 2013.2.

NOTE: Emissions calculated from operations of the entire project, which includes all nine development sites, not just Sites D and F2 proposed for change with the 2014 Modified Project.

SOURCE: ESA, 2013.

Applicability of City of Oakland Standard Conditions of Approval

In this supplemental context (Addendum), the City has determined that for all environmental topics it will apply SCAs only to effects resulting from changes proposed from Approved Project (i.e., the added potential for residential uses on Sites D and F2). Thus, the following **Table 4.3-6** sets forth the GHG emissions from those residential uses, to determine whether the applicable thresholds would be exceeded.

TABLE 4.3-6
GHG EMISSIONS FROM OPERATION - 2014 MODIFIED PROJECT (SITES D AND F2 RESIDENTIAL SCENARIO)
(metric tons per year)[a]

Project Component	CO_2e
Area Source Emissions	8.23
Energy Emissions	1,018.21
Mobile Emissions	2,834.31
Solid Waste	139.16
Water and Wastewater	147.56
Annualized Construction Emissions (Over 40 Years)[b]	53.75
Total Increase	**4,201**
BAAQMD 2011 Threshold	1,100
Total Emissions per Service Population (1,086 residents)	**3.8**
BAAQMD 2011 Threshold	4.6

[a] Project operational emissions estimates were made using CalEEMod, version 2013.2.2
[b] Construction GHG emissions associated with Sites D and F2 for maximum residential development (i.e., 665 units).

SOURCE: ESA, 2014.

As shown in Table 4.3-6, although greenhouse gas emissions from the maximum of 665 residential units proposed as part of the 2014 Modified Project would exceed BAAQMD's threshold of 1,100 MT CO_2e per year, it would generate less than the 4.6 MT CO_2e per service population per year. Thus, the City has determined that development of these uses would not have a significant climate change impact, and therefore, SCA GHG-1 is not applicable to any portion of the Jack London Square project.

Several other SCAs previously presented to address effects associated with GHG emissions are identified in other sections of this Addendum because they primarily pertain to other topics. These include SCA TRANS-1; SCA UTL-1 and UTL-3 in Section 4.5.8, *Utilities and Service Systems;*SCA AES-1 in Section 4.5.6, *Aesthetics, Shadow and Wind*; SCA BIO-2 in Section 4.5.10, *Biological Resources;* and SCA HYD-1 through SCA HYD-3 in Section 4.54, *Hydrology.* Together, these SCAs would reduce the level of GHG emissions from residential uses on Sites D and F2.

2) Criterion #2: Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases? (Not previously addressed in the 2004 analysis nor currently considered for CEQA purposes since information regarding this topic was known, or could have been known, in 2004 and is therefore not "changed circumstances" or "new information".)

The 2014 Modified Project would be subject to all applicable permit and planning requirements in place or adopted by the City of Oakland. The 2014 Modified Project would be a mixed use project located in a "Priority Development Area" as identified in Appendix C of the *Plan Bay Area* which serves as the Sustainable Communities Strategy for the region (MTC, 2012). The 2014 Modified Project would contribute to the goals of the City's adopted ECAP by virtue of the following characteristics:

- Developing a mixed use development within a Priority Development Area (Priority Action 1 of the ECAP);
- Locating a mixed use development near (within 2 blocks) of the existing Broadway Shuttle that is planned to be extended (Priority Action 2 of the ECAP); and
- Developing a project subject to the Green Building Ordinance for Private Development (Priority Action 7 of the ECAP).

Therefore, the 2014 Modified Project would not conflict with the City's ECAP, which includes strategies to reduce GHG emissions from land use, transportation, and energy use to achieve the emission reduction target. Therefore, the 2014 Modified Project would not conflict with any applicable plan, policy or regulation for the purpose of reducing greenhouse gas emissions, even if the current thresholds were to apply.

References – Greenhouse Gas Emissions / Global Climate Change

BAAQMD, *Source Inventory of Bay Area Greenhouse Gas Emissions.* December, 2008b.

Bay Area Air Quality Management District (BAAQMD), 2009. *Revised Draft Options and Justification Report, CEQA Thresholds of Significance Air Quality Guidelines*, October 2009. Available at www.baaqmd.gov

Brekke, L.D., *et al.*, "Climate Change Impacts Uncertainty for Water Resources in the San Joaquin River Basin, California." *Journal of the American Water Resources Association*. 40(2): 149–164. Malden, MA, Blackwell Synergy for AWRA, 2004.

CARB, *Public Workshop to Discuss Establishing the 1990 Emissions Level and the California 2020 Limit and Developing Regulations to Require Reporting of Greenhouse Gas Emissions*, Sacramento, CA. December 1, 2006.

CARB, *Mandatory Reporting of Greenhouse Gas Emissions*, December 6, 2007.

CARB, *Climate Change Proposed Scoping Plan*, October 2008a.

California Climate Change Center (CCCC), *Our Changing Climate: Assessing the Risks to California*, CEC-500-2006-077, Sacramento, CA. July, 2006.

California Department of Water Resources (DWR), *Progress on Incorporating Climate Change into Management of California Water Resources*, Sacramento, CA. July, 2006.

California Energy Commission (CEC), Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 - Final Staff Report, publication # CEC-600-2006-013-SF, Sacramento, CA, December 22, 2006; and January 23, 2007 update to that report.

California Environmental Protection Agency (Cal EPA), Climate Action Team, *Executive Summary. Climate Action Team Report to Governor Schwarzenegger and the California Legislature*. Sacramento, CA, March 2006.

Cayan, D., et al, Scenarios of Climate Change in California: An Overview (White Paper, CEC-500-2005-203-SF), Sacramento, CA. February, 2006.

City of Oakland, *Open Space, Conservation and Recreation (OSCAR), An Element of the Oakland General Plan*, June 1996.

City of Oakland. Resolution Approving Preliminary Planning Targets For Development of the Draft Oakland Energy And Climate Action Plan. June 23, 2009. http://clerkwebsvr1.oaklandnet.com/detailreport/matter.aspx?key=17204.

City of Oakland. *Energy And Climate Action Plan*, December 4, 2012.

Climate Change Technology Program (CCTP), About the U.S. Climate Change Technology Program (web page), Washington, D.C., last updated September 2008, http://www.climatetechnology.gov/about/index.htm, accessed December 7, 2012.

DWR, *See* California Department of Water Resources.

International Panel on Climate Change (IPCC) *Special Report, Emissions Scenarios, Summary for Policymakers, 2000*, www.grida.no/climate/ipcc/emission/002.htm, accessed August 16, 2010 (IPCC 2000).

Kiparsky, M. and P.H. Gleick, 2003. *Climate Change and California Water Resources: A Survey and Summary of the Literature*. Oakland, CA: Pacific Institute for Studies in Development. July, 2003.

Metropolitan Transportation Agency (MTC) and Association of Bay Area Governments (ABAG), 2012 Plan Bay Area, Jobs-Housing Connection Strategy. May 21, 2012.

National Aeronautics and Space Administration (NASA), *El Nino-Related Fires Increase Greenhouse Gas Emissions,* http://www.nasa.gov/centers/goddard/news/topstory/2004/0102firenino.html, accessed December 7, 2012, page dated January 5, 2004.

Natural Resources Defense Council, *Climate Facts, California Takes on Power Plant Emissions,* http://www.solutionsforglobalwarming.org/docs/SB1368_FS_FINAL.pdf, accessed August 17, 2010, document dated August 2007.

Parmesan, C. and H. Galbraith, *Observed Impacts of Global Climate Change in the U.S.*, Arlington, VA: Pew Center on Global Climate Change, November 2004.

United Nations Framework Convention on Climate Change (UNFCCC), Sum of Annex I and Non-Annex I Countries Without Counting Land-Use, Land-Use Change and Forestry (LULUCF). Predefined Queries: GHG total without LULUCF (Annex I Parties). Bonn, Germany, http://unfccc.int/ghg_emissions_data/predefined_queries/items/3814.php, accessed December, 7, 2012.

U.S. Environmental Protection Agency (USEPA), "Global Warming – Climate: Uncertainties," http://yosemite.epa.gov/oar/globalwarming.nsf/content/Climate.html?, http://yosemite.epa.gov/oar/globalwarming.nsf/content/ClimateUncertainties.html#likely, accessed July 24, 2007, page updated January 2000.

USEPA, General Information on the Link Between Solid Waste and Greenhouse Gas Emissions (web page), http://www.epa.gov/climatechange/waste/index.html, accessed December 7, 2012, 2012 (2012a).

USEPA, Climate Change – Health and Environmental Effects: Health (web page), www.epa.gov/climatechange/effects/health.html, accessed December 7, 2012, (2012b).

4.4. Noise

This section provides sufficient analysis and, as necessary, updates to confirm that the "project changes" proposed with the 2014 Modified Project would not result in new significant impacts or a substantial increase in the severity of previously identified noise impacts, compared with those identified in the 2004 EIR. This section further evaluates the effects of "changed circumstance and new information" surrounding the entire Jack London Square Project: the City's updated approach to evaluating *total* cumulative noise (mobile and stationary sources combined) that the City established since preparation of the 2004 EIR. (See related discussion in Chapter 1, *Introduction,* under *Scope of this Addendum Under CEQA Guidelines Section 15162.*)

This section also provides relevant updates to the environmental and regulatory settings and incorporates the applicable provisions of the City's current *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) to address the effects of the residential component of the 2014 Modified Project.

CEQA requires the analysis of potential adverse effects of the project on the environment. Potential effects of the environment on the project are legally not required to be analyzed or mitigated under CEQA. However, this section nevertheless analyzes potential effects of the noise environment on the project in order to provide information to the public and decision-makers. Where a potential significant effect of the environment on the project is identified, the document, as appropriate, identifies City SCAs to address these issues.

Previous Environmental Analysis

The analysis in the 2004 EIR concluded that construction of the Approved Project would result in significant temporary impacts requiring mitigation measures, whereas operations would not result in significant impacts with respect to project-generated traffic and other operational noise sources. The analysis in the 2004 FEIR did not consider residential uses, whereas the analysis in the 2003 DEIR did consider multifamily residential uses in a noise environment characterized as "normally unacceptable" for such uses by the City of Oakland. Finally, the 2004 EIR evaluated that the project area is located approximately 8 miles northwest of the Oakland International Airport and therefore, the proposed project would not expose employees or patrons to excessive noise levels. No other private or public use airport or airstrip is located within 2 miles of the project area.

For ease of review and comparison of the impacts identified in the 2004 EIR with those identified in this Addendum, relevant impacts and mitigation measures from the 2004 EIR are discussed within the *Analysis of the 2014 Modified Project* section, below.

The impacts and mitigation measures from the 2004 EIR (as amended by the City Council after publication of the 2004 EIR) are presented in **Appendix E** to this Addendum for informational purposes.

Standard Conditions of Approval

The City of Oakland's SCAs relevant to reducing noise and vibration impacts that could result specifically from the changes currently posed with the residential component of the 2014 Modified Project are listed below.[1] The following applicable SCAs are included here as an update to the regulatory setting provided for the noise analysis in the 2004 EIR, and as replacements (with respect only to the residential development) for the 2004 Mitigation Measures D.1a through D.1d. SCA NOI-1 (Days/Hours of Construction Operation), SCA NOI-2 (Noise Control), and SCA NOI-3 (Noise Complaint Procedures) are consistent with Mitigation Measures D.1a, D.1b. and D.1d. SCA NOI-4 (Pile Driving and Other Extreme Noise Generators) is consistent with Mitigation Measure D.1c. Specifically, SCA NOI-1 – SCA NOI-3 and SCA NOI-4 provide equal or more effective mitigation than the corresponding Mitigation Measures D.1a – D.1d from the 2004 EIR and therefore, update and replace these mitigation measures with respect to the residential development.

If the City approves the 2014 Modified Project, these SCAs will be incorporated and required in connection with construction of the residential component of the project and will ensure that no significant impacts occur regarding these topics. Therefore, implementation of the 2004 EIR mitigation measures and/or the applicable SCAs (as appropriate) will ensure that the construction impact determination for the 2014 Modified Project will remain less than significant.

- **SCA NOI-1: Days/Hours of Construction Operation**

  Ongoing throughout demolition, grading, and/or construction. The project applicant shall require construction contractors to limit standard construction activities as follows:

  a) Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday, except that pile driving and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday.

  b) Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.

  c) Construction activity shall not occur on Saturdays, with the following possible exceptions:

     i. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of

[1] No SCAs are applied to address the potential effects of the "changed circumstance and new information" regarding the City's updated total cumulative noise analysis method established since the 2004 EIR.

resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.

ii. After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed.

d) No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions.

e) No construction activity shall take place on Sundays or Federal holidays.

f) Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

g) Applicant shall use temporary power poles instead of generators where feasible.

- **SCA NOI-2: Noise Control**

  Ongoing throughout demolition, grading, and/or construction. To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to the Planning and Zoning Division and the Building Services Division review and approval, which includes the following measures:

  a) Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).

  b) Except as provided herein, Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.

  c) Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.

  d) The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

- **SCA NOI-3: Noise Complaint Procedures**

  Ongoing throughout demolition, grading, and/or construction. Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the Building Services Division a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include:

  a) A procedure and phone numbers for notifying the Building Services Division staff and Oakland Police Department; (during regular construction hours and off-hours);

  b) A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);

  c) The designation of an on-site construction complaint and enforcement manager for the project;

  d) Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and

  e) A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

- **SCA NOI-4: Pile Driving and Other Extreme Noise Generators**

  Ongoing throughout demolition, grading, and/or construction. To further reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90dBA, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted for review and approval by the Planning and Zoning Division and the Building Services Division to ensure that maximum feasible noise attenuation will be achieved. This plan shall be based on the final design of the project. A third-party peer review, paid for by the project applicant, may be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the project applicant. The criterion for approving the plan shall be a determination that maximum feasible noise attenuation will be achieved. A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of the deposit shall be determined by the Building Official, and the deposit shall be submitted by the project applicant concurrent with submittal of the noise reduction plan. The noise reduction plan shall include, but not be limited to, an evaluation of implementing the following measures. These attenuation measures shall include as many of the following control strategies as applicable to the site and construction activity:

  a) Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;

  b) Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;

c) Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;

d) Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and

e) Monitor the effectiveness of noise attenuation measures by taking noise measurements.

- **SCA NOI-5: Interior Noise**

  Prior to issuance of a building permit. If necessary to comply with the interior noise requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable interior noise level, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls) shall be incorporated into project building design, based upon recommendations of a qualified acoustical engineer and submitted to the Building Services Division for review and approval. Final recommendations for sound-rated assemblies would depend on the specific building designs and layout of buildings on the site and shall be determined during the design phases. Written confirmation by the acoustical consultant, HVAC or HERS specialist, shall be submitted for City review and approval, prior to Certificate of Occupancy (or equivalent) that:

  (a) Quality control was exercised during construction to ensure all air-gaps and penetrations of the building shell are controlled and sealed; and

  (b) Demonstrates compliance with interior noise standards based upon performance testing of a sample unit.

  (c) Inclusion of a Statement of Disclosure Notice in the CC&R's on the lease or title to all new tenants or owners of the units acknowledging the noise generating activity and the single event noise occurrences. Potential features/measures to reduce interior noise could include, but are not limited to, the following:

    i. Installation of an alternative form of ventilation in all units identified in the acoustical analysis as not being able to meet the interior noise requirements due to adjacency to a noise generating activity, filtration of ambient make-up air in each unit and analysis of ventilation noise if ventilation is included in the recommendations by the acoustical analysis**.**

    ii. Prohibition of Z-duct construction.

- **SCA NOI-6: Operational Noise - General**

  Ongoing. Noise levels from the activity, property, or any mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the Planning and Zoning Division and Building Services.

- **SCA NOI-7: Vibration**

  A qualified acoustical consultant shall be retained by the project applicant during the design phase of the project to comment on structural design as it relates to reducing

groundborne vibration at the project site. If required in order to reduce groundborne vibration to acceptable levels, the project applicant shall incorporate special building methods to reduce groundborne vibration being transmitted into project structures. The City shall review and approve the recommendations of the acoustical consultant and the plans implementing such recommendations. Applicant shall implement the approved plans. Potential methods include the following:

(a) Isolation of foundation and footings using resilient elements such as rubber bearing pads or springs, such as a "spring isolation" system that consists of resilient spring supports that can support the podium or residential foundations. The specific system shall be selected so that it can properly support the structural loads, and provide adequate filtering of ground-borne vibration to the residences above.

(b) Trenching, which involves excavating soil between the railway/freeway and the project so that the vibration path is interrupted, thereby reducing the vibration levels before they enter the project's structures. Since the reduction in vibration level is based on a ratio between trench depth and vibration wavelength, additional measurements shall be conducted to determine the vibration wavelengths affecting the project. Based on the resulting measurement findings, an adequate trench depth and, if required, suitable fill shall be identified (such as foamed styrene packing pellets (i.e., Styrofoam) or low-density polyethylene).

2014 Existing Conditions

The 2014 Modified Project would be located on the same project site as considered in the 2004 EIR and would involve essentially the same demolition and construction-related activities evaluated in the 2004 EIR. The existing noise conditions documented at the project site in the 2004 EIR have not substantially changed, and the primary noise sources in and around the project site continue to be from transportation-related sources (i.e., automobiles, trucks, and trains), as well as other ambient noises from the urban mixture of land uses in proximity of the project site (e.g., commercial/retail and office facilities). Updated peak-hour noise measurements were conducted on August 28, 2013, at the project site, with results as follows:

- ST-1: Segment of Webster Avenue north of Embarcadero – 75.8 dBA, p.m. peak hour Leq
- ST-2: Segment of 3rd Street east of Franklin – 68.4 dBA, p.m. peak hour Leq
- ST-3: Segment of 3rd Street west of Franklin – 67.6 dBA, p.m. peak hour Leq

Applicable Regulatory Setting

The regulatory setting presented in this section of the Addendum focuses on the setting for cumulative noise effects. It is presented and updated from the 2004 EIR because CEQA Section 15162 requires an assessment of the context within which the full Jack London Square Project is affected by changed circumstances and/or new information. The SCAs presented above are also considered part of the existing regulatory setting.

Federal

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under Title 40 Code of Federal Regulations (CFR) Part 205, Subpart B. The federal truck pass-by noise standard is 80 dB at 15 meters from the centerline of the vehicle pathway. These standards are implemented through regulatory controls on truck manufacturers.

State of California

Aircraft Operations

The California Airport Noise Standards, Title 21, Section 5000 et seq. of the California Code of Regulations (CCR) apply to any airport that is deemed to have a "noise problem" as established by the local County Board of Supervisors in accordance with the provisions in the regulation. Currently, within the Bay Area, Norman Y. Mineta-San José International Airport and San Francisco International Airport have been given this designation. The Standards establish a noise exposure limit "acceptable to a reasonable person residing in the vicinity of an airport" of 65 dB CNEL.

Vehicle Operations

The State of California establishes noise limits for vehicles licensed to operate on public roads. The pass-by standard for heavy trucks is consistent with the federal limit of 80 dB. The pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dB at 15 meters from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanctions on vehicle operators by state and local law enforcement officials.

Noise Insulation Standard

The California Noise Insulation Standards found in CCR, Title 24 establish requirements for new multi-family residential units, hotels, and motels that may be subject to relatively high levels of transportation noise. In this case, the noise insulation criterion is 45 dB L_{dn}/CNEL inside noise-sensitive spaces. For developments with exterior transportation noise exposure exceeding 60 dB L_{dn}/CNEL, an acoustical analysis and mitigation (if required) must be provided showing compliance with the 45 dB L_{dn}/CNEL interior noise exposure limit.

Local Plans and Policies

City of Oakland General Plan

The Oakland General Plan contains guidelines for determining the compatibility of various land uses with different outdoor noise environments. The Noise Element recognizes that some land uses are more sensitive to ambient noise levels than others, due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. The City uses state noise guidelines for judging the compatibility between various land uses and their noise environments.

The Oakland General Plan Noise Element also identifies maximum interior noise levels generally considered acceptable for various common land uses (with windows closed). Relevant to the 2014 Modified Project, 70 dB is the maximum level acceptable for residential uses; relevant to the Approved Project; 75DB is the maximum level acceptable for commercial uses (e.g., retail, office, restaurants, and sports clubs.

The Noise Element contains the following applicable goals and policies:

> **Goal 1:** To protect Oakland's quality of life and the physical and mental well-being of residents and others in the City by reducing the community's exposure to noise; and
>
> **Goal 2:** To safeguard Oakland's economic welfare by mitigating noise incompatibilities among commercial, industrial and residential land uses.
>
> - ***Policy 1:*** Ensure the compatibility of existing and, especially, of proposed development projects not only with neighboring land uses but also with their surrounding noise environment.
> - ***Policy 2:*** Protect the noise environment by controlling the generation of noise by both stationary and mobile noise sources.
> - ***Policy 3:*** Reduce the community's exposure to noise by minimizing the noise levels that are *received* by Oakland residents and others in the City. (This policy addresses the *reception* of noise whereas Policy 2 addresses the *generation* of noise.)

City of Oakland Noise Ordinance

The City of Oakland also regulates noise through enforcement of its Noise Ordinance, which is found in Sections 8.18 and 17.120 of the Oakland Municipal Code. Per Chapter 8.18.020, the persistent maintenance or emission of any noise or sound produced by human, animal or mechanical means, between the hours of 9:00 p.m. and 7:00 a.m. which shall disturb the peace or comfort, or be injurious to the health of any person shall constitute a nuisance.

Chapter 17.120.050 of the Oakland Planning Code regulates operational noise from stationary sources, and maximum allowable receiving noise standards applicable to long-term exposure for residential and civic land uses, for noise from stationary noise sources. In particular, between 7:00 a.m. and 10:00 p.m., residential uses, including public open spaces, may only be exposed to noises up to 60 dBA for a period of 20 cumulative minutes in a one-hour time period and a maximum of 80 dBA. The Noise Ordinance states that if the measured ambient noise level exceeds the applicable noise level standard in any category, then the stated applicable noise level shall be adjusted so as to equal the ambient noise level. In other words, if existing noise is measured to be louder than the maximum allowed (i.e., the "applicable noise level standard"), the existing noise level shall be considered the maximum allowed.

Per Chapter 17.120.060 of the Oakland Planning Code, all activities, except those located within the M-40 zone, or in the M-30 zone more than 400 feet from any legal residentially occupied property, shall be so operated as not to create a vibration which is perceptible without instruments by the average person at or beyond any lot line of the lot containing such activities.

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Expose persons to or generate noise levels in excess of standards established in the Oakland general plan or applicable standards of other agencies (e.g., Occupational Safety and Health Administration (OSHA));
2. Violate the City of Oakland Noise Ordinance regarding operational noise;
3. Violate the City of Oakland Noise Ordinance regarding construction noise, except if an acoustical analysis is performed and all feasible mitigation measures imposed, including the standard City of Oakland measures adopted by the Oakland City Council on January 9, 2001;
4. Generate interior DNL or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24);
5. Result in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
6. Conflict with state land use compatibility guidelines (Office of Planning and Research, 1998) for all specified land uses for determination of acceptability of noise levels;
7. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels; or
8. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

Analysis of the 2014 Modified Project

1) Construction Noise (Criteria 1 and 3; previously addressed in 2004 EIR Impact D.1).

The construction characteristics of the 2014 Modified Project would be similar to those described in the 2004 EIR. However, because construction activity for the 2014 Modified Project would occur over a period of more than 10 days, construction and demolition activities are anticipated to exceed the standards of the Oakland Noise Ordinance. The nearest sensitive receptors would be the residences located in "The Landing" apartment complex located across Alice Street, to the east of Site F2, approximately 130 feet from potential construction activities. Pile driving for the 2014 Modified Project could result in noise exposure at these residences of about 82 to 97 dBA, which would be substantially greater than existing ambient noise. Construction and demolition noise impacts would continue to be considered significant without mitigation. If the City approves the 2014 Modified Project, the SCAs would be adopted as requirements of the residential component of the project, and would replace Mitigation Measures D.1a through D.1d identified in the 2004 EIR with respect to the residential component. Implementation of Mitigation Measures D.1 through D.1d and/or these SCAs (as applicable) would achieve compliance with the Oakland Noise Ordinance and result in less than significant noise impacts.

2) Operational Noise / Interior Noise Levels (Criteria 1-2, and 4–6; previously addressed in 2004 EIR Impacts D.2 through D.4).

The 2014 Modified Project (as assessed by its most intensive variant, the Maximum Residential Scenario) operational activities that would generate noise include vehicular circulation, and operation of mechanical equipment, such as heating, ventilation, and air conditioning equipment. Updated traffic information (including the existing conditions) for the 2014 Modified Project were modeled with the FHWA Noise Prediction Model and are included (along with results from the 2004 EIR for comparison) in **Table 4.4-1** below. Notably, the noise assessment factored in existing ambient noise levels since there are additional sources of substantial noise (such as Amtrak trains) in the project vicinity that are not accounted for in the traffic noise model. As shown in Table 4.4-1 below, the incremental difference between the projected Total Ambient Noise (Existing plus 2014 Modified Project traffic noise summed with Existing Monitored Ambient noise) and the existing ambient monitored noise would be less than 5 dBA and thus the 2014 Modified Project would result in a less than significant operational impact.

TABLE 4.4-1
PEAK-HOUR TRAFFIC NOISE LEVELS IN THE VICINITY OF THE PROJECT

Roadway Segment[a]	(A) Existing Modeled Traffic Noise	(B) Existing Monitored Ambient Noise	(C) Existing Plus Project Modeled Traffic Noise	(B+C) Total Ambient Noise	Difference between Total Ambient Noise (B+C) and Existing Monitored Noise (B)[b]	(D) Cumulative Plus Project (2035)	(B+D) Total Cumulative Ambient Noise	Difference between Total Cumulative Ambient Noise (B+D) and Existing Monitored Noise (B) [c]
2004 EIR [d]								
Webster North of Embarcadero	53.9	73.9	59.1	74.0	0.1	59.8	74.1	0.2
3rd Street east of Franklin	55.2	68.4	61.8	69.3	0.9	63.5	69.6	1.2
3rd Street west of Franklin	56.3	67.1	62.1	68.3	1.2	63.7	68.7	1.6
2014 Modified Project (Maximum Residential Scenario)								
Webster North of Embarcadero	59.8	75.8	65.1	76.2	0.4	64.9	76.1	0.3
3rd Street east of Franklin	65.0	68.4	65.6	70.2	1.8	65.6	70.2	1.8
3rd Street west of Franklin	65.6	67.6	66.1	69.9	2.3	66.0	69.9	2.3
Approved Project [d]								
Webster North of Embarcadero	59.8	75.8	65.8	76.2	0.4	65.6	76.2	0.4
3rd Street east of Franklin	65.0	68.4	65.6	70.2	1.8	65.6	70.2	1.8
3rd Street west of Franklin	65.6	67.6	66.1	69.9	2.3	66.0	69.9	2.3

[a] Road center to receptor distance is 15 meters (approximately 50 feet) for all roadway segments. Noise levels were determined using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model.
b Considered significant if the incremental increase in noise from traffic is greater than the existing ambient noise level by 5 dBA Leq, per City of Oakland, CEQA Thresholds/Criteria of Significance Guidelines.
[c] Considered a cumulatively considerable contribution to a significant noise increase if the incremental increase in noise is greater than 3 dBA.
[d] The variation in roadway noise levels between the 2004 EIR analysis and the Approved Project reflects the reallocation of office and retail uses and the change in the City's approach to calculating trip generation (accounting for mode split and internal capture) since 2004. However, this land use reallocation does not exceed the total amount of development set forth and analyzed in the 2004 EIR.

SOURCE: ESA, 2014.

In addition, with the 2014 Modified Project, the incremental difference between the projected Total Cumulative Ambient Noise (Cumulative plus 2014 Modified Project traffic noise summed with Existing Monitored Ambient noise) and the existing ambient monitored noise would be less than 3 dBA, and thus the 2014 Modified Project would not be considered cumulatively considerable.

Additionally, a cumulative analysis inclusive of noise increases from both stationary sources and traffic noise was performed to assess total cumulative effects pursuant to the City's updated method (a changed circumstance / new information since the 2004 EIR). This assessment pertains to the entire Jack London Square Project (the Approved Project and the 2014 Modified Project), as summarized in Table 1-1 in Chapter 1, *Introduction*.

HVAC equipment would operate within the restrictions of the City's Noise Ordinance. Chapter 17.120.050 of the City of Oakland Planning Code specifies the maximum sound level received at residential, public open spaces and commercial land uses. This restriction can be used in combination with the predicted roadway noise levels presented in Table 4.4-1 to estimate a worst-case prediction of cumulative noise increase from both stationary and roadway noise sources. Stationary source noise levels are considered in terms of the L_{33} (the noise levels exceeded 20 minutes of a one hour period) as this is the noise descriptor of the City's noise ordinance which best lends itself to addition to roadway noise estimates which are calculated in terms of a peak-hour hourly average. As shown in **Table 4.4-2**, the incremental difference between the projected Resultant Cumulative Noise (Cumulative plus 2014 Modified Project traffic noise summed with Existing Monitored Ambient Noise and Stationary Source Noise) and the existing Ambient Monitored Noise would be less than 3 dBA, and thus cumulative noise increases of the 2014 Modified Project would not be considered cumulatively considerable.

TABLE 4.4-2
PEAK-HOUR CUMULATIVE NOISE LEVELS AT SENSITIVE RECEPTORS IN THE PROJECT AREA

Location	(A) Monitored Noise Level (Leq, dBA)	(B) Stationary Source Restriction (L_{33}, dBA)	(C) Total Cumulative Ambient Noise (Leq)[a]	(D) (B+C) Resultant Cumulative Noise Level (Leq)	(D-A) Increase in Noise Level over Existing Monitored
2014 Modified Project (Maximum Residential Scenario)					
Webster North of Embarcadero	75.8	60	76.1	76.2	0.4
3rd Street east of Franklin	68.4	60	70.2	70.6	2.2
3rd Street west of Franklin	67.6	60	69.9	70.3	2.7
Approved Project					
Webster North of Embarcadero	75.8	60	76.2	76.3	0.5
3rd Street east of Franklin	68.4	60	70.2	70.6	2.2
3rd Street west of Franklin	67.6	60	69.9	70.3	2.7

a Total Cumulative Ambient Noise values are from Table 4.4-1 (specifically, listed in column B+D in Table 4.4-1)

SOURCE: ESA, 2014.

Finally, since there would be residential uses proposed under the 2014 Modified Project, there would be a potential impact as a result of locating noise-sensitive multifamily residential uses in a noise environment characterized as "normally unacceptable" for such uses by the City of Oakland, similar to the project analyzed in the 2003 DEIR (Impact D.3), which also proposed residential uses and found the impact to be less than significant. The analysis in the 2003 DEIR found this impact to be less than significant given the project's adherence to regulatory requirements, including maximum interior noise standards set forth in the Title 24 standards of the *California Code of Regulations*; the 2003 DEIR analysis specified possible noise insulation features the project could include (e.g., double-paned windows, inoperable windows along the southern side of the residential buildings with provision of mechanical ventilation, and air-tight seals around window and doors) to achieve the mandated standard. Since the significance of noise impacts with respect to residential uses is not related to the number of residential units, the impact under the 2014 Modified Project would be less than significant, as found in the 2003 DEIR. The development of residential components on Sites D and F2 with the 2014 Modified Project would incorporate SCA NOI-5, *Interior Noise*, and SCA NOI-6, *Operational Noise (General)*, described previously, would similarly limit noise exposure impacts to less than significant through regulatory compliance and design features.

The effect of the Approved Project, which does not include residential uses, would be similar to the effect reported in the 2004 EIR in that there would be no impact resulting from locating noise sensitive multifamily residential uses in a noise environment characterized as "normally unacceptable" for such uses by the City of Oakland.

Airport/Air Strip Noise (Criteria 7 - 8; previously addressed in the 2003 Initial Study). The project site is not located within two miles of a public airport, or in the vicinity of a private airstrip and, consequently, there would be no impacts with regard to exposure to aircraft noise.

Summary

With respect to noise, the 2014 Modified Project would not result in a new significant impact, or a substantial increase in the severity of previously identified impacts compared with those identified in the 2004 EIR. Therefore, impacts would be similar to those addressed in the 2004 EIR and would continue to be less than significant. No new mitigation measures are required. No new information shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the 2004 EIR) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

References - Noise

California Department of Transportation (Caltrans), 2009. *Technical Noise Supplement*, November 2009.

City of Oakland, 2005. *Noise Element, City of Oakland General Plan,* June 21, 2005.

City of Oakland, 2008. Planning Code Chapter 17.120.050.

City of Oakland, 2010. "CEQA Thresholds/Criteria of Significance Guidelines," 2010.

Federal Transit Administration (FTA), 2006. *Transit Noise and Vibration Impact Assessment (FTA-VA-90-1003-06),* May 2006.

This page intentionally left blank

4.5 Other Environmental Topics

This section provides sufficient analysis and, as necessary, updates to confirm that the 2014 Modified Project would not result in new significant impacts or have a substantial increase in the severity of previously identified impacts, compared with those identified in the 2004 EIR, which includes the 2003 Initial Study, the 2003 DEIR, and the 2004 FEIR. Updates include those made to some of the regulatory setting, impact conclusions, and/or mitigation measures in the 2004 EIR to incorporate the City's *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) established since the 2004 EIR and/or to adequately address the potentially significant environmental effects of the 2014 Modified Project.

4.5.1 Land Use and Planning

Previous Environmental Analysis

The 2004 EIR concluded that the Approved Project would not conflict with any adopted habitat conservation plan as the project site is not located in an area governed by such a plan. Further, the proposed intensification of existing commercial development within Jack London Square under the Approved Project would complement and be compatible with the surrounding mix of uses that exist within Jack London Square, along Broadway, and extend throughout the Jack London District. Additionally, the Approved Project was found to be consistent overall with plans and policies established in the City of Oakland General Plan Land Use and Transportation Element (LUTE), the Estuary Policy Plan (EPP), the Open Space, Conservation and Recreation (OSCAR) Element, as well as consistency with Zoning Regulations directly involving a physical change in the environment. The 2004 EIR addressed potential zoning conflicts, such as between proposed office and retail uses on Site F2 that were contrary to the then R-80 Zone designation on that site. The potential conflicts were resolved with approval of the 2004 rezoning requested by the project sponsor at that time. Overall, the 2004 EIR identified less-than-significant land use and planning effects.

Standard Conditions of Approval

No SCAs regarding land use and planning are identified that apply to the residential component of the 2014 Modified Project.

2014 Existing Conditions

The 2014 Modified Project would be located on the same project site as the Approved Project, with modifications made only to Sites D and F2. With respect to land use and planning, except for the construction of three new buildings and four new plazas/greens within the project area, the conditions on the project site, the surrounding neighborhoods, and specifically Sites D and F2, have not substantially changed since preparation of the 2004 EIR. New or changed land uses that have occurred in the project area through new development continue to be consistent with the mixed land uses that existed in 2004.

In 2004, as part of the entitlements process for the Approved Project, parts of the project site were rezoned to the C-45 Commercial Shopping Zone, which is notable to the extent that the zoning prescribes land use and development parameters. The 2004 rezoning was proposed and analyzed in the2004 EIR, so this would not be a change in circumstance for the currently proposed 2014 Modified Project. The existing General Plan LUTE and EPP land use classifications on the project site are the same as evaluated in 2004, however, the project sponsor now seeks amendments to reclassify Sites D and F2 to potentially accommodate residential uses at maximum allowable square footages and densities envisioned for 2014 Modified Project.

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Physically divide an established community;

2. Conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect;

3. Conflict with any applicable habitat conservation plan or natural community conservation plan.

Analysis of the 2014 Modified Project

1) Established Communities (Criterion #1. Previously addressed in the 2004 EIR.)

The 2014 Modified Project would not introduce any new uses that would be incompatible with the existing surrounding mix of land uses. The new residential additional variants considered with the 2014 Modified Project would be developed within the same parcels of land as in 2004 and would not divide a community. Overall, the 2014 Modified Project would result in the same less-than-significant impacts to established communities.

2) Conflict with a Land Use Plan (Criterion #2. Previously addressed in the 2004 EIR).

The 2014 Modified Project proposes development and land use changes to Sites D and F2 only. Residential uses are considered on both of these sites, however, the current LUTE/EPP land use classifications of Retail, Dining, Entertainment (RD&E-1) and Waterfront Commercial Recreation (WRC-1) on Sites D and F2, respectively, do not permit residential uses. The proposed 2014 Modified Project proposes reclassifications of both sites to land use classifications that support residential use and the maximum level of development for the project site (up to approximately 665 units, taking into account the General Plan designation for Site G, which has already been developed to contain parking to support the project). However, the 2014 Modified Project will require the City's approval of a General Plan Amendment which is proposed by the project sponsor and will eliminate the potential conflict.

The introduction of residential uses on Sites D and F2 with the 2014 Modified Project, in and of itself, does not pose a land use conflict or inconsistency. As discussed above, existing land uses within Jack London Square include a variety of commercial uses including retail, restaurant, office, cultural, open space, transportation (port and rail), hotel and entertainment activities. Residential and live-work uses exist in the surrounding area, and a close as a new approximately 15-story residential building on Broadway between 2nd and 3rd Streets. Established midrise condominiums exist immediately east of Site F2. Introducing residential uses into Jack London Square supports the creation of a fully-integrated, mixed use development, consistent with the objectives and policies of the LUTE/EPP, as detailed in the 2003 DEIR (which considered residential uses on the project site). Overall, the 2014 Modified Project would result in the same less-than-significant impacts regarding consistency with land use plans and policies as previously determined in the 2004 EIR.

3) Habitat Conservation Plan (Criterion #3. Previously addressed in the 2004 EIR).

The 2004 EIR found no impact under this criterion because the project site is not located in an area governed by a habitat conservation plan or natural community conservation plan. The same no impact finding would continue for the 2014 Modified Project.

Summary

The 2014 Modified Project would not result in new significant impacts with respect to land use and planning, or result in a substantial increase in the severity of impacts previously identified in the 2004 EIR. Therefore, impacts would be similar to those addressed in the 2004 EIR, and would continue to be less than significant. No new information with respect to land use and planning shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

4.5.2 Cultural Resources

Previous Environmental Analysis

The 2004 EIR concluded that construction of the Approved Project would not demolish or substantially alter or diminish any structures that qualify as historic resources, as defined in Section 15064.5 of CEQA. Specifically the proposed building on Site F1 would not adversely affect Heinold's First and Last Chance Saloon, a historic resource located adjacent to Site F1. (A significant impact to this resource from proposed Site F1 development was identified in the 2003 DEIR.) The 2014 Modified Project does not affect Site F1, which has been constructed since 2004; as described in the 2004 EIR, the building constructed on Site F1 maintains a separate structure from Heinold's and its construction did not require structural work on the interior of the resource. As determined in the 2004 EIR, this effect is less than significant with no mitigation

required regarding adverse effects to the "design and feeling" component of the resources' integrity (2004 Impact E.4, E.6 and E.7). The 2004 EIR did identify an impact and mitigation measures for potential construction-period impacts on nearby historic resources due to vibration (2004 Impact E.3).

The 2004 EIR also concluded that construction of the Approved Project could cause substantial adverse changes to the significance of currently unknown cultural resources at the site, potentially including an archaeological resource pursuant to CEQA Guidelines Section 15064.5 or CEQA Section 21083.2(g) or the disturbance of any human remains, including those interred outside of formal cemeteries (2004 Impact E.1). The 2004 EIR also concluded that the Approved Project may adversely affect unidentified paleontological resources at the site (2004 Impact E.2). Mitigation measures were identified to reduce the potential impacts to archaeological resources, human remains, and paleontological resources to less than significant.

Standard Conditions of Approval

SCAs that pertain to cultural resources and that apply to the residential component of the 2014 Modified Project are listed below.

SCA CUL-1 (Archaeological Resources), SCA CUL-2 (Human Remains), and SCA CUL-3 (Paleontological Resources) are consistent with 2004 Mitigation Measure E.1a (Archaeological Resources), 2004 Mitigation Measure E.1b (Human Remains), and 2004 Mitigation Measure E.2 (Paleontological Resources) identified in the 2004 EIR to address these specific cultural resources topics. Specifically, SCA CUL-1, SCA CUL-2 and SCA CUL-3 provide equal or more effective mitigation than the corresponding Mitigation Measures E.1a, E.1b and E.2 from the 2004 EIR analysis. If the City approves the 2014 Modified Project, these SCAs will be incorporated and required with respect to the residential components of the 2014 Modified Project and will ensure that no significant impacts occur regarding these topics (2004 mitigation measures will continue to mitigate the impacts of the non-residential components of the project to a less than significant level).

- **SCA CUL-1: Archaeological Resources**

  Ongoing throughout demolition, grading, and/or construction

  a) Pursuant to CEQA Guidelines section 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Oakland. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

b) In considering any suggested measure proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while measure for historical resources or unique archaeological resources is carried out.

c) Should an archaeological artifact or feature be discovered on-site during project construction, all activities within a 50-foot radius of the find would be halted until the findings can be fully investigated by a qualified archaeologist to evaluate the find and assess the significance of the find according to the CEQA definition of a historical or unique archaeological resource. If the deposit is determined to be significant, the project applicant and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate measure, subject to approval by the City of Oakland, which shall assure implementation of appropriate measure measures recommended by the archaeologist. Should archaeologically-significant materials be recovered, the qualified archaeologist shall recommend appropriate analysis and treatment, and shall prepare a report on the findings for submittal to the Northwest Information Center.

- **SCA CUL-2: Human Remains**

  Ongoing throughout demolition, grading, and/or construction. In the event that human skeletal remains are uncovered at the project site during construction or ground-breaking activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.

- **SCA CUL-3: Paleontological Resources**

  Ongoing throughout demolition, grading, and/or construction. In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 1995,1996)). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.

An additional SCA that pertains to cultural resources and that applies to the 2014 Modified Project is described below and presented in full in another section of this Addendum.

- **SCA NOI-7: Vibration**

  As presented in Section 4.4, *Noise*, of this Addendum, the 2014 Modified Project is required to implement SCA NOI-7 with respect to the residential component (this SCA requires that a qualified acoustical consultant to comment on structural design as it relates to reducing groundborne vibration; and is stated in full in Section 4.4, *Noise*).

2014 Existing Conditions

No substantial physical changes to any of the existing buildings on the project site and specifically Sites D and F2 have occurred since preparation of the 2004 EIR which would alter the findings about historic resources. In addition, no buildings in the area immediately surrounding the project site have been designated as city landmarks, or determined eligible for listing in the National or California Registers since 2004. No new information has come to light which would alter the conclusions about the historic status of identified resources.

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines section 15064.5.14 Specifically, a substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be "materially impaired." The significance of an historical resource is "materially impaired" when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance and that justify its inclusion on, or eligibility for inclusion on an historical resource list (including the California Register of Historical Resources, the National Register of Historical Places, Local Register, or historical resources survey form (DPR Form 523) with a rating of 1-5);

2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5;

3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or

4. Disturb any human remains, including those interred outside of formal cemeteries.

Analysis of the 2014 Modified Project

1) Historic Architectural Resources (Criterion #1. Previously addressed in 2004 Impact E.3).

The Jack London Square Project would not directly modify or demolish any historic resource, and potentially impact the integrity of an adjacent historic district, API, or ASI, identified in the

2004 EIR. The change associated with the potential development of Sites D or F2 under the 2014 Modified Project that could potentially affect nearby historic resources or districts is the potential for the buildings proposed on these sites to be as much as 53 to 168 feet taller, respectively, than previously considered. As discussed below, this change is not anticipated to adversely affect cultural resources.

A potential impact identified in the 2004 EIR was the potential for construction activity to damage historic resources, specifically, the USS Potomac in the water near Site C; 101-07 Broadway (known as either the Warnecke and Michels Building or the Overland House) located generally across Broadway from Site D; and Heinold's First and Last Chance Saloon adjacent to Sites F1 and F3 – approximately 300 feet west of Site F2. (Site F1, which has been constructed since the 2004 EIR, sits between the Site F2 and Heinold's; see Figure 3-1 in Chapter 3, *Project Description,* of this Addendum).

The potential for construction related impacts such as vibrations from pile driving, inappropriate storage of construction materials, and potential damage from operation of construction equipment and other vehicles, are all activities now addressed (with respect to the residential component of the 2014 Modified Project) by construction related SCAs related to noise and vibration (discussed in Section 4.4, *Noise*, of this document) and a required construction management plan (2004 mitigation measures will continue to mitigate the impacts of the non-residential components of the project to a less than significant level). The distances further reduce the potential for construction activity on and around Sites D and F2 (and attributable to the increased size/height of the buildings from those previously analyzed) to be significant relative to potential effects on Heinold's. As also discussed in the 2004 EIR, 101-07 Broadway is located on the opposite side of the Embarcadero from Site D. The width of the street and the existing railroad tracks on Embarcadero are such that it is highly unlikely that there would be construction materials placed near the building, nor would it be likely that construction equipment would be operating on this side of the Embarcadero. Because the possibility for damage from storage of construction materials to the historic resource is remote, these activities of the proposed project would not result in a significant effect on the historic resource. Moreover, given the distances of Sites D and F2 from any of the aforementioned resources, the likelihood of the potentially taller proposed buildings to impact the historical setting or "feel" of a resource is not significant. As described above, Site F1 (constructed since 2004) separates Site F2 and Heinold's, therefore development of Site F2 with the 2014 Modified Project would not impair Heinold's historic integrity.

Overall, the less-than-significant impacts to architectural historic resources identified in the 2004 EIR would continue to apply to the 2014 Modified Project.

2) Archaeological Resources, Human Remains and Paleontological Resources (Criteria #2 through #4. Previously addressed in 2004 Impacts E.1 and E.2).

The 2014 Modified Project would involve subsurface disturbance associated with site preparation and grading activities. The area disturbed will be the same as analyzed in the 2004 EIR analysis since the buildings on Sites D and F2 would have the same parcel area and footprint. The less-than-significant impacts identified for paleontological and archaeological resources, including

human remains, would continue to apply to the 2014 Modified Project. For the residential component of the 2014 Modified Project, the 2004 Mitigation Measures E.1a, E.1b and E.2 are replaced in this Addendum with SCA CUL-1, SCA CUL-2 and SCA CUL-3, as discussed under *Standard Conditions of Approval* above (2004 mitigation measures will continue to mitigate the impacts of the non-residential components of the project to a less than significant level).

Summary

The 2014 Modified Project would not result in new significant impacts with respect to cultural resources or result in a substantial increase in the severity of impacts previously identified in the 2004 EIR. Therefore, impacts would be similar to those addressed in the 2004 EIR, and would continue to be less than significant. No new mitigation measures are required. No new information with respect to cultural resources shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

4.5.3 Geology, Soils, and Seismicity

Previous Environmental Analysis

The 2004 EIR concluded that the Approved Project would not expose people or structures to substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, strong seismic ground shaking, seismic-related ground failure, or landslides. Nor would the Approved Project result in substantial soil erosion or the loss of topsoil, or be located on unstable or expansive soil, creating substantial risks to life or property. The project site is neither within an area at risk for landslides nor within a Fault-Rupture Hazard Zone, as designated by the Alquist-Priolo Earthquake Fault Zoning Act. The project site is within a "Seismic Hazard Zone" for liquefaction as designated by the California Division of Mines and Geology (CDMG) Seismic Hazards Mapping Act. Standard City of Oakland requirements for development on sites within a seismic hazard zone include preparation of a geotechnical investigation and incorporation of suggested measures into the project design. Mitigation measures were identified to reduce the potential impacts to geology, soils and seismicity to less than significant. The 2004 EIR concluded that adherence to the recommendations in the various geotechnical investigation, and adherence to City of Oakland Building Code requirements, and other applicable local construction codes, as required prior to receipt of grading permits, would reduce the potential impact to a less-than-significant level.

Standard Conditions of Approval

Although the 2014 Modified Project would not result in significant impacts with respect to geology and soils, the following SCAs are applicable to the residential components of the 2014

Modified Project and are included here as an update to regulatory discussion provided for the geology and soils analysis in the previous analysis.

Previously identified Mitigation Measures F.1, F.2 and F.3 are updated and replaced for the residential component of the 2014 Modified Project with SCA GEO-1 and SCA GEO-2, and previously identified Mitigation Measure F.4 is updated and replaced for the residential component of the 2014 Modified Project with SCA HYD-2. These SCAs provide equal or more effective mitigation than the corresponding Mitigation Measures F.1 through F.4 from the 2004 EIR analysis. If the City approves the 2014 Modified Project, these SCAs will be incorporated and required as part of the residential component of the project and will ensure that no significant impacts occur regarding geology and soils (2004 mitigation measures will continue to mitigate the impacts of the non-residential components of the project to a less than significant level).

- **SCA GEO-1: Soils Report**

  Required as part of the submittal of a Tentative Tract or Tentative Parcel Map.

  A preliminary soils report for each construction site within the project area shall be required as part of this project and submitted for review and approval by the Building Services Division. The soils reports shall be based, at least in part, on information obtained from on-site testing. Specifically the minimum contents of the report should include:

  A. Logs of borings and/or profiles of test pits and trenches:

     a) The minimum number of borings acceptable, when not used in combination with test pits or trenches, shall be two (2), when in the opinion of the Soils Engineer such borings shall be sufficient to establish a soils profile suitable for the design of all the footings, foundations, and retaining structures.

     b) The depth of each boring shall be sufficient to provide adequate design criteria for all proposed structures.

     c) All boring logs shall be included in the soils report.

  B. Test pits and trenches

     a) Test pits and trenches shall be of sufficient length and depth to establish a suitable soils profile for the design of all proposed structures.

     b) Soils profiles of all test pits and trenches shall be included in the soils report.

  C. A plat shall be included which shows the relationship of all the borings, test pits, and trenches to the exterior boundary of the site. The plat shall also show the location of all proposed site improvements. All proposed improvements shall be labeled.

  D. Copies of all data generated by the field and/or laboratory testing to determine allowable soil bearing pressures, sheer strength, active and passive pressures, maximum allowable slopes where applicable and any other information which may be required for the proper design of foundations, retaining walls, and other

structures to be erected subsequent to or concurrent with work done under the grading permit.

E. Soils Report. A written report shall be submitted which shall include, but is not limited to, the following:

a) Site description;

b) Local and site geology;

c) Review of previous field and laboratory investigations for the site;

d) Review of information on or in the vicinity of the site on file at the Information Counter, City of Oakland, Office of Planning and Building;

e) Site stability shall be addressed with particular attention to existing conditions and proposed corrective attention to existing conditions and proposed corrective actions at locations where land stability problems exist;

f) Conclusions and recommendations for foundations and retaining structures, resistance to lateral loading, slopes, and specifications, for fills, and pavement design as required;

g) Conclusions and recommendations for temporary and permanent erosion control and drainage. If not provided in a separate report they shall be appended to the required soils report;

h) All other items which a Soils Engineer deems necessary;

i) The signature and registration number of the Civil Engineer preparing the report.

F. The Director of Planning and Building may reject a report that she/he believes is not sufficient. The Director of Planning and Building may refuse to accept a soils report if the certification date of the responsible soils engineer on said document is more than three years old. In this instance, the Director may be require that the old soils report be recertified, that an addendum to the soils report be submitted, or that a new soils report be provided.

- **SCA GEO-2: Geotechnical Report**

Required as part of the submittal of a tentative Tract Map or tentative Parcel Map.

a) A site-specific, design level, Landslide or Liquefaction geotechnical investigation for each construction site within the project area shall be required as part of this project and submitted for review and approval by the Building Services Division. Specifically:

i. Each investigation shall include an analysis of expected ground motions at the site from identified faults. The analyses shall be accordance with applicable City ordinances and polices, and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from identified faults.

ii. The investigations shall determine final design parameters for the walls, foundations, foundation slabs, surrounding related improvements, and infrastructure (utilities, roadways, parking lots, and sidewalks).

iii. The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer, geotechnical engineer, shall be included in the final design, as approved by the City of Oakland.

iv. The geotechnical report shall include a map prepared by a land surveyor or civil engineer that shows all field work and location of the "No Build" zone. The map shall include a statement that the locations and limitations of the geologic features are accurate representations of said features as they exist on the ground, were placed on this map by the surveyor, the civil engineer or under their supervision, and are accurate to the best of their knowledge.

v. Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the projects design phase, shall be incorporated in the project.

vi. Final seismic considerations for the site shall be submitted to and approved by the City of Oakland Building Services Division prior to commencement of the project.

vii. A peer review is required for the Geotechnical Report. Personnel reviewing the geologic report shall approve the report, reject it, or withhold approval pending the submission by the applicant or subdivider of further geologic and engineering studies to more adequately define active fault traces.

b) Tentative Tract or Parcel Map approvals shall require, but not be limited to, approval of the Geotechnical Report.

- **SCA HYD-2: Stormwater Pollution Prevention Plan (SWPPP)**

  SCA HYD-2 requires compliance with regulatory requirements regarding stormwater control, namely preparation of a stormwater pollution prevention plan (SWPPP). This SCA is presented in full under Section 4.5.4, *Hydrology and Water Quality,* below.

2014 Existing Conditions

The 2014 Modified Project would be located on the same site as the Approved Project, and the geology and soils conditions on the site have not changed since preparation of the 2004 EIR.

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map for the area or based on other substantial evidence of a known fault?

b. Strong seismic ground shaking?

c. Seismic-related ground failure, including liquefaction?

d. Landslides?

2. Result in substantial soil erosion or the loss of topsoil?

3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

4. Be located on expansive soil creating substantial risks to life or property?

5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Analysis of the 2014 Modified Project

1) Geologic and Soils Conditions (Criteria #1 through #5. Previously addressed in 2004 Impacts F.1 through F.5).

Because the 2014 Modified Project would be constructed on the same site and in conformance with the latest state building codes and other local requirements - including any required modification to the geotechnical investigation conducted for development on Sites D and F2 so that the recommendations apply to the 2014 Modified Project foundation design, earthwork, and site preparation - the 2014 Modified Project would result in the same less-than-significant impacts with respect to geology and soils. As discussed in *Standard Conditions of Approval* above, the previously identified Mitigation Measures F.1, F.2 and F.3 are replaced (with respect to the residential component of project) with SCA GEO-1 and SCA GEO-2, and previously identified Mitigation Measure F.4 is replaced (with respect to the residential component of the project) with SCA HYD-2 (2004 mitigation measures will continue to mitigate the impacts of the non-residential components of the project to a less than significant level).

Summary

The 2014 Modified Project would not result in a new significant impact with respect to geology and soils or have a substantial increase in the severity of impacts previously identified in the 2004 EIR. Therefore, impacts would be similar to or less severe than those addressed in the 2004 EIR, and would continue to be less than significant. No new mitigation measures are required. No new information with respect to geology and soils shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

4.5.4 Hydrology and Water Quality

Previous Environmental Analysis

The 2004 EIR concluded that the Approved Project would not violate any water quality standards or waste discharge requirements; substantially deplete groundwater supplies or interfere substantially with groundwater discharge; substantially alter the existing drainage pattern of the site; create a contribution to runoff water such that it would exceed the stormwater drainage capacity; or otherwise substantially degrade water quality. The 2004 EIR determined that the project site is neither within a 100-year nor a 500-year flood boundary. Although seiches and tsunamis can occur and cause tidal surges in the San Francisco Bay, these events are extremely rare. Mudflows would not occur due to the amount of urban development in the project area and flat topography. No mitigation measures were required.

The 2004 EIR concluded that adherence to the applicable regulatory requirements, including permitting requirements for the treatment and discharge of groundwater, City of Oakland and Alameda County stormwater quality protection requirements, City of Oakland standards and requirements for surface water quantity and quality, and provisions of the Clean Water Act, would reduce the potential impact of the Approved Project to a less-than-significant level.

Standard Conditions of Approval

Although the 2014 Modified Project would not result in significant impacts with respect to hydrology and water quality, the SCAs listed below are applicable to the residential component of the 2014 Modified Project and are included here as an update to regulatory discussion provided for the hydrology and water quality analysis in the 2004 EIR. If the City approves the 2014 Modified Project, these SCAs will be incorporated and required as part of the residential component of the project and will ensure that no significant impacts occur regarding hydrology and water quality (2004 mitigation measures will continue to mitigate the impacts of the non-residential components of the project to a less than significant level).

- **SCA HYD-1: Erosion and Sedimentation Control Plan**

  Prior to any grading activities.

  a) The project applicant shall obtain a grading permit if required by the Oakland Grading Regulations pursuant to Section 15.04.660 of the Oakland Municipal Code. The grading permit application shall include an erosion and sedimentation control plan for review and approval by the Building Services Division. The erosion and sedimentation control plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading operations. The plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or

easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the Director of Development or designee. The plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment.

Ongoing throughout grading and construction activities.

b) The project applicant shall implement the approved erosion and sedimentation plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Building Services Division.

- **SCA HYD-2: Stormwater Pollution Prevention Plan (SWPPP)**

Prior to and ongoing throughout demolition, grading, and/or construction activities. The project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project applicant must file a notice of intent (NOI) with the SWRCB. The project applicant will be required to prepare a stormwater pollution prevention plan (SWPPP) and submit the plan for review and approval by the Building Services Division. At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project applicant shall submit to the Building Services Division a copy of the SWPPP and evidence of submittal of the NOI to the SWRCB. Implementation of the SWPPP shall start with the commencement of construction and continue though the completion of the project. After construction is completed, the project applicant shall submit a notice of termination to the SWRCB.

- **SCA HYD-3: Post-Construction Stormwater Management Plan**

Prior to issuance of building permit (or other construction-related permit). The applicant shall comply with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Alameda Countywide Clean Water Program. The applicant shall submit with the application for a building permit (or other construction-related permit) a completed Construction-Permit-Phase Stormwater Supplemental Form to the Building Services Division. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater management plan, for review and approval by the City, to manage stormwater run-off and to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable.

a) The post-construction stormwater management plan shall include and identify the following:

i. All proposed impervious surface on the site;

ii. Anticipated directional flows of on-site stormwater runoff; and

iii. Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; and

iv. Source control measures to limit the potential for stormwater pollution;

v. Stormwater treatment measures to remove pollutants from stormwater runoff; and

vi. Hydromodification management measures so that post-project stormwater runoff does not exceed the flow and duration of pre-project runoff, if required under the NPDES permit.

b) The following additional information shall be submitted with the post-construction stormwater management plan:

i. Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and

ii. Pollutant removal information demonstrating that any proposed manufactured/mechanical (i.e. non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable or removing the range of pollutants typically removed by landscape-based treatment measures and/or the range of pollutants expected to be generated by the project.

All proposed stormwater treatment measures shall incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and shall be designed with considerations for vector/mosquito control. Proposed planting materials for all proposed landscape-based stormwater treatment measures shall be included on the landscape and irrigation plan for the project. The applicant is not required to include on-site stormwater treatment measures in the post-construction stormwater management plan if he or she secures approval from Planning and Zoning of a proposal that demonstrates compliance with the requirements of the City's Alternative Compliance Program.

Prior to final permit inspection. The applicant shall implement the approved stormwater management plan.

- **SCA HYD-4: Maintenance Agreement for Stormwater Treatment Measures**

Prior to final zoning inspection. For projects incorporating stormwater treatment measures, the applicant shall enter into the "Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement," in accordance with Provision C.3.e of the NPDES permit, which provides, in part, for the following:

i. The applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and

ii. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment

measures and to take corrective action if necessary. The agreement shall be recorded at the County Recorder's Office at the applicant's expense.

2014 Existing Conditions

The 2014 Modified Project would be located on the same site as the Approved Project and the hydrology and water quality conditions on the site have not changed since preparation of the 2004 EIR.

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Violate any water quality standards or waste discharge requirements?

2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

5. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

6. Otherwise substantially degrade water quality?

7. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

8. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

9. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

10. Result in inundation by seiche, tsunami, or mudflow?

Analysis of the 2014 Modified Project

1) Water Quality, Supply and Drainage (Criteria #1 through #6. Previously addressed in 2004 Impacts G.1 and G.2).

Because the residential component of the 2014 Modified Project would be constructed in conformance with the latest permitting requirements and mitigation measures or SCAs listed above (as applicable), and because the change in impervious surface area would be substantially the same as assessed for the Approved Project, the 2014 Modified Project would result in the same less-than significant impacts with respect to hydrology and water quality.

2) Flood Hazards (Criteria #7 through #10. Previously addressed in the 2004 Impacts G.3).

The 2014 Modified Project would be constructed on the same project site, which is not located in a 100-year nor in a 500-year flood boundary, near a levee or a dam, or in an area subject to inundation by seiche or tsunami.

Since preparation of the 2004 EIR, more information regarding sea level rise as it relates to potential flooding effects has been gained. ABAG shows the maximum potential sea level rise of 55 inches would be projected to affect areas around including the project site (ABAG, 2012b). Because the project site is flanked by a low-lying shoreline on the southern boundary, it could be subject to potentially significant risks of inundation due to future potential sea level rise.

The impact of flooding related to sea level rise pertains to the impact of an existing and future environmental condition on the project site. CEQA only requires an analysis of impacts pertaining to a project's impact on the environment. The impact of future growth from the 2014 Modified Project as it could relate to sea level rise is addressed in the analysis of the project's GHG emissions, the primary contributor to sea level rise (see Section 4.3, *Greenhouse Gas Emissions / Global Climate Change* of this Addendum). Further, the City of Oakland requires that the project put in place provisions needed to safeguard against damage caused by potential flooding. Per CEQA, this Addendum is not (nor was the 2004 EIR) required to analyze or mitigate impacts pertaining to the impact of the environment on the Project.[1] Although not legally required by CEQA, this Addendum discusses the potential effect of sea level rise on the project in the interest of being conservative and providing information to the public and decision-makers.

The estimated measure of sea level rise is an estimate and thus subject to variations or underestimation. Given the potential for sea level rise, it is reasonable to anticipate that FEMA will continue to update its flood hazards mapping over time as necessary to reflect changes in sea levels. Thus, when implemented, the safety measures built into the General Plan policies in the Safety Element, and the SCAs related to construction within flood risk areas, and adaptive management measures to sea level rise would address the potential effects.

[1] An appellate court specifically identified the effect of sea level rise on a project as an impact of the environment on a project and, therefore, not required to be analyzed under CEQA.

Furthermore, implicit in the discussion of global warming, GHG emissions and sea level rise is that it extends beyond specific development projects, a specific area, or an entire City. As both a local and a regional issue, it must be addressed in that context. The adopted Bay Plan and Oakland's ECAP specifically recognize this and include actions to participate in the preparation of a regional climate adaption strategy. As stated above, the 2014 Modified Project is not causing sea level rise, sea level rise will occur regardless of the proposed project.

Overall, the potential flood hazard consideration under CEQA is considered less than significant, as reported in the 2004 EIR.

Summary

The 2014 Modified Project would not result in a new significant impact with respect to hydrology and water quality, or have a substantial increase in the severity of impacts previously identified in the 2004 EIR. Therefore, impacts would be similar to or less severe than those addressed in the 2004 EIR, and would continue to be less than significant. No new mitigation measures are required. No new information with respect to hydrology and water quality shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

4.5.5 Hazardous Materials

Previous Environmental Analysis

The analysis in the 2004 EIR concluded that construction of the Approved Project could result in significant impacts related to the disturbance of contaminated soil, groundwater, or building materials; improper disposal of soil components; or the use, handling, and storage of hazardous materials on-site during construction activities. The significant impacts would result, in part, due to site conditions involving hazardous structural and building components in the existing structures, the likely presence of underground storage tanks, and the potential for soluble lead in the soil. The 2004 EIR identified mitigation measures that would reduce potential impacts related to hazardous and hazardous materials during construction to less-than-significant levels. However, operation of the Approved Project was determined to result in less-than-significant impacts with respect to hazards and hazardous materials, and no mitigation was identified or required. The 2004 EIR concluded that the Approved Project was not located within two miles of a public or private airport or airstrip, is not located adjacent to wildlands, and would not significantly interfere with emergency response plans.

Standard Conditions of Approval

The following SCAs are applicable to the residential component of the 2014 Modified Project and are included here as an update to the regulatory setting provided for the hazards and hazardous materials analysis in the 2004 EIR.

SCAs HAZ-1 through HAZ-10, together, are consistent with Mitigation Measures H.1, H.2a through H.2d, H.3a through H.3c, and H.4 identified in the 2004 EIR to address construction-related hazards and hazardous materials topics. Specifically, these SCA provide equal or more effective mitigation than the measures from the previous environmental analysis. If the City approves the 2014 Modified Project, these SCAs will be incorporated and required with respect to the residential component of the 2014 Modified Project and will ensure that no significant impacts occur regarding these topics (2004 mitigation measures will continue to mitigate the impacts of the non-residential components of the project to a less than significant level).

- **SCA HAZ-1: Hazards Best Management Practices**

  Prior to the commencement of demolition, grading, or construction. The project applicant and construction contractor shall ensure that construction of Best Management Practices (BMPs) is implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following:

  a) Follow manufacturers' recommendations on use, storage, and disposal of chemical products used in construction;

  b) Avoid overtopping construction equipment fuel gas tanks;

  c) During routine maintenance of construction equipment, properly contain and remove grease and oils;

  d) Properly dispose of discarded containers of fuels and other chemicals.

  e) Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would potentially affect a particular development or building.

  f) If soil, groundwater or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notification of regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have

been implemented under the oversight of the City or regulatory agency, as appropriate.

- **SCA HAZ-2: Asbestos Removal in Structures**

  Prior to issuance of a demolition permit. If asbestos-containing materials (ACM) are found to be present in building materials to be removed, demolition and disposal, the project applicant shall submit specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations, including but not necessarily limited to: California Code of Regulations, Title 8; Business and Professions Code; Division 3; California Health & Safety Code 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended.

- **SCA HAZ-3: Site Review by the Fire Services Division**

  Prior to the issuance of demolition, grading or building permit. The project applicant shall submit plans for site review and approval to the Fire Prevention Bureau Hazardous Materials Unit. Property owner may be required to obtain or perform a Phase II hazard assessment.

- **SCA HAZ-4: Phase I and/or Phase II Reports**

  Prior to issuance of a demolition, grading, or building permit. Prior to issuance of demolition, grading, or building permits the project applicant shall submit to the Fire Prevention Bureau, Hazardous Materials Unit, a Phase I environmental site assessment report, and a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer.

- **SCA HAZ-5: Lead-based Paint/Coatings, Asbestos, or PCB Occurrence Assessment**

  Prior to issuance of any demolition, grading or building permit. The project applicant shall submit a comprehensive assessment report to the Fire Prevention Bureau, Hazardous Materials Unit, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACM), lead-based paint, and any other building materials or stored materials classified as hazardous waste by State or federal law.

- **SCA HAZ-6: Environmental Site Assessment Reports Remediation**

  Prior to issuance of a demolition, grading, or building permit. If the environmental site assessment reports recommend remedial action, the project applicant shall:

  a) Consult with the appropriate local, State, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps.

  b) Obtain and submit written evidence of approval for any remedial action if required by a local, State, or federal environmental regulatory agency.

  c) Submit a copy of all applicable documentation required by local, State, and federal environmental regulatory agencies, including but not limited to: permit

applications, Phase I and II environmental site assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans.

- **SCA HAZ-7: Lead-based Paint Remediation**

  Prior to issuance of any demolition, grading or building permit. If lead-based paint is present, the project applicant shall submit specifications to the Fire Prevention Bureau, Hazardous Materials Unit signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: Cal/OSHA's Construction Lead Standard, 8 CCR1532.1 and DHS regulation 17 CCR Sections 35001 through 36100, as may be amended.

- **SCA HAZ-8: Other Materials Classified as Hazardous Waste**

  Prior to issuance of any demolition, grading or building permit. If other materials classified as hazardous waste by State or federal law are present, the project applicant shall submit written confirmation to Fire Prevention Bureau, Hazardous Materials Unit that all State and federal laws and regulations shall be followed when profiling, handling, treating, transporting and/or disposing of such materials.

- **SCA HAZ-9: Health and Safety Plan per Assessment**

  Prior to issuance of any demolition, grading or building permit. If the required lead-based paint/coatings, asbestos, or PCB assessment finds presence of such materials, the project applicant shall create and implement a health and safety plan to protect workers from risks associated with hazardous materials during demolition, renovation of affected structures, and transport and disposal.

- **SCA HAZ-10: Hazard Best Management Practices for Soil and Groundwater Hazards**

  The project applicant shall implement all of the following Best Management Practices (BMPs) regarding potential soil and groundwater hazards:

  a) Soil generated by construction activities shall be stockpiled onsite in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state and federal agencies laws, in particular, the Regional Water Quality Control Board (RWQCB) and/or the Alameda County Department of Environmental Health (ACDEH) and policies of the City of Oakland.

  b) Groundwater pumped from the subsurface shall be contained onsite in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies of the City of Oakland, the RWQCB and/or the ACDEH. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building (pursuant to the Standard Condition of Approval regarding Radon or Vapor Intrusion from Soil and Groundwater Sources);

  c) Prior to issuance of any demolition, grading, or building permit, the applicant shall submit for review and approval by the City of Oakland, written verification that the

appropriate federal, state or county oversight authorities, including but not limited to the RWQCB and/or the ACDEH, have granted all required clearances and confirmed that the all applicable standards, regulations and conditions for all previous contamination at the site. The applicant also shall provide evidence from the City's Fire Department, Office of Emergency Services, indicating compliance with the Standard Condition of Approval requiring a Site Review by the Fire Services Division pursuant to City Ordinance No. 12323, and compliance with the Standard Condition of Approval requiring a Phase I and/or Phase II Reports.

- **SCA HAZ-11. Radon or Vapor Intrusion from Soil or Groundwater Sources**

  Ongoing. The project applicant shall submit documentation to determine whether radon or vapor intrusion from the groundwater and soil is located on-site as part of the Phase I documents. The Phase I analysis shall be submitted to the Fire Prevention Bureau, Hazardous Materials Unit, for review and approval, along with a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. Applicant shall implement the approved recommendations.

- **SCA HAZ-12: Hazardous Materials Business Plan**

  Prior to issuance of a business license. The project applicant shall submit a Hazardous Materials Business Plan for review and approval by Fire Prevention Bureau, Hazardous Materials Unit. Once approved this plan shall be kept on file with the City and will be updated as applicable. The purpose of the Hazardous Business Plan is to ensure that employees are adequately trained to handle the materials and provides information to the Fire Services Division should emergency response be required. The Hazardous Materials Business Plan shall include the following:

  a) The types of hazardous materials or chemicals stored and/or used on site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids.

  b) The location of such hazardous materials.

  c) An emergency response plan including employee training information.

  d) A plan that describes the manner in which these materials are handled, transported and disposed.

2014 Existing Conditions

The 2014 Modified Project would be located on the same site as the Approved Project, and the hazardous and hazardous materials conditions related to the soil, groundwater, and structures on the site have not changed since preparation of the 2004 EIR.

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

2. 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;

3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

4. Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;

5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;

6. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;

7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

8. 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?

Analysis of the 2014 Modified Project

The 2014 Modified Project would involve renovation, demolition, and construction-related activities. Although the 2014 Modified Project would demolish fewer buildings than assessed in the 2004 EIR, and the overall construction activities would be comparatively reduced, the hazardous materials conditions on the site have not changed since preparation of the 2004 EIR. Therefore, and construction and demolition impacts would continue to be considered significant without mitigation.

1) Construction (Criteria #1 through #4. Previously addressed in 2004 Impacts H.1 through H.4).

Implementation of the 2014 Modified Project has the potential to disturb and release contaminated soil, groundwater, or building materials during construction and demolition (and renovation where applicable) activities, the potential improper disposal of contaminated soil components from the demolition and excavation activities could expose construction workers, the public or the environment to adverse conditions. Consistent with the analysis in the 2004 EIR, construction of the 2014 Modified Project would require the use of certain hazardous materials such as fuels, oils, solvents, and glues that, if improperly handled or stored, could release to the environment. If the City approves the 2014 Modified Project, Mitigation Measures H.1, H.2a through H.2d, H.3a through H.3c, and H.4 would be replaced for the residential component of the 2014 Modified Project with the City's current SCAs HAZ-1 through HAZ-10 (2004 mitigation measures will continue to mitigate the impacts of the non-residential components of the project to a less than significant level).

2) Operation (Criteria #1 through #4. Previously addressed in 2004 EIR Impacts H.5 through H.7).

Operational uses with the 2014 Modified Project would result in the use, storage or disposal of general commercial and household hazardous substances. Because the 2004 EIR determined this would be a less then significant impact for the Approved Project, and because the 2014 Modified Project would introduce similar use,s in addition to residential uses, compared with the Approved Project, the 2014 Modified Project would result in impacts that would be similar to or less severe than those addressed in the 2004 EIR, and would continue to be less than significant.

3) Airport/Airstrip Proximity, Wildlands and Emergency Response (Criteria #5 through #8 and #9. Previously addressed in the 2003 Initial Study).

The project site is not located within two miles of a public or private airport or airstrip, and is not located adjacent to wildlands. As determined in the 2004 EIR analysis, the 2014 Modified Project would comply with the City's notification requirements and would not significantly interfere with emergency response plans.

Summary

The 2014 Modified Project would not result in a new significant impact with respect to hazards and hazardous materials or have a substantial increase in the severity of impacts previously identified in the 2004 EIR. Therefore, impacts would be similar to or less severe than those previously addressed and would continue to be less than significant. No new mitigation measures are required. No new information with respect to hazards and hazardous materials shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

4.5.6 Aesthetics, Shadow, and Wind

Previous Environmental Analysis

The analysis in the 2004 EIR determined that the Approved Project, particularly its most "massive" variants in terms of height and bulk, would not result in significant impacts with respect to aesthetics. Considering the limited effect the Approved Project would have to public views of visual resources from publicly accessible viewpoints, the Approved Project would not have a substantial adverse effect on a scenic vista or resource, nor would it substantially degrade existing visual character of the site and its surroundings. Specifically, as discussed in the 204 EIR, view corridors toward the estuary through the City's existing streets would be retained, and in some cases strengthened with proposed buildings. Some new buildings could obstruct certain existing views of downtown, but would ultimately frame and strengthen other views from new and existing public viewing locations. The 2004 EIR analysis also found that the Approved

Project would not create significant wind hazards or new shadow that would unreasonably block light to nearby buildings, solar collection facilities, parks and open spaces, or historic resources.

The aesthetic effects of the Approved Project were considered less than significant after a detailed assessment largely given the project has relatively flat topography and is a built-out urban area that includes increasingly intensifying development, consistent with the vision, goals and policies of the General Plan. Also the effects of nighttime lighting from the Approved Project is not considered adverse compared to the existing lighting conditions in the area, which are typical of the lighting associated with the existing and proposed mix of uses, including residential/live-work, industrial, transportation (major freeways and rail lines), warehouse, and commercial uses, particularly nighttime entertainment uses envisioned for Jack London Square.

Further, effects to scenic vistas are considered less than significant in part because the proposed development would maintain the existing City street patterns, particularly to the estuary, and the project buildings would reinforce the existing city street grid of the Jack London District. Less-than-significant impacts were identified for aesthetic resources, and no mitigation measures were required. The analysis did identify a menu of design recommendations for the project sponsor to implement in the final building design plans, particularly for the taller buildings.

Standard Conditions of Approval

Although the 2014 Modified Project would not result in significant aesthetics impacts, the following SCAs are applicable to the residential component of the 2014 Modified Project. These standard conditions are not necessary to reduce impacts under CEQA but are listed here as an update to the regulatory setting provided for the aesthetics analysis in the 2004 EIR.

- **SCA AES-1: Landscape Requirements for Street Frontages.**

  Prior to issuance of a final inspection of the building permit. On streets with sidewalks where the distance from the face of the curb to the outer edge of the sidewalk is at least six and one-half (6 ½) feet and does not interfere with access requirements, a minimum of one (1) twenty-four (24) inch box tree shall be provided for every twenty-five (25) feet of street frontage, unless a smaller size is recommended by the City arborist. The trees to be provided shall include species acceptable to the Tree Services Division.

- **SCA AES-2: Landscape Maintenance.**

  Ongoing. All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. All required irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.

- **SCA AES-3: Lighting Plan**

  Prior to the issuance of an electrical or building permit. The proposed lighting fixtures shall be adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. Plans shall be submitted to the Planning and Zoning Division and the Electrical Services Division of the Public Works Agency for review and approval. All lighting shall be architecturally integrated into the site.

2014 Existing Conditions

The 2014 Modified Project only proposes physical changes to Sites D and F2 compared to the Approved Project, and the physical conditions of these two sites have not changed since preparation of the 2004 EIR; both remain flat, paved surface parking lots.

Since 2004, the project sponsor has successfully completed construction of three buildings under the Approved Project approvals. Specifically, the seven-story commercial building on Site F1 has been constructed directly west of Site F2. The six-story Site G Garage with ground-floor retail space has also been constructed directly north of proposed Site 2, and includes an elevated, L-shaped pedestrian bridge that crosses the Embarcadero and Harrison Street to the new aforementioned commercial building on Site F1. Also, the two-story commercial building on Site C has been constructed on the west end of the project site.

Also since 2004, a new approximately 15-story high residential building was constructed at 2nd and Broadway, which is approximately two blocks north of the project site and across Broadway from Site D (see Figure 3-1 in Chapter 3, *Project Description,* of this Addendum).

Regarding the broader area, long-range views (which are more than two miles from the project site) across and through the project site from surrounding areas continue to be limited because of the urban context and the flat topography of the area. Thus the 2004 EIR focused on short-range (less than three-quarters of a mile from the site) and medium-range (three-quarters of a mile to two miles from the site).

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Have a substantial adverse effect on a scenic vista.

2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, or historic buildings within a scenic highway.

3. Substantially degrade the existing visual character or quality of the site and its surroundings.

4. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

5. A project would have a significant shadow impact if it would unreasonably block sunlight for neighboring buildings or open space, pursuant to General Plan policies discussed above. Specifically, a project would unreasonably block sunlight for neighboring buildings if it would:

6. introduce landscape that would now or in the future cast substantial shadow on existing solar collectors (in conflict with California Public Resource Code Section 25980-25986);

7. cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors;

8. cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space;

9. cast shadow on a historic resource, as defined by CEQA Section 15064.5(a), such that it would substantially diminish/impair its eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, or in a local register of historical resources or a historical resource survey as defined by the Public Resource Code; or

10. if the project requires an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses.

11. For CEQA purposes, the City of Oakland considers an exceedance of this 36 mph wind hazard criterion to be a significant impact.

    Note that since 2004, the City has expanded Criterion #11 to specify that an impact would occur if the project creates winds exceeding 36 mph for more than one hour during daylight hours during the year. The wind analysis only needs to be done if the project's height is 100 feet or greater (measured to the roof) and one of the following conditions exist: (a) the project is located adjacent to a substantial water body (i.e., Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located in Downtown.

Analysis of the 2014 Modified Project

1) Visual Character/Visual Quality (Criterion #3. Previously addressed in 2004 Impact I.1).

The design and form of the buildings that would be developed under the Maximum Residential Scenario of the 2014 Modified Project would not be different in character from the development proposed with the Approved Project and analyzed in the 2004 EIR. While the buildings proposed on Sites D and F2 would be notably taller than the Approved Project (up to 53 feet and 168 feet taller, respectively), the buildings would continue to be high rises over approximately 100 feet and two of five total high rises that would occur throughout the project site as previously analyzed. (See increased height relative to scenic vistas and resources, below.) Thus, the less-than-significant impact identified in the 2004 EIR would continue to apply.

2) Scenic Vistas and Resources (Criteria #1 and #2. Previously addressed in 2004 Impact I.2).

While the buildings that would be constructed on Sites D and F2 with the Maximum Residential Scenario could be notably taller than analyzed in the 2004 analysis, the proposed buildings are not considered to substantially damage any scenic vista or scenic resource. Figure 3-5 in Chapter 3, *Project Description,* in this Addendum, is the proposed maximum building design for Site F2: a 26-level building (including a 3-story podium). And Figure 3-3 of the same is the proposed maximum building design for Site D: a 17-level building (including a 3-story podium).

As discussed in the 2004 EIR, changes to short- and medium-range views from the public access along the shoreline, from estuary waters, or from the City of Alameda would result from the construction of new buildings on the project site. Although building heights on Sites D and F2

could be up to 20 and 26 stories respectively, more than the Approved Project, no view corridors towards the estuary through the City's existing streets (Clay, Washington, Broadway, Franklin, Webster, Harrison, and Alice) would be adversely affected.

Figures 4.5-1 and 4.5-2 are key simulations from the 2003 DEIR document that shows short- and mid-range views showing Sites D and F2, in addition to Figure 4.5-3, which is a wide, long-range view simulation from I-880 looking back toward the project site and estuary (not visible). Inferring reasonably from that figure (which depicts the slightly smaller 2003 DEIR Project), no aspect of the 2014 Modified Project would obstruct mid-range view corridors or other scenic resources nearby, but would continue to strengthen and frame north-south views of the Downtown within these viewsheds. The increased height to the buildings also would not adversely affect long-range views; as previously stated, such views across and through the project site from surrounding areas continue to be limited because of the urban context and the flat topography of the area.

3) Shadow, Glare and Light Access (Criteria #5 through #10. Previously addressed in 2004 Impacts I.3 and I.4).

As indicated in the 2004 EIR, existing development casts shadows and generates nighttime lighting within the project site. For shadow, this include shade on the existing main pedestrian walkway (Water Street), play areas/open spaces, sidewalks, parking lots, and vicinity streets throughout the day, during all seasons throughout the year. Although larger buildings than currently exist would be developed on Sites D and F2 with 2014 Modified Project, the effects regarding the creation of increased or new shadow or lighting would be less than significant, same as determined in the 2004 EIR.

Regarding nighttime lighting, the impact is not considered adverse compared to the existing lighting conditions in the area, which are typical of the lighting associated with the existing and proposed mix of uses described above under *2014 Existing Conditions*, particularly nighttime entertainment uses envisioned for Jack London Square. The proposed development under the 2014 Modified Project would continue to consist of buildings typical of commercial and residential buildings in the area. As with the Approved Project, indirect sunlight would remain substantially available to windows of nearby buildings with development of the 2014 Modified Project.

Also, the design of the lighting system of the 2014 Modified Project would continue to follow the Port's "Exterior Lighting Policy" to prevent potential lighting pollution (Port 2003). In general, exterior lighting would be designed with downward-pointing lights, side shields, and visors. Occasional uplighting may be used to locally highlight select landscaping or building features, but would be kept to a minimum. As the project would consist of buildings typical of commercial and residential buildings in the area, it would not result in substantial adverse light or glare impacts.

Viewpoint 13: Existing view from Broadway at Second Street looking southwest

Photosimulation of the proposed building on Site D

Jack London Square Redevelopment EIR Addendum . 120939

SOURCE: Environmental Vision

Figure 4.5-1
Short-range Simulation

Viewpoint 3: Existing view from public access pier at the end of Webster looking east

Photosimulation of "more massive" project variant at Site F2

SOURCE: Environmental Vision

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.5-2
Mid-range Simulation

Viewpoint 14: Existing view from I-880 at Jefferson Street looking southeast

Photosimulation of proposed project area (Third and Broadway also shown)

SOURCE: Environmental Vision

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.5-3
Long-range Simulation

A review of the City's list of solar collectors confirms that none exist in the project site area that would affect by the new shadow likely cast by the Maximum Residential Scenario buildings on Sites D or F2. The less-than-significant shadow impact is based largely on the fact that there are no existing public or quasi-public parks, lawn, garden, or open spaces that exist in areas proximate to Sites D and F2 to be potentially affected by the increased shadow from these sites, as was determined in the previous analysis. As reasonably inferred from the worst-case shadow diagram from the 2003 DEIR, **Figure 4.5-4** (again, an analysis of a slightly larger project than the Approved Project), an increase from 7 stories to 17 stories (approximately 1.25 times) the tallest building elements (i.e., longest shadow) on Site D, and an increase of 8 stories to 26 stories (nearly three times) to the tallest building elements (i.e., longest shadow) on Site F2, would not extend to any shadow shade sensitive uses considered under CEQA (Criteria #5 though #10), including proposed meadow open spaces.

4) Wind Hazard (Criterion #11. Previously addressed in 2004 Impact I.6).

This qualitative analysis considers how the changes in the massing and design elements of the largest buildings that could occur on Sites D and F2 in the 2014 Modified Project (described under #2, above) could affect wind hazards compared to the less-than-significant impact identified in the 2004 EIR.

As documented in the 2004 EIR, winds of concern in Oakland are the predominant west (W) wind, as well as the north-northwest (NNW) and south-southeast (SSE) storm winds. As also previously indicated in the 2004 EIR, all these winds have existing high-speed components that can result in wind hazards to pedestrians. In particular, the wind testing indicated that wind hazards did exist under present conditions and that the Approved Project would not degrade those conditions, based on a qualitative comparison to the larger project analyzed in the DEIR; the 2004 EIR did not conduct a quantitative wind study for comparison with the 2003 DEIR Project because it was slightly "smaller" but not substantially different than the 2003 DEIR (see Figure 3-6a and 3-6b in Chapter 3, *Project Description*).

The previous analysis that was conducted found a wind hazard on Site F2 at the corner of Embarcadero and Harrison Streets, and winds along Harrison Street were of primary concern. Thus, the analysis for the 2014 Modified Project in this Addendum also focuses on this location. While it is not possible to accurately determine the exact wind speed field that would exist with a project without wind-tunnel testing, from professional experience it is possible to determine that the several key project elements clearly indicate real improvements in wind conditions than previously identified near Site F2, especially along Harrison Street. Thus, based on current project plans, wind speeds around Site F2 are expected to be lower than previously analyzed in the 2004 EIR.

SOURCE: Ellis Partners LLC; ESA; HOK

Jack London Square Redevelopment EIR Addendum . 120939

Figure 4.5-4

Worst-Case Shadow Patters (December)

As shown in Figure 3-5 in this Addendum, the proposed maximum building design for Site F2 is a 3-story podium with 23-story towers. Each of these individual elements – the podium and the tower - presents differing effects on wind speed and turbulence for pedestrians on adjacent sidewalks and is discussed below separately for the tower and for the podium. The changes in this design either would tend to reduce pedestrian-level wind speeds or would have no effect compared to the wind speeds previously identified. No elements would tend to adversely affect the previously identified changes in wind conditions.

Tower. Compared to the Approved Project, the following wind-relevant elements of the 2014 Modified Project's Maximum Residential Scenario tower on Site F2 (i.e., tower height, location, orientation, articulation, and set-backs) would tend to reduce previously identified wind speeds on adjacent sidewalks:

- Located mid-block (between Harrison and Alice Streets), atop a full-block podium. The mid-block location on the podium isolates downwash, winds that flow down the tower to its base, and generally prevents those winds from reaching public sidewalks.
- Long axis of tower is oriented north-south: Decreases magnitude of downwash from predominant W winds. Increases magnitude of downwash from NNW and SSE storm winds, but downwash from SSE would be reduced by the podium set-back, while downwash from NNW winds would reach the Pedestrian Promenade (street) more easily.
- North façade of tower set-back more than ten feet from Embarcadero Street at a height of 35 ft above sidewalk. North façade set-back at 35 ft reduces downwash into Embarcadero Street for the predominant W wind and for SSE storm winds.
- Strongly articulated facades. Articulation of the tower façade interrupts flows, creates turbulence and reduces the speed of winds flowing over the surface of the tower.

The height of the tower – or more specifically, the increased heights of the tower is of little concern to the wind conditions, since the tower is located mid-block on a podium that provides a larger base on which the tower would be set back (on three sides), reducing the effect of wind down the towers façade directly to ground level. That the south façade of tower would be flush with Pedestrian Promenade (Water Street) is notable but not critical to the wind conditions.

Podium. Compared to the Approved Project, the following wind-relevant elements of the 2014 Modified Project's Maximum Residential Scenario podium on Site F2 (podium height, articulation, and set-backs) would tend to reduce previously identified wind speeds:

- North façade of podium is set-back more than 10 feet from the Embarcadero, at a height of 35 feet above sidewalk. The podium isolates downwash winds from the tower and generally prevents those winds from reaching sidewalks. The north façade setback at 35 feet reduces downwash into Embarcadero Street for predominant W wind and for SSE storm winds. Northwest corner of garage setback, more than 10 ft. from Harrison Street, adding street width at Embarcadero intersection up to a height of 35 feet.
- South façade of podium is flush with the Pedestrian Promenade / Water Street, with the height of the center of the façade at 35 feet above sidewalk. The garage (west) façade setback from Harrison Street at the Embarcadero intersection, and the "chamfered" corner

at the Pedestrian Promenade / Water Street provide extra width in this space and a gradual transition for winds that flow along Harrison Street.

- Southwest corner of the podium is articulated or "chamfered". This provides added separation from Harrison Street at the Pedestrian Promenade / Water Street up to a height of 35 feet above sidewalk. Winds slow down when moving into wider spaces, so the combination of these two design elements of the garage should reduce wind speeds here, compared to winds reported in the 2004 analysis.

- West façade of podium articulated along Harrison Street to provide added street width at northwest and southwest corners. Strong articulation of the west façade interrupts flows, creates turbulence and reduces the speed of winds over the façade and along Harrison St. The articulation of the façade should further slow winds and improve conditions here.

Other Components. Other aspects that are relevant to wind hazards and that do not result in notably negative or positive effect with the 2014 Modified Project's Maximum Residential Scenario include the following:

- Podium occupies the full Site F2. Since the podium occupies the entire site, just as the Approved Project's Site F2 design, it should result in similar wind speeds and turbulence for pedestrians on adjacent sidewalks. Constructing a monolithic structure along the length of the block, as proposed with the Maximum Residential Scenario building for Site F2, is expected to result in winds that are comparable to those reported in the previous analysis.

- East and west façades of the podium, on Harrison and Alice Streets, have six-story height above sidewalk. The east façade of the podium is flush with Alice Street, and has a six-story height above sidewalk. For this reason, the resulting wind conditions on Alice Street should be essentially the same as those reported in the previous analysis.

Each of the above elements would supplement previously-identified recommendations identified in the 2004 EIR under Impact I.6.

---

5) Cumulative (Previously addressed in 2004 Impact I.7).

As discussed for each of the criteria above, the increase in the mass and height of the largest buildings that could potentially occur on Sites D and F2 with the 2014 Modified Project are not larger to a degree that would result in a new significant impact not previously identified in the 2004 EIR. Also, as discussed above under *2014 Existing Conditions*, the development and conditions in the surrounding area has not substantially changed. Further, there are not any approved, pending and reasonably foreseeable future projects in the viewshed of the project site that have substantially changed the potential cumulative aesthetic setting of the project area to an extent that would increase the contribution of the Site D and Site F2 buildings to that cumulative setting. Appendix C to the 2003 DEIR includes the cumulative development scenario considered for the 2004 EIR Project.

Although not proposed until after preparation of the 2004 EIR, the Oak to Ninth Project (currently referred to as "Brooklyn Basin Project") located approximately one-third mile east of

the project site was proposed and approved, pursuant to an EIR certified by the City of Oakland in 2006 (SCH. No. 2004062013). The Brooklyn Basin Project would develop a new mixed use, mid-rise neighborhood that would include up to five high-rise tower elements of up to 24 stories tall. The Jack London Square Project was considered in a cumulative aesthetics assessment in the Oak to Ninth EIR, and a less than significant cumulative impact was found (Impact K.1 in the 2005 Oak to Ninth DEIR). The cumulative development photosimulation from the 2005 Oak to Ninth DEIR included the Jack London Square Project and is provided below in **Figure 4.5-5** to demonstrate Jack London Square's contribution to the cumulative aesthetic setting along the estuary. The impact would continue to be less than significant.

Summary

The 2014 Modified Project would not result in a new significant impact with respect to aesthetics or have a substantial increase in the severity of impacts previously identified in the 2004 EIR. Therefore, impacts would be similar to or less severe than those addressed in the 2004 EIR, and would continue to be less than significant. No new mitigation measures are required; non-CEQA recommendations are supplemented. No new information with respect to aesthetics shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project..

4.5.7 Public Services and Recreation

Previous Environmental Analysis

The 2004 EIR concluded that the Approved Project would not result in substantial adverse physical impacts associated with the provision of, or need for, public facilities or services including fire protection, police protection, schools, parks, or other public facilities.

Standard Conditions of Approval

Although the 2014 Modified Project would not result in significant impacts with respect to public services, the SCA listed below is applicable to the residential component of the 2014 Modified Project and is included here as an update to regulatory discussion provided in the previously analysis.

- **SCA PS-1: Fire Safety Phasing Plan**

  Prior to issuance of a demolition, grading, and/or construction and concurrent with any p-job submittal permit. The project applicant shall submit a separate fire safety phasing plan to the Planning and Zoning Division and Fire Services Division for their review and approval. The fire safety plan shall include all of the fire safety features incorporated into the project and the schedule for implementation of the features. Fire Services Division may require changes to the plan or may reject the plan if it does not adequately address fire hazards associated with the project as a whole or the individual phase.

Existing view from Alameda shoreline at Wind River office building looking north (VP1)

Visual simulation of proposed project

SOURCE: Environmental Vision

Figure 4.5-5
Long-range Cumulative Simulation

2014 Existing Conditions

The 2014 Modified Project would be located on the same location as the Approved Project. The existing setting related to public services has not substantially changed since preparation of the 2004 EIR.

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

    a) Fire protection?

    b) Police protection?

    c) Schools?

    d) Parks?

    e) Other public facilities?

Analysis of the 2014 Modified Project

1) Public Services (Criterion #1. Previously addressed in 2004 Impacts J.1 through J.5).

The 2014 Modified Project varies from the Approved Project in that the Maximum Residential Scenario of the 2013 Project includes up to 665 residential units and 1,089 residents across Sites D and F2. While the less-than-significant impacts identified in the 2004 EIR with respect to demand for public services would be increased with the 2014 Modified Project given the increased population growth, the effects are still considered to be less than significant, as previously identified in the 2004 EIR.

Police, Fire and Emergency Services. The addition of up to 665 residential units and associated population with the Maximum Residential Scenario could increase the demand for police and/or fire and emergency services at the project site, however, as reported in the previous analysis (including the 2003 DEIR, which considered new residential uses), it is not anticipated that this will require the need for any new physical police or fire facilities to maintain acceptable response times and services, specifically facilities the construction of which could cause adverse environmental effects. As analyzed in the 2004 EIR and this Addendum, mitigation measures and City SCAs that address potential construction-related effects would be implemented with the project that would ensure less-than-significant effects.

As also determined for the Approved Project in the 2004 EIR, to ensure that the 2014 Modified Project would not adversely affect the ability of the Oakland Police Department as the Oakland

Fire Department to adequately deliver services to the project area and vicinity, the project would continue to incorporate and adhere to the specific design and operational standards identified in the previously analysis (Impacts J.1 and J.2), in addition to compliance with the Uniform Building Code.

Schools. The addition of up to 665 residential units on the Sites D and F2 with the Maximum Residential Scenario of the 2014 Modified Project could result in school-age children living on the project site. School-age children on the project site would live within attendance areas operated by OUSD: Lincoln Elementary School, Westlake Middle School, and Oakland Technical High School. Moreover, new students would be distributed among other schools through OUSD's Options Enrollment Program, thereby reducing substantial enrollment impacts to any one school.

Applying the same conservative 0.7 students per dwelling unit ratio used in the previous analysis, a total of approximately 466 new students would result with the Maximum Residential Scenario. Given the declining student enrollment in OUSD schools, which is projected to continue, the geographic distribution of students across the City resulting from the Options Enrollment Program, and the likelihood that fewer households with school-age students would likely reside in the housing in the urban setting of Jack London Square, the OUSD is expected to have adequate capacity within its existing facilities to accommodate new students generated by the Maximum Residential Scenario.

Pursuant to Senate Bill 50 (SB 50), applicants for individual development projects would be required to pay school impact fees established to offset potential impacts from new development on school facilities. Therefore, although the Maximum Residential Scenario of the 2014 Modified Project could indirectly increase potential student enrollment in Oakland, payment of fees mandated under SB 50 is the mitigation measure prescribed by the statute, and payment of such fees is deemed full and complete mitigation. Therefore, no additional mitigation would be required.

Parks and Recreational Facilities. The 2014 Modified Project does not alter the proposed provision of parks and recreational facilities, including open space, previously considered with the 2004 EIR Project. The Maximum Residential Scenario would, however, increase the demand for such facilities by adding new residential population on the project site. As described in the 2004 EIR, the development would provide new permanent open space along the estuary and marina, adjacent to the Harbor Master, Sites F1, F2, and F3, as well as enhance the pedestrian environment. Water Street, the main pedestrian walkway through Jack London Square, would be extended and link to a public access path adjacent to the estuary shore. The plaza at the terminus of Broadway would also be enhanced for pedestrian use by limiting vehicle access to the parking garage entrance/exit. Further, in accordance with open space provisions per the Oakland Planning Code, the residential development that could be introduced on Sites D and F2 would incorporate required open space into the project design to serve its residents. In addition, several parks and large open space areas totaling approximately 20 acres continue to be located near or in the estuary area, within 0.25 miles of the project area.

While and the additional residents with the Maximum Residential Scenario may increase the demand for nearby parks and recreational facilities, the increased usage would not be considered significant and adverse, for the reasons described above – namely the abundance of available existing and proposed open space. The proposed project would, therefore, have a less-than-significant impact on parks and recreational facilities in the vicinity of the project site.

Summary

The 2014 Modified Project impacts to public services would be greater than those addressed in the 2004 EIR because of the increase in residential population, but they would continue to be less than significant in all scenarios. No new mitigation measures are required. No new information with respect to public services shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

4.5.8 Utilities and Service Systems

Previous Environmental Analysis

The 2004 EIR concluded that the Approved Project would neither exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, nor result in the construction of new or expanded water or wastewater treatment facility or stormwater drainage facility. The Approved Project would not result in a shortfall in water supply or wastewater treatment capacity or overburden landfill(s); and the project would comply with federal, state, and local statutes related to solid waste. Overall, the site is in a developed, urban area already served by utilities and service system and, according to the City of Oakland General Plan *Land Use and Transportation Element*, any in-fill development through Year 2015 (General Plan horizon year), would likely not exceed the capacity of existing utilities and service systems.

Standard Conditions of Approval

Although the 2014 Modified Project would not result in significant impacts with respect to utilities and service systems, the SCAs listed below are applicable to the residential component of the 2014 Modified Project and are included here as an update to regulatory discussion provided for the utilities and services systems analysis in the previously analysis.

SCAs UTIL-1 is consistent with Mitigation Measures K.3 and K.5 identified in the 2004 EIR analysis to address solid waste topics. Specifically, this SCA provides equal or more effective mitigation than the measures from the previous environmental analysis. If the City approves the 2014 Modified Project, SCA UTIL-1 will be incorporated and required with respect to the residential component of the 2014 Modified Project and will ensure that no significant impacts

occur regarding solid waste (2004 mitigation measures will continue to mitigate the impacts of the non-residential components of the project to a less than significant level).

- **SCA UTL-1: Waste Reduction and Recycling**

  The project applicant will submit a Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP) for review and approval by the Public Works Agency.

  Prior to issuance of demolition, grading, or building permit. Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include all new construction, renovations/ alterations/modifications with construction values of $50,000 or more (except R-3), and all demolition (including soft demo).The WRRP must specify the methods by which the development will divert C&D debris waste generated by the proposed project from landfill disposal in accordance with current City requirements. Current standards, FAQs, and forms are available at www.oaklandpw.com/Page39.aspx or in the Green Building Resource Center. After approval of the plan, the project applicant shall implement the plan.

  Ongoing. The ODP will identify how the project complies with the Recycling Space Allocation Ordinance, (Chapter 17.118 of the Oakland Municipal Code), including capacity calculations, and specify the methods by which the development will meet the current diversion of solid waste generated by operation of the proposed project from landfill disposal in accordance with current City requirements. The proposed program shall be in implemented and maintained for the duration of the proposed activity or facility. Changes to the plan may be re-submitted to the Environmental Services Division of the Public Works Agency for review and approval. Any incentive programs shall remain fully operational as long as residents and businesses exist at the project site.

- **SCA: UTL-2 Stormwater and Sewer**

  Prior to completing the final design for the project's sewer service. Confirmation of the capacity of the City's surrounding stormwater and sanitary sewer system and state of repair shall be completed by a qualified civil engineer with funding from the project applicant. The project applicant shall be responsible for the necessary stormwater and sanitary sewer infrastructure improvements to accommodate the proposed project. In addition, the applicant shall be required to pay additional fees to improve sanitary sewer infrastructure if required by the Sewer and Stormwater Division. Improvements to the existing sanitary sewer collection system shall specifically include, but are not limited to, mechanisms to control or minimize increases in infiltration/inflow to offset sanitary sewer increases associated with the proposed project. To the maximum extent practicable, the applicant will be required to implement Best Management Practices to reduce the peak stormwater runoff from the project site. Additionally, the project applicant shall be responsible for payment of the required installation or hook-up fees to the affected service providers.

- **SCA: UTL-3 Compliance with the Green Building Ordinance, OMC Chapter 18.02**

  Prior to issuance of a demolition, grading, or building permit. The applicant shall comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the Green Building Ordinance, OMC Chapter 18.02.

  a) The following information shall be submitted to the Building Services Division for review and approval with the application for a building permit:

i. Documentation showing compliance with Title 24 of the 2008 California Building Energy Efficiency Standards.

ii. Completed copy of the final green building checklist approved during the review of the Planning and Zoning permit.

iii. Copy of the Unreasonable Hardship Exemption, if granted, during the review of the Planning and Zoning permit.

iv. Permit plans that show, in general notes, detailed design drawings, and specifications as necessary, compliance with the items listed in subsection (b) below.

v. Copy of the signed statement by the Green Building Certifier approved during the review of the Planning and Zoning permit that the project complied with the requirements of the Green Building Ordinance.

vi. Signed statement by the Green Building Certifier that the project still complies with the requirements of the Green Building Ordinance, unless an Unreasonable Hardship Exemption was granted during the review of the Planning and Zoning permit.

vii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.

b) The set of plans in subsection (a) shall demonstrate compliance with the following:

i. CALGreen mandatory measures.

ii. All pre-requisites per either the LEED or GreenPoint Rated checklist approved during the review of the Planning and Zoning permit, or, if applicable, all the green building measures approved as part of the Unreasonable Hardship Exemption granted during the review of the Planning and Zoning permit.

iii. Specific green building point level and certification requirement will be determined for each building within the Project Site in accordance with the Green Building Ordinance per the appropriate checklist approved during the Planning entitlement process.

iv. All green building points identified on the checklist approved during review of the Planning and Zoning permit, unless a Request for Revision Plan-check application is submitted and approved by the Planning and Zoning Division that shows the previously approved points that will be eliminated or substituted.

v. The required green building point minimums in the appropriate credit categories.

During construction. The applicant shall comply with the applicable requirements CALGreen and the Green Building Ordinance, Chapter 18.02.

a) The following information shall be submitted to the Building Inspections Division of the Building Services Division for review and approval:

i. Completed copies of the green building checklists approved during the review of the Planning and Zoning permit and during the review of the building permit.

ii. Signed statement(s) by the Green Building Certifier during all relevant phases of construction that the project complies with the requirements of the Green Building Ordinance.

iii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.

After construction, as specified below. Within sixty (60) days of the final inspection of the building permit for the project, the Green Building Certifier shall submit the appropriate documentation to either Build It Green or Green Building Certification Institute and attain the minimum certification/point level identified in subsection (a) above. Within one year of the final inspection of the building permit for the project, the applicant shall submit to the Planning and Zoning Division the Certificate from the organization listed above demonstrating certification and compliance with the minimum point/certification level noted above.

2014 Existing Conditions

The 2014 Modified Project would be located on the same site as the Approved Project and the utilities and service systems conditions on the site have not substantially changed since preparation of the 2004 EIR.

The project site is located in sewer sub-basins 64 and 64-02. Since 2004, sub-basin 64-02 has been rehabilitated under the City of Oakland's Sewer Rehabilitation Program; the rehabilitation design was in process in 2003, as reported in the 2004 EIR. Also since preparation of the 2004 EIR, East Bay Municipal Utility District (EBMUD) updated its 2000 Urban Water Management Plan (UWMP) with its 2010 UWMP.

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

3. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

4. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

5. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

6. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid

7. Comply with federal, state, and local statutes and regulations related to solid waste?

Analysis of the 2014 Modified Project

The less-than-significant impacts identified for the Approved Project with respect to utilities and services systems would be increased under the 2014 Modified Project given the increased residential development capacity of the 2014 Modified Project compared with the 2004 EIR Project.

1) Water and Sewer Demand (Criteria #1, #2, #4 and #5. Previously addressed in 2004 Impacts K.1 and K.2).

Water. When analyzing the 2014 Modified Project, the water use rates were updated based on current assumptions made for recent development projects in Oakland. This is largely due to more efficient water fixtures and updated plumbing code requirements. Based on these rates, the proposed Maximum Residential Scenario of the 2014 Modified Project would generate slightly fewer gallons of water per day (gpd) than the demand calculated in the 2004 EIR.

The average daily water use of the Approved would represent an increase of less than 0.6 percent over the City's average daily water use, as estimated based on the usage projected for the 2003 DEIR Project (250,000 gallons of water per day [gpd]),which was slightly larger than the Approved Project.[2]

In response to the City of Oakland's 2003 request to EBMUD for a water supply assessment (WSA) for the 2003 DEIR Project, EBMUD indicated that the 2003 DEIR Project's estimated water demand (250,000 gpd) had been accounted for in EBMUD's water demand projections, as published in the 2000 Urban Water Management Plan (UWMP). The 2014 Modified Project's estimated water demand (based on the 2003 DEIR calculations) is still considered to have been accounted for in EBMUD's water demand projections published in its subsequent 2010 UWMP. The 2004 EIR analysis concluded that the 2003 DEIR Project would not result in a new significant increase in water usage and would not, by itself, require new or expanded water entitlements. Thus, since the water demand generated by both the Maximum Residential Scenario of the 2014 Modified Project would be for fewer gpd than projected in the 2004 EIR (specifically the 2003 DEIR), the water demand of the 2014 Modified Project is already fully accounted for in the 2010 UWMP.

The 2014 Modified Project would continue to incorporate the water conservation measures specified by EBMUD specifically to address the water supply deficiency forecast by EBMUD to occur in the year 2020 during a multiple-year drought situation. These include incorporation of water-efficient equipment and devices, such as low-flush toilets, into building design, the use of drought-resistant and native plants for landscaping, and minimization of turf areas, to reduce the

[2] The 2003 DEIR Project proposed 1,195,700 net new gross square feet (gsf) of development with 120 units of residential. The Approved Project proposed 960,700 new gsf of development with no residential.

project's demand on EBMUD's limited water supply; install dual plumbing systems within new project development, in accordance with EBMUD Policy 73 and the City's dual plumbing ordinance, for use of recycled water (for landscape irrigation only) from EBMUD's East Bayshore Recycled Water Project, if available at the site once project construction begins.

Further, as part of standard development practices within the City of Oakland, the project sponsor would continue to comply with the Oakland Water Efficient Landscape Requirements, Article 10, Chapter 7 of the Municipal Code. As analyzed in the previous analysis, the existing water pipeline system near the project site could adequately deliver water to the proposed project, and the construction effects of any extensions or relocations of facilities would be reduced to less-than-significant with implementation of construction-related mitigation measures and City SCAs identified throughout this Addendum. No new or expanded water facilities would need to be constructed that could result in adverse environmental effects.

Wastewater. The analysis in the 2004 EIR concluded that the Approved Project would not result in a new significant increase in wastewater flows and would not, by itself, require new or expanded water entitlements. Considering that the 2003 DEIR Project was slightly larger than the Approved Project and included residential use, the wastewater generated from the Approved Project would have been slightly less than the 2003 DEIR Project.

As with the water use calculations above, when analyzing the wastewater demand for the 2014 Modified Project, the demand rates were updated based on current assumptions made for recent development projects in Oakland. Based on these rates, **Table 4.5-1** shows that the proposed Maximum Residential Scenario would generate slightly fewer gallons of average and peak wastewater per day (gpd) (wet and dry conditions) than the amount calculated in the 2003 DEIR.

TABLE 4.5-1
AVERAGE AND PEAK SEWER FLOW DEMAND – ENTIRE PROJECT SITE[a]

	2004 Approved Project	2014 Modified Project: Maximum Residential Scenario	
Average Dry Weather Flow	228,800	216,820	
Peak Dry Weather Flow	47,667	45,171	
Peak Wet Weather Flow	50,050	47,429	
Average Wet Weather Flow	251, 680	238,502	

[a] Detailed calculations by site provided in Appendix E to this Addendum.

SOURCE: Jack London Square Redevelopment Project Final EIR, 2004; JLSV Land LLC, 2013.

Based on this estimates in Table 4.5-1, and given the rehabilitated sub-basin 64-02 (completed since 2004) combined with sub-basin 64, the estimated increase in flows attributable to the Maximum Residential Scenario is not considered an increase that would result in a new significant increase in wastewater flows than previously considered and that would require new or expanded facilities.

As determined for in the 2004 EIR, the Oakland Waste Water Treatment Plant (WWTP) is anticipated to have adequate dry and wet weather capacity to treat the estimated wastewater flow from the 2014 Modified Project. Moreover, as with the Approved Project, all project-related wastewater from the 2014 Modified Project would meet the standards of EBMUD's Source Control Division, which are based in large part on the wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board.

Further, the 2004 EIR disclosed that sewer mains that would serve the Approved Project may need to be up-sized and/or extended to serve the project, and that any required modifications and improvements to the sewer system infrastructure for the project would be determined in consultation with the City's Public Works Agency prior to obtaining building permits, with all associated costs to be borne by the project sponsor. This requirement still applies to the proposed 2014 Modified Project.

Overall, the 2014 Modified Project would not result in a significant impact by requiring new or expanded wastewater treatment facilities that could result in significant construction impacts. As previously stated, any construction effects of from necessary extensions or relocations of utility facilities would be reduced to less-than-significant with implementation of construction-related mitigation measures and City SCAs identified throughout this Addendum.

2) Stormwater (Criterion #3. Previously addressed in 2004 Impact G.3).

Because the existing Site D and F2 parcels are currently paved, the net amount of impervious surface and the volume of runoff would not increase or decrease considerably from that considered for the Approved Project (or existing conditions). Thus, there would continue to be a less-than significant impact with respect to the need to construct new or expanded storm water drainage facilities.

3) Solid Waste and Energy (Criteria #6 and #7. Previously addressed in 2004 Impacts K.3, K.4, K.5 and K.6).

Applying the same CIWMB[3] solid waste generation rates considered in the previous analysis, the proposed Maximum Residential Scenario would generate less operational solid waste than would have been generated by the Approved Project. The Maximum Residential Scenario would generate approximately 3,775 tons per year compared to approximately 5,826 tons per year from the Approved Project. This is primarily because of the substantially higher CIWMB generation rate of office and retail uses compared to residential uses. Thus, the impact is still considered less than significant as previously identified in the 2004 EIR.

Like the Approved Project, the 2014 Modified Project would be constructed in conformance with the latest regulatory requirements for waste reduction. As previously mentioned regarding construction-related solid waste generation and diversion considerations, SCA UTIL-1 will update and replace 2004 Mitigation Measures K.3 and K.5 with respect to the residential component of the 2014 Modified Project, which will continue to ensure the impact of the 2014

[3] California Integrated Waste Management Board.

Modified Project would be less than significant (2004 mitigation measures will continue to mitigate the impacts of the non-residential components of the project to a less than significant level).

4) Cumulative Utilities (Previously addressed in 2004 Impact K.7).

The 2014 Modified Project, with implementation of the newly identified SCAs discussed above (if applicable), would have a less-than-significant impact on the ability of the City of Oakland and other service providers to provide adequate utility services, including water, wastewater, solid waste, and gas and electricity to the project area and vicinity with existing facilities; no new or expanded facilities, the construction of which could have significant environmental effects, would be required. Considering these effect, combined with the potential effects of other past, present, existing, approved, pending and reasonably foreseeable future projects (i.e., cumulative) development considered in the 2004 EIR analysis, also would not result new significant cumulative impacts to which the 2014 Modified Project would have a cumulatively considerable contribution. The impacts would continue to be less than significant.

Summary

The 2014 Modified Project would result in impacts similar or greater than those addressed in the 2004 EIR, but would continue to be less than significant. No new mitigation measures are required. No new information with respect to utilities and services systems shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

4.5.9 Agriculture and Forestry Resources

Previous Environmental Analysis

The 2004 EIR identified that the development at the project site would not result in impacts on agricultural resources as the project area is located in a developed, urban portion of Oakland that does not include agricultural uses or forestry resources. The project area, as with the majority of developed land in the City of Oakland, is designated by the California Department of Conservation's Farmland Mapping and Monitoring Program as Urban and Built-Up Land (Department of Conservation, 1998).

Standard Conditions of Approval

No SCAs regarding agricultural and forestry resources are identified that apply to the residential component of the 2014 Modified Project.

2014 Existing Conditions

The 2014 Modified Project would be located on the same site as the Approved Project, and the site conditions related to existing mineral resources have not changed.

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract;
3. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));
4. Result in the loss of forest land or conversion of forest land to non-forest use; or
5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

Analysis of the 2014 Modified Project

1) Agricultural and Forestry (Criteria #1 through #5. Previously addressed in the 2003 Initial Study).

Because the 2014 Modified Project would be constructed on the same site as analyzed for the Approved Project, it would continue to have no impact to agricultural or forestry resources as none exist on the project site.

Summary

The 2014 Modified Project would not result in a new significant impact with respect to agricultural or forestry resources or have a substantial increase in the severity of impacts previously identified in the 2004 EIR. Therefore, impacts would be similar to or less severe than those addressed in the 2004 EIR. No new mitigation measures are required. No new information with respect to agricultural or forestry resources shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

4.5.10 Biological Resources

Previous Environmental Analysis

The 2004 EIR concluded that development at the project site would not pose a significant impact to biological resources including candidate, sensitive or special status species; sensitive natural communities; or wetlands. The 2004 EIR also determined that proposed development at the project site would not interfere with movement of fish or wildlife species, wildlife corridors, or wildlife nursery sites; conflict with local policies protecting biological resources; or conflict with any conservation plan.

The project site is an urban setting with a high intensity of transportation use in the area (including I-880, railroad, and ferry terminal), and lack of terrestrial and aquatic vegetation for food and cover, the project area has limited habitat value for most bird species, and is therefore, unlikely to be part of an established native resident or migratory wildlife corridor, including the Pacific Flyway. Accordingly, the 2004 EIR analysis determined that the addition of new tall buildings within the project site would not likely disrupt existing avian flight patterns or stopover grounds. Overall, the previous analysis found that the Approved Project would not result in significant impacts with respect to biological resources.

Standard Conditions of Approval

Although the 2014 Modified Project would not result in significant impacts with respect to biological resources, the following SCA is applicable to the residential component of the 2014 Modified Project. This SCA is not necessary to reduce impacts under CEQA but is listed here as an update to the regulatory setting of biological resources.

- **SCA BIO-1: Tree Removal Permit**

  Prior to issuance of a demolition, grading, or building permit. Prior to removal of any protected trees, per the Protected Tree Ordinance, located on the project site or in the public right-of-way adjacent to the project, the project applicant must secure a tree removal permit from the Tree Division of the Public Works Agency, and abide by the conditions of that permit.

- **SCA BIO-2: Tree Replacement Plantings**

  Prior to issuance of a final inspection of the building permit. Replacement plantings shall be required for erosion control, groundwater replenishment, visual screening and wildlife habitat, and in order to prevent excessive loss of shade, in accordance with the following criteria:

  a) No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered.

  b) Replacement tree species shall consist of Sequoia sempervirens (Coast Redwood), Quercus agrifolia (Coast Live Oak), Arbutus menziesii (Madrone), Aesculus

californica (California Buckeye) or Umbellularia californica (California Bay Laurel) or other tree species acceptable to the Tree Services Division.

c) Replacement trees shall be at least of twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate.

d) Minimum planting areas must be available on site as follows:

i. For Sequoia sempervirens, three hundred fifteen square feet per tree;

ii. For all other species listed in #2 above, seven hundred (700) square feet per tree.

e) In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee as determined by the master fee schedule of the city may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians.

f) Plantings shall be installed prior to the issuance of a final inspection of the building permit, subject to seasonal constraints, and shall be maintained by the project applicant until established. The Tree Reviewer of the Tree Division of the Public Works Agency may require a landscape plan showing the replacement planting and the method of irrigation. Any replacement planting which fails to become established within one year of planting shall be replanted at the project applicant's expense.

- **SCA BIO-3: Bird Collision Reduction**

Prior to issuance of a building permit and ongoing. The project applicant, or his or her successor, including the building manager or homeowners' association, shall submit plans to the Planning and Zoning Division, for review and approval, indicating how they intend to reduce potential bird collisions to the maximum feasible extent. The applicant shall implement the approved plan, including all mandatory measures, as well as applicable and specific project Best Management Practice (BMP) strategies to reduce bird strike impacts to the maximum feasible extent.

a) Mandatory measures include **all** of the following:

i. Comply with federal aviation safety regulations for large buildings by installing minimum intensity white strobe lighting with three second flash instead of blinking red or rotating lights.

ii. Minimize the number of and co-locate rooftop-antennas and other rooftop structures.

iii. Monopole structures or antennas shall not include guy wires.

iv. Avoid the use of mirrors in landscape design.

v. Avoid placement of bird-friendly attractants (i.e. landscaped areas, vegetated roofs, water features) near glass.

b) Additional BMP strategies to consider include the following:

i. Make clear or reflective glass visible to birds using visual noise techniques. Examples include:

1. Use of opaque or transparent glass in window panes instead of reflective glass.
2. Uniformly cover the outside clear glass surface with patterns (e.g., dots, decals, images, abstract patterns). Patterns must be separated by a minimum 10 centimeters (cm).
3. Apply striping on glass surface. If the striping is less than 2 cm wide it must be applied vertically at a maximum of 10 cm apart (or 1 cm wide strips at 5 cm distance).
4. Install paned glass with fenestration patterns with vertical and horizontal mullions of 10 cm or less.
5. Place decorative grilles or louvers with spacing of 10 cm or less.
6. Apply one-way transparent film laminates to outside glass surface to make the window appear opaque on the outside.
7. Install internal screens through non-reflective glass (as close to the glass as possible) for birds to perceive windows as solid objects.
8. Install windows which have the screen on the outside of the glass.
9. Use UV-reflective glass. Most birds can see ultraviolet light, which is invisible to humans.
10. If it is not possible to apply glass treatments to the entire building, the treatment should be applied to windows at the top of the surrounding tree canopy or the anticipated height of the surrounding vegetation at maturity.

ii. Mute reflections in glass. Examples include:

1. Angle glass panes toward ground or sky so that the reflection is not in a direct line-of-sight (minimum angle of 20 degrees with optimum angle of 40 degrees).
2. Awnings, overhangs, and sunshades provide birds a visual indication of a barrier and may reduce image reflections on glass, but do not entirely eliminate reflections.

iii. Reduce Light Pollution. Examples include:

1. Turn off all unnecessary interior lights from 11 p.m. to sunrise.
2. Install motion-sensitive lighting in lobbies, work stations, walkways, and corridors, or any area visible from the exterior and retrofitting operation systems that automatically turn lights off during after-work hours.
3. Reduce perimeter lighting whenever possible.

iv. Institute a building operation and management manual that promotes bird safety. Example text in the manual includes:

1. Donation of discovered dead bird specimens to authorized bird conservation organization or museums to aid in species identification and to benefit scientific study, as per all federal, state and local laws.

2. Production of educational materials on bird-safe practices for the building occupants.

3. Asking employees to turn off task lighting at their work stations and draw office blinds or curtains at end of work day.

4. Schedule nightly maintenance during the day or to conclude before 11 p.m., if possible.

2014 Existing Conditions

The 2014 Modified Project would be located on the same site as the Approved Project, and the site conditions related to existing biological resources have not changed.

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Analysis of the 2014 Modified Project

1) Biological Resources (Criteria #1 through #6. Previously addressed in the 2003 Initial Study).

The 2014 Modified Project would be located on the same site as the Approved Project, and the biological resources conditions on the site have not changed since preparation of the 2004 EIR. The 2014 Modified Project would not introduce new design features that would result in any new impacts to biological resources. The only change associated with the potential development of Sites D or F2 that could potentially affect biological resources is the potential for the buildings proposed on these sites to be as much as 53 to 168 feet taller, respectively, than previously considered in the 2004 EIR. However, this change is not anticipated to adversely affect cultural resources. As discussed in the previous analysis, the limited habitat value for most bird species limits the likelihood for the site to be part of an established native resident or migratory wildlife corridor that new taller buildings on Sites D and F2 could disrupt. The 2014 Modified Project would not result in significant impacts with respect to biological resources.

Summary

The 2014 Modified Project would not result in new significant impacts on biological resources or have a substantial increase in the severity of impacts on biological resources previously identified in the 2004 EIR. Therefore, impacts would be similar to those addressed in the 2004 EIR, and would continue to be less than significant. No new mitigation measures are required. No new information with respect to biological resources shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

4.5.11 Mineral Resources

Previous Environmental Analysis

The 2004 EIR indicated that the project site is in an urban area and has no known existing mineral resources. The project would not require quarrying, mining, dredging, or extraction of locally important mineral resources on site, nor would it deplete any nonrenewable natural resource.

Standard Conditions of Approval

No SCAs regarding mineral resources are identified that apply to the residential component of the 2014 Modified Project.

2014 Existing Conditions

The 2014 Modified Project would be located on the same site as the Approved Project, and the site conditions related to existing agricultural and forestry resources have not changed.

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
2. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Analysis of the 2014 Modified Project

1) Mineral Resources (Criteria #1 and #2. Previously addressed in the 2003 Initial Study).

Because the 2014 Modified Project would be constructed on the same site as analyzed for the Approved Project, it would continue to have no impact to mineral resources as none exist on the project site.

Summary

The 2014 Modified Project would not result in a new significant impact with respect to mineral resources or have a substantial increase in the severity of impacts previously identified in the 2004 EIR. Therefore, impacts would be similar to or less severe than those addressed in the 2004 EIR, and would continue to be no impact. No new mitigation measures are required. No new information with respect to mineral resources shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

4.5.12 Population and Housing

Previous Environmental Analysis

Based on the analysis in the 2004 EIR (which specifically considered in the 2003 DEIR a somewhat smaller residential population than proposed in the 2014 Modified Project), the Approved Project not result in any adverse effects resulting from unanticipated population growth, nor would the project displace a substantial number of existing housing units or people, necessitating the construction of replacement housing elsewhere. Although the Approved Project would demolish

about 131,800 square feet of existing commercial space to accommodate the project, it would not result in any displacement of housing or result in substantial numbers of people needing replacement housing.

Standard Conditions of Approval

No SCAs regarding population and housing are identified that apply to the residential component of the 2014 Modified Project.

2014 Existing Conditions

The 2014 Modified Project would be located on the same site as the Approved Project and the existing site conditions related to existing population and housing on the project site, specifically Sites D and F2, have not changed.

Significance Criteria / Thresholds

The project would have a significant impact on the environment if it would:

1. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Analysis of the 2014 Modified Project

1) Population Growth (Criterion #1. Previously addressed in the 2003 Initial Study).

When compared with the Approved Project, the Maximum Residential Scenario of the 2014 Modified Project would increase the potential number of residential units from zero to up to 665 units. Applying the established population density rate of 1.63 persons per household (or 1.7 persons per household, discounting for standard vacancies) that was documented for the Jack London District area in the 2004 EIR, and subsequently in the 2011 Proposed Amendments to the Central District Urban Renewal Plan EIR (Jack London District is part of the Central District), the Maximum Residential Scenario would generate up to approximately 1,083 new residents on the project site. Thus there would be an increased potential for impacts related to population and housing growth if the Maximum Residential Scenario were implemented.

The 2014 Modified Project would be consistent with additional General Plan LUTE and the EPP policies that support creating urban infill housing in close proximity to transportation centers. The amount of population increase from the potential residential development of the proposed project is expected to be incremental and is consistent with both General Plan land use projections and

Association of Bay Area Government projections; thus, the proposed project would not result in any significant impacts related to population and housing

The increase in population would contribute to population growth expected in Oakland in the future. The additional 1,083 residents would account for about 0.7 percent of total population growth projected for Oakland between 2010 and 2035 (1,083 of 141,100 persons. [4] Thus, the Maximum Residential Scenario of the 2014 Modified Project would not constitute a substantial population growth in comparison to the amount of population growth and the total population anticipated for Oakland in the

Some level of population growth in and around Jack London Square was anticipated in Oakland's General Plan, and is supported and encouraged by General Plan LUTE and Housing Element policies, and City zoning regulations. Well-served by regional transportation/transit facilities and close to downtown employment, Jack London Square is a preferred location for development of higher-density infill housing, as specified in the General Plan LUTE, the EPP, as well as the regional Sustainable Communities Strategy, Plan Bay Area, which identifies Jack London Square as a "Priority Development Area" (MTC, 2012). Increasing the population in Jack London Square through new housing is a key component of the vibrant mixed use districts for downtown in the General Plan LUTE and specifically for Jack London Square in the EPP. Overall, population growth associated with the Maximum Residential Scenario would not result in population growth in a manner not anticipated in Oakland's General Plan and the impact would be less than significant.

2) Displace Housing (Criterion #2 and #3. Previously addressed in the 2003 Initial Study).

The 2014 Modified Project would be on the same site as the Approved Project and would not displace any existing residential uses as none currently exist on the project site.

Summary

The 2014 Modified Project would not result in a new significant impact related to population and housing or have a substantial increase in the severity of impacts previously identified in the 2004 EIR. The 2014 Modified Project impacts would be greater than those identified in the 2004 EIR, which did not consider new housing or population growth on the project site, but would continue to be less than significant. No new mitigation measures are required. No new information with respect to population and housing shows 1) new significant impacts, or 2) a substantial increase in the severity of previously identified significant impacts, or 3) that mitigation measures or alternatives previously found not to be feasible (or are considerably different from those analyzed in the previous CEQA document) would in fact be feasible, and would substantially reduce one or more significant effects of the project.

---

[4] Broadway Valdez District Specific Plan Draft EIR, September 2013, City of Oakland, Table 4.11-1 (Employment, Households, and Populatin for the Greater Plan Area, the Greater Downtown, the City of Oakland and the Region: 200, 2005, 2010 and 2035).

CHAPTER 5
Report Preparers

5.1 Lead Agency

City of Oakland
Bureau of Planning
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, California 94612

Catherine Payne, Planner IV

5.2 EIR Consultants

Environmental Science Associates
350 Frank H. Ogawa Plaza, Suite 300
Oakland, California 94612

Project Manager: Crescentia Brown, AICP
Deputy Project Manager: Elizabeth Kanner

ESA Technical Analysts:	Crescentia Brown, AICP, *Other Environmental Issues*
	Elizabeth Kanner, *Other Environmental Issues*
	Terrance Wong and Chris Sanchez, *Air Quality and Greenhouse Gases*
	Matt Morales, *Noise*
	Tim Rimpo, *Human Health Risk*
	Chuck Bennett, *Wind*
ESA Graphics, Production and Editing:	Lisa Bautista, Word Processing
	Anthony Padilla, Production
	Ron Teitel, Graphics

Traffic Consultant

AECOM Transportation Consultants
2101 Webster Street, Suite 1900
Oakland, California 94612

Bill Burton, P.E.
Ryan Niblock, Transportation Planner

This page intentionally left blank

Appendices

Provided on CD