



# Lion Creek Crossings Phase V Project **Subsequent Mitigated Negative Declaration/ Addendum**

*March 2012*



# **Lion Creek Crossings Phase V Project Subsequent Mitigated Negative Declaration/ Addendum**

*Prepared for:*

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*March 2012*



# Lion Creek Crossings Phase V Project

## Subsequent Mitigated Negative Declaration

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# Summary

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## S.1 PROJECT NAME

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Lion Creek Crossings Phase V Project  
Case Numbers: 2P110015/REV120005  
Environmental Review: ER030001  
Creek Protection Permit: CP12060  
Tree Removal Permit: T1200011

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## S.2 LEAD AGENCY NAME AND ADDRESS

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City of Oakland  
Community and Economic Development Agency (CEDA)  
Planning and Zoning Division  
250 Frank H. Ogawa Plaza, Suite 2114  
Oakland, CA 94612  
Contact: Catherine Payne, Planner III  
510-238-6168  
cpayne@oaklandnet.com

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## S.3 PROJECT SPONSOR'S NAME AND ADDRESS

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Marie Debor, Project Manager  
Related California  
18201 Von Karman Avenue, Suite 900  
Irvine, CA 92612

Ener Chiu, Project Manager  
East Bay Asian Local Development Corporation  
310 8<sup>th</sup> Street, Suite 200  
Oakland, CA 94607

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## S.4 PROJECT LOCATION

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The Project Sponsors propose constructing 128 senior housing units at 6710, 6720, 6730, 6740, 6750, and 6760 Lion Way, City of Oakland, Alameda County (APN 041-4212-006-00). The Phase V Project Site is within and part of a larger Lion Creek Crossings Project (Project) that was approved originally in 2003 by the City of Oakland. The Phase V Project Site is east of San Leandro Street, south of 66<sup>th</sup> Avenue, north of 69<sup>th</sup> Avenue and the Coliseum BART Station, and west of International Boulevard.

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## **S.5 DESCRIPTION OF PROJECT**

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The Project Sponsors are proposing to modify the fifth phase of the Lion Creek Crossings affordable housing development<sup>1</sup> which was approved in 2003 and amended in 2009. Please note that the project approved in 2003 is hereafter referred to as the Original Project. The Original Project involved development of up to 480 residential units, including 365 rental apartments and townhouses financed by Low Income Housing Tax Credits, 61 senior units, 36 for-sale affordable units, and a possible 18 in-law units.

The proposed modifications to the Original Project constitute the Lion Creek Crossings Phase V Project (Revised Project). The Revised Project would include certain changes to the fifth phase of development as planned for in the Original Project and amended in 2009. Specifically, the Revised Project would replace the previously approved 28 condominiums proposed for this fifth phase of development with 128 senior housing units in a four-story building. The Revised Project would include a community room, laundries, fitness space, computer room, lounge, roof deck, and bicycle storage for the residents. A surface parking lot with 32 spaces would be located off the single driveway providing ingress and egress for the Revised Project.

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## **S.6 SURROUNDING LAND USES AND SETTING**

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The Phase V Project Site is located in the eastern quadrant of the Lion Creek Crossings affordable housing development (hereafter referred to as the Project Site). The Project Site, which includes the Phase V Project Site, is in a predominantly residential neighborhood, although the area immediately north of 66<sup>th</sup> Avenue is zoned General Industrial and is primarily industrial and commercial with a gas station located on the corner of 66<sup>th</sup> Avenue and San Leandro Street. Land immediately to the east of the Phase V Project Site is zoned Detached Unit Residential and consists of small businesses, truck parking for a commercial painter, and a private school (Acts Christian Academy), with single-family residential development beyond. To the south of the site, the majority of the adjacent area is occupied by residential units zoned for Mixed Housing and the Coliseum BART Station parking lot zoned for Transit Oriented uses like the Revised Project. To the west are the elevated BART guideway, railroad tracks, Damon Slough, and the Oakland Coliseum Complex zoned Regional Commercial.

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## **S.7 ACTIONS/PERMITS WHICH MAY BE REQUIRED AND FOR WHICH THIS DOCUMENT PROVIDES CALIFORNIA ENVIRONMENTAL QUALITY ACT CLEARANCE**

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This document is intended to provide environmental clearance for the following without limitation.

- City of Oakland – Amendment to PUD
- City of Oakland – Building Permit

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<sup>1</sup> The “Lion Creek Crossings” project was previously known as the “Coliseum Gardens HOPE VI Revitalization Project.”

- City of Oakland – Grading Permit
- City of Oakland – Design Review
- City of Oakland – Creekside Permit
- City of Oakland – Tree Permit
- State Water Resources Control Board – National Pollutant Discharge Elimination System Permit

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## **S.8 PREVIOUS ENVIRONMENTAL REVIEW**

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The Original Project was subject to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). An Initial Study (IS) was prepared pursuant to CEQA and an Environmental Assessment (EA) was prepared pursuant to NEPA. The analyses were produced as a combined IS/EA and released for public review and comment in January 2003. On June 4, 2003, the Oakland Planning Commission, upon review and consideration of the IS/EA, adopted a Mitigated Negative Declaration (MND) pursuant to CEQA and a Finding of No Significant Impact (FONSI) pursuant to NEPA. Because the document was released and adopted by the Planning Commission in 2003, it is referred to in this report as the 2003 IS/EA or the 2003 MND, even though the Oakland City Council did not adopt the MND/FONSI until February 3, 2004.

In September 2008, the Project Sponsors proposed changes to the Original Project that was evaluated in the 2003 IS/EA. The changes were minor and required only minor technical changes and/or additions to the 2003 IS/EA and did not result in new significant impacts or increased severity for those impacts identified for the Original Project. Consequently, the City Planning Commission accepted an Addendum to the MND/FONSI on February 4, 2009. The City Council also found that the Original Project as amended would not result in any new or more severe significant impacts, that there was no new information of substantial importance that would result in any new or more severe significant impacts, and there were no feasible mitigation measure or alternative that was considerably different from others previously analyzed that had not been adopted. As a result, the City Council accepted the Addendum on March 3, 2009.

The 2003 IS/EA and the 2009 Addendum are available at the Planning and Zoning Division office located at:

City of Oakland  
Community and Economic Development Agency (CEDA)  
250 Frank H. Ogawa Plaza, Suite 2114  
Oakland, CA 94612  
Contact: Catherine Payne, Planner III  
Telephone: 510-238-6168; Email: cpayne@Oaklandnet.com

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## **S.9 DETERMINATION**

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The City adopted an MND/FONSI in 2004 when the Original Project was approved. The 2003 environmental evaluation (the 2003 IS/EA) concluded that the Original Project would not result in a significant impact on the environment with the incorporation of specified mitigation measures. Pursuant to Section 15164 of the State CEQA Guidelines, the City has determined that the Revised Project meets the requirements for an addendum to the 2003 IS/EA because only minor technical changes or additions are necessary and/or the project does not meet any of the criteria described in Section 15162 of the State CEQA Guidelines, nor are any of the circumstances described in Section 15162 present, requiring a Subsequent Environmental Impact Report (EIR) or Subsequent Negative Declaration. However, in the interest of being conservative and providing additional opportunity for public review, the City is following the procedural requirements for a Subsequent Mitigated Negative Declaration. Therefore, this document is titled a “Subsequent Mitigated Negative Declaration/Addendum.” The City has prepared this Subsequent Mitigated Negative Declaration (SMND)/Addendum for the final phase of the development Project. This SMND/Addendum has been released for public review and comment; the deadline for submitting comments on the SMND/Addendum is April XX, 2012. The SMND/Addendum finds that the buildout of the Revised Project would not result in new significant environmental impacts, or a substantial increase in the severity of impacts previously identified in the 2003 IS/EA or the 2009 Addendum, with the incorporation of specified mitigation measures and the City’s standard conditions of approval. Therefore, further environmental review is not required.

# Chapter 1

## Introduction

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This chapter describes the purpose of this Subsequent Mitigated Negative Declaration (SMND)/Addendum, identifies the topics evaluated in the SMND/Addendum, describes the application of the City's Standard Conditions of Approval, and explains the organization of this document.

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### 1.1 PURPOSE OF THE SUBSEQUENT MITIGATED NEGATIVE DECLARATION/ADDENDUM

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In 2003 Atkins (formerly PBS&J) completed the Coliseum Gardens HOPE VI Revitalization<sup>1</sup> Initial Study/Environmental Assessment (hereafter referred to as the 2003 IS/EA) for the City. The Oakland Planning Commission approved a Mitigated Negative Declaration (MND) for the 2003 IS/EA in April 2003. In 2009, the Project Sponsors sought an addendum in order to modify the type and density of development planned for Phase IV and Phase V of the Original Project. The Addendum to the 2003 IS/EA was approved in 2009. The 2009 Addendum is further described in Chapter 2, Project Description. The Project Sponsors now propose to modify the previously approved 2003 IS/EA and 2009 Addendum to reflect certain changes to the site plan for the fifth and final phase of development – the Lion Creek Crossings Phase V Project (Revised Project).

This SMND/Addendum analyzes the buildout of the Revised Project against the City's current CEQA Thresholds of Significance and compares the environmental effects of the Revised Project to the environmental effects of the Lion Creek Crossings Project (Original Project) analyzed in the 2003 IS/EA.<sup>2</sup>

Pursuant to Section 15164 of the State CEQA Guidelines, the City has determined that the Revised Project meets the requirements for an addendum to the 2003 IS/EA because only minor technical changes or additions are necessary and/or the project does not meet any of the criteria described in Section 15162 of the State CEQA Guidelines, nor are any of the circumstances described in Section 15162 present, requiring a Subsequent Environmental Impact Report (EIR) or Subsequent Negative Declaration. However, in the interest of being conservative and providing additional opportunity for public review, the City is following the procedural requirements for a Subsequent Mitigated Negative Declaration. Therefore, this document is titled a "Subsequent Mitigated Negative Declaration/Addendum." This SMND/Addendum considers changes to the Original Project, updated regulatory provisions and requirements, and the current 2011/2012 environmental setting.

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<sup>1</sup> The Lion Creek Crossings Project was previously known as the Coliseum Gardens HOPE VI Revitalization.

<sup>2</sup> It is important to note that this SMND/Addendum primarily compares the Revised Project to the Original Project analyzed in the 2003 IS/EA and not the 2009 Addendum, because the Addendum describes only minor changes that had little to no bearing on the environmental impacts described in the 2003 IS/EA.

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## **1.2 SUBSEQUENT MITIGATED NEGATIVE DECLARATION/ADDENDUM SCOPE**

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### **Environmental Topics Covered in the Subsequent Mitigated Negative Declaration**

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The Revised Project requires updated information, clarification, and modified analysis for the following environmental topics, which are addressed in separate sections in Chapter 3 of this SMND/Addendum.

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions/  
Global Climate Change
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Services Systems

Since adoption of the 2003 IS/EA substantive changes have not occurred for the environmental topics listed below. Nevertheless, these topics are presented in Chapter 3, Environmental Analysis, for informational purposes.

- Agriculture and Forest Resources
- Mineral Resources

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## **1.3 STANDARD CONDITIONS OF APPROVAL**

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The City's Uniformly Applied Development Standards and Conditions of Approval (referred to in this SMND/Addendum as Standard Conditions of Approval) are incorporated into projects as conditions of approval regardless of a project's environmental determination. As applicable, the Standard Conditions of Approval 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. For the Revised Project, all of the relevant Standard Conditions of Approval have been incorporated into this SMND/Addendum. In reviewing project applications, the City determines which Standard Conditions of Approval are applicable, based upon the zoning district, community plan, and the type(s) of permit(s)/approval(s) required for the project. Depending on the specific characteristics of the project type and/or project site, the City will determine which Standard Conditions of Approval apply to a specific project; for example, Standard Conditions of Approval related to creek protection permits will only be applied to projects on creekside properties.

Because these Standard Conditions of Approval are mandatory City requirements, the impact analysis assumes that these conditions will be imposed and implemented by the project. If a Standard Condition of Approval would reduce a potentially significant impact to a less-than-significant level, this SMND/Addendum concludes that the impact will be determined to be less than significant and no

mitigation will be imposed. The Standard Conditions of Approval incorporate development 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.

Where there are peculiar circumstances associated with a project or project site that will result in significant environmental impacts despite implementation of the Standard Conditions of Approval, the City will determine whether there are feasible mitigation measures to reduce the impact to a less-than-significant level. Applicable Standard Conditions of Approval are identified for each of the environmental topics addressed in this SMND/Addendum. A complete list of all applicable Standard Conditions of Approval, mitigation measures identified in this SMND/Addendum, and mitigation measures identified in the 2003 IS/EA is presented in Appendix A.

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## **1.4 SUBSEQUENT MITIGATED NEGATIVE DECLARATION/ADDENDUM ORGANIZATION**

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This document is organized as follows:

**Summary.** This section provides a summary of the environmental review process for the Revised Project and documents the City's determination to proceed with a SMND/Addendum.

**Chapter 1 Introduction.** This chapter describes the purpose and scope of the SMND/Addendum.

**Chapter 2 Project Description.** This chapter describes in detail the proposed changes to the development proposed by the Original Project for the fifth and final phase of development (Revised Project).

**Chapter 3 Environmental Analysis.** This chapter provides an update of existing site conditions (where applicable), an update of applicable policies and regulations, and an environmental review of the buildout of the Revised Project. For each environmental topic, the chapter summarizes the 2003 IS/EA analysis and conclusions, identifies currently applicable Standard Conditions of Approval, updates the regulatory setting, summarizes existing conditions, and analyzes the effects of the buildout of the Revised Project and compares that with the information contained in the 2003 IS/EA. Also, previously adopted mitigation measures from the 2003 IS/EA are identified, and, where appropriate, are clarified, refined, revised, or deleted. This chapter also identifies any new mitigation measures that are required.

**Appendices.** This section includes all appendices referenced in the SMND/Addendum.

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# Chapter 2

## Project Description

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This chapter provides a summary of adopted Lion Creek Crossings Project (Original Project) as evaluated in the 2003 Initial Study/Environmental Assessment (IS/EA) and associated environmental approvals. In addition, this chapter describes the current Lion Creek Crossings Phase V Project (Revised Project) including, but not limited to the site plan and anticipated construction schedule.

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### 2.1 BACKGROUND

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#### Previous Approvals

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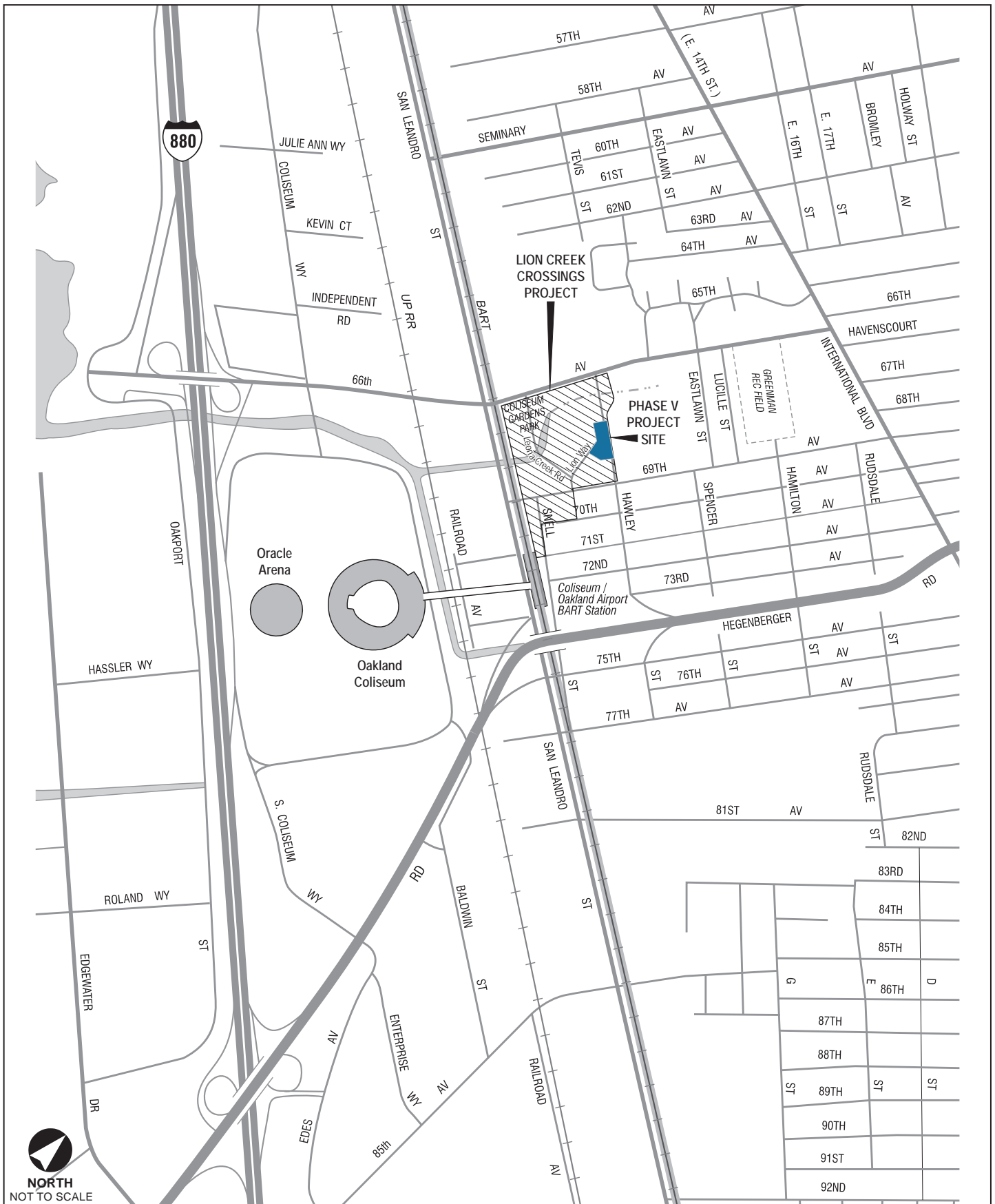
In 2003, Atkins (formerly PBS&J) completed the 2003 IS/EA for the Original Project for the City of Oakland Community and Economic Development Agency (CEDA) and Oakland Housing Authority. The Oakland Planning Commission approved a Mitigated Negative Declaration (MND) for the 2003 IS/EA in April 2003. The Revised Project is in the City of Oakland, Alameda County, near the BART Coliseum Station and 66<sup>th</sup> and 69<sup>th</sup> Avenues (see Figure 2-1). The Original Project involved development of up to 480 residential units, including 365 rental apartments and townhouses financed by Low Income Housing Tax Credits, 61 senior units, 36 for-sale affordable units, and a possible 18 in-law units. The Original Project was designed to be constructed in five phases (see Figure 2-2). Under the Original Project, the 365 rental apartments and townhouses were to be constructed during Phases I through III. The 36 for-sale affordable units were to be constructed during Phase IV and the 61 senior units were to be constructed during Phase V.

Due to changes in market conditions after Phases I through III were constructed, the Project Sponsors sought an addendum to the 2003 IS/EA in order to modify the type and density of development planned for Phase IV and Phase V. The Addendum to the 2003 IS/EA was approved in 2009, and called for swapping the locations of Phase IV and Phase V and developing 72 multifamily rental units as Phase IV (rather than the original 61 senior units) and 28 condominium units as Phase V (rather than the original 36 for-sale affordable housing units). Under the 2009 Addendum, a natural creek bed was created for Lion Creek directly adjacent to the existing concrete channel. Lion Creek would be diverted into the new creek bed; however, the concrete channel would be retained for flood overflow purposes. A portion of the existing concrete channel would be capped to create a viewing platform. Phase IV (72 multifamily rental units) is currently under construction as shown in Figure 2-2 and the restoration/modifications to Lion Creek as evaluated in the 2009 Addendum are complete. When completed, Phases I through IV will have resulted in the construction of 439 units.

#### Current Application (Lion Creek Crossings Phase V – Revised Project)

---

The Project Sponsors have applied for approval of certain modifications to the land use development evaluated as Phase V in the 2009 Addendum. Although the 2009 Addendum evaluated a proposed development (28 condominium units) for Phase V of the Original Project, the condominium units have not been constructed. The Project Sponsors are now proposing to modify Phase V (as evaluated in the



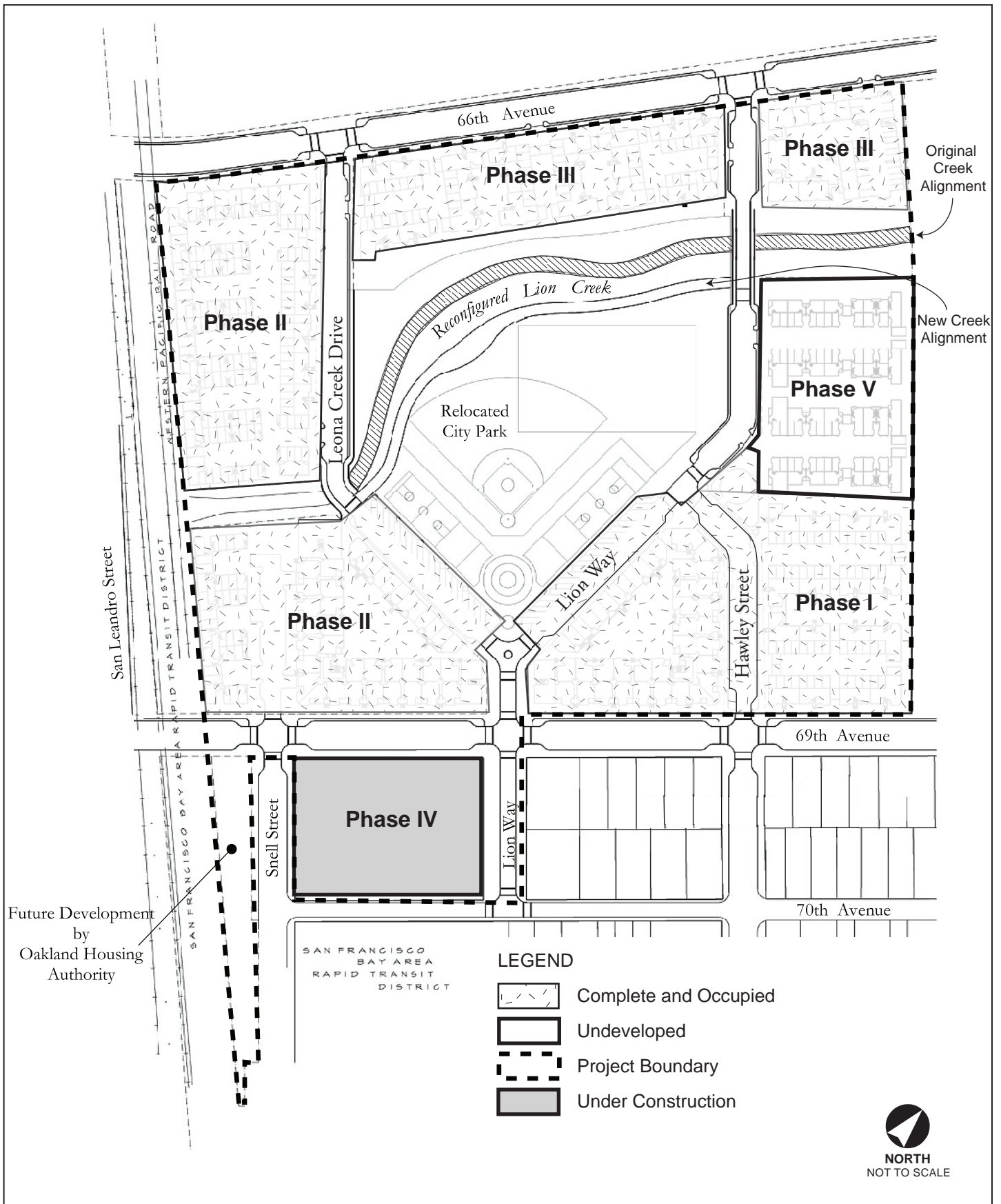
**FIGURE 2-1**  
**Project Location**

**Source:** Atkins, 2011.

**ATKINS**

100019720

Lion Creek Crossings: Phase V



2009 Addendum) to replace the previously approved 28 condominium units with 128 senior housing units. Development of 128 senior housing units constitutes the Revised Project. Figure 2-3 illustrates the Phase V Project Site, the surrounding completed phases of Lion Creek Crossings to the north, west, and south, and the neighboring Acts Christian Academy to the east.

Implementation of Revised Project would bring the total unit count of Phases I through V to 567 units, compared to 480 units under the Original Project.

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## **2.2 SETTING**

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The Phase V Project Site is in a predominantly residential neighborhood, although the area immediately north of 66<sup>th</sup> Avenue is zoned Industrial General and is primarily industrial and commercial with a gas station located on the corner of 66<sup>th</sup> Avenue and San Leandro Street. Land immediately to the east of the Phase V Project Site is zoned Detached Unit Residential consists of small businesses, truck parking for a commercial painter, and a private school (Acts Christian Academy), with single-family residential development beyond. To the south of the site, the majority of the adjacent area is occupied by residential units zoned for Mixed Housing and the Coliseum BART Station parking lot zoned for Transit Oriented uses like the Revised Project. To the west are the elevated BART guideway, railroad tracks, Damon Slough, and the Oakland Coliseum Complex zoned Regional Commercial.

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## **2.3 PROPOSED CHANGES TO THE ORIGINAL PROJECT**

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### **Site Plan**

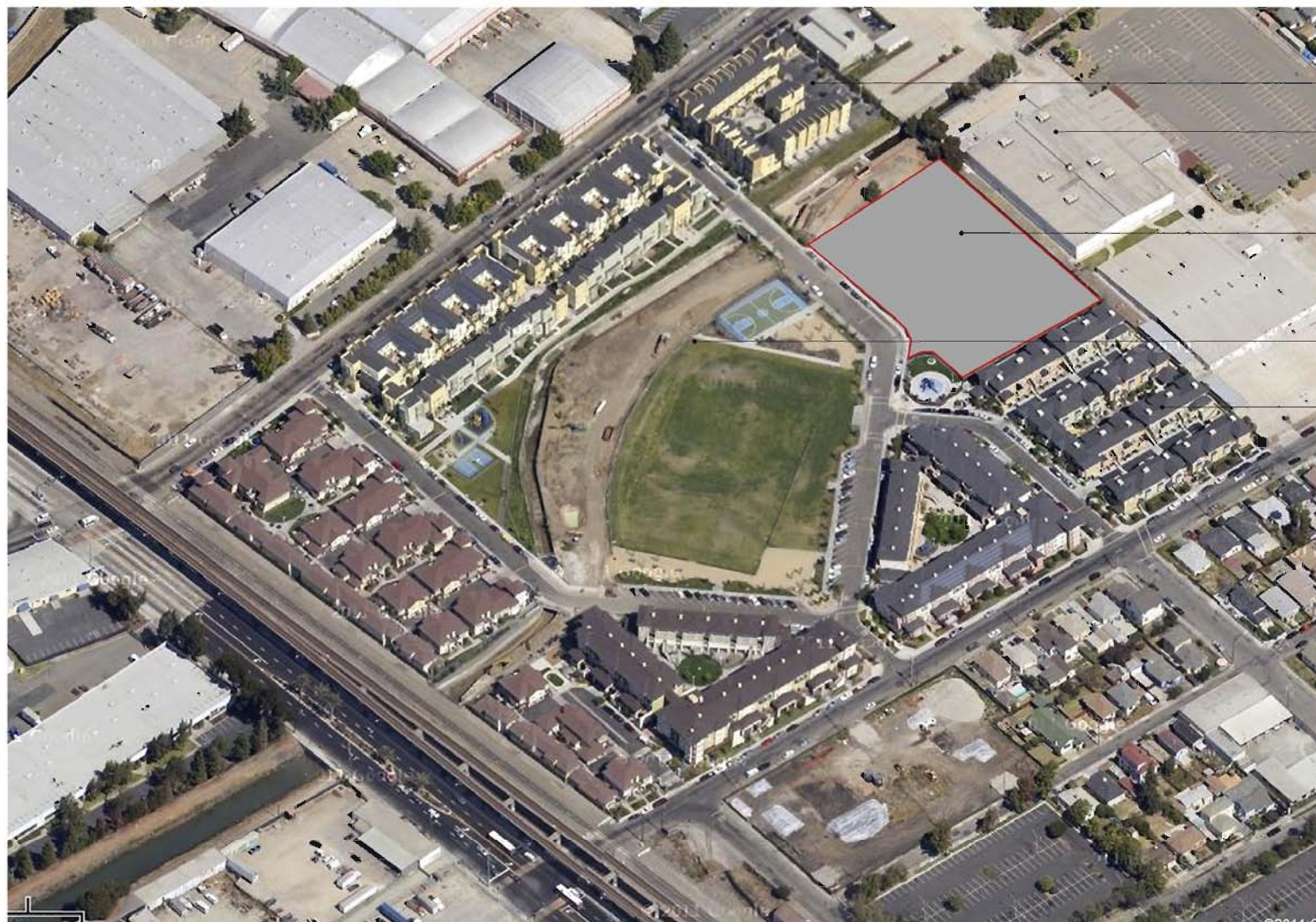
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The Revised Phase V Project Site is 64,298 square feet, or 1.48 acres. The residential units would occupy a building footprint of 25,219 square feet, or about 39 percent of the total site. A row of residential units would front onto Lion Way and the community park to the west. As shown in Figure 2-4, the housing units would be designed around a 5,600-square-foot landscaped central courtyard. The courtyard, plus other landscaping onsite, total 18,788 square feet, or about 29 percent of the total site. A 26-foot-wide fire lane around the units would create a buffer and provide physical separation from the uses to the north (Lion Creek and culvert) and east (Acts Christian Academy). Primary access to the Phase V Project Site would be from a driveway off Lion Way at the southern end of the site, where the surface parking would be provided and serve as a buffer from the adjacent family housing to the south. The parking and driveway account for 12,481 square feet, or about 19 percent of the total site. The remaining site area of about 7,810 square feet, 12 percent of the total site, would be dedicated to onsite, internal circulation.

### **Development Program and Occupancy**

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The Revised Project includes 128 senior housing units, consisting of 119 one-bedroom units, seven two-bedroom units, and two studios, totaling 97,930 sf. It is estimated that at full occupancy the Revised Project would house 196 residents in the wood-frame, four-story structure.



- Family housing complex (Phase III)
- Acts Christian Academy
- New senior housing complex property
- Central park
- Family housing complex (Phase I)



100019720

Lion Creek Crossings: Phase V

The Revised Project also contains a community room, laundries, fitness space, computer room, lounge, offices, roof deck, bicycle storage, maintenance storage and mechanical/electrical spaces. Open space would consist of the approximately 5,600-square-foot central courtyard, plus approximately 18,700 square feet of private patios and balconies. Thirty-two surface parking spaces and one loading stall would be provided in a parking lot adjacent to the southern edge of the site; the number of parking spaces is based on the City-allowed reduction for senior housing of up to 75 percent from the standard one space/unit for multifamily units.

The Revised Project would include a site manager and a maintenance person, one of whom would live onsite and therefore is included in the occupancy estimate provided above. Further, the Revised Project would include one social service coordinator.

### **Architectural Design Features**

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The Revised Project at four stories would conform to the building heights along the southern and northern edges of the Lion Creek Crossings development and serve to define and frame the eastern edge of the community park. At the street level along Lion Way, the residential units would be set back the required 10 feet, and a pattern of short sections of concrete masonry walls alternating with plantings and metal picket fencing would define the visual base for the building and create privacy for ground-floor residents. The proposed design features would include projecting bays finished in smooth cement plaster, balconies with composite plastic guardrails, sunshades, and a cantilevered roof/cornice to create an active and varied façade facing the park. A large vertical window, articulated by composite plastic sunshades, would open and connect the senior housing to the park. A roof deck at the southwestern corner would offer residents views of the park and the Bay beyond.

Figures 2-5a and 2-5b show the elevations of the senior complex from the south and west and from the north and east, respectively. The elevations show the proposed use of different materials, colors, and balcony guardrails to break up the mass of the facades and to create some visual interest.

### **Utilities**

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Backbone infrastructure to serve the site was constructed in 2006 as part of the initial phases of the Original Project and includes water, wastewater, and storm drain lines. Local storm drain pipes and wastewater laterals were also installed at that time to serve the Phase V Project Site.

### **Phase V Project Site Access**

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Lion Way connects to 66<sup>th</sup> Avenue to the north and to 69<sup>th</sup> Avenue to the south. There are sidewalks on both sides of Lion Way, which would provide pedestrian access to the Phase V Project Site. There are no designated bike lanes or bike paths along Lion Way. As such, bicycles would access the Phase V Project Site via the roadway.

## Construction Scenario

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Construction of the Revised Project is expected to begin in Fall 2012 and finish approximately 15 months later. Construction would generally occur in the following phases:

- Site grading, excavations, foundations.
- Installation of underground utilities in joint trench.
- Building structure, framing, decks, and roofing.
- Mechanical, electrical, and plumbing.
- Exterior finishes and cornish.
- Construction interior finishes, insulation, drywall, and painting.
- Interior finishes, cabinets, flooring, hardware.
- Site improvements, landscaping, and site furnishings.
- Offsite curb, gutter, and paving.

Major construction equipment would include material delivery trucks, dump trucks, concrete trucks, graders and loaders, back hoes, and cranes. All staging, construction trailer locations, and construction worker parking would be provided on the Phase V Project Site. The number of truck deliveries would range from 1 to 7 trips per day, with an estimated 260 truck deliveries over the 15-month construction period.

The size of the construction workforce would vary during the different stages of construction. During the beginning and final months of construction, a lower number of workers would be needed, approximately 5 to 15 construction staff per day. However, the phase involving erection of the building structure, framing, and roofing would be the most intense construction period and require a higher number of workers, approximately 25 to 35 construction staff per day.

The duration of each phase and the typical construction activities are shown in Table 2-1.

**Table 2-1**  
**Approximate Construction Phasing and Activities for the Lion Creek Crossings Phase V Project**

<b>Construction Phase</b>	<b>Duration (in months)</b>	<b>Typical Construction Equipment</b>	<b>Approximate Number of Truck Trips Daily</b>	<b>Approximate Number of Workers Daily</b>
Site grading, excavations, foundations	1 - 2	Trucks, cat dozer, end loader, excavator, compactor, water truck, cement trucks, concrete saw, 10 wheelers	5 - 7	8 - 12
Infrastructure, sanitary, storm and water, utilities / joint trench	1 - 2	Trucks, excavator, back hoe	2 - 4	5 - 7
Building structure, framing, decks, and roofing	3 - 4	Trucks, high lift, vibrating plates, power trowels, crane	3	25 - 35
Mechanical, electrical, and plumbing	4	Trucks	3	10 - 14
Exterior finishes, siding, trim, railings, and other finishes.	2 - 3	Trucks, stucco coat power application tower	1	12
Construction interior finishes, insulation, drywall, and painting	2 - 3	Trucks	1	10 - 12
Interior finishes, cabinets, flooring, hardware	2-3	Trucks	1	15
Site improvements, landscaping, and site furnishings	2	Trucks	2	15
Offsite curb, gutter, and paving	Complete	Cement trucks, power trowels, street sweeper, concrete saw, 10 wheelers		
Duration of Revised Project	15 Months			

*Source:* Project Sponsors, 2011.



South Elevation



West Elevation

- Cement Plaster
- Horizontal Cementitious Board Lap Siding
- Vinyl Windows
- Composite Plastic Guard Rail Members
- Porcelain Ceramic Tile
- Cement Plaster
- Translucent Glass
- Aluminum Storefront
- Metal Picket Security Fence

0 4 8 16 FEET



North Elevation



East Elevation

- Cement Plaster
- Horizontal Cementitious Board Lap Siding
- Vinyl Windows
- Aluminum Storefront
- Composite Plastic Guard Rail Members
- Cement Plaster
- Metal Picket Security Fence

0 4 8 16 FEET

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## Chapter 3

# Environmental Analysis

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This chapter presents the environmental analysis of the Revised Project, emphasizing differences from the previous 2003 Initial Study/Environmental Assessment (IS/EA) and 2009 Addendum. In particular, this chapter provides an update of existing site conditions for those topics where existing conditions have changed since adoption of the 2003 IS/EA, an update of applicable policies and regulations, and an environmental assessment of the buildout of the Revised Phase V of the Lion Creek Crossings Project (Revised Project). For each environmental topic, the chapter summarizes the 2003 IS/EA analysis and conclusions, presents previously established mitigation measures, describes currently applicable Standard Conditions of Approval, and recommends new mitigation measures that are required.

The following environmental topics are discussed: Aesthetics; Agriculture and Forest Resources; Air Quality; Biological Resources; Cultural Resources; Geology and Soils; Greenhouse Gas Emissions/Global Climate Change; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Mineral Resources; Noise; Population and Housing; Public Services; Recreation; Transportation; and Utilities and Service Systems.

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### 3.1 AESTHETICS, SHADOW, AND WIND

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#### Prior Environmental Analysis and Conclusions

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##### Prior Environmental Impact Findings

The 2003 IS/EA concluded that the Original Project would result in less-than-significant impacts related to alteration of the visual character of the area, interference with existing views or scenic vistas, the casting of shadows on surrounding areas, and compliance with existing City policies and regulations pertaining to aesthetic character. The 2003 IS/EA also determined that the Original Project would introduce new sources of light and glare within the entire Project Site that could result in a potentially significant impact. The 2009 Addendum did not identify new impacts associated with aesthetics, shadow, and wind.

##### 2003 IS/EA Mitigation Measures

The 2003 IS/EA identified the following mitigation measure to reduce impacts associated with new sources of light and glare to a less-than-significant level:

*AE-3.1 Incorporate Lighting Specifications that Control Excess Light and Glare.* The Project Sponsor shall have a photometric study undertaken to define the appropriate level of lighting at the Phase V Project Site. The study shall consider the effects on neighboring properties and recommend that project lighting be designed to angle downward to specific targets to reduce spillover onto surrounding areas. These specifications shall be incorporated into the construction documents for the Revised

Project. In addition, lighting along new streets shall be designed according to City of Oakland standards for street lighting. *(NOTE: This mitigation measure is not applicable to the Revised Project because it is replaced by SCA-40, further described below)*

## **Standard Conditions of Approval**

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Since City of Oakland approval of the Original Project and adoption of the 2003 IS/EA, the City has prepared Standard Conditions of Approval that apply to new development projects. The Standard Conditions of Approval that relate to aesthetics, shadow, and wind and that would apply to the Revised Project are listed below. If the City approves the Revised Project, the Conditions of Approval will be adopted as requirements of the Revised Project and would ensure that no significant aesthetic, shadow, and wind impacts occur. As a result, the Conditions of Approval are not listed as mitigation measures.

**SCA-40: 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.

**SCA-12: Required Landscape Plan for New Construction and Certain Additions to Residential Facilities.** *(Prior to issuance of a building permit.)* Submittal and approval of a landscape plan for the entire site is required for the establishment of a new residential unit (excluding secondary units of five hundred (500) square feet or less), and for additions to Residential Facilities of over five hundred (500) square feet. The landscape plan and the plant materials installed pursuant to the approved plan shall conform with all provisions of Chapter 17.124 of the Oakland Planning Code, including the following:

- a. Landscape plan shall include a detailed planting schedule showing the proposed location, sizes, quantities, and specific common botanical names of plant species.
- b. Landscape plans for projects involving grading, rear walls on downslope lots requiring conformity with the screening requirements in Section 17.124.040, or vegetation management prescriptions in the S-11 zone, shall show proposed landscape treatments for all graded areas, rear wall treatments, and vegetation management prescriptions.
- c. Landscape plan shall incorporate pest-resistant and drought-tolerant landscaping practices. Within the portions of Oakland northeast of the line formed by State Highway 13 and continued southerly by Interstate 580, south of its intersection with State Highway 13, all plant materials on submitted landscape plans shall be fire-resistant. The City Planning and Zoning Division shall maintain lists of plant materials and landscaping practices considered pest-resistant, fire-resistant, and drought-tolerant.
- d. All landscape plans shall show proposed methods of irrigation. The methods shall ensure adequate irrigation of all plant materials for at least one growing season.

## **Existing Conditions**

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The Phase V Project Site is characterized by unkempt weedy vegetation and mounds of aggregate material and construction staging related to the Lion Creek Restoration Project. The undeveloped parcel is surrounded by new three- and four-story residential buildings (implemented as part of the Original Project) to the north and south, a large private school (Acts Christian Academy) to the east, and Lion Way to the west. A basketball court and multi-use field are west of Lion Way. The Phase V Project Site is the only remaining undeveloped portion of the Original Project, and the immediate visual setting is defined by higher density residential development and landscaped public areas of the Original Project (see Figure 2-3, in Chapter 2, Project Description). Views from the Phase V Project Site are limited due to its location on level terrain and the height of existing development that surrounds the Phase V Project Site (see Figure 3.1-1).

The surrounding area to the west is defined by the BART elevated guideway; the southern area along 69<sup>th</sup> Avenue is defined by fine-grained, lower density, predominantly one-story housing. The larger environs around Lion Creek Crossings are a mix of industrial, institutional, and residential uses as shown in Figure 3.1-2. The only change to the visual setting that has occurred since it was described in the 2003 IS/EA and the 2009 Addendum is that Phase IV of the Project is under construction and will result in a four-story structure housing 72 multifamily units at the site bounded by 69<sup>th</sup> and 70<sup>th</sup> Avenues, Snell Street, and Lion Way.

## **Significance Criteria and Impact Assessment**

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### **CEQA Thresholds/Criteria of Significance**

A project would have a significant effect on aesthetics, shadow, or wind if it would:

1. Have a substantial adverse effect on a public scenic vista.<sup>1</sup>
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, located within a state or locally designated 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 substantially and adversely affect day or nighttime views in the area.
5. Introduce landscape that would now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code sections 25980-25986).
6. 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.

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<sup>1</sup> Only impacts to scenic views enjoyed by members of the public generally (but not private views) are potentially significant.



a. Phase III Development North of the Project Site



b. Phase I Development South of the Project Site



c. Looking East from the Project Site (Acts Christian Academy)



d. Community Park, Phase II Development, and BART Guideway West of the Project Site



a. Oakland Coliseum West of the Project Area



b. Residential Uses along 66th Avenue North of the Project Area



c. Residential uses along 69th Avenue South of the Project Area (including Phase IV Development)



d. Industrial Uses along 66th Avenue North of the Project Area

7. Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space.
8. Cast shadow on an historic resource, as defined by CEQA Guidelines section 15064.5(a), such that the shadow would materially impair the resource's historic significance by materially altering those physical characteristics of the resource that convey its historical significance and that justify its inclusion on or eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, Local Register of historical resources, or a historical resource survey form (DPR Form 523) with a rating of 1-5.
9. Require 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.
10. Create winds that exceed 36 mph for more than one hour during daylight hours during the year.<sup>2</sup>

## Impact Assessment

**Scenic Vistas (Criterion #1).** According to the City of Oakland Open Space, Conservation, and Recreation Element of the General Plan, there are four primary scenic vistas that contribute to the character and ambiance of the City: views of the Oakland Hills from the flatlands; views of downtown and Lake Merritt; views of the Bay shoreline; and panoramic views from Skyline Boulevard, Grizzly Peak Road, and other hillside locations.<sup>3</sup> As shown in Figure 3.1-1, none of these primary scenic vistas are available from the Phase V Project Site. Looking east and northeast from the Phase V Project Site, views of the Oakland hills are largely obstructed by the Acts Christian Academy east of the site (the blank wall of an approximately 180 feet long by 130 feet deep building and the equivalent of two stories defines the easterly view) and the multifamily residential buildings of the Original Project to the north and south. The Phase V Project Site is distant from the Bay shoreline, downtown, and Lake Merritt, and the flat terrain, the low-lying elevation, and intervening buildings all preclude views of these scenic resources from the Phase V Project Site. Further, as the development surrounding the Phase V Project Site was recently constructed as part of the Original Project, there are no architecturally or historically significant structures in the vicinity of the Phase V Project Site (refer

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<sup>2</sup> 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. Downtown is defined in the Land Use and Transportation Element of the General Plan (page 67) 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. The wind analysis must consider the project's contribution to wind impacts to on- and off-site public and private spaces. Only impacts to public spaces (on- and off-site) and off-site private spaces are considered CEQA impacts. Although impacts to on-site private spaces are considered a planning-related non-CEQA issue, such potential impacts still must be analyzed.

<sup>3</sup> City of Oakland, General Plan: Open Space, Conservation, and Recreation Element, adopted June 1996.

to Section 3.5, Cultural Resources, for more information). Therefore, the Revised Project would have no effect on scenic vistas.

**Scenic Resources (Criterion #2).** There are no distinctive natural features that would visually distinguish the site or its environs. Based on site visits, the aerial view shown in Figure 2-2, in Chapter 2, Project Description, and the cultural field surveys performed in 2003 for the IS/EA and reexamined in 2011 for this assessment, there are no significant landforms, rock outcroppings, or historic buildings at or immediately around the Phase V Project Site. Since there are no existing scenic resources at the Phase V Project Site or the surroundings, the Revised Project would have no effect in terms of damaging or detracting from these resources.

**Visual Character (Criterion #3).** Because the Phase V Project Site lies in the City's S-15 Transit Oriented Development Zone, it would be subject to the City of Oakland's design review process per Planning Code Section 17.97.020. According to Section 17.136.050 of the Planning Code, the following design review criteria apply to residential facilities as proposed by the Revised Project:

- The proposed design will create a building or set of buildings that are well related to the surrounding area in their setting, scale, bulk, height, materials, and textures;
- The proposed design will protect, preserve, or enhance desirable neighborhood characteristics;
- The proposed design will be sensitive to the topography and landscape; and
- The proposed design conforms in all significant respects with the Oakland General Plan and with any applicable design review guidelines or criteria, district plan, or development control map which have been adopted by the Planning Commission or City Council.

The development scale, massing, and character immediately surrounding the Phase V Project Site are largely reflected in the photographs in Figure 3.1-1. The proposed four-story senior housing development of 128 senior units would be visually compatible with the earlier multi-storied, higher density residential phases that surround the community park (Phases I, II, and III). The Revised Project's design would include different materials, colors, and balcony guardrails to break up the mass of the building facades and would be architecturally consistent with the surrounding residential development that also use colors, rooflines, architectural details, and varied massing to create visual interest and variety from the central community park and the streets surrounding Project Site (see Figure 2-5a and 2-5b, in Chapter 2 Project Description, of the Revised Project compared to Figure 3.1-2 showing the surrounding development). As described previously, the existing Phase V Project Site is undeveloped, weedy, and unkempt. Construction of the Revised Project would complete the Project, provide an eastern edge to frame the community park, and enhance the visual conditions at the Phase V Project Site, thereby improving the overall visual quality of the area. The Phase V site is level with the surrounding development and the proposed grading and site development would not alter the topography or physical landscape of the site. As explained later in Section 3.5, Cultural Resources, neither the site nor the surrounding development is considered historically significant. As a result, none of the design review procedures concerning historic character preservation would apply. In light of the above considerations, the Revised Project would appear to comply with the City's Design

Review Guidelines as well as the design requirements specific to development within the S-15 zoning district. As a result, the Revised Project would have a less-than-significant effect on the visual character and quality of the Phase V Project Site and the Lion Creek Crossings development.

From a broader perspective, there is little visual connectivity between the Lion Creek Crossings development and the development pattern to the north and east which consist of large-scale, low-rise structures and expansive paved areas for parking, storage, or truck movement. The area to the west is defined by the visually prominent BART elevated guideway and industrial uses beyond. The southern area along 69<sup>th</sup> Avenue is defined by Phase IV of the Project currently under construction (four-story residential units) and fine-grained, lower density, predominantly one-story housing. As such, the larger environs around Lion Creek Crossings are a mix of industrial, institutional, and residential uses lacking visual amenities and quality. Figure 3.1-2 provides examples of the visual character and development around the Project. The Revised Project would not detract from the visual character or quality of this larger area, and the effect is therefore considered to be less than significant.

**Light and Glare (Criterion #4).** The Revised Project would introduce a new source of light and glare at the Phase V Project Site and in the surrounding area. New light sources would be associated with the building entrance and exterior, the surface parking lot on the south side of the Phase V Project Site, and the landscaping in the courtyard and surrounding the building. However, the amount and intensity of this lighting would be similar to existing light sources in the Project area and surrounding vicinity. The majority of the development proposed in the Original Project has been completed and therefore the entire Project area is already lit at nighttime, and the additional light associated with the Revised Project would not substantially alter existing conditions. As shown in Figures 2-5a and 2-5b, in Chapter 2, Project Description, the Revised Project would not include large areas of glass or other reflective surfaces that would be a substantial source of glare that would impair visibility for drivers or discomfort passersby or park users. Further, the Revised Project would be subject to SCA-40 regarding standards for lighting fixtures (refer to the Standard Conditions of Approval section, above). Accordingly, the Revised Project would have a less-than-significant effect on light and glare.

**Shadows (Criteria #5-8).** Based on review of aerial photographs, rooftop photovoltaic panels (solar panels) exist on several of the buildings constructed during Phases I-III of the Original Project; no other nearby buildings appear to have solar panels. Specifically, solar panels exist on a row of three-story residential structures along 66<sup>th</sup> Avenue, east of Leona Creek Drive and about 300 feet northwest of the Phase V Project Site, and a row of four-story structures along 69<sup>th</sup> Avenue between Lion Way and Hawley Street, about 140 feet southwest of the Phase V Project Site. Because of the height, distance, and location/ orientation of these panels, shadows cast by the proposed four-story buildings as part of the Revised Project would not substantially impair their functioning. A landscaping plan has not yet been completed, but the landscaping presented in renderings submitted as part of the project application does not suggest trees of sufficient height or density to cast substantial shadows onto these facilities. Even if the trees were of sufficient height to cast shadows onto the neighboring buildings with solar panels, the location and orientation of the rooftop solar panels would enable them to function for most of the daytime hours. As a result, the Revised Project would have less-than-significant

impacts on buildings using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors.

The Revised Project would cast shadows onto the basketball court, the play lot, and the community park west and southwest of the Phase V Project Site. Based on the location of the Revised Project relative to these recreational facilities, the shadows cast on these facilities would be greatest in the early morning when the sun is low on the horizon and the longest shadows of the day are cast. The relatively limited hours of shade created by the Revised Project would not substantially impair the use of the recreational facilities that were developed or restored as part of the overall Lion Creek Crossings Project. Because users could utilize the facilities for the majority of the daylight hours without substantial interruption from shadows, Project-related shadow impacts on the basketball court, the play lot, and the community park would be less than significant. As reported later in Section 3.5, Cultural Resources, there are no historic structures in the Project area or the area of potential effect (generally defined as an area one parcel deep around the Phase V Project Site). Consequently, although the Revised Project would cast shadows, no historic resources would be adversely affected.

**Compliance with Plans, Policies and Regulations regarding light provision (Criterion #9).** The Project Sponsors do not anticipate seeking any exceptions or variances to the City's General Plan, Planning Code, or Uniform Building Code. As a senior residential development, the Revised Project is a permitted activity and facility in the S-15 Transit Oriented Development zoning district, as identified in Section 17.97.040 and Section 17.97.060 of the City's Planning Code, respectively. Moreover, if final design plans for the Revised Project include exterior lighting, the Revised Project would be subject to the City's SCA-40 regarding the development and submission of a lighting plan to the Planning and Zoning Division and the Electrical Services Division of the Public Works Agency for review and approval. Adherence to this standard condition of approval as imposed by the City of Oakland would ensure that the Revised Project include appropriate lighting for the proposed residential uses. Therefore, the Revised Project would have a less-than-significant impact regarding the provision of adequate light.

**Wind Impacts (Criterion #10).** The Revised Project is expected to be approximately 50 feet in height at the top of the parapets on the roof and is not sited near a large body of water or the downtown. Accordingly, the Revised Project would not have any of the conditions that the City of Oakland considers relevant for a wind analysis, and the Revised Project would have a less-than-significant wind effect.

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## **3.2 AGRICULTURE AND FOREST RESOURCES**

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### **Prior Environmental Analysis and Conclusions**

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#### **Prior Environmental Impact Findings**

The 2003 IS/EA concluded that the Original Project would result in no impact to agriculture and forest resources, because the Phase V Project Site is located within an urbanized area that contains a mixture

of residential, commercial, and industrial uses. The 2009 Addendum did not identify new impacts associated with agriculture and forest resources.

### **2003 IS/EA Mitigation Measures**

Since the 2003 IS/EA determined that the Original Project would not have agriculture or forest resource impacts, no mitigation measures were identified.

### **Standard Conditions of Approval**

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The City does not have Standard Conditions of Approval related to the protection of agriculture and forest resources.

### **Existing Conditions**

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The Revised Project is within an urbanized area that contains a mixture of residential, commercial, and industrial uses. The Phase V Project Site itself is characterized by unkempt weedy vegetation and is occupied by mounds of aggregate material and construction staging activities related to the nearby Lion Creek Restoration Project. Agriculture, forest, or farmland uses do not exist on or adjacent to the Phase V Project Site. According to the 2010 Farmland Mapping and Monitoring Program from the State Department of Conservation, the Phase V Project Site is located in an area designated as urban, built-up land and “other” land.<sup>4</sup> Other land is not considered farmland. The Phase V Project Site was previously used for public housing and the Project Sponsors do not have Williamson Act contracts to retain the site for open space. Since preparation of the 2003 IS/EA, conditions in the Project vicinity remain urbanized with no introduction of agricultural or forestry uses.

### **Significance Criteria and Impact Assessment**

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#### **CEQA Thresholds/Criteria of Significance**

A project would have significant effects to agriculture and forest resources 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.

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<sup>4</sup> State Department of Conservation, Farming Mapping and Monitoring Program, Alameda County Important Farmland 2010. Website: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/ala10.pdf>, accessed September 6, 2011.

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.

## **Impact Assessment**

**Conversion or Loss of Agricultural and Forest Resources (Criteria #1-5).** The Revised Project involves the development of the existing vacant land within an already developed area that does not include any farmland, forest land, or timberland, and the construction of the Revised Project would not result in the conversion of farmland to a non-agricultural use or forest land to a non-forest use. Accordingly, the Revised Project would have no impact on agricultural and forest resources.

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### **3.3 AIR QUALITY**

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#### **Prior Environmental Analysis and Conclusions**

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##### **Prior Environmental Impact Findings**

The 2003 IS/EA determined that the previous development proposed for the entire Project Site would result in less-than-significant air quality effects because construction and operational related air emissions, carbon monoxide (CO) concentrations, and health risks associated with toxic air contaminants (TACs) could be reduced through implementation of the Bay Area Air Quality Management District (BAAQMD) Best Management Practices (BMPs) adopted by the City. The 2009 Addendum did not identify new impacts associated with air quality.

##### **2003 IS/EA Mitigation Measures**

The 2003 IS/EA identified the following mitigation measure to reduce air quality impacts to a less-than-significant level:

- AQ-1.1 Implement Construction Dust Control Measures.* The project sponsor shall require the following practices be implemented by including them in the contractor construction documents:
- a. Water all active construction areas at least twice daily.
  - b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
  - c. Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at the construction sites.
  - d. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at the construction sites.
  - e. Sweep public streets adjacent to construction sites daily (with water sweepers) if visible soil material is carried onto the streets.

- f. Hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- g. Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- h. Limit traffic speeds on unpaved roads to 15 miles per hour.
- i. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- j. Replant vegetation in disturbed areas as quickly as possible.
- k. Install wheel washers for all exiting trucks or wash off the tires or tracks of all trucks and equipment leaving the construction site.
- l. Install wind breaks at the windward sides of the construction areas
- m. Suspend excavation and grading activities when wind (as instantaneous gusts) exceeds 25 miles per hour.

### **Standard Conditions of Approval**

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Since City of Oakland approval of the Original Project and adoption of the 2003 IS/EA, the City has prepared Standard Conditions of Approval that apply to new development projects. The Standard Conditions of Approval that relate to air quality and that would apply to the Revised Project are listed below. If the City approves the Revised Project, the Conditions of Approval will be adopted as requirements of the Revised Project and would ensure that no significant air quality impacts occur. As a result, the Conditions of Approval are not listed as mitigation measures.

#### **SCA-A: Construction-Related Air Pollution Controls (Dust and Equipment Emissions).** *(Ongoing throughout, grading, and /or construction)*

During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by 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 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. 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.
- i. 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.

### **Updated Regulatory Setting**

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New guidelines and regulations have been adopted since the publication of the 2003 IS/EA. These changes are reflected below.

The BAAQMD is the primary agency responsible for comprehensive air pollution control in the San Francisco Bay Area Air Basin, including Alameda County. To that end, BAAQMD, a regional agency, works directly with the Association of Bay Area Governments (ABAG), the Metropolitan Transportation Commission (MTC), and local governments and cooperates actively with all federal and State government agencies. BAAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

BAAQMD is directly responsible for reducing emissions from stationary sources and for assuring that State controls on mobile sources are effectively implemented. It has responded to this requirement by preparing a sequence of Ozone Attainment Plans and Clean Air Plans that comply with the federal Clean Air Act and the California Clean Air Act to accommodate growth, reduce the pollutant levels in the Bay Area, meet federal and State ambient air quality standards, and minimize the fiscal impact that pollution control measures have on the local economy. The Ozone Attainment Plans are prepared to address the federal ozone standard and the Clean Air Plans are prepared to address the State ozone standard.

The most recent Ozone Attainment Plan was adopted by the BAAQMD Board of Directors on October 2001 and demonstrates attainment of the federal ozone standard in the Bay Area by 2006. In January

2006, BAAQMD adopted the 2005 Ozone Strategy to identify additional steps needed to continue reducing ozone levels. The current regional Clean Air Plan was adopted by the Board of Directors on September 15, 2010. The 2010 Plan identifies the emissions control measures that would be adopted and/or implemented through 2012 to reduce major sources of pollutants. The 2010 Plan includes control measures to reduce air pollution in the Bay Area: “Land Use and Local Impact” measures, and “Energy and Climate” measures. These planning efforts are expected to substantially decrease the population’s exposure to unhealthy ozone levels, even while substantial population growth has occurred within the Bay Area. In 2003, the California Legislature passed Senate Bill 656 (SB 656) to reduce public exposure to particulate matter (PM10) and fine particulate matter (PM2.5). SB 656 required the California ARB, in consultation with local air districts, to develop and adopt, by January 1, 2005, a list of the most readily available, feasible, and cost effective control measures to reduce PM10 and PM2.5. In November 2005, BAAQMD adopted a Particulate Matter Implementation Strategy focusing on those measures most applicable and cost effective for the Bay Area.

Although BAAQMD is responsible for regional air quality planning efforts, it does not have direct authority over plans formulated by other local agencies or governments, or over new development projects within the Bay Area. Instead, BAAQMD uses its expertise to offer advice on the air quality implications of such plans and projects through the BAAQMD CEQA Thresholds of Significance (BAAQMD Thresholds), which were adopted on June 2, 2010. Attendant with the BAAQMD Thresholds were the BAAQMD CEQA Guidelines, which were also released in June 2010. On May 1, 2011, BAAQMD adopted new risk and hazards thresholds for new receptors. Subsequently, in May 2011, the CEQA Guidelines were updated to reflect BAAQMD’s recently released risk and hazards thresholds. The 2010 CEQA Air Quality Guidelines (adopted in May 2011) represent the latest iteration of the BAAQMD guidelines. Further, the updated CEQA Guidelines address recent changes in air quality standards for ozone and particulate matter (PM) from the State of California and the U.S EPA, as well as BAAQMD’s new greenhouse gas thresholds (further described later under the Section 3.7, Greenhouse Gas Emissions/Global Climate Change). The recently adopted BAAQMD CEQA Guidelines include Thresholds of Significance relating to emissions of criteria air pollutants from construction and operational sources, and exposures of sensitive receptors to ambient TACs and PM2.5, as shown below in Table 3.3-1. In order to help clarify and standardize analysis and decision-making, the City of Oakland has adopted these thresholds of significance as of August 24, 2011, and they are herein referred to as the City of Oakland CEQA Thresholds of Significance.

Both the federal and State governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health. The national and State ambient air quality standards have been set at levels where concentrations could be generally harmful to human health and welfare, and to protect the most sensitive persons from illness or discomfort with a margin of safety. These pollutant standards are listed in Table 3.3-2.

**Table 3.3-1  
2011 CEQA Air Quality Thresholds of Significance**

Criteria Air Pollutants and Ozone Precursors	Construction-Related	Operational-Related	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
Project-Level			
ROG	54	54	10
NO <sub>x</sub>	54	54	10
PM <sub>10</sub> (equipment exhaust)	82	82	15
PM <sub>2.5</sub> (equipment exhaust)	54	54	10
PM <sub>10</sub> /PM <sub>2.5</sub> (fugitive dust)	No Impact with Implementation of Best Management Practices	None	
CO (local concentration)	None	9.0 ppm (8-hour average) 20.0 ppm (1-hour average)	
Risks and Hazards (Project Level)	Same as Operational Thresholds	Compliance with Qualified Community Risk Reduction Plan Or Increased cancer risk of > 10.0 in a million Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) Ambient PM <sub>2.5</sub> increase: > 0.3 µg/m³ annual average Zone of Influence: 1,000-foot radius from fence line of source or receptor	
Risks and Hazards (Cumulative)	Same as Operational Thresholds	Compliance with Qualified Community Risk Reduction Plan Or Increased cancer risk of > 100.0 in a million Increased non-cancer risk of > 10.0 Hazard Index (Chronic only) Ambient PM <sub>2.5</sub> increase: > 0.8 µg/m³ annual average Zone of Influence: 1,000-foot radius from fence line of source or receptor	
Plan-Level			
Criteria Air Pollutants and Ozone Precursors	None	Consistency with Current Air Quality Plan control measures, and Projected VMT or vehicle trip increase is less than or equal to Projected population increase	
Toxic Air Contaminants	None	No net increase in emissions  Overlay zones of at least 500 feet from all freeways and high volume roadways	

*Source:* California Environmental Quality Act Air Quality Guidelines, BAAQMD, adopted June 2010. The risk and hazards thresholds for new receptors are effective May 1, 2011. City of Oakland CEQA Thresholds of Significance Guidelines, August 24, 2011.

**Table 3.3-2  
State and Federal Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standard	Federal Standard	
			Primary	Secondary
Ozone	1-hour	0.09 ppm (180 $\mu$ g/m <sup>3</sup> )	--	Same as Primary
	8-hour	0.070 ppm (137 $\mu$ /m <sup>3</sup> )	0.075 ppm (147 $\mu$ g/m <sup>3</sup> )	Same as Primary
Carbon Monoxide	1-hour	20.0 ppm (23 mg/m)	35 ppm (40 mg/m <sup>3</sup> )	---
	8-hour	9.0 ppm (10 mg/m <sup>3</sup> )	9.0 ppm (10 mg/m <sup>3</sup> )	---
Nitrogen Dioxide	1-hour	0.18 ppm (339 $\mu$ g/m <sup>3</sup> )	100 ppb (188 $\mu$ g/m <sup>3</sup> )	---
	Ann Arith Mn	0.03 ppm (57 $\mu$ g/m <sup>3</sup> )	53 ppm (100 $\mu$ g/m <sup>3</sup> )	Same as Primary
PM <sub>10</sub>	24-hour	50 $\mu$ g/m <sup>3</sup>	150 $\mu$ g/m <sup>3</sup>	Same as Primary
	Ann Arith Mn	20 $\mu$ g/m <sup>3</sup>	--	Same as Primary
PM <sub>2.5</sub>	24-hour	---	35 $\mu$ g/m <sup>3</sup>	Same as Primary
	Ann Arith Mn	12 $\mu$ g/m <sup>3</sup>	15 $\mu$ g/m <sup>3</sup>	Same as Primary
Sulfur Dioxide	1-hour	0.25 ppm (655 $\mu$ g/m <sup>3</sup> )	75 ppb (196 $\mu$ g/m <sup>3</sup> )	---
	3-hour	---	---	0.5 ppm (1,300 $\mu$ g/m <sup>3</sup> )
	24-hour	0.04 ppm (105 $\mu$ g/m <sup>3</sup> )	--	---
Sulfates	24-hour	25 $\mu$ g/m <sup>3</sup>	---	---
Lead	30-day Avg	1.5 $\mu$ g/m <sup>3</sup>	---	---
	Calendar Qtr	---	1.5 $\mu$ g/m <sup>3</sup>	Same as Primary
	Rolling 3-Month Avg		0.15 $\mu$ g/m <sup>3</sup>	Same as Primary
Hydrogen Sulfide	1-hour	0.03 ppm (42 $\mu$ g/m <sup>3</sup> )	---	---
Visibility Reducing Particles	8-hour observation	Extinction coefficient of 0.23 per kilometer <sup>6</sup>	---	---

Source: CARB, Ambient Air Quality Standards, website: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>, accessed February 7, 2012.

## Existing Conditions

### Meteorology

The Phase V Project Site is located in the City of Oakland, which is in Alameda County, an area within the San Francisco Bay Area Air Basin (SFBAAB). This area includes all of San Francisco, Contra Costa, Marin, Napa, San Mateo, and Santa Clara Counties, the southern half of Sonoma County, and the southwestern portion of Solano County. The regional climate in the SFBAAB is considered semi-arid and is characterized by mild, dry summers and mild, moderately wet winters.

### Air Quality Determinants

Ambient air quality is influenced by climate conditions, topography, and the quantity and type of pollutants released in an area. The major determinants of transport and dilution of a given pollutant are wind, atmospheric stability (presence or absence of inversions) and terrain. The City of Oakland is

located in the climatological subregion that includes northern Alameda and western Contra Costa counties. This subregion contains a variety of industrial air pollution sources. Some industries are quite close to residential areas. Another major source is the aggregate emissions from hundreds of thousands of vehicles travelling on the area's major freeways. The regional climate in the air basin is considered Mediterranean. The climate is dominated by a strong, semi-permanent, subtropical high-pressure cell over the northeastern Pacific Ocean. Climate is also affected by the moderating effects of the adjacent oceanic heat reservoir. The area experiences moderate daytime onshore breezes and moderate humidity.

### **Nearby Air Contaminant Sources**

TACs are a set of airborne pollutants that may pose potential hazards to human health. A wide range of sources, from industrial plants to motor vehicles, emit TACs. A form of TACs and potentially one of most harmful pollutants in the Bay Area in terms of public health is PM<sub>2.5</sub>, a complex mixture of substances that includes elements such as carbon and metals; compounds such as nitrates, organics, and sulfates; and complex mixtures such as diesel exhaust and wood smoke. TACs can be emitted directly and can also be formed in the atmosphere through reactions among different pollutants.

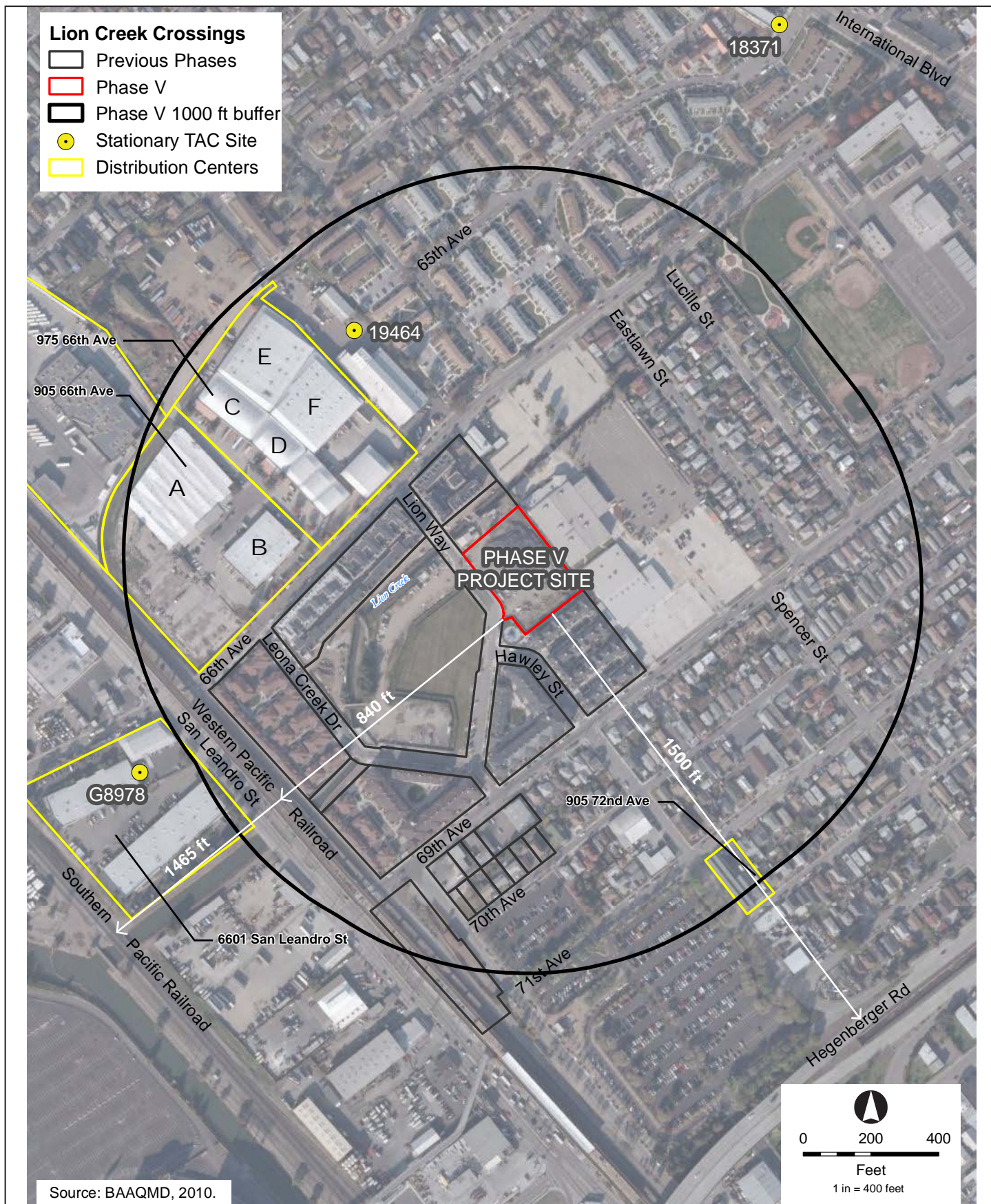
A TAC screening assessment is required for the effects of TACs from stationary sources and freeways and major roadways (defined as those that carry 10,000 or more vehicles per day) within a 1,000-foot zone of influence around the Phase V Project Site. The largest roadway sources near the Phase V Project Site are the I-880 freeway and Hegenberger Road; both carry more than 10,000 vehicles per day, but both are further than 1000 feet from the Phase V Project Site (see Figure 3.3-1). San Leandro Street (which runs north/south) and 66<sup>th</sup> Avenue (which runs east/west) are both roadways within the 1,000-foot zone of influence around the Phase V Project Site with over 10,000 vehicles per day.<sup>5</sup> San Leandro Street (which runs north/south) and 66<sup>th</sup> Avenue (which runs east/west) are both roadways within the 1,000-foot zone of influence around the Phase V Project Site with over 10,000 vehicles per day.<sup>6</sup>

Two stationary sources within 1,000 feet of the Phase V Project Site were identified using the BAAQMD Stationary Source Screening Analysis Tool, (see Figure 3.3-1). A Western Pacific Railway line passes within 1,000 feet of the Phase V Project Site, but there is no rail yard in the vicinity that would be a major TAC source requiring further health risk evaluation. The Port of Oakland is located several miles to the north.

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<sup>5</sup> California Department of Public Health, "CEHTP Traffic Linkage Service Demonstration," website: [http://www.ehib.org/traffic\\_tool.jsp](http://www.ehib.org/traffic_tool.jsp). Accessed September 23, 2011.

<sup>6</sup> California Department of Public Health, "CEHTP Traffic Linkage Service Demonstration," website: [http://www.ehib.org/traffic\\_tool.jsp](http://www.ehib.org/traffic_tool.jsp). Accessed September 23, 2011.



**FIGURE 3.3-1**  
**TAC Sites Potentially Affecting Project Site**

Source: Atkins, 2011.

## **Methodology**

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In order to adhere to the City of Oakland CEQA Thresholds of Significance Guidelines Screening Criteria, which were developed to provide lead agencies and project applicants with a conservative indication of whether a proposed project could result in potentially significant air quality impacts, a health risk assessment (HRA) screening and air pollutant emissions modeling was conducted for the Project.

**Criteria Pollutants.** The air pollutants for which national and State standards have been promulgated and which are most relevant to air quality planning and regulation in the Bay Area include ozone, carbon monoxide (CO), PM10, PM2.5, sulfur dioxide (SO<sub>2</sub>), and lead. In addition, toxic air contaminants (TACs) are of concern in the Bay Area. The recently adopted (May 2011) CEQA Guidelines include Thresholds of Significance relating to emissions of criteria air pollutants from construction and operational sources, and exposures of sensitive receptors to ambient TACs and PM2.5, as shown above in Table 3.3-1.

**CO Emissions.** BAAQMD provides a preliminary screening methodology that provides a conservative indication of whether the implementation of the Revised Project would result in CO emissions that exceed the Thresholds of Significance adopted by the City of Oakland. The screening criteria do not apply to proposed stationary source projects. The Revised Project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

**Toxic Air Contaminants.** TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure. Non-carcinogenic substances differ because there is generally assumed to be a safe level of exposure below which no negative health impact is expected to occur. These levels are determined on a pollutant-by-pollutant basis. Acute and chronic exposure to non-carcinogens is expressed as a hazard index (HI), which is the ratio of expected exposure levels to an acceptable reference exposure levels.

**Major Roadways and Mobile Sources.** A TAC screening assessment is required for the effects of TACs from freeways and major roadways (defined as those that carry 10,000 or more vehicles per day)

within a 1,000-foot zone of influence around the Phase V Project Site. The BAAQMD Roadway Screening Analysis Tables are used in order to determine PM<sub>2.5</sub> concentrations and cancer risks generated from surface streets based on distance from the edge of the nearest travel lane of the street to the development in order to assess risks associated with roadways.<sup>7</sup>

**Stationary Sources.** Common stationary source types of TAC and PM<sub>2.5</sub> emissions include gasoline stations, dry cleaners, and diesel backup generators, which are subject to BAAQMD permit requirements. The BAAQMD maintains a database of stationary sources. A TAC screening assessment is required for the effects of TACs stationary sources within a 1,000-foot zone of influence around the Phase V Project Site.

**Other Major Transportation Sources.** The California Air Resources Board (CARB) identifies distribution centers, rail yards (but not rail lines), and ports as major TAC sources of concern in their Air Quality and Land Use Handbook: A Community Health Perspective (2005) and recommends that new sensitive land uses (i.e., residences) be located 1,000 feet or greater from such sources.

Examination of aerial photos and a preliminary GIS database search of existing land uses in the Phase V Project Site vicinity identified several parcels within or near 1,000 feet of the Phase V Project Site (see Figure 3.3-1) that could be classified as centers of trucking activity with the potential to operate as distribution centers. CARB identifies “distribution centers” that accommodate more than 100 trucks per day, more than 40 trucks with operating refrigeration units (TRUs) per day, or where the refrigeration unit operations exceed 300 hours per week as major TAC sources of concern in their Air Quality and Land Use Handbook: A Community Health Perspective (2005) and recommends either that new sensitive land uses be located 1,000 feet or more from such sources, or that a health risk assessment be performed to estimate the potential risk from such sources and specify mitigation measures to assure acceptable risk levels to the proposed sensitive receptors.

**Odors.** Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person’s reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The occurrence and severity of potential odor impacts depend on several factors: the nature of the source, the frequency and strength of the emissions, the presence/absence of odor-sensitive receptors near the source, and the local pattern of wind speeds and directions. While offensive odors rarely cause any physical harm, they can be unpleasant and cause distress among the public and generate citizen complaints. According to the BAAQMD, typical operational uses that may result in significant odor impacts include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing, fiberglass manufacturing, painting/coating operations, rendering plants, and coffee roasters.<sup>8</sup>

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<sup>7</sup> Bay Area Air Quality Management District, Tools and Methodology, “Roadway Screening Analysis Tables-Alameda County,” website: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. Accessed September 23, 2011.

<sup>8</sup> Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, Updated May 2011, Table 3-3, p. 3-4.

## Significance Criteria and Impact Assessment

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### CEQA Thresholds/Criteria of Significance

A project would have a significant effect on air quality if it would:

1. During project construction result in average daily emissions of 54 pounds per day of ROG, NO<sub>x</sub>, or PM<sub>2.5</sub> or 82 pounds per day of PM<sub>10</sub>.
2. During project operation result in average daily emissions of 54 pounds per day of ROG, NO<sub>x</sub>, or PM<sub>2.5</sub> or 82 pounds per day of PM<sub>10</sub>; or result in maximum annual emissions of 10 tons per year of ROG, NO<sub>x</sub>, or PM<sub>2.5</sub> or 15 tons per year of PM<sub>10</sub>.
3. Contribute to carbon monoxide (CO) concentrations exceeding the California Ambient Air Quality Standards (CAAQS) of nine parts per million (ppm) averaged over eight hours and 20 ppm for one hour. <sup>9</sup>
4. During either project construction or project operation expose persons by siting a new source or a new sensitive receptor to substantial levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 10 in one million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM<sub>2.5</sub> of greater than 0.3 micrograms per cubic meter. <sup>10</sup>
5. Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people. <sup>11</sup>
6. During either project construction or operation expose persons, by siting a new source or a new sensitive receptor, to substantial levels of TACs resulting in (a) a cancer risk level greater than 100 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average PM<sub>2.5</sub> of greater than 0.8 micrograms per cubic meter. <sup>12</sup>
7. Fundamentally conflict with the Bay Area Clean Air Plan (CAP) because the projected rate of increase in vehicle miles traveled (VMT) or vehicle trips is greater than the projected rate of increase in population.

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<sup>9</sup> Pursuant to BAAQMD CEQA Guidelines, localized CO concentrations should be estimated for projects in which (a) project-generated traffic would conflict with an applicable congestion management program established by the county congestion management agency or (b) project-generated traffic would increase traffic volumes at affected intersections to more than 44,000 vehicles per hour (or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited, such as tunnels, parking garages, bridge underpasses, natural or urban street canyons, and below-grade roadways). In Oakland, only the MacArthur Maze portion of Interstate 580 exceeds the 44,000 vehicles per hour screening criterion.

<sup>10</sup> Pursuant to the BAAQMD CEQA Guidelines, when siting new TAC sources consider receptors located within 1,000 feet, and when siting new sensitive receptors consider TAC sources located within 1,000 feet including, but not limited to, stationary sources, freeways, major roadways (10,000 or greater vehicles per day), truck distribution centers, ports, and rail lines. For this item, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers.

<sup>11</sup> For this item, sensitive receptors include residential uses, schools, daycare centers, nursing homes, and medical centers (but not parks).

<sup>12</sup> The cumulative analysis should consider the combined risk from all existing and reasonably foreseeable future sources.

8. Fundamentally conflict with the CAP because the plan does not demonstrate reasonable efforts to implement control measures contained in the CAP.
9. Not include special overlay zones containing goals, policies, and objectives to minimize potential Toxic Air Contaminant (TAC) impacts in areas located (a) near existing and planned sources of TACs and (b) within 500 feet of freeways and high-volume roadways containing 100,000 or more average daily vehicle trips.
10. Not identify existing and planned sources of odors with policies to reduce potential odor impacts.

## Impact Assessment

**Construction Emissions (Criterion #1).** Based on the City of Oakland CEQA Thresholds of Significance Guidelines Screening Criteria, the Revised Project would result in a less-than-significant impact from construction-related criteria air pollutant and precursor emissions. The Revised Project would construct senior housing units that would be equivalent to the Apartment, low-rise land use type designated by BAAQMD. For projects of this land use type, the BAAQMD has determined that construction of 240 units or fewer would not result in criteria pollutant impacts during construction.<sup>13</sup> Since the Revised Project proposes to construct 128 units, construction-related air emissions would be considered less than significant. In addition, the Revised Project would not include demolition activities, more than two construction phases or land use types occurring simultaneously, extensive site preparation or material transport, each of which are additional considerations that the BAAQMD regards as contributory to construction air quality impacts. Finally, to ensure that air quality effects of the Revised Project are less than significant during the construction period, the City would require compliance with SCA-26, described under Standard Conditions of Approval, above.

Because the Revised Project would meet screening criteria related to construction criteria air pollutants and precursor emissions, construction of the Revised Project would not result in average daily emissions of 54 pounds per day of ROG, NO<sub>x</sub>, or PM<sub>2.5</sub> or 82 pounds per day of PM<sub>10</sub>, construction impacts with respect to criteria pollutants would be less than significant.

**Operational Emissions (Criterion #2).** The operational criteria pollutant screening size for the Apartment, low-rise land use type is 451 units.<sup>14</sup> Since the Revised Project proposes 128 senior units, well below that threshold for potential significance, emissions of criteria pollutants from the Revised Project would not result in average daily emissions of 54 pounds per day of ROG, NO<sub>x</sub>, or PM<sub>2.5</sub> or 82 pounds per day of PM<sub>10</sub>; or result in maximum annual emissions of 10 tons per year of ROG, NO<sub>x</sub>, or PM<sub>2.5</sub> or 15 tons per year of PM<sub>10</sub>. As such, operation of the Revised Project would have a less-than-significant criteria pollutant impact.

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<sup>13</sup> Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, Updated May 2011, Table 3-1, p. 3-2.

<sup>14</sup> Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, Updated May 2011, Table 3-1, p. 3-2.

**Carbon Monoxide Emissions (Criterion #3).** As reported later in Section 3.16, Transportation/Traffic, the proposed 128 senior housing units would generate 444 daily vehicle trips (inbound and outbound) on a weekday daily basis. Of these daily trips, approximately 10 and 15 vehicle trips would travel toward local streets and intersections during the morning and evening peak hours, respectively. As a result, traffic generated by the Revised Project would not increase traffic volumes at affected intersections to levels that would be of concern for potential CO impacts (i.e., more than 44,000 vehicles per hour or to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited [e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway]). As such, based on the City of Oakland CEQA Thresholds of Significance screening levels, implementation of the Revised Project would result in a less-than-significant impact to localized CO concentrations.

**TAC and PM 2.5 Exposure (Criterion #4).** The following assessment complies with the City of Oakland CEQA Thresholds of Significance screening methodologies for particulate TACs from major roadways and from stationary sources in its CEQA Air Quality Guidelines (May 2011).

*Major Roadways and Mobile Sources.* The BAAQMD Roadway Screening Analysis Tables were used in order to determine PM<sub>2.5</sub> concentrations and cancer risks generated San Leandro Street and 66th Avenue based on distance from the edge of the nearest travel lane of the street to the development in order to assess risks associated with these two roadways.<sup>15</sup> San Leandro Street has a 0.045  $\mu\text{g}/\text{m}^3$  PM<sub>2.5</sub> concentration, which is below the respective regulatory threshold of 0.3 $\mu\text{g}/\text{m}^3$ , and a cancer risk of 1.12 per million, which is below the 10 in a million threshold. 66th Avenue has a 0.095  $\mu\text{g}/\text{m}^3$  PM<sub>2.5</sub> concentration, which is below the screening threshold, and a cancer risk of 2.65 per million, which is also below the City of Oakland CEQA Thresholds of Significance.<sup>16</sup> Because the maximum acute and chronic hazard indices are below the BAAQMD thresholds, TAC emission hazards from major roadways in the vicinity of the Phase V Project Site are considered less than significant.

*Stationary Sources.* As mentioned above, using the BAAQMD Stationary Source Screening Analysis Tool, two stationary sources within 1,000 feet of the Phase V Project Site were identified (see Figure 3.3-1). Gas dispensary number G8978 at 845 66th Avenue has a non-applicable  $\mu\text{g}/\text{m}^3$  PM<sub>2.5</sub> concentration (which is below the screening threshold, as identified in Table 3.3-1), a hazard index of 0.0004 (which is below the 1.0 screening threshold), and a cancer risk of 0.265 (which is also below the City of Oakland CEQA Thresholds of Significance of 10 in a million).<sup>17</sup>

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<sup>15</sup> Bay Area Air Quality Management District, Tools and Methodology, “Roadway Screening Analysis Tables-Alameda County,” website: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. Accessed September 23, 2011.

<sup>16</sup> Bay Area Air Quality Management District, Tools and Methodology, “Roadway Screening Analysis Tables-Alameda County,” website: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. Accessed September 23, 2011.

<sup>17</sup> Bay Area Air Quality Management District, “Recommended Methods for Screening and Modeling Local Risks and Hazards- Table 1. Threshold of Significance for Local Community Risk and Hazard Impacts,” website: <http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20Modeling%20Approach.ashx?la=en>. Accessed October 28, 2011.

Plant number 19464 located at 1009 66th Avenue has a 0 ( $\mu\text{g}/\text{m}^3$ ) PM<sub>2.5</sub> concentration, a hazard risk index of 0, and a cancer risk of 0.052, all of which are below the applicable thresholds.<sup>18</sup> As a result, TAC emission hazards from stationary sources in the vicinity of the Phase V Project Site are considered less than significant.

*Other Major Transportation Sources.* The following uses/businesses could operate as a distribution center based on review of aerial photographs:<sup>19</sup>

- 1040 Seminary Avenue, Oakland CA
- 905 66<sup>th</sup> Avenue, Oakland CA
- 975 66<sup>th</sup> Avenue, Oakland CA
- 6601 San Leandro Street, Oakland CA
- 905 72<sup>nd</sup> Avenue, Oakland CA.

A closer evaluation of each of these properties is detailed below with their individual potential to affect future occupants of the Phase V Project Site. In addition to the potential source-specific data, the wind in the area typically blows from the east to the west.<sup>20</sup> The Phase V Project Site is southeast of three of the sites, east of one of the sites, and north of the final site, meaning that on average wind would be blowing emissions away from the Phase V Project Site and decreasing potential impacts from the source sites on the Revised Project. The screening analysis as indicated below does not account for wind direction.

- *1040 Seminary Avenue.* The property at 1040 Seminary Avenue is barely within the 1,000-foot buffer. A small portion (less than  $\frac{1}{4}$  acre) of the 13-acre site is within the buffer and it is near the far end of the building. The majority of the property is beyond the 1,000-foot zone of influence and the portion that is within the zone does not contain an entrance, exit, or high travel area. The area that is within the zone of influence would not result in over 100 trucks per day or enough trucks or hours of TRU operation that would require a health risk assessment. Because the CARB states that distribution centers over 1,000 feet from the receptor will result in emissions from that source at or below ambient levels, and the majority of the potential source at this location is beyond this distance, no further analysis is required and this source is not anticipated to have a potential impact on the Phase V Project Site.

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<sup>18</sup> Andrea Gordon, Bay Area Air Quality Management District, e-mail communication with Atkins, October 10, 2011.

<sup>19</sup> The Institute of Transportation Engineers, Trip Generation Manual, eighth edition, was consulted to determine what size operation could generate the number of truck trips identified by CARB as a potential concern. A facility of at least approximately 28,100 gross square feet could generate 100 trips per day (total trips, not just truck trips which are the trips of concern to CARB) and was conservatively used to identify businesses requiring further consideration.

<sup>20</sup> California Air Resources Board, Wind Roses and Statistics for Surface Meteorological Stations, Appendix F, p. 12, website: [http://www.arb.ca.gov/ch/communities/ra/westoakland/documents/appendixf\\_final.pdf](http://www.arb.ca.gov/ch/communities/ra/westoakland/documents/appendixf_final.pdf), accessed November 9, 2011.

- *905 66<sup>th</sup> Avenue and 975 66<sup>th</sup> Avenue (Buildings A through D).* The properties at 905 66<sup>th</sup> Avenue and 975 66<sup>th</sup> Avenue are leased through the same leasing company. Figure 3.3-1 depicts two buildings located at 905 66<sup>th</sup> Avenue (A and B) and four buildings at 975 66<sup>th</sup> Avenue (C-F). Since this aerial photograph was taken Buildings A and B have been demolished and the lot is vacant. Therefore, there are no existing potential impacts from diesel truck operations associated with 905 66<sup>th</sup> Avenue and no further health risk analysis is warranted.
- The buildings located at 975 66<sup>th</sup> Avenue have two operating businesses, Shipping International and Gateway Logistics. Shipping International occupies Building D and most of Building C. Gateway Logistics operates out of the northern portion of Building C. Buildings E and F are currently vacant.
- Shipping International operates approximately four loading bays with truck traffic of 5 to 10 trucks per day.<sup>21</sup> They are associated with Automobile Loaders Inc. and Appliances International 220 Volt and have no cold storage, indicating that no vehicles with TRUs are accessing the site. Because of the low number of daily truck trips and the lack of TRUs associated with these truck trips, the operations of Shipping International would not have a potential to adversely affect public health at the Phase V Project Site and no further health risk analysis is required.
- Gateway Logistics operates two loading docks and has 10 to 15 truck trips per week.<sup>22</sup> Gateway Logistics staff also confirmed that there is no cold storage onsite within either the occupied or vacant facilities, indicating that there would be no TRUs operated onsite. Because there are less than 100 daily truck trips and no TRU equipped trucks accessing the business, operations from Gateway Logistics would likewise not adversely affect public health at the Phase V Project Site and no further health risk analysis is required.
- *975 66<sup>th</sup> Avenue (Buildings E and F).* While Buildings E and F are unoccupied, warehouse/distribution operations could occur there in the future. The potential impacts that could occur if the site were so occupied (assuming the buildings are not redesigned upon future occupancy) is evaluated below. The potential number of daily trucks estimated for Buildings E and F are based on the Institute of Transportation Engineers, Trip Generation Manual, 8<sup>th</sup> Edition (ITE) average trip rate of 3.56 trips per 1,000 square feet and an average of 20 percent of the total trips being by trucks.
- Based on these trip generation assumptions, Building E would result in 61 daily truck trips, below the CARB threshold of 100 trucks per day. Although information was obtained to indicate that there is no cold storage operating onsite, it is conservatively assumed for the sake of this analysis, that cold storage is onsite. While the 61 trucks is greater than the threshold of 40 trucks with TRUs per day stipulated by CARB, even if all 61 trucks have TRUs and all of the trucks idle a total of 15 minutes (State law requires even TRU units to only idle for 5 minutes before being turned off) or 5 minutes when entering the site, 5 minutes at the loading

<sup>21</sup> Personal Communication with Medi, Manager with Shipping International, October 20, 2011.

<sup>22</sup> Personal Communication between Atkins and Gateway International, October 20, 2011.

dock, and 5 minutes when exiting the site, the maximum hours of operation for TRUs would be 107 per week. This level is well below the 300 hours set by CARB.

- Based on the trip generation assumptions above, Building F would result in nine daily truck trips, well below both the 100 trucks per day and 40 trucks per day operating TRUs used by CARB as minimum thresholds for potential public health risks.
- Based on the site-specific data gathered and the anticipated truck trips, neither Building E nor Building F would have the level of truck traffic necessary to require a health risk assessment. Therefore, operations from these buildings at 975 66th Avenue would not result in a potential health risk and no further analysis is warranted.
- *6601 San Leandro Street.* Similar to the property at 1040 Seminary Avenue, only a small portion of the property at 6601 San Leandro Street falls within the 1,000-foot zone of influence that CARB identifies as the distance at which source emission would be reduced to ambient levels. The portion of the site that is within the 1,000-foot zone does not contain loading docks or truck parking and would not generate idling emission sources that could affect the Phase V Project Site. The main entrance to the site is located along San Leandro Street which is located within the 1,000-foot zone and thus could result in running emissions that could affect the Phase V Project Site. However, as discussed above, San Leandro Street has more than 10,000 vehicles per day. The potential risk related to traffic along this street was evaluated above and found to be below the thresholds for potential health risk to the Phase V Project Site. Because all of the truck traffic would enter and leave the site from San Leandro Street, and the total traffic along San Leandro Street is less than the thresholds, the portion of the traffic that is associated with operations at 6601 San Leandro Street would also be below thresholds. This source is not anticipated to have a potential impact on the Phase V Project Site, and no further analysis is required.
- *905 72<sup>nd</sup> Avenue.* The property at 905 72<sup>nd</sup> Street was identified as a potential warehouse. The lot size is approximately 0.46 acres with a building of approximately 11,000 square feet. Based on the square footage of the building, the estimated daily truck traffic for the site, based on ITE trip generation rates, would be eight trucks per day. This is well below the 100 total truck and 40 refrigerated truck operating limits used by CARB; therefore, this source is not anticipated to have potential public health impacts on the Phase V Project Site.

*Summary.* Based on the analysis provided above, a health risk assessment is not needed to establish TAC risk levels for future residents of the Phase V Project Site or to identify measures to reduce any identified impacts, because sensitive receptors would not be exposed to substantial levels of TACs which could result in health risks. As a result, TAC impacts from surrounding sources would be less than significant.

**Odor-Related Impacts (Criterion #5).** The Revised Project would not include construction of any new odor sources, nor would the Revised Project be located closer to an existing odor source than

identified as acceptable by BAAQMD.<sup>23</sup> Construction activities could generate airborne odors associated with the operation of construction vehicles (e.g., diesel exhaust) and the application of architectural coatings. These emissions would occur during limited periods during daytime hours and would be restricted to the immediate vicinity of the construction sites and activity. The wind would also tend to disperse odors, and such activities would not affect a substantial number of people or cause a significant impact. Because the Revised Project would not create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people frequently or for a substantial duration, impacts from objectionable odors would be less than significant.

**Cumulative TAC and PM 2.5 Exposure (Criterion #6).** Based on individual roadways and stationary source PM<sub>2.5</sub>, cancer risk, and non-cancer hazard risks, determined above, cumulative TAC risks can be estimated using guidance provided by BAAQMD. Cumulative impacts are defined as the combined impact from all stationary and mobile sources within the zone of influence. Based on the BAAQMD methodology, cumulative PM<sub>2.5</sub> risks would be approximately 0.14  $\mu\text{g}/\text{m}^3$  (the sum of the risks from the individual roadway, stationary, and other mobile sources identified in Criterion #4, above) which would be below the BAAQMD threshold of 0.8  $\mu\text{g}/\text{m}^3$ .<sup>24</sup> Cumulative cancer risks would be 4.087 in a million which is lower than the threshold of 100 in a million. The individual roadway screenings for the project-level assessment (see analysis of Criterion #4, above) indicate the hazard indexes to be less than 0.03 (the screening threshold). For the cumulative assessment, it was conservatively assumed (meaning that the assessment would yield the greatest impacts) that the individual roads would result in a 0.029 hazard index. Even with this conservative assumption, the cumulative non-cancer risk (chronic or acute) hazard index would be 0.085, which is less than the significance screening threshold of 10.0. No known construction activities are expected to occur nearby that could result in cumulatively considerable TAC construction-related impacts. Accordingly, sensitive receptors would not be exposed to cumulatively considerable levels of TACs and cumulative TAC impacts during operations and construction would be less than significant.

**CAP Compliance (Criteria #7-8).** The Revised Project represents completion of an urban infill project within walking distance of BART station; it does involve a proposed plan, such as a General Plan amendment, specific plan, redevelopment plan, or area plan. The proposed senior housing units would not result in a substantial increase in trip generation or vehicle miles traveled (VMT), because of the low trip-making characteristics of this land use and the nearby destinations for most trips (specifically, they would not involve home-to-work commutes). The Revised Project's location and proposed use within a larger transit-oriented project would not impede implementation of any Traffic Control Measures already in effect or proposed to achieve the CAP, such as improving pedestrian access and facilities, promoting traffic calming measures, or improving access to rail and ferries. Although the Phase V residential development would increase the number of units at the Phase V

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<sup>23</sup> Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, Updated May 2011, Table 3-3, p. 3-4.

<sup>24</sup> Bay Area Air Quality Management District, "Recommended Methods for Screening and Modeling Local Risks and Hazards- Table 1. Threshold of Significance for Local Community Risk and Hazard Impacts," website: <http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20Modeling%20Approach.ashx?la=en>. Accessed October 28, 2011.

Project Site compared to the previously approved development (128 units versus 28 units), the AM and PM peak hour vehicle trips would not increase under the Revised Project, due to the different trip-making characteristics of the proposed senior housing units and the previously approved condominium units (see Section 3.16, Transportation/Traffic).

According to City of Oakland CEQA Thresholds of Significance Guidelines, in order to evaluate local Plan consistency with the CAP, the City of Oakland should consider the local Plan's consistency with CAP population and vehicle use projections. Section 3.13, Population and Housing, of this SMND, describes ABAG growth projections and documents that the Revised Project falls within the ABAG growth projections for the City. The Oakland General Plan, completed in 1998, also includes CAP transportation control measures, and was consistent with the CAP at the time of completion. Although a specific rate of VMT increase compared to population growth is not available in the General Plan, the Revised Project would not interfere with the implementation of CAP Transportation Control Measures included in the General Plan and would be consistent with goals to promote pedestrian travel and transit-oriented development. As such, impacts related to fundamental conflicts with the CAP would be less than significant.

**Plan-Level TAC Exposure (Criterion #9).** Development of the Revised Project would not require the implementation of special overlay zones to minimize potential risks from TACs. Criterion #4 above discusses the potential health risks from nearby TAC sources and concludes the effects would be less than significant. The Revised Project would not require special overlay zones containing goals, policies, and objectives to minimize potential TAC impacts in areas located near existing and planned sources of TACs, because the Revised Project consists of residential development which would not emit levels of TACs that would pose a health risk, and the Revised Project would not site sensitive receptors within 500 feet of a freeway or high-volume roadways, as defined by this criterion. Therefore, no TAC impacts would occur as a result of the Revised Project.

**Plan-Level Odor Impacts (Criterion #10).** The Revised Project would not involve any of the typical operational uses identified by BAAQMD, discussed above under Methodology, which may result in significant odor impacts and, thus, would not result in any long-term odor problems. In addition, the Revised Project would not place a potential odor source in an area that is not already evaluated for odors in the General Plan. In light of the above, odor impacts would be less than significant.

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## 3.4 BIOLOGICAL RESOURCES

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### **Prior Environmental Analysis and Conclusions**

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#### **Prior Environmental Impact Findings**

The 2003 IS/EA determined that the Original Project would not adversely affect biological resources. Based on review of the then current California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDDB) and the United States Fish and Wildlife Service (USFWS) threatened and endangered species, the 2003 IS/EA determined that the Original Project would have no impact on sensitive species list. Furthermore, it was determined that the restoration plan proposed for

Lion Creek in the 2003 IS/EA and amended by the 2009 Addendum would have a beneficial effect on riparian habitat; tree removal would adhere to the City's Tree Protection Ordinance, thereby reducing impacts to protected trees; and compliance with the State Fish and Game Code would ensure less-than-significant effects to nesting birds. The 2009 Addendum did not identify new impacts associated with biological resources.

### **2003 IS/EA Mitigation Measures**

Since the 2003 IS/EA determined that the Original Project would have a less-than-significant impact on biological resources, no mitigation measures were identified.

### **Standard Conditions of Approval**

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Since City of Oakland approval of the Original Project and adoption of the 2003 IS/EA, the City has prepared Standard Conditions of Approval that apply to new development projects. The Standard Conditions of Approval that relate to biological resources and that would apply to the Revised Project are listed below. If the City approves the Revised Project, the Conditions of Approval will be adopted as requirements of the Revised Project and would ensure that no significant biological resource impacts occur. As a result, the Conditions of Approval are not listed as mitigation measures.

#### **SCA-45: 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-46: 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-47: Tree Protection During Construction.** *(Prior to issuance of a demolition, grading, or building permit)* Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist:

- a. Before the start of any clearing, excavation, construction or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the City Tree Reviewer. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree.
- b. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the City Tree Reviewer from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree.
- c. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the Tree Reviewer from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the tree reviewer. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree.
- d. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration.

- e. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Agency of such damage. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed.
- f. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.

**SCA-82: Erosion, Sedimentation, and Debris Control Measures.** *(Prior to issuance of demolition, grading, or construction-related permit)* The project applicant shall submit an erosion and sedimentation control plan for review and approval by the Building Services Division. All work shall incorporate all applicable “Best Management Practices (BMPs) for the construction industry, and as outlined in the Alameda Countywide Clean Water Program pamphlets, including BMP’s for dust, erosion and sedimentation abatement per Chapter Section 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to, the following:

- a. On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the creek.
- b. In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected.
- c. Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible.
- d. All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted.
- e. Install filter materials (such as sandbags, filter fabric, etc.) acceptable to the Engineering Division at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.

- f. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains.
- g. Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek.
- h. Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site.
- i. Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution.
- j. Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.
- k. Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek, street, gutter, storm drains.
- l. All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Control Board (RWQCB).
- m. Temporary fencing is required for sites without existing fencing between the creek and the construction site and shall be placed along the side adjacent to construction (or both sides of the creek if applicable) at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of Planning and Zoning.
- n. All erosion and sedimentation control measures shall be monitored regularly by the project applicant. The City may require erosion and sedimentation control measures to be inspected by a qualified environmental consultant (paid for by the project applicant) during or after rain events. If measures are insufficient to control sedimentation and erosion then the project applicant shall develop and implement additional and more effective measures immediately.

**SCA-83: Creek Protection Plan.** *(Prior to and ongoing throughout demolition, grading, and/or construction activities)*

- a. The approved creek protection plan shall be included in the project drawings submitted for a building permit (or other construction-related permit). The project applicant shall implement the creek protection plan to minimize potential impacts to the creek during and after

construction of the project. The plan shall fully describe in plan and written form all erosion, sediment, stormwater, and construction management measures to be implemented on-site.

- b. If the plan includes a stormwater system, all stormwater outfalls shall include energy dissipation that slows the velocity of the water at the point of outflow to maximize infiltration and minimize erosion. The project shall not result in a substantial increase in stormwater runoff volume or velocity to the creek or storm drains.

**SCA-84: Regulatory Permits and Authorizations.** *(Prior to issuance of a demolition, grading, or building permit within vicinity of the creek)* Prior to construction within the vicinity of the creek, the project applicant shall obtain all necessary regulatory permits and authorizations from the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), California Department of Fish and Game, and the City of Oakland, and shall comply with all conditions issued by applicable agencies. Required permit approvals and certifications may include, but not be limited to the following:

- a. U.S. Army Corps of Engineers (Corps): Section 404. Permit approval from the Corps shall be obtained for the placement of dredge or fill material in Waters of the U.S., if any, within the interior of the project site, pursuant to Section 404 of the federal Clean Water Act.
- b. Regional Water Quality Control Board (RWQCB): Section 401 Water Quality Certification. Certification that the project will not violate state water quality standards is required before the Corps can issue a 404 permit, above.
- c. California Department of Fish and Game (CDFG): Section 1602 Lake and Streambed Alteration Agreement. Work that will alter the bed or bank of a stream requires authorization from CDFG.

**SCA-85: Creek Monitoring.** *(Prior to issuance of a demolition, grading, or building permit within vicinity of the creek)* A qualified geotechnical engineer and/or environmental consultant shall be retained and paid for by the project applicant to make site visits during all grading activities; and as a follow-up, submit to the Building Services Division a letter certifying that the erosion and sedimentation control measures set forth in the Creek Protection Permit submittal material have been instituted during the grading activities.

**SCA-86: Creek Landscaping Plan.** *(Prior to issuance of a demolition, grading, or building permit within vicinity of the creek)* The project applicant shall develop a final detailed landscaping and irrigation plan for review and approval by the Planning and Zoning Division prepared by a licensed landscape architect or other qualified person. Such a plan shall include a planting schedule, detailing plant types and locations, and a system for temporary irrigation of plantings.

- a. Plant and maintain only drought-tolerant plants on the site where appropriate as well as native and riparian plants in and adjacent to riparian corridors. Along the riparian corridor, native plants shall not be disturbed to the maximum extent feasible. Any areas disturbed along the

riparian corridor shall be replanted with mature native riparian vegetation and be maintained to ensure survival.

- b. All landscaping indicated on the approved landscape plan shall be installed prior to the issuance of a Final inspection of the building permit, unless bonded pursuant to the provisions of Section 17.124.50 of the Oakland Planning Code.
- c. All landscaping areas shown on the approved plans shall be maintained in neat and safe conditions, and all plants shall be maintained in good growing condition and, whenever necessary replaced with new plant materials to ensure continued compliance with all applicable landscaping requirements. All paving or impervious surfaces shall occur only on approved areas.

## **Existing Conditions**

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The Revised Project is within an urbanized area that contains a mixture of residential, commercial, and industrial uses. The Phase V Project Site itself is characterized by unkempt weedy vegetation and is occupied by mounds of aggregate material and construction staging activities related to the nearby Lion Creek Restoration Project. The one natural community in the Project area is Lion Creek, a portion of which was proposed for restoration as part of the Original Project. Figure 3.4-1 shows the concrete-lined channel and restored, natural channel of Lion Creek just north and west of the Phase V Project Site. In addition, it was noted by City staff that pickleweed has been planted as riparian vegetation within the creek bed, which is a known habitat for the salt marsh harvest mouse. However, the Revised Project would not encroach into the creek bed, as such, no impacts would occur to this habitat. Except for the completed Lion Creek Restoration Project (discussed in Chapter 2, Project Description), biological conditions and resources at the Phase V Project Site have not changed since preparation of the earlier environmental documents, and review of current special status species lists from the state and federal resources agencies indicate no additional species or habitats would be expected to occur in the vicinity of the Phase V Project Site.

Information on sensitive species and sensitive habitats<sup>25</sup> occurring in the vicinity of the Phase V Project Site was obtained for this environmental review from the CDFG CNDDDB<sup>26</sup> and from the USFWS list of federal endangered and threatened species for the U.S. Geological Survey Oakland East, Oakland West, and San Leandro 7.5-minute quadrangles in order to determine if sensitive species and sensitive habitats exist within the vicinity of the Phase V Project Site. The CNDDDB contains records for occurrences of 45 sensitive species and habitats within the aforementioned quadrangles. This list includes 15 plants, one sensitive habitat, four invertebrates, eight fish, four species of reptiles and amphibians, nine species of birds, and four mammals (refer to Appendix B).

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<sup>25</sup> Sensitive species and habitats are those listed as endangered, threatened, or rare under the California or Federal Endangered Species acts. Species of special concern to the USFWS or CDFG or species on List 1 or 2 of the California Native Plant Society (CNPS) are included within the sensitive species category.

<sup>26</sup> CNDDDB (California Natural Diversity Database), Rarefind, Commercial version information dated January 2, 2003, produced by the California Department of Fish and Game, Wildlife and Habitat Data Analysis Branch, accessed October 17, 2011.



**a. Concrete-lined Portion North of the Project Site**



**a. Restored, Natural Portion North and West of the Project Site**

## Significance Criteria and Impact Assessment

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### CEQA Thresholds/Criteria of Significance

A project would have a significant effect on biological resources 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) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means.
4. Substantially interfere 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. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.
6. Fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) by removal of protected trees under certain circumstances.
7. Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources.<sup>27</sup>

### Impact Assessment

**Candidate, Sensitive, or Special Status Species (Criterion #1).** The habitats and soil types required by species identified as candidate, sensitive, or special status by CDFG or the USFWS are not present at the Phase V Project Site, based on site visits and review of existing onsite conditions, such as elevation, soil conditions, proximity to waterways, and habitat. In addition, the CNDDDB indicates no sensitive species have been reported within the immediate vicinity. Thus, the Revised Project would have no impact on special status species since none are present in the vicinity.

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<sup>27</sup> Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of riparian and/or aquatic habitat through (a) discharging a substantial amount of pollutants into a creek, (b) significantly modifying the natural flow of the water, (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability, or (d) adversely impacting the riparian corridor by significantly altering vegetation or wildlife habitat.

**Sensitive Habitats and Wetlands (Criteria #2-3).** The one natural community in adjacent to the Phase V Project Site is Lion Creek, a portion of which was proposed for restoration as part of the Original Project. Originally, a completely engineered, concrete-walled channel, the restoration and enhancement efforts led by the City and the Alameda County Flood Control and Water Conservation District have resulted in 1.5 acres of a natural drainage way with native vegetation capable of supporting wetland habitat just west of the Phase V Project Site along the northern perimeter of the community park. Figure 3.4-1 shows the concrete-lined channel and restored, natural channel of Lion Creek just north and west of the Phase V Project Site. The Revised Project would not disturb or encroach into this wetland habitat, since the Phase V Project Site is south and east of the restored Lion Creek. Nevertheless, the proximity of the Phase V Project Site to the culverted and restored segments of Lion Creek could indirectly affect the habitat. To ensure protection of this new habitat, the Revised Project would be subject to the City's Creek Protection Ordinance and the related SCAs (SCA-82 regarding erosion, sedimentation, and debris control during construction; and SCA-83 through SCA-86 regarding preparation of a Creek Protection Plan and landscaping plan, securing the necessary regulatory approvals, and creek monitoring during construction). Compliance with the City's Creek Protection Ordinance is further discussed under Criterion #7, below. With adherence to the City imposed standard conditions of approval, the Revised Project would have a less-than-significant impact on riparian habitat and the created wetlands along the restored reach of Lion Creek.

**Species Movements and Migration (Criterion #4).** As an urban infill project, the Phase V Project Site is completely surrounded by development and is not within a migratory wildlife corridor, such as found around the Bay, foothills, and natural drainageways. The Revised Project, however, would be subject to the Migratory Bird Treaty Act, which ensures the protection of listed migratory birds including their nests, eggs, or products. There is one redwood tree on the Phase V Project Site, removal of which would be subject to SCAs depending on whether it qualifies for "protected" status as defined by the City's Municipal Code Section 12.36.020. It is not evident that the onsite protected tree would have to be removed during construction of the Revised Project. If removal is necessary, as a protected tree (see Criterion #6 below), its removal would need to comply with SCA-45 through SCA-47, regarding securing of a tree removal permit, planting of replacement trees, and tree protection during construction. Adherence to these standard conditions of approval as imposed by the City of Oakland would ensure that the Revised Project would have a less-than-significant impact on tree removal but would not ensure that movement of migratory wildlife at the Phase V Project Site is unaffected. Protection of migratory birds is covered by SCA-44, but this SCA only applies to removal of unprotected trees. Accordingly, removal of the redwood tree may adversely affect migratory birds, and mitigation similar to SCA-44 would be required to reduce effects to less than significant.

In addition to the onsite redwood tree, there are other trees in the vicinity, notably to the northeast on the Acts Christian Academy property adjacent to the Phase V Project Site. Construction at the Phase V Project Site could adversely affect nesting birds if they were present in these trees. Implementation of Mitigation Measure BIO-1, which is identical to SCA-44, would ensure that if nesting birds are present adjacent to the Phase V Project Site, construction activities at the Phase V Project Site would not adversely affect them.

*BIO-1.1 Limitation of Construction Activities During Breeding Season.* Trees adjacent to the Phase V Project Site shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Surveys shall be conducted within 15 days prior to start of work from March 15 through May 31, and within 30 days prior to the start of work from June 1 through August 15. Surveys shall be submitted to the Planning and Zoning Division. If the survey indicates the potential presences of nesting raptors or other birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the CDFG, and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.

**Habitat Conservation Plans (Criterion #5).** The Phase V Project Site is in a highly urbanized area and is not covered by a Habitat Conservation Plan or a California Natural Community Conservation Planning program. Therefore, the Revised Project would have no impact regarding the potential for conflict with a natural resources protection plan.

**City of Oakland Tree Protection Ordinance (Criterion #6).** There is one redwood tree approximately 14 inches in diameter at breast height, located along the northern border of the Phase V Project Site. According to the City's Municipal Code Section 12.36.020, all trees nine inches or greater at breast height except for Eucalyptus and Monterey Pine trees are considered protected under the City's Tree Protection Ordinance. If this tree were to be removed, the Revised Project would be required to adhere to the City's SCA-45 through SCA-47 regarding the issuance of a tree removal permit, tree replacement plantings, and tree protection during construction (if the tree is to remain standing), respectively. Compliance with these SCAs would ensure that the Revised Project would not conflict with the City's Tree Protection Ordinance. Additionally, the Project Sponsors would seek authorization from City staff before removing the tree on the Phase V Project Site. As a result, impacts from tree removal or tree disturbance would be less than significant.

**City of Oakland Creek Protection Ordinance (Criterion #7).** As described in Criteria #2 and 3 above, the Phase V Project Site is adjacent to Lion Creek and is considered a creekside property subject to the City's Creek Protection Ordinance (OMC Chapter 13.16). Based on proximity to Lion Creek, the Revised Project would require a Class III Creek Protection Permit and also be subject to SCA-82 through SCA-86 regarding erosion, sedimentation, and debris control measures; a creek protection plan; necessary regulatory permits and authorization; creek monitoring; and a creek landscaping plan. Adherence to the permit requirements and standard conditions of approval as imposed by the City of Oakland would ensure the Revised Project's compliance with the City's Creek Protection Ordinance. As a result, the Revised Project would not be expected to discharge a substantial amount of pollutants into Lion Creek; significantly modify the natural flow of the water; deposit substantial amounts of new material into the creek or cause substantial bank erosion or

instability; or adversely impact the riparian corridor by significantly altering vegetation or wildlife habitat. Thus, impacts to Lion Creek and its habitat would be less than significant.

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### **3.5 CULTURAL RESOURCES**

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#### **Prior Environmental Analysis and Conclusions**

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##### **Prior Environmental Impact Findings**

The 2003 IS/EA determined that the Original Project would result in a less-than-significant impact to cultural resources because mitigation was identified to formulate and implement an archaeological monitoring plan and to require mitigation for discovery of unknown cultural resources during excavation and/or construction. The 2009 Addendum did not identify new impacts associated with cultural resources.

##### **2003 IS/EA Mitigation Measures**

The 2003 IS/EA identified the following mitigation measures to reduce impacts to cultural resources to a less-than-significant level:

*CR-1.1 Formulate and Implement Archaeological Monitoring Plan.* As part of the submittal for grading and/or building permits for the Revised Project, the applicant shall formulate and implement a general archaeological monitoring plan during construction. This plan shall require that a qualified archaeologist, retained by the Project Sponsor, monitor construction activities that may cause an adverse change to significant subsurface historical resources, as defined by Public Resources Code Section 5020.1(j). The plan shall be reviewed and approved by the City prior to the issuance of a building or grading permit for the Revised Project.

*CR-1.2 Require Mitigation for Discovery of Cultural Resources during Excavation or Construction.* If archaeological or prehistoric materials are encountered during excavation or construction, the following actions shall be taken:

- a) Construction or excavation activity in the immediate vicinity of the resource shall be immediately diverted until the City and a qualified archaeologist or cultural consultant have evaluated the potential material. Project personnel shall not alter any of the uncovered materials or their context.
- b) If human burial or disassociated human bone is encountered, current state law requires that the County Coroner be called immediately. All work must be halted in the vicinity of the discovery until the Coroner's approval to continue work has been received.
- c) If archaeological or cultural materials are discovered and the City and consulting archaeologist make a determination that the materials are unique based on the definition provided in Public Resources Code § 21083.2(g), the City and the Project Sponsor, in

consultation with the cultural resources expert, shall make a reasonable effort to avoid damaging effects, as contained in Public Resources Code § 21083.2(B).

If the City determines that the avoidance, the creation of an easement, or capping are not feasible, a qualified cultural resource expert shall prepare a plan for mitigation in accordance with the provisions of Public Resources Code § 21083.2(c) which shall be submitted to the City for review and approval. Its implementation shall be a condition of approval.

*(NOTE: This mitigation measure is not applicable to the Revised Project because it is replaced by SCA-52, SCA-53, and SCA-54 regarding archaeological and paleontological resources and human remains, further described below.)*

*CR-2.1 Redesign Portions of the Revised Project as Necessary to Avoid Historic Resources.* If a property on the Phase V Project Site is determined to meet one or more of the criteria for National Register eligibility, then the Project Sponsor shall redesign the project to avoid the impact to the historic resource.

*(NOTE: This mitigation measure is included for informational purposes, but due to the fact that there are no historic properties on the Phase V Project Site, it is not applicable to the Revised Project.)*

## **Standard Conditions of Approval**

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Since City of Oakland approval of the Original Project and adoption of the 2003 IS/EA, the City has prepared Standard Conditions of Approval that apply to new development projects. The Standard Conditions of Approval that relate to cultural resources and that would apply to the Revised Project are listed below. If the City approves the Revised Project, the Conditions of Approval will be adopted as requirements of the Revised Project and would ensure that no significant impacts to cultural resources occur. As a result, the Conditions of Approval are not listed as mitigation measures.

### **SCA-52: 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 Sponsor 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 Sponsor 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 Sponsor 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 Phase V 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 Sponsor 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-53: Human Remains.** *(Ongoing throughout demolition, grading, and/or construction)* In the event that human skeletal remains are uncovered at the Phase V Project Site during construction or groundbreaking 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-54: 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 Revised 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.

## **Existing Conditions**

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Existing conditions in the vicinity of the Revised Project as they pertain to cultural resources are similar to those described in the 2003 IS/EA. Since approval of the 2003 IS/EA and the 2009 Addendum, Phase I through Phase III of the Original Project have been constructed and Phase IV is currently under construction. In addition the Lion Creek Restoration Project has been implemented. Ground disturbance associated with these projects has not uncovered any significant cultural resources, according to the Project Sponsors. Further an updated query of the California Historical Resources Information System did not identify any properties within a quarter mile of the Phase V Project Site that are listed on the National Register of Historic Places or the California Register of Historic Resources.<sup>28</sup>

## **Significance Criteria and Impact Assessment**

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### **CEQA Thresholds/Criteria of Significance**

A project would have a significant effect on cultural resources if it would:

1. Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines section 15064.5. 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 Resources, 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.
4. Disturb any human remains, including those interred outside of formal cemeteries.

### **Impact Assessment**

**Historical Resources (Criterion #1).** The Phase V Project Site is currently undeveloped. Based on archival research, the Phase V Project Site is not listed on the National Register of Historic Places, and it is not an Oakland Landmark nor is it located in an S-7 Preservation District. On either side of the Phase V Project Site (north and south) are multifamily residential buildings constructed during Phase I and Phase III of the Original Project. Directly behind (east) the Phase V Project Site is a building used

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<sup>28</sup> Lisa Hagel, California Historical Resources Information System, NWIC File No. 10-0817, March 15, 2011.

by the Acts Christian Academy, at 1034 66<sup>th</sup> Avenue, built in 1968. Accordingly, all of the buildings surrounding the Phase V Project Site are less than 50 years old and therefore generally considered ineligible for listing on the National Register of Historic Places. Further, the Acts Christian Academy building is not listed as a historic resource by the City of Oakland and is not considered to be a historic resource according to Betty Marvin, Planner at the Oakland Cultural Heritage Survey.<sup>29</sup>

There are no nearby historic resources listed in the Historic Preservation Element of the Oakland General Plan nor were any nearby historic resources identified in the 2003 IS/EA or the subsequent Addendum. According to Betty Marvin, the closest potential historic resource is the Eastlawn and Lucille Street Area of Secondary Importance, a 1940s subdivision. This area is located east of the Acts Christian Academy and therefore several hundred yards east of the Phase V Project Site. Neither future construction nor occupation of the Revised Project would affect the Eastlawn and Lucille Street Area because of the distance from the Phase V Project Site and intervening structures. Therefore, the Revised Project would have no impact on historic resources.

**Archaeological Resources, Paleontological Resources, and Human Remains (Criteria #2-4).** The Revised Project would result in ground-disturbing construction activities, which could adversely affect unknown archaeological or paleontological resources, as well as human remains. During construction of Phases I through IV, no known cultural resources or human remains were uncovered according to the Project Sponsors. Nevertheless, the Revised Project would be required to adhere to SCA-52 through SCA-54 regarding evaluation and treatment of archaeological resources, human remains, and paleontological resources, respectively. Compliance with these standard conditions of project approval as imposed by the City of Oakland would ensure that if archaeological and paleontological resources, or human remains were discovered during construction activities, work would cease until the appropriate procedures have been conducted to test the significance of the find and determine proper treatment, data recovery, and/or salvage actions. As a result, project-related impacts to archaeological and paleontological resources and to human remains would be less than significant.

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## **3.6 GEOLOGY AND SOILS**

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### **Prior Environmental Analysis and Conclusions**

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#### **Prior Environmental Impact Findings**

The 2003 IS/EA determined that the previous development proposed for the entire Lion Creek Crossings Phase V Project Site would result in a less-than-significant effect because risks associated with groundshaking, fault rupture, landslides, soil hazards, and risks to life or property can be reduced through implementation of applicable State and City building regulations and safety codes. The 2009 Addendum did not identify new impacts associated with geology and soils.

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<sup>29</sup> Marvin, Betty, Planner at the Oakland Cultural Heritage Survey, Telephone conversation with Atkins, February 8, 2011.

## 2003 IS/EA Mitigation Measures

The 2003 IS/EA did not identify any significant impacts and therefore no mitigation measures were required.

## Standard Conditions of Approval

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Since City of Oakland approval of the Original Project and adoption of the 2003 IS/EA, the City has prepared Standard Conditions of Approval that apply to new development projects. The Standard Conditions of Approval that relate to geology and soils and that would apply to the Revised Project are listed below. If the City approves the Revised Project, the Conditions of Approval will be adopted as requirements of the Revised Project and would ensure that no significant geology and soil impacts occur. As a result, the Conditions of Approval are not listed as mitigation measures.

### **SCA-55: Erosion and Sedimentation Control Plan.** *(Prior to any grading activities)*

- a) The Project Sponsor 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 Sponsor may be necessary. The Project Sponsor 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 Sponsor shall ensure that the storm drain system shall be inspected and that the Project Sponsor shall clear the system of any debris or sediment.

### **SCA-55: Erosion and Sedimentation Control Plan.** *(Ongoing throughout grading and construction activities)*

- b) The Project Sponsor 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.

## Updated Regulatory Setting

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All development in the City of Oakland must comply with the California Building Code (CBC) standards that have been adopted by the City of Oakland. In particular, buildings constructed for human occupancy are required to reduce the exposure to potentially damaging seismic vibration

through seismic-restraint design, in conformance with CBC seismic requirements. Similarly, the CBC contains design standards and engineering practices to address soil and foundation issues such as liquefaction; erosive, shrink/swell, poor draining, corrosive, and other soil limitations; groundwater and drainage conditions; and slope or topographic conditions. Chapter 16 of the CBC deals with structural design requirements governing seismically resistant construction (Section 1604), including (but not limited to) factors and coefficients used to establish seismic site class and seismic occupancy category for the soil/rock at the building location and the proposed building design (Sections 1613.5 through 1613.7). Chapter 18 includes (but is not limited to) the requirements for foundation and soil investigations (Section 1803); excavation, grading, and fill (Section 1804); allowable load-bearing values of soils (Section 1806); and the design of footings, foundations, and slope clearances (Sections 1808 and 1809). Chapter 33 includes (but is not limited to) requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes (Section 3304). Appendix J of the CBC includes (but is not limited to) grading requirements for the design of excavations and fills (Sections J106 and J107) and for erosion control (Sections J109 and J110). Furthermore, construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in Cal-OSHA regulations (CCR, Title 8).

## **Existing Conditions**

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The same seismic, geologic, and soil conditions exist at the Phase V Project Site as reported for the entire Original Project in the 2003 IS/EA. The Phase V Project Site is nearly flat, characterized by unkempt weedy vegetation and mounds of aggregate material and construction staging activities related to the nearby Lion Creek Restoration Project. The Revised Project area is urbanized and the Natural Resources Conservation Service classifies the soil type as “Urban Land,” defined as a miscellaneous area covered by buildings, roads, parking lots, and other urban structures. The soil material is mainly heterogeneous fill. As shown in the geotechnical investigation for the nearby Phase IV project, the upper two to five feet of the site is underlain by a medium stiff to very stiff moderate to highly expansive clay fill. Below the fill, a series of alluvial deposits consisting of medium stiff to hard clay and sandy clays and medium dense to very dense sand and clayey sands were encountered. Liquefaction potential of these granular layers encountered is low. Shallow groundwater was encountered and measured during the drilling of soil borings.<sup>30</sup>

The City of Oakland, Alameda County, and greater Bay Area are in one of the most active seismic regions in the United States. Each year, low to moderate magnitude earthquakes occurring within or near the Bay Area are felt by residents of Oakland and Alameda County. The City of Oakland, including the Phase V Project Site, lies within the San Andreas Fault System, which is approximately 44 miles wide in the Bay Area and includes the Hayward Fault that runs along the East Bay Hills.<sup>31</sup> The Rodgers Creek, San Andreas, West Napa, and Hayward fault zones are all, at least partially, historically active.

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<sup>30</sup> Treadwell & Rollo Environmental & Geotechnical Consultants, Geotechnical Investigation, Lion Creek Crossings, Coliseum Gardens, Phase IV, Oakland California, July 10, 2009.

<sup>31</sup> Wallace, R.E., “General Features”, in Wallace, R.E., ed. *The San Andreas Fault System, California*, U.S. Geological Survey Professional Paper 1515, January 1990.

## Significance Criteria and Impact Assessment

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### CEQA Thresholds/Criteria of Significance

A project would have a significant effect on geology and soils if it would:

1. Expose people or structures to substantial risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
  - Strong seismic ground shaking.
  - Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, or collapse.
  - Landslides.
2. Result in substantial soil erosion or the loss of topsoil, creating substantial risks to life, property, or creeks/waterways.
3. Be located on expansive soil, as defined in section 1802.3.2 of the California Building Code (2007, as it may be revised), creating substantial risks to life or property.
4. Be located above a well, pit, swamp, mound, tank vault, or unmarked sewer line, creating substantial risks to life or property.
5. Be located above landfills for which there is no approved closure and post-closure plan, or unknown fill soils, creating substantial risks to life or property.
6. 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.

### Impact Assessment

**Seismic and Soil-Related Hazards (Criteria #1-3).** This assessment addresses faults, soils, landslides, and related risks to life and property from development of the Revised Project.

*Faults.* The major active faults in the area are the San Andreas, San Gregorio, Hayward, and Calaveras Faults.<sup>32</sup> The 2003 IS/EA reported no Earthquake Fault Zones or known active fault traces cross or trend towards the Project area, and consequently fault rupture would not be anticipated within the Phase V Project Site.

The proximity of active faults (the Hayward fault is closest, about 4 miles from the Phase V Project Site) means that the region is susceptible to substantial groundshaking during an earthquake. As reported in the 2003 IS/EA, groundshaking hazards at the Phase V Project Site are classified by the

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<sup>32</sup> Treadwell & Rollo Environmental & Geotechnical Consultants, Geotechnical Investigation, Lion Creek Crossings, Coliseum Gardens, Phase IV, Oakland California, July 10, 2009.

California Division of Mines and Geology (now known as the California Geological Survey) as “Moderate” to “High” because of the thickness of unconsolidated alluvium (up to 100 feet) and the possibility of perched shallow groundwater (less than 20 feet below ground surface) within the Project area, both of which could contribute to secondary ground failures caused by seismic vibration.

*Soils.* The soil conditions reported in the 2003 IS/EA remain unchanged for the Phase V Project Site. The soils further west of the Phase V Project Site in the Coliseum Redevelopment Area near San Leandro Bay and around the Oakland Airport are mainly deposits of artificial fill. As reported in the 2003 IS/EA, liquefaction potential generally is moderate to high in these areas, because the depth to groundwater is generally encountered at depths between 10 and 20 feet below ground surface.<sup>33</sup> Even though the Phase V Project Site is east of these conditions conducive to liquefaction and soils found at the Phase IV have low liquefaction potential, the potential for the Phase V Project Site soils to lose their strength and cohesion during a seismic event may occur and depends on depth to groundwater, uniformity of soil size, and mix of soils in the alluvial deposits underlying the Phase V Project Site. In general, the areas underlain by poorly sorted older alluvium are less liquefaction-prone than those underlain by the younger fine sand deposits. The Project Site is underlain mainly by artificial fill and bay mud. These types of soil typically consolidate under load. Assuming variation in the thickness of the material, differential settlement could occur and could cause structural distress in buildings and infrastructure at the Phase V Project Site.

*Landslides.* The Revised Project is not located in an area of Oakland where recent or historic landslides have been known to occur. Based on the nearly flat topography of the site and the surrounding vicinity, the potential for landslides at or onto the Phase V Project Site are negligible and thus no impacts from landslides would be expected.

*Soil Hazards.* Shrink and swell potential depends on the amount and kind of clay in the soil. Shrink-swell characteristics are evidenced by soil expansion when wet and soil compaction when dry. These soils can cause damage to building foundations, basement walls, roads, and other structures.

Although the Revised Project would have little or no effect on geology, any project involving construction would have some effect on soils and topography. Soils with low erosion potential in their natural condition become erosion-prone when disrupted unless specific measures are taken to control erosion. The Phase V Project Site is currently unpaved with exposed soil that has been disturbed, and there is a potential for these soils to be transported from the site during storm events. These conditions would not be expected after development, since much of the site will have been covered with impervious surfaces and landscaped areas and graded to drain to local storm water lines. Thus, erosion and sedimentation would be most intense and severe during the construction period.

*Risk to Life and Property.* Regardless of the Phase V Project Site geoseismic and soil characteristics and limitations, the Revised Project must comply with the CBC standards, discussed above, and others

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<sup>33</sup> ACC Environmental Consultants, Inc., *Phase I Environmental Site Assessment, Coliseum Garden Apartments, Olmsted and Brentford Streets, Oakland, California*, prepared for the Oakland Housing Authority, ACC Project No. 01-6015-002.00, April 10, 2002.

in the CBC and Cal-OSHA which would reduce potential property and human risk from seismic, geologic, and soil hazards to less than significant.

In addition, the Revised Project would need to comply with SCA-55 regarding implementation of an Erosion and Sedimentation Control Plan to reduce excessive stormwater runoff, erosion, sedimentation, and the carrying of solid material by stormwater during construction to the maximum extent practicable. Adherence to this standard condition of approval as imposed by the City of Oakland would further reduce potential hazards from substantial erosion.

**Unstable Soils (Criteria #4-5).** The Phase V Project Site is not situated on or above a landfill or any of the natural or man-made features such as a well, pit, swamp, mound, tank vault, or unmarked sewer line, creating substantial risks to life or property. Therefore, the Revised Project would result in no impact or risk to life and property from the above underground facilities that could pose hazards.

**Septic Tanks and Alternative Wastewater Disposal Systems (Criterion #6).** The Revised Project would tie into existing wastewater system maintained by the East Bay Municipal Utilities District. Accordingly, the Revised Project would not need to use septic tanks or other alternative wastewater disposal systems and there would be no impacts associated with soils incapable of adequately supporting these systems.

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### **3.7 GREENHOUSE GAS EMISSIONS/GLOBAL CLIMATE CHANGE**

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#### **Prior Environmental Analysis and Conclusions**

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##### **Prior Environmental Impact Findings**

The Original Project was initially analyzed in 2003 and then updated for the 2009 Addendum. As impacts to and from climate change were not mandated as part of the CEQA analysis until 2010, the previous analyses did not address greenhouse gas emissions/climate change impacts.

##### **2003 IS/EA Mitigation Measures**

The 2003 IS/EA and 2009 Addendum did not evaluate potential environmental impacts related to greenhouse gas (GHG) emissions and climate change. As such, the 2003 IS/EA did not identify mitigation measures associated with GHG emissions and climate change.

##### **Standard Conditions of Approval**

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The Revised Project would not exceed the BAAQMD CEQA Guidelines thresholds for operational GHG emissions. Therefore, the City's SCA related to GHG emissions and climate change is not applicable to the Revised Project.

## Updated Regulatory Setting

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### Federal Regulations

New guidelines and regulations have been adopted since the publication of the 2003 IS/EA. These changes are reflected below.

**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 reached 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 5 percent from 1990 levels during the first commitment period of 2008 to 2012. 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.

The goal of the Kyoto Protocol is to achieve overall emissions reduction targets for six GHGs by the period of 2008 to 2012. The six GHGs regulated under the protocol are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). Each nation has an emissions reduction target to reduce GHG emissions a certain percentage below 1990 levels (e.g., eight-percent reduction for the European Union, six-percent reduction for Japan). The average reduction target for nations participating in the Kyoto Protocol is approximately five percent below 1990 levels. Many subsequent measures are tied to these Kyoto Protocol commitments.

**United States Climate Policy and Actions.** The United States has opted for a voluntary and incentive-based approach toward emissions reductions in lieu of the Kyoto Protocol's mandatory framework. In February 2002, the United States government announced a comprehensive strategy to reduce the GHG intensity of the United States economy by 18 percent over the ten-year period from 2002 to 2012. GHG intensity measures the ratio of GHG emissions to economic output.

The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the Environmental Protection Agency (EPA) has the authority to regulate CO<sub>2</sub> emissions under the Clean Air Act (CAA). While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the EPA commenced several actions in 2009 to implement a regulatory approach to global climate change.

On September 30, 2009, the EPA announced a proposal that focuses on large facilities emitting over 25,000 tons of GHG emissions per year. These facilities would be required to obtain permits that would demonstrate they are using the best practices and technologies to minimize GHG emissions. On December 7, 2009, the EPA Administrator signed a final action under the CAA, finding that six GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>) constitute a threat to public health and welfare and that the combined emissions from motor vehicles cause and contribute to global climate change. This EPA action does not impose any requirements on industry or other entities. However, the findings are a prerequisite to finalizing the GHG emission standards for light-duty vehicles mentioned below.

On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a final joint rule to establish a national program consisting of new standards for model year 2012 through 2016 light-duty vehicles that will reduce GHG emissions and improve fuel economy. EPA is finalizing the first-ever national GHG emissions standards under the CAA, and NHTSA is finalizing Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. The EPA GHG standards require these vehicles to meet an estimated combined average emissions level of 250 grams of CO<sub>2</sub> per mile in model year 2016, equivalent to 35.5 miles per gallon (mpg).

## **State Regulations**

**Assembly Bill 1493 Vehicular Emissions of Greenhouse Gases.** In a response to the transportation sector's significant contribution to California's CO<sub>2</sub> emissions, AB 1493 (Pavley) was enacted on July 22, 2002. AB 1493, the New Passenger Motor Vehicle Greenhouse Gas Emission Standards legislation, amended Section 42823 and added Section 43018.5 to the California Health and Safety Code (Division 26, Part 5, Chapter 1) (added by Statutes in 2002, Chapter 200, Section 3).

Section 43018.5 requires the California Air Resources Board (ARB) to set GHG emission standards for passenger vehicles and light-duty trucks (and other vehicles whose primary use is non-commercial personal transportation in the state) manufactured in 2009 and all subsequent model years. In setting these standards, ARB considered cost effectiveness, technological feasibility, and economic impacts. ARB adopted the standards in September 2004. When fully phased in, the near-term (through 2012) standards would result in a reduction in GHG emissions of approximately 22 percent compared to the emissions from the 2002 fleet, while the mid-term (2013 to 2016) standards would result in a reduction of approximately 30 percent.

To set its own GHG emissions limits on motor vehicles, California must receive a waiver from the EPA. However, in December 2007, the EPA denied the request from California for the waiver. In January 2008, the California Attorney General filed a petition for review of the EPA's decision in the Ninth Circuit Court of Appeals. On January 26, 2009, the President issued an Executive Memorandum directing the EPA to reassess its decision to deny the waiver and to initiate any appropriate action (Obama 2009). On May 18, 2009, the President announced the enactment of a 35.5 miles-per-gallon (mpg) fuel economy standard for automobiles and light duty trucks that will begin to take effect in 2012. This standard is approximately the same standard that was proposed by California; therefore, the California waiver request was shelved.

**Executive Order S-03-05.** In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order (EO) S-3-05. The EO established the following goals: GHG emissions should be reduced to 2000 levels by 2010; to 1990 levels by 2020; and to 80 percent below 1990 levels by 2050. Furthermore, EO S-03-05 requires the Secretary of the California Environmental Protection Agency (Cal EPA) to evaluate the impacts of climate change and establish mitigation measures that would reduce potential impacts. EO S-03-05 is also known as the Greenhouse Gas (GHG) Emission Reduction Targets for California Executive Order.

**Assembly Bill 32 – California Global Warming Solutions Act of 2006.** California’s major initiatives for reducing GHG emissions are outlined in AB 32, the Global Warming Solutions Act, passed by the California State legislature on August 31, 2006, and codified in Section 38500 et seq. of the California Health and Safety Code (HSC) (Division 25.5, Part 1 through Part 7) (added by Statutes in 2006, Chapter 488); the 2005 EO discussed above; and a 2004 ARB regulation to reduce passenger car GHG emissions. The statute begins with several legislative findings and declarations of intent, including the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems. (Health and Safety Code, Section 38501)

The State goal is to reduce GHG emissions to 1990 levels by 2020, a reduction of approximately 25 percent, followed by an 80-percent reduction below 1990 levels by 2050. The main strategies for making these reductions are outlined in a Climate Change Scoping Plan, which, when completed, will include a range of GHG reduction actions that can include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

Pursuant to the requirements of HSC Section 38500 et seq., the State’s reduction in global warming emissions will be accomplished through an enforceable statewide cap on global warming emissions that will be phased in starting in 2012. Additional early action items include a comprehensive framework of regulatory and non-regulatory elements that will result in significant and effective GHG emission reductions. Subsequent to approval of the early action measures, ARB developed a Climate Change Scoping Plan to lower the State’s GHG emissions to meet the HSC Section 38500 et seq. 2020 limit that was approved in December 2008. In addition, AB 32 created the Climate Action Team (CAT), a consortium of representatives from State agencies charged with coordinating and implementing GHG emission reduction programs that fall outside of ARB’s jurisdiction.

**ARB 2007 Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California.** ARB, pursuant to the requirements of HSC Section 38500 et seq., has directed its staff to pursue and adopt so-called early action measures that would help the State in achieving its 2020 GHG reduction goals. *The Early Action Measures to Reduce Greenhouse Gas Emissions in California* report, published in 2007, adopted the first 37 measures. Based on additional meetings with stakeholders that included the Bay Area Air Quality Management District (BAAQMD), ARB, and the California Air Pollution Control Officers Association (CAPCOA), existing measures were revised and new action measures were proposed. To report the findings, an *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions* report was published later the same year. In the report, ARB recommends expansion of the adopted 37 strategies to a total of 44 measures. The broad spectrum of strategies includes a Low Carbon Fuel Standard (LCFS), regulations for refrigerants with

high Global Warming Potentials (GWPs), guidance and protocols for local governments to facilitate GHG reductions, and green ports. The report describes each measure and either recommends its approval or reclassification, or reports on the input received from the stakeholders group. The report analyzes the potential emissions reductions achieved from each measure, estimates the cost of the implementation, and analyzes the measure's feasibility.

**Executive Order S-01-07.** EO S-01-07 was put forth by Governor Schwarzenegger on January 18, 2007. California further solidified its dedication to reducing GHGs above what was intended in EO S-03-05 by setting a new Low Carbon Standard for Transportation Fuels (LCFS) for transportation fuels sold within the state. EO S-1-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent (CO<sub>2</sub>e) grams per unit of fuel energy sold in California. The target of the LCFS is to reduce the carbon intensity of California passenger vehicle fuels by at least 10 percent by 2020. Essentially, the order mandates the following: (1) that the state establish a goal to reduce the carbon intensity of California's transportation fuels by at least ten percent by 2020, and (2) that an LCFS for transportation fuels be established for California.

**Senate Bill 97, Companion Bill to Global Warming Solutions Act.** To address GHG emissions and global climate change in General Plans and CEQA documents, Senate Bill (SB) 97 (by Statutes in 2007, Chapter 185) added Section 21083.05 and added and repealed Section 21097 of the California Public Resources Code (Division 13, Chapter 2.6) (added by Statutes in 2007, Chapter 185). Section 21083.05 requires the Office of Planning and Research (OPR) to develop guidelines for addressing global warming emissions and mitigating project-specific GHGs. OPR adopted amendments to the CEQA Guidelines for GHG emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the amendments and filed them with the Secretary of State for inclusion in the California Code of Regulations. The amendments became effective on March 18, 2010. These CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents.

**California's Sustainable Communities Planning Act (Senate Bill 375).** SB 375, which was signed into law on October 1, 2008, provides emissions reduction goals and incentives for local governments and developers to follow new conscientiously planned growth patterns in order to reduce GHG emissions. Section 65080(b)(1)(F)(2)(A) of the California Government Code enhances ARB's ability to reach AB 32 goals by directing ARB to develop regional GHG emissions reduction targets to be achieved by the automobile and light-truck sectors for 2020 and 2035. ARB will also work with California's 18 metropolitan planning organizations (MPOs) to align their regional transportation, housing, and land use plans; prepare a "sustainable communities strategy" to reduce the number of vehicle miles traveled (VMT) in their respective regions; and demonstrate the region's ability to attain its GHG reduction targets.

**Waste Diversion.** AB 752 was passed in 1999, and the State Agency Model Integrated Waste Management Act (IWMA) (Chapter 764, Statutes of 1999, Strom-Martin) took effect on January 1, 2000. This bill added new provisions, Sections 40148, 40196.3, and 41821.2, and Chapter 18.5 (commencing with Section 42920) to Part 3 of Division 30 of the Public Resources Code (PRC) mandating that State agencies develop and implement an Integrated Waste Management Plan (IWMP).

AB 752 also mandated that community service districts provide solid waste services report disposal and diversion information to the city, county, or regional agency in which the community service district is located. Among other things, the bill established the requirement for community service districts to divert at least 25 percent of their solid waste from landfills or transformation facilities by January 1, 2002, and divert 50 percent on and after January 1, 2004.

The Per Capita Disposal Measurement System Act (SB 1016) was passed in 2008 and codified in the California Public Resources Code.<sup>3</sup> Sections 42920 through 42921.5 changed the way State agencies and local governments measure their progress toward meeting the statutory waste diversion mandates. Under this Act, State agencies are still required to maintain the 50 percent waste diversion requirement. However, with the passage of the Per Capita Disposal Measurement System Act, State agencies and large State facilities use per capita disposal as an indicator of their progress toward meeting the mandate.

## **Regional Regulations**

**Bay Area Air Quality Management District (BAAQMD).** BAAQMD is responsible for improving air quality within the San Francisco Bay Area Basin. BAAQMD adopted new thresholds of significance (BAAQMD Thresholds) on June 2, 2010 to assist lead agencies in determining when potential quality impacts would be considered significant under CEQA. BAAQMD also released new CEQA Guidelines (BAAQMD 2010 CEQA Guidelines) in June 2010 that advise lead agencies on how to evaluate potential air quality impacts using the BAAQMD Thresholds.

## **City of Oakland Regulations**

The Draft City of Oakland Energy and Climate Action Plan (2010) outlines 150 specific actions (to be implemented over a ten-year period) that will enable the City to achieve a 36-percent reduction in GHG emissions. Based on the plan, much of the reduction would result from the implementation of renewable energy and energy efficiency measures, including measures to reduce electricity consumption by 32 percent and natural gas consumption by 15 percent. These measures include adopting green building ordinance for private development, using property based financing for alternative energy systems, and advancing the use of transit. The plan has not yet been adopted by the City.

Several elements of the City's General Plan also contain policies related to GHG emissions and climate change. The Land Use and Transportation Element includes policies encouraging transit-oriented development, new bikeways and pedestrian ways, increased public transit, and infill development. The Open Space, Conservation and Recreation Element includes policies to conserve open space, which would protect vegetation to effect cooler climate, reduce excessive solar gain and absorb CO<sub>2</sub>; policies that encourage stormwater management to accommodate increased storms and flooding; and policies that encourage energy efficiency and use of alternative energy sources, which would directly reduce GHG emissions. The Historic Preservation Element encourages the reuse of existing buildings, which would reduce landfill material, avoid the incineration of materials, and the need for new material

production. The Safety Element contains policies that address wildfire hazards and flooding hazards, both of which could be affected by climate change.

The City of Oakland has adopted a number of programs and policies designed to reduce GHG emissions and continue Oakland's progress toward becoming a model sustainable city. Some of these programs and policies include:

- *Sustainable Oakland Program*: This program coordinates Oakland's sustainability efforts.
- *Green Building*: The City has implemented Green Building principles in City buildings, adopted Green Building Guidelines, and adopted Green Building Education Incentives.
- *Downtown Housing*: The goal of the City's 10K Downtown Housing Initiative is consistent with smart growth principles.
- *Waste Reduction and Recycling*: The City has implemented a residential recycling program that has increased recycling tonnage by 37 percent and a construction and demolition recycling program requiring certain projects to recycle 100 percent of all asphalt and concrete material and 65 percent of all other materials.
- *Polystyrene Foam Ban Ordinance*: The City adopted an ordinance prohibiting 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*: The City has adopted a goal for “zero waste” by 2020.
- *Community Gardens and Farmers Markets*: Numerous community gardens and farmers markets locations have been established around the city in recent years, reducing truck and vehicle use and the associated GHG emissions.

## Existing Conditions

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### Background

Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other significant changes in climate (such as precipitation or wind) that last for an extended period of time. The term “global climate change” is often used interchangeably with the term “global warming,” but “global climate change” is preferred to “global warming” because it helps convey that there are other changes in addition to rising temperatures.

Climate change refers to any change in measures of weather (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change may result from natural factors, such as changes in the sun's intensity; natural processes within the climate system, such as changes in ocean circulation; or human activities, such as the burning of fossil fuels, land clearing, or agriculture.

The primary observed effect of global climate change has been a rise in the average global tropospheric<sup>34</sup> temperature of 0.36 degrees Fahrenheit (°F) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming could occur, which would induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns, or more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and increased intensity of tropical cyclones. Specific effects in California might include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in the Sacramento/San Joaquin Delta.

Global surface temperatures rose by  $1.33^{\circ}\text{F} \pm 0.32^{\circ}\text{F}$  over the 100-year period from 1906 to 2005. The rate of warming over the last 50 years is almost double that over the last 100 years (IPCC 2007). The latest projections, based on state-of-the-art climate models, indicate that temperatures in California are expected to rise 3°F to 10.5°F by the end of the century (California Climate Change Center 2006). The prevailing scientific opinion on climate change is that “most of the warming observed over the last 50 years is attributable to human activities” (IPCC 2007). Increased amounts of carbon dioxide (CO<sub>2</sub>) and other GHGs are the primary causes of the human-induced component of warming. The observed warming effect associated with the presence of GHGs in the atmosphere (from either natural or human sources) is often referred to as the “greenhouse effect.”<sup>35</sup>

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:<sup>36</sup>

- Carbon dioxide (CO<sub>2</sub>)
- Methane (CH<sub>4</sub>)
- Nitrous oxide (N<sub>2</sub>O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF<sub>6</sub>)

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and

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<sup>34</sup> The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.

<sup>35</sup> The temperature on Earth is regulated by a system commonly known as the “greenhouse effect.” Just as the glass in a greenhouse allows heat from sunlight in and reduces the amount of heat that escapes, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

<sup>36</sup> The greenhouse gases listed are consistent with the definition in Assembly Bill (AB) 32 (Government Code Section 38505), as discussed later in this section.

enhancing the natural greenhouse effect, which is believed to be causing global warming. While GHGs produced by human activities include naturally occurring GHGs such as CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, some gases, like HFCs, PFCs, and SF<sub>6</sub>, are completely new to the atmosphere. Certain other gases, such as water vapor, are short-lived in the atmosphere as compared to these GHGs that remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is generally excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this SMND/Addendum, the term “GHGs” will refer collectively to the six gases identified in the bulleted list provided above.

## **Emissions Sources**

**Global Emissions.** Worldwide emissions of GHGs in 2004 were 27 billion metric tons of CO<sub>2</sub>e per year (UNFCCC 2007).<sup>37</sup> Global estimates are based on country inventories developed as part of programs of the United Nations Framework Convention on Climate Change (UNFCCC).

**United States Emissions.** In 2008, the United States emitted approximately 7.0 billion metric tons of CO<sub>2</sub>e, or approximately 25 tons per year per person. Of the six major sectors nationwide – electric power industry, transportation, industry, agriculture, commercial, residential – the electric power industry and transportation sectors combined account for approximately 62 percent of the GHG emissions. The majority of the electrical power industry and all of the transportation emissions are generated from direct fossil fuel combustion. Between 1990 and 2006, total United States GHG emissions rose approximately 14.7 percent (United States Environmental Protection Agency 2010).

**State of California Emissions.** According to California Air Resources Board (ARB) emission inventory estimates, California emitted approximately 480 million metric tons of CO<sub>2</sub>e (MMTCO<sub>2</sub>e) emissions in 2004 (California Air Resources Board 2008a). This large number is due primarily to the sheer size of California compared to other states. By contrast, California has the fourth-lowest per capita CO<sub>2</sub> emission rate from fossil fuel combustion 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 (California Energy Commission 2007).

The California Environmental Protection Agency (Cal/EPA) 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<sub>2</sub>e) was as follows (California Environmental Protection Agency 2006):

- CO<sub>2</sub> accounted for 83.3 percent
- CH<sub>4</sub> accounted for 6.4 percent
- N<sub>2</sub>O accounted for 6.8 percent
- HFCs, PFCs, and SF<sub>6</sub> accounted for 3.5 percent

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<sup>37</sup> Combined total of Annex I and Non-Annex I Country CO<sub>2</sub>eq emissions.

The ARB estimates that transportation is the source of approximately 38 percent of the state's GHG emissions in 2004, followed by electricity generation (both in-state and out-of-state) at 23 percent, and industrial sources at 20 percent. The remaining sources of GHG emissions are residential and commercial activities at nine percent, agriculture at six percent, high global warming potential gases at three percent, and recycling and waste at one percent (California Air Resources Board 2008b).

The ARB is responsible for developing the California Greenhouse Gas Emission Inventory. This inventory estimates the amount of GHGs emitted to and removed from the atmosphere by human activities within the State of California and supports the AB 32 Climate Change Program. The ARB's current GHG emission inventory covers the years 1990–2004 and is based on fuel use, equipment activity, industrial processes, and other relevant data (e.g., housing, landfill activity, agricultural lands). The emission inventory estimates are based on the actual amount of all fuels combusted in the state, which accounts for over 85 percent of the GHG emissions within California.

ARB staff has projected that, in 2020, statewide unregulated GHG emissions – which represent the emissions that would be expected to occur in the absence of any GHG reduction actions – will be 596 MMTCO<sub>2</sub>e. GHG emissions from the transportation and electricity sectors as a whole are expected to increase but remain at approximately 38 percent and 23 percent of total CO<sub>2</sub>e emissions, respectively. The industrial sector consists of large stationary sources of GHG emissions, and the percentage of the total 2020 emissions is projected to be 17 percent of total CO<sub>2</sub>e emissions. The remaining sources of GHG emissions in 2020 are high global warming potential gases at eight percent, residential and commercial activities at eight percent, agriculture at five percent, and recycling and waste at one percent (California Air Resources Board 2008b).

**Bay Area Emissions.** In the Bay Area, fossil fuel consumption in the transportation sector is the single largest source of the Bay Area's 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) account for about 11 percent of the Bay Area's GHG emissions, followed by power plants at seven percent. Oil refining accounts for approximately six percent of the total Bay Area GHG emissions (BAAQMD 2008).

**City of 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 year 2005 at approximately 3 million metric tons of CO<sub>2</sub>e (City of Oakland, 2010). 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 the 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.

## Significance Criteria and Impact Assessment

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### CEQA Thresholds/Criteria of Significance

A project would have a significant effect on greenhouse gas emissions and global climate change if it would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, specifically:

#### Project Impacts<sup>38, 39</sup>

- a. For a project involving a stationary source, produce total emissions of more than 10,000 metric tons of CO<sub>2</sub>e annually.<sup>40</sup>
- b. For a project involving a land use development, produce total emissions of more than 1,100 metric tons of CO<sub>2</sub>e annually AND more than 4.6 metric tons of CO<sub>2</sub>e per service population annually.

#### Plan Impacts

- a. Produce emissions of more than 6.6 metric tons of CO<sub>2</sub>e per service population annually.
2. Fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions.

### Impact Assessment

**Greenhouse Gas Emissions (Criterion #1).** The BAAQMD has established a tiered approach for the determination of significance with respect to GHG emissions. A project must either comply with a qualified climate action plan, emit less than 1,100 metric tons of carbon dioxide equivalents (MT CO<sub>2</sub>e) per year, or have an annual emission of GHGs less than or equal to 4.4 MT CO<sub>2</sub>e per service population. The State Resources Agency certified and adopted the CEQA guideline amendments on December 29, 2009 concerning GHG effects, and the California Office of Administrative Law (OAL) codified them into law on February 16, 2010, which became effective on March 18, 2010.

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<sup>38</sup> Greenhouse gas impacts are, by their nature, cumulative impacts because one project by itself cannot cause global climate change. These thresholds pertain to a project's contribution to cumulative impacts but are labeled "Project Impacts" to be consistent with the terminology used by BAAQMD to distinguish these impacts pertaining to a project from impacts pertaining to a plan ("Plan Impacts").

<sup>39</sup> The project's expected greenhouse gas emissions during construction should be annualized over a period of 40 years and then added to the expected emissions during operation for comparison to the threshold. A 40-year period is used because 40 years is considered the average life expectancy of a building before it is remodeled with considerations for increased energy efficiency. The thresholds are based on the BAAQMD thresholds. The BAAQMD thresholds were originally developed for project operation impacts only. Therefore, combining both the construction emissions and operation emissions for comparison to the threshold represents a conservative analysis of potential greenhouse gas impacts.

<sup>40</sup> Stationary sources are projects that require a BAAQMD permit to operate.

GHG emissions have been estimated using the URBEMIS 2007 model in conjunction with the BAAQMD's Greenhouse Gas Model (BGM). The analysis was conducted using a trip generation rate of 3.48 and the default trip lengths in the URBEMIS model (which likely overstate the impacts, since the senior housing residents would likely make shorter and fewer trips, as explained earlier in Section 3.3, Air Quality). A full list of modeling assumptions and output is included in Appendix C to this SMND/Addendum. Based on the analysis, the Revised Project would result in 989.27 MT CO<sub>2</sub>e per year without taking into account the reductions required under the Oakland General Plan's 2010 Housing Element or those required by the CALGreen standards (the design and building standards adopted in 2010 by the State as California Code of Regulations, Title 24, part 11, to encourage sustainable construction practices). Taking those reductions into account, the Revised Project's annual GHG emissions would be 905.10 MT CO<sub>2</sub>e annually.

GHG gas emissions would also occur during construction of the Revised Project. An estimate has been prepared for the Revised Project using the default construction scheduling and equipment assumptions in URBEMIS2007. Based on these assumptions, project-related construction GHG emissions would be 259.35 tons of CO<sub>2</sub>e, or 235.34 MT CO<sub>2</sub>e. Spread over a 40-year period as recommended by the City, annual GHG emissions would be 5.88 MT CO<sub>2</sub>e.

The combined operational and annualized GHG construction emissions for the Revised Project total 910.98 MT CO<sub>2</sub>e, which is less than the BAAQMD's 1,100 MT CO<sub>2</sub>e/year significance threshold. As a result, the Revised Project would have a less-than-significant GHG impact.

**Consistency with the Applicable Plans, Policies, and Regulations (Criterion #2).** The purpose of the City of Oakland's revised Draft Energy and Climate Action Plan (ECAP) is to identify and prioritize actions the City can take to reduce energy consumption and GHG emissions associated with Oakland. The ECAP will assist the City of Oakland in continuing its legacy of leadership on energy, climate and sustainability issues, and provide a roadmap for the Oakland community to achieve broad community goals related to reducing GHG emissions. In July 2009, the Oakland City Council approved a preliminary GHG reduction target of 36 percent below 2005 levels for the year 2020. This planning target was developed based on recent publications of the world's leading climate scientists. The primary sources of Oakland's GHG emissions are:

- Transportation & Land Use
- Building Energy Use
- Material Consumption & Waste

Construction of the Revised Project would not conflict with the goals of this Plan, because the Revised Project is a transit-oriented development, would not generate significant traffic, or be a land use which would emit stationary source GHG pollutants. In addition, the Revised Project would comply with the CALGreen standards and would not result in a significant GHG emission impact (see Section 3.1, Aesthetics.) As a result, the Revised Project would support the goals and actions of the City's Energy and Climate Action Plan.

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## 3.8 HAZARDS AND HAZARDOUS MATERIALS

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### Prior Environmental Analysis and Conclusions

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#### Prior Environmental Impact Findings

The 2003 IS/EA determined that the previous development proposed for the entire Lion Creek Crossings Phase V Project Site would result in a less-than-significant effect because mitigation was identified to formulate and implement a health and safety plan to reduce potential adverse affects associated with exposure to hazardous materials. All other topics concerning hazards and hazardous materials were determined to be less than significant. The 2009 Addendum did not identify new impacts associated with hazards and hazardous materials.

#### 2003 IS/EA Mitigation Measures

The 2003 IS/EA identified the following mitigation measure to reduce impacts associated with hazards and hazardous materials to a less-than-significant level:

*HM-1.1 Perform Pre-Construction Hazardous Materials Surveys and Manage Properly if Hazardous Materials are Identified.* All structures designated to have suspect hazardous building materials removed during demolition or renovation should be inspected by a qualified inspector prior to demolition. Abatement of ACBMs and/or lead paint shall be implemented prior to demolition or renovation. Any PCB-containing equipment or fluorescent lights containing mercury vapors should be removed and properly disposed.

*HM-2.1 Prepare Site Health and Safety Plan.* In the event that residual contaminated soil or groundwater is encountered during construction requiring further action by a RWQCB or other agency with jurisdiction, the Project Sponsor shall comply with the Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities regulatory requirements for hazardous materials/waste health and safety plans. The Site Health and Safety Plan shall establish policies and procedures to protect workers and the public from potential hazards posed by residual contamination issues at the site. The Plan shall include items applicable to site conditions, such as identification of contaminants, potential hazards, material handling procedures, dust suppression measures, personal protection clothing and devices, controlled access to the site, health and safety training requirements, monitoring equipment used during construction to verify health and safety of workers and the public, measures to protect public health and safety, and emergency response procedures. If contamination is present in the soil and/or groundwater proposed for the use of backfill or disposal, the handling and disposal of the contaminated soil and groundwater would be governed by the applicable local and federal hazardous materials regulations.

*(NOTE: This mitigation measure is not applicable to the Revised Project because it is replaced by SCA-35 regarding best management practices for hazards and hazardous materials, further discussed below.)*

*HM-2.2 Incorporate Site Design Elements to Eliminate Potential Exposure Pathways.* By incorporating project design elements such as creating an impermeable surface cover over portions of the site that may contain contaminated soil, or by importing clean soil for use in open space areas, exposure pathways of potential residual contaminants in the soil and/or groundwater to future on-site receptors would either be eliminated or reduced to within acceptable health risk levels.

## **Standard Conditions of Approval**

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Since City of Oakland approval of the Original Project and adoption of the 2003 IS/EA, the City has prepared Standard Conditions of Approval that apply to new development projects. The Standard Conditions of Approval that relate to hazards and hazardous materials and that would apply to the Revised Project are listed below. If the City approves the Revised Project, the Conditions of Approval will be adopted as requirements of the Revised Project and would ensure that no significant hazards and hazardous materials impacts occur. As a result, the Conditions of Approval are not listed as mitigation measures.

**SCA-35: Hazards Best Management Practices.** *(Prior to commencement of demolition, grading, or construction)* The Project Sponsor and construction contractor shall ensure that construction of Best Management Practices (BMPs) are implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following:

- a) Follow manufacture's 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; and
- 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

**SCA-64: 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-68: Best Management Practices for Soil and Groundwater Hazards.** *(Ongoing throughout demolition, grading, and construction activities)* 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.

## **Updated Regulatory Setting**

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New regulations have been adopted since the publication of the 2003 IS/EA. This change is reflected below.

**Alameda County Airport Land Use Policy Plan.** The State Aeronautics Act, Public Utilities Code Section 21670 et seq., provides for the establishment of airport land use commissions in counties with one or more airports and requires that each commission develop a comprehensive airport land use plan. In Alameda County, the commission with jurisdiction over airport-related activities is the Alameda County Airport Land Use Commission (ALUC). In 1986, the County adopted the Alameda County Airport Land Use Policy Plan (ALUPP) which contained plans and policies intended to provide guidelines to the ALUC for its review of proposed local agency actions and to determine whether these actions are compatible with current and anticipated airport operations. In December 2010, the County's ALUC approved the Oakland International Airport Land Use Compatibility Plan (ALUCP),<sup>41</sup> which is an update to the ALUPP and is used by the ALUC to promote compatibility between OIA and its surrounding area. In general, the ALUCP is concerned with physical obstacles to air navigation; exposure of persons on the ground to accidents and flight hazards (such as smoke, glare, electrical interference, etc.); and noise. The OIA ALUCP also serves as a tool for the ALUC in fulfilling its duty to review land use development proposals within the airport influence area (AIA) or referral areas associated with the airport.

## **Existing Conditions**

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The 2003 IS/EA identified a low to moderate environmental concern associated with contaminated soil and groundwater on the Project Site and in the surrounding area. The Project Sponsors entered into a voluntary cleanup agreement with the Department of Toxic Substance Control (DTSC) and a completion of all remedial actions letter was issued in 2007. A Phase I Environmental Site Assessment (ESA) was conducted by Cornerstone Earth Group for the Phase V Project Site in October 2011. According to the Phase I ESA, there are stockpiles of soil on the Phase V Project Site. The Phase I ESA notes that the stockpiles may consist of remnants of former stockpiled soil that was excavated during development of the previous Project phases. Soil samples collected from these previous stockpiles in 2005 detected Dieldrin, an organochlorine pesticide, at concentrations exceeding the California Human Health Screening Level (CHSL). However, the Phase I ESA notes that soil containing Dieldrin was reportedly removed from the Phase V Project Site. In addition, trichloroethylene (TCE) was detected in ground water beneath the Phase V Project Site during a Phase II ESA conducted in 2003 for the Original Project. However, Concentrations of TCE were reportedly

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<sup>41</sup> Alameda County Airport Land Use Commission, "Oakland Airport Land Use Compatibility Plan," December, 2010. Website: <http://www.acgov.org/cda/planning/generalplans/airportlandplans.htm>, accessed January 11, 2012.

below the residential Environmental Screening Level developed for the evaluation of potential vapor intrusion concerns.

## **Significance Criteria and Impact Assessment**

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### **CEQA Thresholds/Criteria of Significance**

A project would have a significant effect on hazards and hazardous materials 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. Create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors.<sup>42</sup>
4. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
5. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 (i.e., the “Cortese List”) and, as a result, would create a significant hazard to the public or the environment.
6. Result in less than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions.
7. Be 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, and would result in a significant safety hazard for people residing or working in the project area.
8. Be located within the vicinity of a private airstrip, and would result in a significant safety hazard for people residing or working in the project area.
9. Fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
10. 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.

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<sup>42</sup> Per the BAAQMD CEQA Guidelines, evaluate whether the project would result in persons being within the Emergency Response Planning Guidelines (ERPG) exposure level 2 for acutely hazardous air emissions either by siting a new source or a new sensitive receptor. For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers.

## Impact Assessment

**Hazardous Materials Impacts (Criteria #1-5).** The intended use of the Phase V Project Site is senior housing, which would not involve substantial amounts of hazardous materials or generate substantial amounts of hazardous waste. The Revised Project would involve small quantities of typical household cleaning and landscape maintenance products, similar to other housing developments. As such, the Revised Project would not be considered a facility or business that would be expected to transport, store, use, or dispose of hazardous or acutely hazardous materials and waste.

Because the Phase V Project Site is undeveloped, the Revised Project would not involve demolition of buildings that could expose workers or the public to hazardous building materials such as asbestos containing materials (ACMs), lead-based paints, or Polychlorinated Biphenyls (PCBs). Based on the six Phase I Environmental Site Assessments (ESAs) that were conducted for the 2003 IS/EA, there was a low to moderate environmental concern due to contaminated soil and groundwater on the Project Site. The Project Sponsors entered into a voluntary cleanup agreement with the Department of Toxic Substance Control (DTSC) on June 9, 2005. On June 28, 2007, DTSC issued a letter to the Project Sponsors certifying the completion of all remedial actions and stating that no further action regarding treatment of contamination at the Project Site is necessary.

As described in Existing Conditions, above, the recent Phase I ESA conducted for the Revised Project notes that reportedly all contaminated soil was removed from the Phase V Project Site and that groundwater concentration of TCE is below the applicable threshold. However, in its recommendations the Phase I ESA suggests that the remaining stockpiled material on the Phase V Project Site be collected, analyzed, and removed as appropriate. Adherence to SCA-64 would ensure that prior to construction of the Revised Project all remedial actions recommended in the Phase I ESA are implemented.

Although the Original Phase V Project Site (including the current Phase V Project Site) was granted a case closure by DTSC in 2005, the potential for unknown residual soil contamination may exist, as identified by the Phase I ESA (2011) that could expose construction workers and the public to such unknown contamination. The Revised Project would be subject to SCA-35, SCA-64, and SCA-68 regarding hazardous best management practices prior to and during construction, applicable remediation, and best management practices for soil and groundwater hazards, respectively. Specifically, 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 Project Sponsors shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the Project Sponsor shall take all appropriate measures to protect human health and the environment. With implementation of this standard condition of approval as imposed by the City of Oakland, the Revised Project is expected to have a less-than-significant effect in terms of exposure of construction workers, site occupants, schools, and the general public to contaminated soils or groundwater.

**Emergency Access (Criterion #6).** The Revised Project would tie into the street and circulation system that was designed and approved for the Original Project in 2003. The street layout and circulation was evaluated for emergency access and approved by the City. The Phase V Project Site can be accessed from 66th Avenue to the north and Hawley Street (from 69th Avenue) to the south. As such, the Phase V Project Site would be accessible by emergency response vehicles from multiple routes.

**Airport Hazards (Criteria #7-8).** The Phase V Project Site is not located within an airport land use plan or within two miles of a public or private airstrip.<sup>43</sup> The nearest public airport is the Oakland International Airport, with the closest runway slightly more than 2 miles away. The Oakland Airport Land Use Compatibility Plan delineates an “Airport Influence Area,” within which new land uses and development projects are subject to policies presented in the Airport Land Use Compatibility Plan. The Airport Influence Area extends east to San Leandro Street, and the Project, including the Phase V Project Site, lies east of San Leandro Street. As a result, the Revised Project would not result in a significant safety hazard for people residing or working in the vicinity of the Phase V Project Site.

**Potential Conflicts with Applicable Emergency Response Plans (Criterion #9).** The City of Oakland Fire Services Agency (Fire Department) is responsible for first response in an emergency. Standard notification procedures required by the City are designed to ensure that the Fire Department is notified if construction traffic would block any city streets. Specifically, the job site supervisor is required to call the Fire Department’s dispatch center any day construction vehicles would partially or completely block a city street during the construction process. The Revised Project is an infill development located on an internal site within the Lion Creek Crossings residential area. As such, traffic associated with the Revised Project would not feed directly onto surrounding arterial roadways. As described later in Section 3.16, Transportation/Traffic, project-related traffic would not affect existing levels of congestion within the Revised-Project vicinity and would therefore not inhibit or affect emergency response. With adherence to the City’s notification requirements, construction and operation of the Revised Project would not significantly interfere with emergency response plans or evacuation plans, nor adversely affect the City’s response and operational procedures in the event of a large-scale disaster or result in substantial congestion that would interfere with the City’s emergency response plan or emergency evacuation plan. As a result, the Revised Project would have no impact on emergency response or evacuation plans.

**Wildland Fires (Criterion #10).** The Phase V Project Site and surrounding area are not designated as “wildlands” in the Oakland General Plan. Additionally, the Phase V Project Site is not within the City’s Wildfire Assessment District, which delineates those areas of the City highly susceptible to wildfire risks.<sup>44</sup> Wildland fire hazards are typically associated with areas that have excessive dry fuel sources, sloping topography and hot, dry climates. None of these conditions exist at the Phase V

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<sup>43</sup> Alameda County Airport Land Use Commission, Oakland International Airport Land Use Compatibility Plan, December, 2010.

<sup>44</sup> City of Oakland, Wildfire Prevention Assessment District, website: <http://www.oaklandnet.com/wildfirePrevention/docs/WPADistrictMap.pdf>, accessed November 7, 2011.

Project Site, and consequently, the Revised Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires.

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### **3.9 HYDROLOGY AND WATER QUALITY**

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#### **Prior Environmental Analysis and Conclusions**

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##### **Prior Environmental Impact Findings**

The 2003 IS/EA and the subsequent Addendum determined that the entire Project would result in less-than-significant hydrology and water quality effects because of a number of factors, ranging from the design of the Revised Project to inclusion of mitigation measures. Specifically, these factors acknowledged implementation of a Stormwater Pollution Prevention Plan (SWPPP) was included as part of the Original Project; dewatering activities would be regulated by the San Francisco Bay RWQCB; excavations with the potential to encounter and disturb underlying groundwater would be minimal and short term; the drainage pattern of the Phase V Project Site would not be changed in a manner that would alter the topography or grade of the land; and most of the Phase V Project Site would be impervious, which would not leave any areas of soil exposed or cause a significant increase in the amount of on- or off-site runoff. The 2009 Addendum did not identify new impacts associated with hydrology and water quality.

##### **2003 IS/EA Mitigation Measures**

The 2003 IS/EA identified the following mitigation measure to reduce impacts hydrology and water quality to a less-than-significant level:

*HY-5.1 Prepare and Implement Recommendations from Flood Study.* The Project Sponsor shall prepare a flood study of the Project Site to the satisfaction of the City to determine precise flood elevations and measures to control flooding prior to final design. Recommendations from the study or their equivalent shall be incorporated into the project design, as deemed appropriate by the City.

*(NOTE: The Flood Study was a requirement of the Original Project and would have included recommendations for design of all five phases of development, including the Revised Project. As such, this mitigation measure is not applicable to the Revised Project)*

##### **Standard Conditions of Approval**

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Since City of Oakland approval of the Original Project and adoption of the 2003 IS/EA, the City has prepared Standard Conditions of Approval that apply to new development projects. The Standard Conditions of Approval that relate to hydrology and water quality and that would apply to the Revised Project are listed below. If the City approves the Revised Project, the Conditions of Approval will be adopted as requirements of the Revised Project and would ensure that no significant hydrology and water quality impacts occur. As a result, the Conditions of Approval are not listed as mitigation measures.

**SCA-75: Stormwater Pollution Prevention Plan (SWPPP).** *(Prior to and ongoing throughout demolition, grading, and/or construction activities)* The Project Sponsor 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 Sponsor must file a notice of intent (NOI) with the SWRCB. The Project Sponsor 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 Sponsor 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 through the completion of the project. After construction is completed, the Project Sponsor shall submit a notice of termination to the SWRCB.

**SCA-80: 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 of 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.

**SCA-80: Post-Construction Stormwater Management Plan.** *(Prior to final permit inspection)* The applicant shall implement the approved stormwater management plan.

**SCA-81: 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:

- a. 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
- b. 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.

**SCA-82: Erosion, Sedimentation, and Debris Control Measures.** (Please refer to Section 3.4, Biological Resources.)

**SCA-83: Creek Protection Plan.** (Please refer to Section 3.4, Biological Resources.)

**SCA-84: Regulatory Permits and Authorization.** (Please refer to Section 3.4, Biological Resources.)

**SCA-85: Creek Monitoring.** (Please refer to Section 3.4, Biological Resources.)

**SCA-86: Creek Landscaping Plan.** (Please refer to Section 3.4, Biological Resources.)

**SCA-91: 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.

## **Existing Conditions**

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Since preparation of the earlier documents, the primary change to local drainage and hydrology has been the modification to Lion Creek to restore portions of the creek to a natural channel and the installation of a storm drain system that was designed for the Project. The improvements to Lion Creek with the existing concrete culvert accommodate the 100-year storm. The storm drain system is complete and transports runoff from the Project Site, except for the Phase V Project Site. Except for these changes to the surface hydrology in the vicinity of the Phase V Project Site, runoff, flood risks, groundwater conditions, and water quality conditions remain the same as described in the 2003 IS/EA and Addendum.

## **Significance Criteria and Impact Assessment**

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### **CEQA Thresholds/Criteria of Significance**

A project would result in a significant effect on hydrology and water quality 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. Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters.
4. Result in substantial flooding on- or off-site.
5. Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems.
6. Create or contribute substantial runoff which would be an additional source of polluted runoff.
7. Otherwise substantially degrade water quality.

8. 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, that would impede or redirect flood flows.
9. Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
10. Expose people or structures to a substantial risk of loss, injury or death involving flooding.
11. Expose people or structures to a substantial risk of loss, injury, or death as a result of inundation by seiche, tsunami, or mudflow.
12. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increasing the rate or amount of flow, of a creek, river or stream in a manner that would result in substantial erosion, siltation, or flooding, both on- or off-site.
13. Fundamentally conflict with elements of the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect hydrologic resources.<sup>45</sup>

## Impact Assessment

**Water Quality Standards or Waste Discharge Requirements (Criterion #1).** The following standards and discharge requirements for protection of water quality and the beneficial uses designated for the nearby receiving waters apply to the Revised Project:

Section 303 of the federal Clean Water Act (CWA) which requires states to adopt water quality standards for all surface water of the United States. For those surface waters that are considered “impaired” and listed in Section 303(d) of the CWA, federal and state regulatory agencies recommend control techniques to address pollutants from both point and nonpoint sources. The State Water Resources Control Board (SWRCB) list of such waterbodies includes Damon Slough, San Leandro Bay and San Francisco Bay adjoining San Leandro Bay; runoff and stormwater discharges from the Phase V Project Site flow into these waterbodies. Pollutants that have contributed to the water quality issues in these waterbodies include chlordane, DDT, diazinon, dieldrin, dioxin compounds, exotic species, furan compounds, lead, mercury, polycyclic aromatic hydrocarbons, pesticides, selenium, trash, and zinc.<sup>46</sup> For 303(d) waterbodies, the State is required to develop a Total Maximum Daily Load to address the impairment.

The National Pollutant Discharge Elimination System (NPDES) permit system was established in the CWA under Section 402 to regulate municipal and industrial discharges to surface waters of the U.S.

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<sup>45</sup> Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of water quality through (a) discharging a substantial amount of pollutants into a creek, (b) significantly modifying the natural flow of the water or capacity, (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability, or (d) substantially endangering public or private property or threatening public health or safety.

<sup>46</sup> 2006 Federal Clean Water Act Section 303(d) List of Water Quality Limited Segments, approved by USEPA June 28, 2007, as amended by Resolution No. R2-200900008, February 11, 2009.

Each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge. In accordance with NPDES regulations, to minimize the potential effects of construction runoff on receiving water quality, the State requires that any construction activity affecting one or more acres must obtain a General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. The Revised Project will be required to comply with NPDES General Permit, Waste Discharge Requirements, Order No. 2009-0009-DWQ, which were adopted in September 2009 and became effective on July 1, 2010. The General Permit classifies sites into three “Risk Levels,” which trigger various requirements. NPDES permit applicants are required to prepare a Stormwater Pollution Prevention Plan (SWPPP) and implement Best Management Practices (BMPs) to reduce construction effects on receiving water quality by implementing erosion control measures.

Section 404 of the CWA governs any proposed discharge of dredged or fill material into navigable waters, including wetlands. It is administered by the U.S. Army Corps of Engineers who can issue individual or nationwide permits depending on the amount of fill and the nature of the activity. The Phase V Project Site is proximate to the restored portion of Lion Creek and wetland habitat. A Section 401 Water Quality Certification, or waiver thereof, is required from Regional Water Quality Control Board (RWQCB) before a Section 404 permit becomes valid. RWQCB will review the Revised Project for consistency with Waste Discharge Requirements under the state land disposal regulations. In reviewing the Revised Project, the RWQCB will also consider impacts to waters of the United States, in addition to filling of wetlands, in accordance with the State wetland policy. A Section 401 Water Quality Certification or waiver from the RWQCB could be required for the Revised Project.

The San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan) is the master policy document for water quality regulation in the Bay Basin.<sup>47</sup> The Basin Plan identifies the beneficial water uses to be protected by the RWQCB, the water quality objectives, or standards, needed to protect the designated beneficial water uses, and strategies to achieve the water quality objectives. Lion Creek drains the site and discharges ultimately to San Leandro Bay and the larger San Francisco Bay. Beneficial uses have not been designated for Lion Creek, Damon Slough, or San Leandro Bay; however, they are tributary to and connected to the South Bay Basin of San Francisco Bay, respectively. The Basin Plan identifies the following beneficial uses for the estuarine waters of the San Francisco Bay: municipal and domestic supply, agricultural supply, industrial process supply, groundwater recharge, water contact recreation, noncontact water recreation, wildlife habitat, cold freshwater habitat, warm freshwater habitat, fish migration, fish spawning, estuarine habitat, industrial service supply, and navigation.

A variety of state and local agencies control activities during and post construction to reduce the potential for water quality degradation and ensure compliance with the above water quality standards and waste discharge requirements. Construction activities associated with the Revised Project would be required by California law to obtain and comply with the State General Permit for construction and

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<sup>47</sup> California Regional Water Quality Control Board, San Francisco Bay Region, San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan), incorporating all amendments approved as of December 31, 2010, Chapter 2.

land disturbance activities. As part of this process, the Project Sponsors must file a Notice of Intent with the San Francisco Bay RWQCB and prepare, at minimum, an SWPPP prior to construction activities. The SWPPP will include BMPs and monitoring requirements that minimize uncontrolled runoff and pollution discharge associated with construction activities. Compliance with the required NPDES permit is reinforced through the SCA-75 which further ensures that the Project Sponsors prepare the SWPPP and identify and implement the BMPs.

In addition, under the NPDES Phase 1 program for Municipal Separate Storm Sewer System (MS4s), operators that serve populations of 100,000 or greater must implement a stormwater management program as a means to control polluted discharges from these MS4s. In 2009, the RWQCB re-issued these countywide municipal stormwater permits as one Municipal Regional Stormwater NPDES Permit to regulate stormwater discharges from municipalities and local agencies in Alameda, Contra Costa, San Mateo, and Santa Clara counties, and the cities of Fairfield, Suisun City, and Vallejo.<sup>48</sup> Under the Municipal Stormwater Program Provision C.3, appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. This goal is to be accomplished primarily through the implementation of low impact development techniques.<sup>49</sup>

Implementation of Provision C.3 and the SWPPP, as required by California law to comply with construction management procedures stipulated in the San Francisco Bay RWQCB's General Construction Activity Stormwater Permit, and the City imposed SCA-80, regarding preparation and adoption of a post-construction stormwater management plan, would reduce potential water quality effects associated with construction and operation of the Phase V Project Site. In addition, the Revised Project would be subject to SCA-81 regarding a maintenance agreement for stormwater treatment measures in agreement with the City in accordance with C.3.e of the NPDES permit. These requirements would ensure that downstream discharges into San Leandro Bay and San Francisco Bay would not adversely affect the designated beneficial uses of these waterbodies. In summary, the regulatory framework built around Sections 303, 401, and 404 of the CWA and the NPDES permit, and further reinforced through the City's standard conditions of approval, would impose actions on the Revised Project to ensure compliance with water quality standards or waste discharge requirements. Thus, the Revised Project would have a less-than-significant effect on water quality.

**Groundwater Impacts (Criterion #2).** The Water Quality Control Plan, San Francisco Bay Region (Basin Plan), prepared by the California Regional Water Quality Control Board, San Francisco Bay Region (June 1995), indicates that the Phase V Project Site is in the East Bay Basin of the Santa Clara Valley aquifer. The East Bay Basin covers approximately 122 square miles of Alameda and Contra Costa counties and also extends beneath San Francisco Bay to the west. The State Department of

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<sup>48</sup> San Francisco Bay Regional Water Quality Control Board, Water Issues, Programs, Stormwater, Municipal, "Municipal Stormwater Program," website: [http://www.swrcb.ca.gov/sanfranciscobay/water\\_issues/programs/stormwater/Municipal/index.shtml](http://www.swrcb.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Municipal/index.shtml), accessed October 12, 2011.

<sup>49</sup> San Francisco Bay Regional Water Quality Control Board, Water Issues, Programs, Stormwater, Municipal, "Municipal Stormwater Program," website: [http://www.swrcb.ca.gov/sanfranciscobay/water\\_issues/programs/stormwater/MRP/Prov\\_C3.shtml](http://www.swrcb.ca.gov/sanfranciscobay/water_issues/programs/stormwater/MRP/Prov_C3.shtml), accessed October 12, 2011.

Water Resources calculated a total storage capacity in this subbasin of 2,670,000 acre feet. Basin inflows are almost entirely from natural recharge and artificial/incidental recharge, with some from applied water recharge and subsurface inflow.<sup>50</sup> Depth to groundwater in the San Leandro Bay area tends to increase with increasing distance from the Bay, but is variable due to the divided nature of the aquifer. The top of the water table tends to be less than 5 feet below ground surface (bgs) in the filled areas along the shoreline; greater than 10 feet bgs in portions of the City on the lower East Bay Plain; and greater than 20 feet bgs in the hills and upper portions of the East Bay Plain. As stated earlier in Section 3.6, Geology and Soils, the depth to groundwater is generally encountered at depths between 10 and 20 feet bgs at the Project Site. If groundwater is encountered during construction, dewatering activities would involve the pumping of water from places, such as foundation excavations or utility trenches. Dewatering activities must comply with conditions of the San Francisco Bay RWQCB general permit for construction dewatering. However, construction activities would not result in any substantial effects on groundwater or surface water supply or quality because only shallow (for installation of utilities) and short-term (during the construction period) grading would be required for the Revised Project. Following construction, the Revised Project would obtain potable water from the East Bay Municipal Utilities District and would thus not result in a long-term depletion of the local groundwater.

The Revised Project would increase the amount of impervious surface cover at the Phase V Project Site compared to existing bare dirt and stockpiled materials. Consequently, development of the Phase V Project Site would reduce the amount of groundwater recharge occurring at the site. Nevertheless, recharge at the Phase V Project Site is considered virtually negligible for two primary reasons. First, the site was previously developed and is being redeveloped as the final phase of the Project; thus, the site has not functioned as a groundwater recharge area. Second, the Phase V Project Site is less than 1.5 acres in an urbanized area and would not contribute a measurable amount of recharge area in this subbasin of 77,800 acres. As such, the Revised Project would result in a less-than-significant impact on groundwater supplies and recharge.

**Stormwater Runoff, Erosion, and Water Quality Impacts (Criteria #3, 6-7).** Erosion or siltation can occur when rainwater comes in contact with graded soil that has not been stabilized or re-planted. Erosion and siltation can diminish water quality by increasing turbidity and sediment loads and by introducing pesticides or other hazardous chemicals. Potential water quality impacts of stormwater runoff from the Phase V Project Site would be greatest during grading activities for construction of the proposed 128 new housing units. Once developed, the Phase V Project Site would exhibit residential pollutant loads that would be similar to the surrounding earlier phases of the Project. Upon completion, the Phase V Project Site would be covered with housing, paved walkways, surface parking, landscaped areas. As a result, extensive areas of exposed soil that could erode and be transported to nearby waterbodies would not exist.

To address the construction period runoff volumes and pollutant loading, the Project Sponsors must comply with the NPDES Construction General Permit Order No. 2009-0009-DWQ NPDES. As

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<sup>50</sup> California's Groundwater, Bulletin 118: San Francisco Bay Hydrologic Region, Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin, last update February 27, 2004.

previously described, pursuant to the Construction General Permit, a SWPPP would be prepared by a Qualified SWPPP Practitioner (QSP). In addition, the City's SCA-82, regarding erosion, sedimentation, and debris control measures would result in site-specific requirements for the Revised Project. Adherence to these existing regulatory requirements combined with the standard conditions of approval imposed by the City of Oakland would ensure that runoff from the Phase V Project Site would not result in onsite or off-site water quality deterioration. As a result, the Revised Project would have a less-than-significant impact on water quality due to runoff from the Phase V Project Site.

**Stormwater Drainage System Impacts and Flooding (Criteria #4-5).** Construction of the Revised Project would occur in an urbanized area and would not substantially affect the flows in nearby Lion Creek. The Phase V Project Site was evaluated in the 2003 IS/EA and utility plans including storm drains were designed, sized, and constructed to accommodate the projected flows. As a result, runoff from the Phase V Project Site would not be expected to exceed the capacity of the stormwater system serving the Project Site and result in either onsite or downstream flooding. Further, because the Revised Project would require a new connection to the City's stormwater drainage system, SCA-91 regarding storm drainage availability would apply. Compliance with SCA-91 would further ensure that the City's drainage system has adequate capacity to accommodate runoff generated by the Revised Project and would not result in substantial flooding on- or off-site. As previously described, the Revised Project would be subject to the C.3 requirements stipulated in the Municipal Regional Permit. In order to comply with the C.3 provisions, the Revised Project would have to demonstrate that through incorporation of detention basins or similar site design features, the Revised Project would not result in a net increase in stormwater runoff. As such, flooding impacts associated with stormwater runoff would be less than significant.

**Expose People or Structures to Flood Hazards (Criteria #8-10).** According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), the Phase V Project Site is located in flood hazard Zone X "Other Flood Areas." Zone X is considered a moderate flood hazard area; it is beyond areas that are labeled as Special Flood Hazard Area, which have a 1-percent chance to flood annually (also known as the 100-year flood). As a result, the Phase V Project Site is not considered to be at substantial risk from flood hazards. This level of protection results in part due to the existing concrete culvert passing the site to the north. This culvert and the daylighted portion of Lion Creek, which was completed as part of the Project, were evaluated as part of hydraulic studies performed in 2009 and were designed to work together to satisfy flood control and drainage standards of the Alameda County Flood Control Water Conservation District and avoid hazards associated with a 100-year flood. As a result, the Revised Project would not place housing or structures within a 100-year Special Flood Hazard Area, and impacts related to flood risks would be less than significant.

**Seiche, Tsunami, or Mudflow Hazards (Criterion #11).** Tsunamis are large sea waves generated by submarine earthquakes, or similar large-scale, short-duration phenomena, such as volcanic eruptions, that can cause considerable damage to low-lying coastal areas. A seiche is a standing wave which typically occurs in an enclosed body of water such as a lake, bay or gulf which oscillates as a result of seismic or atmospheric disturbances creating huge fluctuations of water levels in just moments. The San Leandro Bay is located approximately 1.1 miles from the Phase V Project Site and the San

San Francisco Bay is located approximately 4 miles away. The amount of damage caused by tsunamis and seiches in the San Francisco Bay Area historically has been small. As identified by the Association of Bay Area Governments' Tsunami Evacuation Planning Map for San Francisco Bay Area, the Phase V Project Site would not be expected to occur in a tsunami inundation area.<sup>51</sup> The only large semi-enclosed body of water that could be subject to seiche conditions, near the Phase V Project Site, is the San Francisco Bay. A seiche effect caused by a large magnitude local earthquake would be smaller than a tsunami and would not affect the Phase V Project Site.

A mudflow is a type of landslide that occurs when runoff saturates the ground. Soil that is dry during dry weather turns into a liquid solution that slides downhill. The Phase V Project Site is not located in an area historically known for landslides or mudflows. As discussed earlier in Section 3.6, Geology and Soils, the Revised Project is located in an urbanized flat area that is not near any slopes where mudflows could occur.

Because the Phase V Project Site is not located within range of these potential hazards, no impacts related to tsunamis, seiches, or mudflows would occur.

**Existing Drainage Patterns (Criterion #12).** As discussed above in Criteria #3-7, the Revised Project would not change the drainage pattern of the site in a manner that would alter the topography or grade of the land or substantially increase runoff and flows into Lion Creek. Stormwater from the site is to be directed into the storm drain system that was constructed to accommodate runoff from the Project. City imposed standard conditions of project approval concerning runoff and erosion control and compliance with the City's Creek Protection Ordinance (described earlier in Section 3.4, Biological Resources) and the NPDES Municipal Regional Permit (described in Criteria #1, 4, and 5 above) would ensure that construction and operation of the Revised Project would not adversely affect the hydrologic regime and flows in Lion Creek. Furthermore, the Revised Project would not directly alter the course of Lion Creek which has recently been daylighted for a stretch just north and west of the Phase V Project Site. As such, the Revised Project would not result in changes to the creek flow volumes, velocities, or direction that could affect erosion or sedimentation.

**Creek Protection Ordinance (Criterion #13).** As discussed earlier in Section 3.4, Biological Resources (see Criterion #7), the Phase V Project Site is adjacent to Lion Creek and is considered a creekside property subject to the City's Creek Protection Ordinance (OMC Chapter 13.16). Based on proximity to Lion Creek, the Revised Project would require a Class III Creek Protection Permit and also be subject to SCA-82 through SCA-86 regarding erosion, sedimentation, and debris control measures; a creek protection plan; necessary regulatory permits and authorization; creek monitoring; and a creek landscaping plan. Adherence to the permit requirements and standard conditions of approval as imposed by the City of Oakland would ensure the Revised Project's compliance with the City's Creek Protection Ordinance. As a result, the Revised Project would not be expected to discharge a substantial amount of pollutants into Lion Creek; significantly modify the natural flow of the water; deposit substantial amounts of new material into the creek or cause substantial bank erosion

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<sup>51</sup> Association of Bay Area Governments, Tsunami Evacuation Planning Map for San Francisco Bay Area, online at: <http://gis.abag.ca.gov>, accessed November 8, 2011.

or instability; or adversely impact the riparian corridor by significantly altering vegetation, wildlife habitat, or hydrology. Thus, impacts to Lion Creek would be less than significant.

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### **3.10 LAND USE AND PLANNING**

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#### **Prior Environmental Analysis and Conclusions**

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##### **Prior Environmental Impact Findings**

The 2003 IS/EA and the subsequent Addendum both determined that the previous development proposed for the entire Lion Creek Crossings Phase V Project Site would result in less-than-significant land use and planning effects because it would not divide an existing community, would be compatible with surrounding land uses, and would not conflict with applicable land use plans and regulations. The 2009 Addendum did not identify new impacts associated with land use and planning.

##### **2003 IS/EA Mitigation Measures**

The 2003 IS/EA concluded that the Original Project would result in a less-than-significant impact related to land use and planning and, therefore, no mitigation measures were required.

#### **Standard Conditions of Approval**

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Since City of Oakland approval of the Original Project and adoption of the 2003 IS/EA, the City has prepared Standard Conditions of Approval that apply to new development projects. The Standard Conditions of Approval that relate to land use and planning; and that would apply to the Revised Project are listed below. If the City approves the Revised Project, the Conditions of Approval will be adopted as requirements of the Revised Project and would ensure that no significant land use and planning impacts occur. As a result, the Conditions of Approval are not listed as mitigation measures.

**SCA-45: Tree Removal Permit.** (Please refer to Section 3.4, Biological Resources.)

**SCA-46: Tree Replacement Plantings.** (Please refer to Section 3.4, Biological Resources.)

**SCA-47: Tree Protection During Construction.** (Please refer to Section 3.4, Biological Resources.)

**SCA-83: Creek Protection Plan.** (Please refer to Section 3.4, Biological Resources.)

#### **Existing Conditions**

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Since the Addendum was published in 2009, there has been little change to the land uses in the vicinity of the Revised Project, with the exception of the construction of Phase IV of the Project.

## Significance Criteria and Impact Assessment

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### CEQA Thresholds/Criteria of Significance

A project would have a significant effect on land use and planning if it would:

1. Physically divide an established community.
2. Result in a fundamental conflict between adjacent or nearby land uses.
3. Fundamentally conflict with any 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 and actually result in a physical change in the environment.
4. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.

### Impact Assessment

**Division of a Community and Land Use Conflicts (Criteria #1-2).** The Phase V Project Site is undeveloped, and the Revised Project is the fifth and final phase of the overall Lion Creek Crossings Project. The Revised Project would complete the development approved by the City of Oakland in 2003 and amended in 2009. The proposed senior housing would be a residential use similar to the earlier four phases of the Project, and the Revised Project would fill the vacant area between two earlier phases of housing development to the north and south and complete the development originally intended to surround the community park. As such, the Revised Project would be consistent and compatible with the adjacent land uses. The Revised Project would not divide an existing established neighborhood; rather, it would complete the originally approved Project.

From a broader perspective, the land development pattern surrounding the entire Project Site is generally business oriented to the north and west with residential uses beyond. Specifically, the area north of 66<sup>th</sup> Avenue is primarily industrial and commercial with a gas station on the corner of 66<sup>th</sup> Avenue and San Leandro Street. Land to the east of the Phase V Project Site consists of a private school (Acts Christian Academy) and single-family residential development. To the west of the site, the majority of the area is occupied by industrial/commercial properties and railroad rights-of-way with Damon Slough and the Oakland Coliseum Complex beyond. Residential development lies to the south, with the Coliseum BART Station beyond. Given this mixed land use pattern, the development of the Revised Project would not divide an existing community nor create land use incompatibilities or conflicts. As a result, the Revised Project would result in no impact with regard to these topics.

**Compliance with Applicable Land Use Plans, Policies, and Regulations (Criterion #3).** There are a number of plans, policies, and regulations that govern the type and intensity of land use development in the Project area.

*Oakland General Plan – Land Use and Transportation Element (LUTE).* The General Plan reflects the long-range vision and policy framework to guide development for the next 20 years in the City. The nearby Coliseum sporting venue is designated the “Coliseum Area Showcase,” to signify it as a dynamic area and one of the City’s economic engines. The Coliseum Area Showcase is served by and encompasses a “Transit Oriented District” that the City applies to each of the City’s BART stations. The Coliseum BART Station Transit Oriented District, like other similar designations in the City, is encouraged to promote mixed use development and pedestrian activity to take advantage of the proximity to transit service. The Project Site, at its closest point, is about 500 feet from the Coliseum BART Station. The construction of the residential development, including the 128 units of senior housing at the Phase V Project Site, would be supportive of the City’s efforts to promote higher density housing in proximity to BART stations.

In addition to these larger districts and areas, the General Plan identifies various land use designations throughout the City and describes the purpose and goals of each land use designation. The purpose of the land use designations is to prevent adjacency of incompatible land use and to achieve the goals established in the General Plan through the guidance of land use and transportation development. According to the General Plan Map, the Phase V Project Site is designated as Neighborhood Center Mixed Use. The Neighborhood Center Mixed Use land use designation is intended to identify, create, maintain, and enhance mixed use neighborhood commercial centers. These centers are typically characterized by smaller scale pedestrian-oriented, continuous street frontage with a mix of retail, housing, office, active open space, eating and drinking places, personal and business services, and smaller scale educational, cultural, or entertainment uses. The Revised Project would complete the Project that was originally proposed to replace public housing with a new housing infill project mixing a variety of housing products and restoring the community park. The Original Project also included space for social services and other recreational amenities to create a rich, high-quality environment that relates well to the existing residences and businesses in the vicinity, which would fulfill the mix of uses and compatibility sought by the Neighborhood Center Mixed Use land use designation. The Revised Project would complete the original goals and objectives set forth for the Original Project, but also further increase the number and density of housing units onsite, in keeping with the City’s 2009 Housing Element which targeted this area as a Housing Opportunity Site. According to the LUTE, housing development at densities up to 125 units per acre of site area is allowed under the Neighborhood Center Mixed Use land use designation. The Revised Project with 128 senior units on about 1.47 acres would have a density of nearly 90 units per acre.

The LUTE also contains a number of policies designed to help achieve the intent of the Neighborhood Center Mixed Use designation, prevent land-use-related conflicts, and reduce environmental impacts. Key policies from the LUTE that serve these purposes are identified below (in italics), followed by an assessment of the Revised Project.

- *Policy N3.9 – Orienting Residential Development. Residential developments should be encouraged to face the street and to orient their units desirable sunlight and views, while avoiding unreasonably blocking sunlight and views for neighboring buildings, ... and avoiding undue noise exposure.* As seen in Chapter 2, Project Description, and discussed earlier in

Section 3.1, Aesthetics, Shadow, and Wind, the Revised Project would site a row of units to front onto Lion Way and the community park beyond, and would result in less-than-significant shadow and view blockage impacts. As such, the Revised Project would not conflict with this policy.

- *Policy N6.1 – Mixing Housing Types. The City will generally be supportive of a mix of projects that provide a variety of housing types, unit sizes, and lot sizes which are available to households with a range of incomes.* The Revised Project introduces senior housing into the mix of multifamily market rate and below rate market rate units that comprise the Project. The senior housing represents a different housing product from the other phases of development and would not conflict with this policy.
- *Policy N7.1 – Ensuring Compatible Development. New residential development in Detached Unit and Mixed Housing Type areas should be compatible with the density, scale, design, and existing or desired character of surrounding development.* As discussed earlier in Section 3.1, Aesthetics, Shadow, and Wind, and in Criteria #1 and 2, above, the Revised Project would not be incompatible with surrounding land uses or their visual character. Rather, the Revised Project would complete the fifth and final phase of the Project and is most similar in scale, height, and character to the completed phases immediately north and south of the Phase V Project Site. As a result, the Revised Project would not conflict with this policy.
- *Policy N7.2 – Defining Compatibility. Infrastructure availability, environmental constraints and natural features, emergency response and evacuation times, street width and function, prevailing lot size, predominant development type and height, scenic values, distance from public transit, and desired neighborhood character are among the factors that could be taken into account when developing and mapping zoning designation or determining “compatibility.” These factors should be balanced with the citywide need for additional housing.* Each of these different factors combined serves to inform a discussion of compatibility and is addressed in this SMND/Addendum as described below:
  - Infrastructure availability is addressed in the Utilities and Service Systems section;
  - Environmental constraints and natural features, principally in the Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Noise sections;
  - Emergency response and evacuation times, in the Hazards and Hazardous Materials and Public Services sections;
  - Street width and distance from public transit, in the Transportation and Traffic section; and
  - Prevailing lot size, prevailing lot size, predominant development type and height, scenic views, and desired neighborhood character, in the Aesthetics, Shadow, and Wind section and Land Use and Planning section.

In each of these discussions, the Revised Project has been found to have less-than-significant impacts or result in impacts that can be reduced to less than significant with mitigation measures or standard

conditions of approval. Accordingly, the Revised Project would be considered a compatible use with its surroundings.

- *Policy N8.2 – Making Compatible Interfaces Between Densities.* The height of development in urban residential and other higher density residential areas should step down as it nears lower density residential areas to minimize conflicts at the interface between the different types of development. The Phase V Project Site is bound by residential development to the north and south and would be similar in scale, mass, and height with these earlier phases of the Project. Since there are no immediately adjacent lower density residential areas that would trigger the need to step down in density, the Revised Project would not conflict with this policy.

*Zoning Regulations.* The Phase V Project Site is zoned for Transit Oriented Development (S-15). The S-15 zoning district is intended to create, preserve, and enhance areas devoted primarily to serve multiple nodes of transportation and to feature high-density residential, commercial, and mixed-use development. Section 17.97 of the Planning Code describes the S-15 zone regulations including, but not limited to the required design review process; permitted activities; permitted facilities; height, bulk, and intensity; and buffering and landscaping.

As a senior residential development, the Revised Project would be both a permitted activity and facility in this district. The Revised Project setbacks, height, open space provisions, parking spaces, and landscaping comply with the zoning regulations, and the Project Sponsors do not propose to seek any exemptions or variances from these regulations. As such, the Revised Project would not conflict with the applicable zoning regulations or standards.

*Coliseum Area Redevelopment Plan.* The Phase V Project Site is within the Coliseum Redevelopment Area and is included in the Coliseum Area Redevelopment Project Five-Year Implementation Plan for Fiscal Year 2009-2014. The principal objective of the Coliseum Redevelopment Plan is abating physical and economic blight by redeveloping vacant and underutilized properties and replacing obsolete infrastructure. The Coliseum Area Redevelopment Plan Land Use Map is consistent with the General Plan Map in designating the Phase V Project Site as Neighborhood Center Mixed Use. As discussed above under the LUTE, the Revised Project would support the Neighborhood Center Mixed Use designation. It also is part of the larger Project that has replaced an older public housing project. Accordingly, the Revised Project would be consistent with the Coliseum Area Redevelopment Plan and would not conflict with its objectives.

*Creek Protection and Tree Protection Ordinances.* The Revised Project would be subject to both of these ordinances intended to protect natural resources.

*Creek Protection Ordinance.* According to the City's Creek Protection Ordinance, the Phase V Project Site is a creekside property and based on proximity to Lion Creek would require issuance of a Class III Creek Protection Permit. Completion and issuance of the Class III Creek Protection Permit would ensure that the Revised Project would not conflict with the City's Creek Protection Ordinance (see Section 3.4, Biological Resources). In addition, the Revised Project would adhere to the City's SCA-83, which requires development of a creek protection plan to be included in the project drawings

submitted for the building permit (or other construction-related permit). The plan shall fully describe all erosion, sediment, stormwater, and construction management measures to be implemented onsite.

*Tree Protection Ordinance.* There is one tree within the Phase V Project Site that may require removal during construction of the Revised Project. Tree removal would be subject to SCA-45 through SCA-47 regarding obtaining a tree removal permit, planting replacement trees, and protecting trees during construction, respectively.

Compliance with these City requirements would ensure that the Revised Project would not conflict with these ordinances to protect natural features on or near the Phase V Project Site.

**Compliance with Applicable Habitat Conservation Plans (Criterion #4).** As discussed earlier in Section 3.4, Biological Resources (see Criterion #5), the Phase V Project Site is not part of a habitat conservation plan (HCP) or natural community conservation plan (NCCP). Therefore, the Revised Project would result in no impact with regard to potential conflicts with applicable HCPs or NCCPs.

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## **3.11 MINERAL RESOURCES**

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### **Prior Environmental Analysis and Conclusions**

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#### **Prior Environmental Impact Findings**

The 2003 IS/EA and Addendum reported that the Original Project would have no impact on mineral resources, because there are no mineral resources in the Project vicinity. The 2009 Addendum did not identify new impacts associated with mineral resources.

#### **2003 IS/EA Mitigation Measures**

The 2003 IS/EA concluded that the Original Project would have no impact on mineral resources and, therefore, no mitigation measures were required.

### **Standard Conditions of Approval**

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The City does not have Standard Conditions of Approval directly related to mineral resources.

### **Existing Conditions**

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The Project vicinity is urbanized, and no known mineral resources or important mineral resource recovery site have been identified since those earlier environmental documents were prepared.

### **Significance Criteria and Impact Assessment**

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#### **CEQA Thresholds/Criteria of Significance**

A Project would have a significant effect on mineral resources 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.
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.

## **Impact Assessment**

**Loss of Mineral Resources (Criteria #1-2).** The Open Space, Conservation, and Recreation Element of the General Plan identifies productive and extractive resources within the City. The only known important mineral resource area was the Leona Quarry in the Oakland Hills between Claremont Canyon and the San Leandro border. Approximately 750,000 tons of Leona rhyolite were removed from the Leona Quarry each year during its 82 years of operation.<sup>52</sup> The Quarry, now under construction for housing, was identified by the State Mining and Geology Board as a Regionally Significant Construction Aggregate Resource. With the quarry closed, there are no other significant mineral resource recovery sites in the City. As a result, the Revised Project would not affect quarrying, mining, dredging, or extraction of locally important mineral resources since none exist onsite or nearby. Therefore, the Revised Project would have no impact on mineral resources.

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## **3.12 NOISE**

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### **Prior Environmental Analysis and Conclusions**

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#### **Prior Environmental Impact Findings**

The 2003 IS/EA and Addendum reported that the previous development proposed for the entire Project Site would result in a less-than-significant noise effect because the change in ambient noise conditions as a result of traffic that would result from the Original Project would be less-than-significant as the units would be set back from these noise sources. Furthermore, noise exposure from train operations such as those on the BART lines and the UPRR lines would not adversely affect residents at the Phase V Project Site because of the distance from these noise sources. The 2009 Addendum did not identify new impacts associated with noise.

#### **2003 IS/EA Mitigation Measures**

The 2003 IS/EA identified the following mitigation measure to reduce impacts associated with noise to a less-than-significant level:

*NO-1.1 Implement Best Management Practices for Construction Activities.* The project contractor(s) shall implement, but not be limited to, the following best management practices:

- a. Outdoor construction work on the Revised Project shall be limited to the hours of 7:00 am to 7:00 pm Monday-Friday. No construction activities shall occur on Sundays

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<sup>52</sup> City of Oakland General Plan: Open Space, Conservation, and Recreation Element, adopted June 1996, Chapter 3, Conservation, page 3-10.

or federal holidays. Saturday construction activity shall be evaluated on a case-by-case basis, with criteria including the proximity of residential uses and a survey of residents preferences for whether Saturday activity is acceptable if the overall duration of construction is shortened.

- b. All construction equipment with a high noise generating potential, including all equipment powered by internal combustion engines, shall be muffled or controlled. Noise controls can reduce noise levels at 50 feet by 1 dBA to 16 dBA, depending on the type of equipment. A muffler could lower noise levels by up to about 10 dBA.
- c. All stationary noise generating equipment, such as compressors, shall be located as far as possible from existing houses and the church. Noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance.
- d. Machinery, including motors, shall be turned off when not in use.
- e. Mobile equipment shall not be allowed to run idle near existing residences and the church.
- f. Property owners within 200 feet of major construction areas shall be notified of the construction schedule in writing prior to construction; the Project Sponsor shall designate a “disturbance coordinator” who shall be responsible for responding to any local complaints regarding construction noise; the coordinator (who may be an employee of the developer or general contractor) shall determine the cause of the complaint and shall require that reasonable measures warranted to correct the problem be implemented; and a telephone number for the noise disturbance coordinator shall be posted conspicuously at the construction site fence and included on the notification sent to neighbors adjacent to the site along with the permitted hours of construction.
- g. Temporary noise barriers shall be installed on the Phase V Project Site during construction of Phase I. Noise barriers would be installed between the limits of the Phase I area parallel to the adjacent Acts Full Gospel Church and Academy and residential units along 69<sup>th</sup> Avenue to reduce increases in ambient noise levels due construction activities. These noise barriers may include the use of noise absorbing blankets or several layers of plywood, or other appropriate noise attenuating material. Barriers shall be at least ten feet in height along the Phase V Project Site edge and shall be, tall enough to break the line of sight between the Church, the Academy, residential units and project construction. Such barriers would generally reduce noise levels by about 5 to 10 dB(A).

*(NOTE: This mitigation measure is not applicable to the Revised Project because it is replaced by SCA-28 and SCA-29 regarding noise restrictions and minimization, further described below.)*

**NO-1.2 Implement Best Management Practices for Pile Driving Noise.** The project contractor(s) shall implement, but not be limited to, the following best management practices:

- a. In the event that construction activities such as pile driving, which inherently produce loud, pulsating noise, are required, other techniques such vibratory pile driving or cast-in place piles shall be utilized.
- b. Require at least 30 days written notice to surrounding residents and businesses (minimum of 300 foot radius) of proposed pile driving activity and estimated duration.
- c. Pile driving or other extreme noise generating activity (90 dBA or above) shall be limited to between 8:00 am to 4:00 pm, Monday through Friday, with no pile driving or other extreme noise-generating activity permitted between 12:30 and 1:30 pm., or other mid-day hour as established and noticed. Pile driving or other extreme noise generating activity is prohibited on Sundays and holidays. Pile driving on Saturdays will be evaluated on a case by case basis, with criteria including the proximity of residential uses and a survey of residents' and businesses' preferences for whether Saturday activity is acceptable if the overall duration of the pile driving is shortened.
- d. To further mitigate potential pile driving and/or other extreme noise generating construction impacts, site-specific noise attenuation measures shall be further developed and then implemented under the supervision of a qualified acoustical consultant. This plan shall be based on the final design of the Revised Project and shall be submitted for review and approval by the City to ensure that maximum feasible noise attenuation is achieved. The following measures are likely to be necessary if pile driving is used:
  - i. "Quiet" pile driving technology shall be used where feasible, considering geotechnical, structural requirements, and other conditions; and
  - ii. The effectiveness of noise attenuation shall be evaluated by taking noise measurements during construction.

### **Standard Conditions of Approval**

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Since City of Oakland approval of the Original Project and adoption of the 2003 IS/EA, the City has prepared Standard Conditions of Approval that apply to new development projects. The Standard Conditions of Approval that relate to noise and that would apply to the Revised Project are listed below. If the City approves the Revised Project, the Conditions of Approval will be adopted as requirements of the Revised Project and would ensure that no significant noise impacts occur. As a result, the Conditions of Approval are not listed as mitigation measures.

**SCA-28: 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 am and 4:00 pm 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.
  - 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-29: 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-30: 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-31: Interior Noise** *(Prior to issuance of a building permit and Certificate of Occupancy)* 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), and/or other appropriate features/measures, 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 prior to issuance of building permit. Final recommendations for sound-rated assemblies, and/or other appropriate features/measures, will 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-32: 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.

### **Updated Regulatory Setting**

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New guidelines have been adopted since the publication of the 2003 IS/EA. This change is reflected below.

The Oakland General Plan Noise Element was adopted in 2005 and contains guidelines for determining the compatibility of various land uses with different outdoor noise environments (City of Oakland 2005). 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 type of activities typically involved.

### **Existing Conditions**

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An individual's noise exposure is valued based on a measurement of the noise that the individual experiences over a specified time interval. Sound is created when vibrating objects produce pressure variations that move rapidly outward into the surrounding air. The main characteristics of these air pressure waves are amplitude, experienced as a sound's loudness, and frequency, experienced as a sound's pitch. The standard unit of sound amplitude is the decibel (dB), which is a measure of the physical magnitude of the pressure variations relative to the human threshold of perception. The

human ear's sensitivity to sound amplitude is frequency-dependent and it is more sensitive to sounds in the mid-frequency range than to sounds with much lower or higher frequencies.

The nearest sensitive receptors from the Phase V Project Site are the previously constructed phases of the Project immediately north and south of the Phase V Project Site and the Acts Christian Academy about 25 feet east of the Phase V Project Site. Existing daytime noise levels at the Phase V Project Site are characteristic of an urban mixed-use environment.

Existing uses surrounding the Phase V Project Site consist of light industrial and commercial uses along with a school and multifamily and single family housing. BART, a regional rail system, operates on an elevated guide-way with approximately four trains per hour per line west of the Phase V Project Site. In addition, Union Pacific Railroad (UPRR) lines located west of San Leandro Street pass by the site throughout the day. The primary sources of noise in the Project area are vehicular traffic on the adjacent streets, BART trains entering and exiting the Coliseum BART Station, and freight trains on the UPRR lines.

## Methodology

### Construction Noise

The City Noise Ordinance (City of Oakland, Municipal Code Section 17.120.050, *et seq.*) includes restrictions on activities related to construction and demolition. In particular, the ordinance restricts the hours of construction and the maximum allowed noise levels for construction activities (see Table 3.12-1).

The U.S. Environmental Protection Agency has compiled data regarding the noise-generating characteristics of specific types of construction equipment and typical construction activities. These data are presented in Table 3.12-2. These noise levels diminish rapidly with distance from the construction site at a rate of approximately 6 dBA  $L_{eq}$  per doubling of distance. For example, a noise level of 84 dBA  $L_{eq}$  measured at 50 feet from the noise source to the receptor would reduce to 78 dBA  $L_{eq}$  at 100 feet from the source to the receptor, and to 72 dBA  $L_{eq}$  at 200 feet from the source to the receptor.

**Table 3.12-1**  
**City of Oakland Noise Ordinance - Maximum Allowable Receiving Noise Level**  
**Standards (DBA) for Construction Activities**

	Daily 7 AM to 7 PM	Weekends 9 AM to 8 PM
Short-Term Construction (less than 10 days)		
Residential	80	65
Commercial, Industrial	85	70
Long-Term Construction (10 days or more)		
Residential	65	55
Commercial, Industrial	70	60

*Source: City of Oakland, Municipal Code Section 17.120.050, et seq.*

**Table 3.12-2**  
**Typical Outdoor Construction Noise Levels**

<b>Construction Phase</b>	<b>Noise Levels at 50 Feet (dBA L<sub>eq</sub>)</b>	<b>Noise Levels at 50 Feet with Mufflers (dBA L<sub>eq</sub>)</b>	<b>Interior Noise Levels at 50 Feet with Mufflers (dBA L<sub>eq</sub>)</b>
Ground Clearing	84	82	62
Excavation, Grading	89	86	66
Foundations	78	77	57
Structural	85	83	63
Finishing	89	86	66
Pile Driving	96	92	72

*Source:* EPA, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

## Operational Noise

Noise is generally defined as unwanted or objectionable sound. Section 17.120.050, et seq. of the City's Municipal Code includes restrictions on the maximum allowable receiving noise levels at residential and civic uses. The hours of limitation and the maximum allowed noise levels for operational activities are specified in Section 17.120.050, et seq. of the Municipal Code as shown in Table 3.12-3.

**Table 3.12-3**  
**Maximum Allowable Receiving Noise Level Standards (DBA) for Operational Activities**

<b>Cumulative Number of Minutes in Either the Daytime or Nighttime One Hour Time Period</b>	<b>Daytime 7 AM to 10 PM</b>	<b>Nighttime 10 PM to 7 AM</b>
20	60	45
10	65	50
5	70	55
1	75	60
0	80	65

*Source:* City of Oakland, Municipal Code Section 17.120.050, et seq.

## Vibration

While sound is the transmission of energy through the air, groundborne vibration is the transmission of energy through the ground or other solid medium. Humans perceive vibrations as the motion of the floor or building. The Federal Transit Administration (FTA) has developed criteria for determining the significance of vibration from transportation sources and construction activity, as shown in Table 3.12-4.<sup>53</sup> While intended primarily for operations, the criteria in Table 3.12-3 are also considered appropriate to assess construction activities. Different criteria apply depending on the sensitivity of the

<sup>53</sup> Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006, pp. 8-2 through 8-4.

nearby land uses and the frequency of the event generating the vibration. Category 1 includes land uses where quite is an essential element to the intended purposed, such as outdoor amphitheaters, and Category 2 includes homes, hospitals, and hotels where people sleep. Category 3 land uses encompass typically indoor environments where noise sensitivity is important, such as schools, libraries, and churches.

**Table 3.12-4  
Groundborne Vibration Impact Criteria**

Land Use Category	Impact Levels (VdB; relative to 1 micro-inch/second)		
	Frequent Events <sup>a</sup>	Occasional Events <sup>b</sup>	Infrequent Events <sup>c</sup>
<b>Category 1:</b> Buildings where vibration would interfere with interior operations	65 <sup>d</sup>	65 <sup>d</sup>	65 <sup>d</sup>
<b>Category 2:</b> Residences and buildings where people normally sleep	72	75	80
<b>Category 3:</b> Institutional land uses with primarily daytime uses	75	78	83

*Source:* Federal Transit Administration, Transit Noise Impact and Vibration Assessment, May 2006, Table 8-1.

*Notes:*

- a. "Frequent Events" is defined as more than 70 vibration events of the same source per day.
- b. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.
- c. "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.
- d. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define the acceptable vibration levels.

## Significance Criteria and Impact Assessment

### CEQA Thresholds/Criteria of Significance

A project would have a significant effect on noise if it would:

1. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction noise, except if an acoustical analysis is performed that identifies recommend measures to reduce potential impacts.
2. Generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code section 8.18.020) regarding persistent construction-related noise.
3. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise.
4. Generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or, if under a cumulative scenario where the

cumulative increase results in a 5 dBA permanent increase in ambient noise levels in the project vicinity without the project (i.e., the cumulative condition including the project compared to the existing conditions) and a 3 dBA permanent increase is attributable to the project (i.e., the cumulative condition including the project compared to the cumulative baseline condition without the project).<sup>54</sup>

5. Expose persons to interior Ldn or CNEL greater than 45 dBA for multifamily 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).
6. Expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval.
7. Expose persons to or generate noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration [OSHA]).
8. During either project construction or project operation expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration (FTA)?
9. Be located within an airport land use plan and would expose people residing or working in the project area to excessive noise levels.
10. Be located within the vicinity of a private airstrip, and would expose people residing or working in the project area to excessive noise levels.

## Impact Assessment

**Construction Noise Impacts (Criteria #1-2).** Construction activities at the Phase V Project Site would require the use of heavy equipment for site grading and excavation, installation of utilities, paving, and building fabrication and project-related truck traffic. Construction activities would also involve the use of smaller power tools, generators, and other sources of noise. During each stage of development, there would be a different mix of equipment operating, and noise levels would vary based on the pieces and number of equipment in operation and the location of the activity. Given the type of construction and the ground conditions, pile driving would not be necessary during any of the various phases of construction for the Revised Project, according to the Project Sponsors.

The nearest sensitive receptors from the Phase V Project Site are the previously constructed phases of the Project immediately north and south of the Phase V Project Site and the Acts Christian Academy about 25 feet east of the Phase V Project Site. Construction activities would generate noise levels of up to 87 dBA Leq outside the Phases I and III homes of the Project and the Acts Christian Academy

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<sup>54</sup> Outside of a laboratory, a 3 dBA change is considered a just-perceivable difference. Therefore, 3 dBA is used to determine if the project-related noise increases are cumulative considerable.

during ground clearing, and 92 dBA Leq outside these units during excavation, grading and finishing based on a 3 dBA reduction per each doubling distance. However, the exterior-to-interior reduction typical of residential buildings is generally 20 dBA; with newer construction such as found in Phases I and III, the reduction could be greater. Construction noise would be short-term in nature, not involve pile driving, and only permitted during the hours specified by Section 17.120.050 of the City's Municipal Code.

In addition, to reduce the nuisance potential associated with persistent noise activities, the Oakland Municipal Code Section 8.18.020 requires the following provisions:

- All construction equipment powered by internal combustion engines shall be properly muffled and maintained (which would result in the noise levels in the middle column of Table 3.3-2).
- Unnecessary idling of internal combustion engines is prohibited.
- All stationary noise-generating construction equipment such as tree grinders and air compressors are to be located as far as is practical from existing residences.
- Quiet construction equipment, particularly air compressors, are to be selected whenever possible.
- Use of pile drivers and jack hammers shall be prohibited on Sundays and holidays, except for emergencies and as approved in advance by the Building Official.

The Revised Project would also be subject to the City's SCA-28 regarding days and hours of construction activities in order to ensure that the restrictions of the Noise Ordinance are implemented and applied to reduce noise impacts to surrounding residents; SCA-29, which calls for a site-specific noise reduction program; and SCA-30, which requires establishment of a noise complaint procedures. As a result, construction-related impacts would be less than significant.

**Operation Noise Impacts (Criteria #3-6).** The Revised Project would be required to comply with Section 17.120.050, et seq. of the City's Municipal Code which includes restrictions on the maximum allowable receiving noise levels at residential and civic uses. In addition, as discussed below under Criterion #7, the Revised Project must also comply with the City's noise compatibility guidelines.

*Off-Site Noise Impacts of the Revised Project.* As noted under Section 3.16, Transportation/Traffic, the traffic study included in the 2003 IS/EA, and used for the Addendum, evaluated nine intersections surrounding the Project area. Because the Revised Project is located within the area evaluated for the 2003 IS/EA and Addendum, it is reasonable to assume that the Revised Project would affect the same intersections as considered in the traffic study included in the 2003 IS/EA and Addendum. The commercial/industrial areas located to the north of the Phase V Project Site would continue to generate noise from the operation of delivery trucks. Traffic noise most likely to impact the Phase V Project Site would be generated from 66<sup>th</sup> Avenue, San Leandro Street, 69<sup>th</sup> Avenue, and International Boulevard which surround the Project area. As discussed in Section 3.16, Transportation/Traffic, traffic generated by the Revised Project would not substantially increase roadway traffic on the identified surrounding roads compared to the Original Project evaluated in the 2003 IS/EA. In

addition, senior residents are not anticipated to generate as many daily trips as a standard apartment building land use. Therefore, operational noise related to traffic generated by Revised Project traffic would not expose off-site receptors to, or generate traffic noise that would create a substantial increase in ambient noise conditions, and impacts would be considered less than significant.

*Off-Site Noise Impacts on the Revised Project .* The Phase V Project Site would not be exposed to substantial noise generated by surrounding uses. As stated above, traffic noise is anticipated to remain similar to previous conditions analyzed under the 2003 IS/EA and subsequent Addendum. In addition, the residential uses constructed under the previous phases of the Project stand approximately three to four stories. These structures serve to screen the noise that would otherwise affect the Phase V Project Site from traffic along 66<sup>th</sup> Avenue, 69<sup>th</sup> Avenue, and San Leandro Street.

BART operations and events at the Oakland Coliseum would also contribute to the overall noise environment. The proposed 128 residential units would be approximately 950 feet from the BART tracks. As stated in the 2003 IS/EA, the closest residential units at 75 feet from BART were anticipated to experience noise levels expected to range between 70 and 75 Ldn. These levels would reduce to between 62 and 67 Ldn, outdoors at the Phase V Project Site because each doubling distance would result in a noise attenuation of 3 dBA. Similarly, noise from the UPRR passenger and freight trains would be slightly further away and much less frequent than BART trains, but would be expected to range from 64 to 67 Ldn at the Phase V Project Site. Furthermore, as described above for roadway traffic noise, BART and freight train noise would be partially obstructed by the residential structures constructed under the previous phases of the Project. As a result, noise levels from BART and the UP lines would not reach the levels identified in Table 3.12-1. In addition, the Oakland Coliseum would continue to function with its normal schedule of events, and traffic associated with these activities would continue to utilize major roadways and I-880 primarily. The smaller roadways surrounding the Project area, like 66<sup>th</sup> Avenue and 69<sup>th</sup> Avenue, could be used and elevate traffic noise around the Project, but these events would be occasional and the actual exposure at the Phase V Project Site would be limited because of its internal location within the larger Project Site.

In light of the above discussion of potential off-site noise sources, the noise exposure at the Phase V Project Site from off-site noise sources would be expected to be less than the exposure levels identified in the 2003 IS/EA and Addendum, which was reported as less than significant.

*Interior Noise Levels.* The Revised Project would be constructed in accordance with Title 24 of the California Code of Regulations standards. Title 24 requires that interior noise levels do not exceed 45 dBA. Noise attenuation measures (e.g., double paned windows, un-operable or closed windows, sound rated doors, ventilation or air-conditioning system, etc.) would ensure that interior noise levels do not exceed 45 dBA, meeting the noise level requirements of Title 24. The Revised Project would need to comply with the City's SCA-31 regarding the reduction of interior noise through noise reduction measures and SCA-32 regarding compliance with performance standards for mechanical equipment identified in Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code.

**Compliance with Applicable Noise Standards (Criterion #7).** As discussed above under Criteria #1-6, the Revised Project would comply with the following noise level standards established by regulatory agencies in order to reduce noise impacts to a less-than-significant level:

*City of Oakland General Plan – Noise Element.* The City of Oakland, in its noise regulations, recognizes the variable sensitivity of certain activities to noise and thus establishes noise exposure criteria defining acceptable noise levels. For residential uses, the City’s guidelines indicate that noise levels up to 60 to 65 dBA Ldn are normally acceptable. “Normally acceptable” is defined as satisfactory for the specified land use, assuming that normal conventional construction is used in buildings. As discussed above, under Criteria #3-6, noise levels associated with the Revised Project would generally fall within this range taking into account the screening of off-site noise sources by the intervening buildings constructed in earlier phases of the Project.

*City of Oakland Noise Ordinance.* The City has adopted a noise ordinance to control noise (City of Oakland, Municipal Code Section 17.120.050, et seq.). The Noise Ordinance includes restrictions on activities related to construction and demolition. Section 17.120.050, et seq. includes restrictions on the hours and days when demolition activity can occur and restrictions on the noise levels generated by the activities. In addition, Section 17.120.050, et seq. includes restrictions on the maximum allowable receiving noise levels at residential and civic uses. As described above under Criteria #1 and 3, construction noise measures specified by the ordinance, the City-imposed SCAs, and the noise insulation provided by buildings occupied by nearby sensitive receptors would ensure compliance with the City’s noise ordinance.

**Vibration-Related Impacts (Criterion #8).** This assessment considers vibration effects during both Revised Project operation and construction.

*Operational Vibration.* In general, people can usually perceive vibrations of 65 VdB or greater, with levels exceeding 75 VdB commonly considered annoying. Typical background vibration in residential areas is 50 VdB or lower, below the typically perceptible threshold of 65 VdB. The occurrence of vibration events with a magnitude large enough to cause annoyance is not as common as noise exposures severe enough to cause annoyance. For example, vibrations do not generally cause an adverse reaction from people who are outdoors. Typically, indoor vibration levels near traffic corridors are below the threshold of human perception (below 65 VdB). In some instances, poorly maintained, rough roads with heavy-duty vehicles may generate perceptible vibrations; however, perceptible vibration levels would more likely be generated from construction equipment during project construction than from vehicles traveling the project corridor after construction is complete. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or slamming of doors.<sup>55</sup> Given the distance of the Phase V Project Site from potential vibration sources, such as heavily trafficked roads and the BART and freight lines, and the absence of nearby activities that can induce substantial vibration, vibration effects due to operations of these vibration sources when the Phase V Project Site is occupied would be less than significant.

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<sup>55</sup> FTA, Transit Noise and Vibration Impact Assessment, May 2006, p. 7-5.

*Construction Vibration.* According to the FTA, ground vibrations from construction activities do not often reach the levels that can damage structures, but they can achieve the audible and feelable ranges in buildings very close to the site. A possible exception is the case of fragile buildings, many of them old, where special care must be taken to avoid damage.<sup>56</sup> Buildings near the Phase V Project Site are of recent construction (e.g., Phases I and III of the Project) and are not fragile (e.g., the neighboring Acts Christian Academy).

Construction activities that typically generate the most severe vibrations are blasting and impact pile-driving, neither of which is proposed at the Phase V Project Site. Air compressors, light trucks, hydraulic loaders, etc. generate little or no ground vibration. Of the construction equipment likely to be used onsite, loaded trucks and bulldozers are the most likely to produce perceptible vibration in areas close to where they would operate, as shown below in Table 3.12-5.

Given the proximity of the neighboring uses, construction at the Phase V Project Site could result in annoyance at the Phase I and III residential units nearest the Phase V Project Site and possibly at the Acts Christian Academy. The distance between the Phase V residential building and the neighboring residential buildings is greater than 100 feet and over 50 feet to the Acts Christian Academy. As a result, the anticipated vibration levels at the residences are close to those identified for 100 feet in Table 3.12-5, and the anticipated vibration levels at the school between those identified for 25 and 100 feet. At these levels, the vibration from construction would be noticeable but barely perceptible.

**Table 3.12-5**  
**Vibration Source Levels for Construction Equipment**

Construction Equipment	At 25 feet	At 100 feet
	Approximate VdB	Approximate VdB
Large Bulldozer	87	69
Truck	86	68
Jackhammer	79	61
Small Bulldozer	58	40
Caisson Drilling	87	69
Pile Driver (impact, upper range)	112	94
Pile Driver (sonic, upper range)	105	87

*Source:* Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006, Chapter 12 Noise and Vibration During Construction.

The criteria for Land Use Categories 2 and 3 in Table 3.12-2 are established to protect residents who may be sleeping and institutional uses where it is important to avoid interference with such activities as speech, meditation, and concentration on reading materials. The City's Noise Ordinance stipulates that construction activity must end by 7:00 pm. This restriction on hours of construction, which will be required through the City-imposed SCA-28, which requires construction contractors to limit standard

<sup>56</sup> FTA, Transit Noise and Vibration Impact Assessment, May 2006, pp. 12-10 through 12-11.

construction activities in accordance with the City Noise Ordinance, would prevent construction at the Phase V Project Site from annoying land uses where residents sleep. In addition, SCA-29, which specifically restricts the noisiest phases of construction to less than 10 days at a time, unless otherwise allowed by the City, would further help reduce vibration effects.

In light of the distance to the neighboring buildings, the City requirements under the SCA-28 and SCA-29, and the absence of heavy-duty ground excavation and disturbance equipment (e.g., those involving pile driving), construction vibration effects would be noticeable but less than significant.

**Airport-Related Noise Impacts (Criterion #9).** Oakland International Airport is located on a Bayfront site in the southernmost part of the City. Aircraft regularly fly over the City of Oakland. However, the Phase V Project Site is approximately two miles east and outside the airport's 65 dBA Ldn/CNEL noise contour, which the Federal Aviation Administration regards as an impact threshold for noise-sensitive land uses (i.e., residential). Therefore, noise from commercial aircraft operations at the Oakland International Airport would have less-than-significant impacts on the Revised Project.

**Exposure to Noise from a Private Airstrip (Criterion #10).** The Oakland Convention Center Airport, located at 10<sup>th</sup> Street and Broadway and the Children's Hospital Oakland Airport, located at 747 52<sup>nd</sup> Street are the two private air strips located in Oakland. The Oakland Convention Center Airport is located approximately 6 miles away and the Children's Hospital Oakland Airport is located approximately 9 miles away from the Phase V Project Site. These two airports are used less frequently than the Oakland International Airport and are further away; therefore, these private airstrips would not expose residents of the proposed 128 units at the Phase V Project Site to excessive noise levels.

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### 3.13 POPULATION AND HOUSING

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#### Prior Environmental Analysis and Conclusions

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##### Prior Environmental Impact Findings

The 2003 IS/EA and Addendum reported that the previous Original Project would result in a less-than-significant population and housing effect because the population growth that would result from the Original Project was contemplated in the General Plan and was within the Association of Bay Area Governments (ABAG) growth projections. The 2009 Addendum did not identify new impacts associated with population and housing.

##### 2003 IS/EA Mitigation Measures

The 2003 IS/EA concluded that the Original Project would have a less-than-significant impact to population and housing and, therefore, no mitigation measures were required.

##### Standard Conditions of Approval

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The City does not have Standard Conditions of Approval directly related to population and housing.

## Existing Conditions

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As of January 1, 2011 the City of Oakland's population was estimated to be approximately 392,932 people.<sup>57</sup> Since release of the 2003 IS/EA and the 2009 Addendum, Phases I through III of the Project have been completed. As such, the local population in the vicinity of the Revised Project has increased since the Original Project was evaluated in 2003. Further, since publication of these earlier environmental review documents, more recent population projections have been issued. According to the Association of Bay Area Governments (ABAG) Projections 2009, the City's population will increase by approximately 108,200 residents between 2010 and 2030.

## Significance Criteria and Impact Assessment

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### CEQA Thresholds/Criteria of Significance

A project would have a significant effect on population and housing if it would:

1. Induce substantial population growth in a manner not contemplated in the General Plan either directly (for example by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure), such that additional infrastructure is required but the impacts of such were not previously considered or analyzed.
2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element.
3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element.

### Impact Assessment

**Population Growth (Criterion #1).** The Revised Project would increase the residential population at the Phase V Project Site by 196 residents, or approximately 0.18 percent of the projected population growth for the City between 2010 and 2030. Accordingly, the increase in population that would result from the Revised Project is negligible when compared with the City's overall population growth as estimated by ABAG Projections 2009 (described under Existing Conditions, above).

Further, the Revised Project would not encourage population growth in an unplanned manner. As described earlier in Section 3.10, Land Use and Planning, the Phase V Project Site is designated for Neighborhood Center Mixed Use development and zoned S-15. The land use designation and zoning district that encompass the Phase V Project Site are supportive of higher-density, infill residential developments, such as the Revised Project. Further, the Phase V Project Site is included in the Coliseum Area Redevelopment Plan and is identified as a Housing Opportunity Site in the 2007-2014 Housing Element. As such, the City has targeted the Project area to accommodate high density residential development and is promoting greater population growth in such areas. The Revised Project

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<sup>57</sup> Department of Finance, "Table E-5 Population and Housing Estimates for Cities, Counties, and the State, 2010-2011, with 2010 Benchmark. Website: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>. Accessed, October, 20, 2011.

would result in an increase in population in a location considered appropriate and desirable for such development, and would not induce substantial growth not anticipated by the City's planning documents. Therefore, impacts related to population growth would be less than significant.

**Residential Displacement (Criteria #2-3).** The Revised Project would be constructed on an undeveloped lot and thus would not cause the removal of existing housing or displace existing residents, resulting in no impact on displacement and the need for replacement units. In fact, the Revised Project would create 128 dwelling units for senior residents, resulting in a beneficial impact associated with the provision of housing units.

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### **3.14 PUBLIC SERVICES**

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#### **Prior Environmental Analysis and Conclusions**

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##### **Prior Environmental Impact Findings**

The 2003 IS/EA determined that Original Project would result in a less-than-significant public service effect, because the Original Project would not significantly increase population or employment to the point of affecting service levels or the need for new fire, police, school, recreational, library, or other public service facilities. The 2009 Addendum did not identify new impacts associated with public services.

##### **2003 IS/EA Mitigation Measures**

The 2003 IS/EA concluded that the Original Project would result in a less-than-significant impact to public services and, therefore, no mitigation measures were required.

#### **Standard Conditions of Approval**

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Since City of Oakland approval of the Original Project and adoption of the 2003 IS/EA, the City has prepared Standard Conditions of Approval that apply to new development projects. The Standard Conditions of Approval that relate to public services and that would apply to the Revised Project are listed below. If the City approves the Revised Project, the Conditions of Approval will be adopted as requirements of the Revised Project and would ensure that no significant public services impacts occur. As a result, the Conditions of Approval are not listed as mitigation measures.

**SCA-71: 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 Conditions

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**Fire Protection.** The Oakland Fire Department (OFD) has 500 uniformed personnel who provide a wide range of services and programs designed to prevent, prepare for, and respond to any and all emergencies that face the City.<sup>58</sup> The Phase V Project Site is about one block from Fire Station 29 and emergency response to the future senior residents at the Phase V Project Site is within the desired seven minutes response time from the station.

**Police Protection.** The Oakland Police Department (OPD) provides law enforcement and crime prevention services. The Revised Project is located within Bureau of Field Operations (BFO) 2, Beat 26y.<sup>59</sup> As of January 1, 2011 the City of Oakland's population was estimated to be approximately 392,932 people.<sup>60</sup> The OPD currently has 647 sworn officers, which is equivalent to 1.7 officers per 1,000 residents.<sup>61</sup>

**Schools.** The Oakland Unified School District (OUSD) operates the public school system in the City of Oakland. OUSD administers 61 elementary schools, 14 middle schools, 13 high schools, 1 Adult Education School, 3 Continuation Schools, and 6 Alternative School of Choice Schools.<sup>62</sup>

**Libraries.** The Oakland Public Library (OPL) serves the population of Oakland, Piedmont, and Emeryville. The library network currently includes the Bookmobile, 21 libraries including museums, a Second Start Adult Literacy Program and the Tool Lending Library. In 2006, the OPL completed a Master Facilities Plan in response to the community's need for improved services and to plan for facilities to support projected population growth. The Plan measured OPL service levels in 2000 and set guidelines to meet the projected demand for OPL services in 2020, including the number of books in collections, seating for storytelling, community and group work rooms, computers and library space. Since the completion of this Plan, the 81<sup>st</sup> Avenue Branch has been constructed to aid in meeting the demand for library services.

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<sup>58</sup> Oakland Fire Department, "Operations," website: <http://www.oaklandnet.com/fire/operations/>. Accessed October 25, 2011.

<sup>59</sup> Oakland Police Department, Bureau of Field Operations-2, "Neighborhood Crime Prevention Council Map," website: <http://www2.oaklandnet.com/oakca/groups/police/documents/image/oak030086.pdf>. Accessed October 25, 2011.

<sup>60</sup> Department of Finance, "Table E-5 Population and Housing Estimates for Cities, Counties, and the State, 2010-2011, with 2010 Benchmark. Website: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>. Accessed, October 20, 2011.

<sup>61</sup> Oakland Police Department, Jeffrey Israel, Deputy Chief of Police, Bureau of Field Operations 1(West), e-mail communications with Atkins, November 14, 2011.

<sup>62</sup> Oakland Unified School District, "OUSD School List." Website: <http://publicportal.ousd.k12.ca.us/199410811183734550/FlexBase/FlexBaseDisplay.asp?DirectoryID=2&DisplayType=C&Field0=&Submit=Submit>. Accessed October 20, 2011.

## Significance Criteria and Impact Assessment

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### CEQA Thresholds/Criteria of Significance

A project would have a significant effect on public services if it would:

1. 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:
  - Fire protection.
  - Police protection.
  - Schools.
  - Other public facilities.

### Impact Assessment

**Construction of New or Alteration of Existing Governmental Facilities (Criterion #1).** Public service impacts are assessed in CEQA documents in the context of the 1995 appellate court decision *Goleta Union School District v. The Regents of the University of California*. This decision holds that an increase in demand for public services, such as additional staff or lengthier response times, could lead to potentially significant environmental impacts only if constructing or expanding a new facility would be required and the construction or operation of that facility might adversely affect aspects of the physical environment. As a result, increases in public service demand alone do not constitute a significant environmental effect, but if it is determined that new facilities would need to be constructed, the City must identify appropriate mitigation measures. This discussion analyzes the effect of the Revised Project on the ability of the service providers to deliver required services.

**Fire Services.** According to Action FI-1.2 of the City's Safety Element, the City's fire and emergency service providers should respond to fires and other emergencies within seven minutes of notification 90 percent of the time. While the Revised Project would be expected to increase calls for emergency medical services, possible alarm malfunctions, fire inspection services, fire suppression, and rescues, the relatively few residents (196 residents) as reported in Section 3.13, Population and Housing, would not alter existing fire service ratios of 1.27 firefights per 1,000 residents such that new facilities would need to be constructed.<sup>63</sup> As such, the Fire Department would not need additional personnel or equipment to meet the increased demand from the Revised Project. In addition, the Revised Project would be subject to SCA-71, which requires the Project Sponsors to submit a fire safety phasing plan that identifies all of the fire safety features to be incorporated into the Revised Project, to the Planning and Zoning Division and Fire Services Division for their review and approval. Implementation of this

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<sup>63</sup> Based on a 2011 City of Oakland population of 392,932 persons and increase of 196 residents as a result of the Project = 393,128 total residents.

standard condition of project approval as imposed by the City of Oakland would further ensure the adequacy of fire protection services to the Revised Project and avoid the need to expand facilities. Therefore, the Revised Project would have a less-than-significant impact on fire protection.

*Police Services.* Implementation of the Revised Project would result in approximately 196 additional residents. According to the existing officer-to-resident ratio in Oakland, the Revised Project would not substantially alter or change the demand for police protection services and, therefore, would not create a significant impact on police services. Furthermore, as an infill site, the Revised Project would not result in longer dispatch times or response times, as could occur if it were located in the outskirts of the City or in the hills.

*School Services.* The Revised Project proposes 128 residential units that would not be expected to house a substantial number of school-aged children, since it is geared toward and proposed for senior adults. As a result, the Revised Project would have a less-than-significant impact on local Oakland schools.

*Library and Other Public Services.* The Revised Project would not generate a substantial demand on library services with the incremental increase in residents and thus would not trigger the need for new or expanded library facilities, which could result in adverse physical impacts. As such, impacts on library services would be less than significant.

Residences of the 128 senior units would also likely access other facilities which provide public services such as hospitals and senior centers. It is expected that many of the future residents of the Revised Project would already live in Oakland or nearby. As a result, they would already enjoy and benefit from available social, community, and medical services, and thus not impose a new demand on these services. Even if all of the future residents were new to the area, the demand from 128 senior units would be noticeable but not likely to increase the need for such facilities such that new or expanded ones would need to be constructed. According to the 2010 Census the City had a total population of 390,724. Of that total, there are 43,559 Oakland residents over 65 years, which represents 11.1 percent of the City's total population. The Revised Project would account for a 0.45 percent increase in residents over 65 years in age, which would not be expected to generate a substantial demand for additional senior services and facilities. Furthermore, the Revised Project would include a community room, fitness space, computer room, lounge, roof deck, bicycle storage, a central courtyard, plus private patios and balconies. The Revised Project would also include one social service coordinator who could assist residents in accessing services they may need. Consequently, residences would have access to many facilities that they might typically seek off site. As such, impacts to other public services would be less than significant.

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## **3.15 RECREATION**

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### **Prior Environmental Analysis and Conclusions**

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#### **Prior Environmental Impact Findings**

The 2003 IS/EA determined that the previous development proposed for the entire Lion Creek Crossings Phase V Project Site would result in no adverse recreation effects because the Original Project rehabilitated the existing park and creek. The improved condition and increased usability as a result of the Original Project was considered to offset the need created by the Revised Project for new parks and recreation facilities. In addition, the Original Project complied with the City's no-net loss policy for parks. The 2009 Addendum did not identify new impacts associated with recreation.

#### **2003 IS/EA Mitigation Measures**

The 2003 IS/EA concluded that the Original Project would have a less-than-significant impact on recreation and, therefore, no mitigation measures were required.

### **Standard Conditions of Approval**

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The City does not have Standard Conditions of Approval directly related to recreation.

### **Existing Conditions**

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Since approval of the 2003 IS/EA, the Lion Creek Crossings park has been constructed. The park is across Lion Way from the Phase V Project Site. According to the City's Open Space, Conservation, and Recreation (OSCAR) Element, which was adopted in 1996, Oakland's total park acreage standard is 10 acres per 1,000 residents.<sup>64</sup> This standard has been in place since the 1976 OSCAR Element. The City of Oakland has approximately 6.4 acres of parkland per 1,000 residents,<sup>65,66</sup> which is below the City's desired standard. As such, there is currently a citywide deficit of parklands based on the City standard.

### **Significance Criteria and Impact Assessment**

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#### **CEQA Thresholds/Criteria of Significance**

A project would have a significant effect on recreation if it would:

1. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

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<sup>64</sup> City of Oakland, *Open Space, Conservation, and Recreation Element*, June 1996, page 4-9.

<sup>65</sup> Department of Finance, "Table E-5 Population and Housing Estimates for Cities, Counties, and the State, 2010-2011, with 2010 Benchmark. Website: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>. Accessed, October, 20, 2011.

<sup>66</sup> Based on a 2011 City of Oakland population of 392,932 persons and 2,500 acres of open space.

2. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

## **Impact Assessment**

**Recreation Facilities (Criteria #1-2).** The OSCAR Element identifies Planning Area Strategies to provide more specific priorities for smaller geographic regions. The Phase V Project Site is a part of the Central East Oakland area which has 41.7 acres of recreational land (including schoolyards). Based on this amount of park acreage, the OSCAR Element reported about 0.89 acres per 1,000 residents for this planning area.<sup>67</sup> The Revised Project, involving 128 senior residential units that would house 196 residents, would increase recreational demand; however, much of the recreational needs of the Revised Project's residents would be provided as part of the Revised Project, including a community room, fitness space, the central courtyard, and a roof deck. Moreover, the community park across Lion Way offers additional recreational and open space for Revised Project residents. As a result, the Revised Project would not require or include construction or expansion of recreational facilities that would have an adverse physical effect on the environment.

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## **3.16 TRANSPORTATION/TRAFFIC**

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### **Prior Environmental Analysis and Conclusions**

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#### **Prior Environmental Impact Findings**

The 2003 IS/EA and Addendum determined that the previous development proposed for the entire Project Site would result in a less-than-significant transportation effect because all of the study intersections operate at LOS D or better and the additional vehicle trips generated by the Original Project as amended by the Addendum would not substantially degrade intersection LOS. Additionally, the 2003 IS/EA and Addendum determined that AC Transit and BART had sufficient capacity to accommodate additional ridership associated with the Original Project as amended. The 2009 Addendum did not identify new impacts associated with transportation/traffic.

#### **2003 IS/EA Mitigation Measures**

The 2003 IS/EA concluded that the Original Project would result in a less-than-significant impact to transportation/traffic and, therefore, no mitigation measures were required.

### **Standard Conditions of Approval**

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Since City of Oakland approval of the Original Project and adoption of the 2003 IS/EA, the City has prepared Standard Conditions of Approval that apply to new development projects. The Standard Conditions of Approval that relate to transportation/traffic and that would apply to the Revised Project are listed below. If the City approves the Revised Project, the Conditions of Approval will be adopted

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<sup>67</sup> City of Oakland, *Open Space, Conservation, and Recreation Element*, June 1996, page 4-24.

as requirements of the Revised Project and would ensure that no significant transportation/traffic impacts occur. As a result, the Conditions of Approval are not listed as mitigation measures.

**SCA-33: 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. 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.
- e. Provision for accommodation of pedestrian flow.

## **Existing Conditions**

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The following discussion reviews the intersections evaluated in the Traffic Impact Study (included as Appendix D), along with recent changes in the circulation network surrounding the Phase V Project Site, as well as existing transit, pedestrian, bicycle, and parking conditions.

## **Study Area and Key Intersections**

The following nine key intersections were previously studied for the 2003 IS/EA:

1. 66th Avenue/I-880 Northbound Off-ramp;
2. 66th Avenue/I-880 Southbound Ramps;
3. 66th Avenue/San Leandro Street;
4. 66th Avenue/International Boulevard;

5. 69th Avenue/San Leandro Street;
6. 69th Avenue/International Boulevard;
7. Hegenberger Road On-ramp/San Leandro Street;
8. Hegenberger Road Off-ramp/San Leandro Street/75th Avenue; and
9. Hegenberger Road/South Coliseum Way/Edes Avenue.

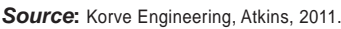
Six of the nine study intersections were re-evaluated for the 2009 Addendum (see Figure 3.16-1).<sup>68</sup> All of the study intersections are signalized and in the immediate vicinity of the Phase V Project Site (outside the Downtown area), primarily along 66<sup>th</sup> Avenue, 69<sup>th</sup> Avenue, San Leandro Street, International Boulevard, Hegenberger Road, and I-880. These locations were chosen originally because they reflected the most likely locations for project-related traffic to affect local circulation and levels of congestion. Further, 66<sup>th</sup> Avenue, 69<sup>th</sup> Avenue, San Leandro Street, International Boulevard, Hegenberger Road, and I-880 provide primary access to the Project area. The traffic analysis conducted for the 2009 Addendum re-evaluated six of the nine study intersections and found that all six intersections operate at an acceptable level of service (LOS) as shown in Table 3.16-1, below.<sup>69</sup>

<b>Table 3.16-1</b> <b>2009 Addendum - Intersection Level of Service Summary</b>			
<b>Intersection</b>	<b>Control Type</b>	<b>Peak Hour</b>	<b>Existing</b>
			<b>Intersection Level of Service (Total Vehicle Delay)</b>
1. 66 <sup>th</sup> Avenue/ San Leandro Street	Signal	AM	C (26.9)
		PM	C (25.8)
2. 66 <sup>th</sup> Avenue/ International Blvd	Signal	AM	B (15.8)
		PM	B (14.5)
3. 69 <sup>th</sup> Avenue/ San Leandro Street	Signal	AM	B (15.9)
		PM	B (13.4)
4. 69 <sup>th</sup> Avenue/ International Boulevard	Signal	AM	B (13.5)
		PM	B (11.9)
5. Hegenberger Rd Off-Ramp/ San Leandro Street/75 <sup>th</sup> Avenue	Signal	AM	B (14.0)
		PM	B (15.1)
6. Hegenberger Road/ S.Coliseum Way/Edes Avenue	Signal	AM	C (30.6)
		PM	D (39.3)

Source: DMJM Harris/AECOM, June 27, 2007.

<sup>68</sup> For the Addendum, traffic conditions were re-evaluated for the morning and evening peak hours for six of the original nine study intersections. The 66th Avenue / I-880 Southbound Off-Ramp, 66th Avenue/I-880 Northbound Ramps, and Hegenberger Road On-Ramp / San Leandro Avenue intersections were not re-evaluated due to the fact that each intersection was projected to operate at LOS A under all scenarios in the 2003 IS/MND.

<sup>69</sup> LOS definitions generally describe traffic conditions in terms of speed and travel time, volume and capacity, freedom to maneuver, traffic interruptions, comfort and convenience and safety. LOS is represented by the letters A – F, with LOS A representing the best operating conditions and LOS F the worst.



## **Traffic Counts**

Updated traffic counts were performed for the original nine intersections on April 26, 2011. In addition, 24-hour counts were undertaken on April 20, 2011 for San Leandro Street, between 66<sup>th</sup> Avenue and 69<sup>th</sup> Avenue, and for 66th Avenue, between Lion Way and San Leandro Street. In general, PM peak period trips (4:30 to 6:30 pm) were greater than the AM peak period volumes (6:30 to 8:30 am). Daily volumes on San Leandro Street ranged between 18,400 and 21,300 vehicles; on 66th Avenue, between 8,200 and 8,600 vehicles.

## **Pedestrian Circulation**

With the exception of the recently constructed Project Phases I-III and the modification of the Lion Creek Crossings' internal roadway network, pedestrian circulation conditions within the Project area are similar to those described in the 2003 IS/EA.

## **Bicycle Circulation**

According to the Bicycle Master Plan (2007) a Class 1 bicycle path provides a completely separate right-of-way for exclusive use of bicycles and pedestrians. Class 2 bicycle lanes are striped lanes on streets, designated with specific signage and stencils, for the use of bicycles. Bicycle lanes are the preferred treatment for all arterial and collector streets on the bikeway network. Class 3 bicycle routes designated preferred streets for bicycle travel using lanes shared with motor vehicles. While the only required treatment is signage, bicycle routes are designated because they are suitable for sharing with motor vehicles and provide better connectivity than other streets. There are no existing bicycle routes within a quarter-mile radius of the Phase V Project Site; the closest route is a Class II bike lane along 73<sup>rd</sup> Avenue between International Boulevard and Bancroft Avenue.

The Bicycle Master Plan is a part of the Oakland General Plan Land Use and Transportation Element.<sup>70</sup> The most recent update was completed in December 2007. Figure H.3, Proposed Bikeway Network, of the Bicycle Master Plan shows both the existing and proposed bikeway network surrounding the Phase V Project Site. According to this map, there are several proposed bikeways within the Project vicinity, including but not limited to a proposed Class II bike lane along 66<sup>th</sup> Avenue between San Leandro Street and Bancroft Avenue, a proposed Class 2 bike lane along 73<sup>rd</sup> Avenue between San Leandro Street and International Boulevard, and a proposed Class I bike path/Class II bike lane along San Leandro Street.

## **Methodology**

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**Intersection Operations.** Because there were no notable changes at the study intersection turning movements from traffic studies performed for earlier phases of the Project (and as shown later in the discussion of Travel Demand, the net change in peak period trips between the previously approved single residential project and the proposed 128 senior housing units is negligible), intersection LOS has been updated for only three of the original nine study intersections: San Leandro Street/66<sup>th</sup> Avenue, San Leandro Street/69<sup>th</sup> Avenue; and Hegenberger Road/South Coliseum Way/Edes Avenue. The

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<sup>70</sup> City of Oakland, *Bicycle Master Plan, Proposed Bikeway Network*, December 2007.

intersections of 66<sup>th</sup> Avenue and 69<sup>th</sup> Avenue with San Leandro Street were chosen because they represent the two nearest intersections to the Phase V Project Site and because the majority of the trips to and from the Phase V Project Site would travel through these intersections, based on the traffic distribution derived for the 2003 IS/EA. The Hegenberger Road/South Coliseum/Edes Avenue intersection was chosen because it was the only study intersection in the Addendum at LOS D (all other intersections were estimated to experience less delay and congestion) and, therefore, is the worst performing of the study intersections.

The LOS results for these three intersections were derived using the Transportation Research Board's *2010 Highway Capacity Manual* as required by the City of Oakland. Synchro 7 traffic operations analysis software was used to study the intersections.

**Trip Generation.** The trip generation rates from the Original Project were used to estimate the number of vehicle trips that would be generated by the 128 senior housing units. While the trip generation rates and inbound/outbound splits for the Revised Project are based on the Institute of Transportation Engineers, Trip Generation Manual, Sixth Edition, the rates remain the same in the current eighth edition of the manual.<sup>71</sup> According to both the Sixth and Eighth Editions of the Trip Generation Manual, senior housing (identified as Land Use 252 in the Trip Generation Manuals) would generate 0.06 AM peak hour trips per unit, 0.11 PM peak hour trips per unit, and 3.48 daily trips per unit.

**Trip Distribution.** The trip distribution patterns predicted for the Original Project and included in the 2003 IS/EA were used in the Traffic Impact Study prepared for the Revised Project.

## Significance Criteria and Impact Assessment

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### CEQA Thresholds/Criteria of Significance

A project would have a significant effect on transportation/traffic if it would:

#### *Project Impacts*

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<sup>72</sup> area, would the project cause the level of service (LOS) to degrade to worse than LOS D (i.e., LOS E).

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<sup>71</sup> Institute of Transportation Engineers, Trip Generation, 6<sup>th</sup> Edition and 8<sup>th</sup> Edition.

<sup>72</sup> The Downtown area is defined in the Land Use and Transportation Element of the General Plan (page 67) as the area generally bounded by the 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.

2. At a study, signalized intersection which is located within the Downtown area, would the project cause the LOS to degrade to worse than LOS E (i.e., LOS F).
3. At a study, signalized intersection outside the Downtown area where the level of service is LOS E, would the project cause the total intersection average vehicle delay to increase by four (4) or more seconds or degrade to worse than LOS E (i.e., LOS F).
4. At a study, signalized intersection for all areas where the level of service is LOS E, would the project cause an increase in the average delay for any of the critical movements of six (6) seconds or more or degrade to worse than LOS E (i.e., LOS F).
5. At a study, signalized intersection for all areas where the level of service is LOS F, would the project cause (a) the overall volume-to-capacity ("V/C") ratio to increase 0.01 or more or (b) the critical movement V/C ratio to increase 0.02 or more.
6. At a study, unsignalized intersection would the project add ten (10) or more vehicles and after project completion satisfy the Caltrans peak hour volume traffic signal warrant.
7. For a roadway segment of the Congestion Management Program (CMP) Network, would the project 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?<sup>73</sup>.
8. Cause congestion of regional significance on a roadway segment on the Metropolitan Transportation System (MTS) evaluated per the requirements of the Land Use Analysis Program of the CMP.<sup>74</sup>
9. Result in substantially increased travel times for AC Transit buses.<sup>75</sup>

### *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.<sup>76</sup>

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<sup>73</sup> This threshold only applies to land use development projects that generate a vehicle trip on a roadway segment of the CMP Network located in the project study area and to transportation projects that would reduce the vehicle capacity of a roadway segment of the CMP Network.

<sup>74</sup> This threshold only applies to a land use development project that involves either (a) a general plan amendment that would generate 100 or more p.m. peak hour trips above the current general plan land use designation or (b) an EIR and the project would generate 100 or more p.m. peak hour trips above the existing condition. Factors to consider in evaluating the potential impact include, but are not limited to, the relationship between the project and planned improvements in the Countywide Transportation Plan, the project's consistency with City policies concerning infill and transit-oriented development, the proximity of the project to other jurisdictions, and the magnitude of the project's contribution based on V/C ratios.

<sup>75</sup> Factors to consider in evaluating the potential impact include, but are not limited to, the proximity of the project site to the transit corridor(s), the function of the roadway segment(s), and the characteristics of the potentially affected bus route(s). The evaluation may require a qualitative and/or quantitative analysis depending upon these relevant factors.

11. Directly or indirectly result in a permanent substantial decrease in pedestrian safety.<sup>77</sup>
12. Directly or indirectly result in a permanent substantial decrease in bicyclist safety.<sup>78</sup>
13. Directly or indirectly result in a permanent substantial decrease in bus rider safety.<sup>79</sup>
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.<sup>80</sup>

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<sup>76</sup> Factors to consider in evaluating the potential impact to roadway users due to physical design features and incompatible uses include, but are not limited to, collision history and the adequacy of existing traffic controls.

<sup>77</sup> Consider whether factors related to pedestrian safety such as, but not limited to, the following are substantial in nature:

- Degradation of existing pedestrian facilities, including the following:
  - Removal of existing pedestrian refuge islands and/or bulbouts
  - Increase of street crossing distance
  - Permanent removal or significant narrowing of an existing sidewalk, path, marked crossing, or pedestrian access way
  - Increase in pedestrian or vehicle volume at unsignalized or uncontrolled intersections
  - Sidewalk overcrowding
- Addition of new vehicle travel lanes and/or turn lanes
- Permanent removal of existing sidewalk-street buffering elements (e.g., on-street parking lane, planting strip, street trees)
- Addition of vehicle driveway entrance(s) that degrade pedestrian safety, with considerations given to the following:
  - Number of proposed vehicle driveway entrances
  - Location of proposed vehicle driveway entrance(s)
  - Visibility between pedestrians on the sidewalk and motorists using the proposed vehicle driveway entrance(s)

<sup>78</sup> Consider whether factors related to bicyclist safety such as, but not limited to, the following are substantial in nature:

- Removal or degradation of existing bikeways
- Addition of new vehicle travel lanes and/or turn lanes
- Addition of vehicle driveway entrances(s) that degrade(s) bicycle safety, with consideration given to the following:
  - Number of proposed vehicle driveway entrances
  - Location of proposed vehicle driveway entrance(s)
  - Visibility between bicyclists on travelway and motorists using the proposed vehicle driveway entrance(s)

<sup>79</sup> Consider whether factors related to bus rider safety such as, but not limited to, the following are substantial in nature:

- Removal or degradation of existing bus facilities
- Siting of bus stops in locations without marked crossings, with insufficient sidewalks, or in isolated or unlit areas
- Addition of new bus riders that creates overcrowding at a bus stop

<sup>80</sup> If the project will generate substantial multi-modal traffic across an at-grade railroad crossing, a Diagnostic Review will be required in consultation with the California Public Utilities Commission. The Review should include roadway and rail descriptions, collision history, traffic volumes for all modes, train volumes, vehicular speeds, train speeds, and existing rail and traffic controls.

### *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.<sup>81</sup>
16. Result in a substantial, though temporary, adverse affect on the circulation system during construction of the project.
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*

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

- Parking
- Transit Ridership
- Queuing
- Traffic Control Devices
- Collision History

## **Impact Assessment**

**Intersection Operation (Criteria #1-6).** This assessment describes the predicted changes to congestion levels at study intersections with the Revised Project.

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<sup>81</sup> Factors to consider in evaluating the potential conflict include, but are not limited to, the following:

- Does the project prevent or otherwise substantially adversely affect the future installation of a planned transportation improvement identified in an adopted City policy, plan, or program?
- Does the project fundamentally conflict with the applicable goals, policies, and/or actions identified in an adopted City policy, plan, or program?

Adopted City policies, plans, and programs to consider include, but are not limited to, the following:

- Land Use and Transportation Element (LUTE) of the General Plan (March 1998)
- Pedestrian Master Plan (November 2002)
- Bicycle Master Plan (December 2007)
- Public Transit and Alternative Modes Policy (formerly known as the "Transit-First Policy;" City Council Resolution 73036 C.M.S.)
- Sustainable Development Initiative (City Council Resolution 74678 C.M.S.)
- U.N. Environmental Accords (City Council Resolution 79808 C.M.S.)
- Capital Improvement Program

Based on the trip generation analysis described under Methodology, above, the Revised Project would result in approximately 370 daily vehicle trips (inbound and outbound) on a typical weekday. Of these daily trips, 6 would occur during AM peak hour and 12 would occur during the PM peak hour. As described under Methodology, above, only three of the nine study intersections evaluated for the Original Project were re-evaluated for the Revised Project. The results of the intersection analysis with the additional peak hour trips from the Revised Project are summarized in Table 3.16-2.

As shown in Table 3.16-2, all of the intersections would operate at an acceptable level of service (LOS D or better). There are some differences that should be noted between the 2011 LOS compared to the existing LOS reported in the 2009 Addendum. In 2011, the intersection of 66<sup>th</sup> Avenue and San Leandro Street operates at LOS D during the PM peak hour but was reported to operate at LOS C in the Addendum (Table 3.16-1). The change in average delays is attributable to intersection modifications; the left turn lane from 66<sup>th</sup> Avenue to San Leandro Street was revised from an unprotected turn lane to a protected turn lane. Similarly, a turn lane modification accounts for the improved operations (LOS B to LOS A) at 66<sup>th</sup> Avenue/San Leandro Street. Finally, at Hegenberger Road/South Coliseum Way/Edes Avenue, intersection operations have improved from LOS D to LOS C, due to changes in land uses and the economy.

Because the Revised Project generates a nominal increase in traffic at the study intersections and would not cause any of these intersections to operate below LOS D, it would result in a less-than-significant intersection impact.

**Table 3.16-2**  
**Existing (2011) and Projected (2013) Intersection Levels of Service**

Intersection	Peak hour	Existing (2011) Conditions	Year 2013 Conditions without Revised Project	Year 2013 Conditions w/ Revised Project
		LOS (Total Vehicle Delay)	LOS (Total Vehicle Delay)	LOS (Total Vehicle Delay)
66th Avenue/ San Leandro Street	AM	B (18.3)	B (18.8)	B (18.9)
	PM	D (50.1)	D (52.8)	D (54.4)
69th Avenue/ San Leandro Street	AM	A (7.8)	A (7.8)	A (7.8)
	PM	A (5.4)	A (5.4)	A (5.4)
Hegenberger Road/S. Coliseum Way/ Edes Avenue	AM	C (21.6)	C (22.1)	C (22.1)
	PM	C (27.9)	C (28.1)	C (28.1)

Source: Atkins, 2011.

**CMP Network Roadway Segments (Criterion #7).** The following two CMP roadway segments are in the vicinity of the Project and were analyzed in the 2003 IS/EA and Addendum:

- I-880 between I-980 and Hegenberger Road
- Hegenberger Road between I-880 and Hawley Street

In 2010, the most current year of monitoring service, both CMP roads operated at acceptable levels of service, except for I-880 in the northbound direction during the morning commute. Specifically, the I-880 segment in the northbound direction operated at LOS C or better in the PM peak period and LOS F or better in the AM peak period; and in the southbound direction, at LOS E or better in the PM peak period and at LOS D or better in the AM peak period. The Hegenberger segment operated at LOS C or better in the eastbound and westbound directions, during the PM peak period; and at LOS C or better in the eastbound and westbound directions, during the AM peak period.<sup>82</sup>

Given that a minimum threshold to be identified as a CMP road is a daily volume of 30,000 vehicles, the Revised Project's trip generation of 370 daily trips would be negligible. Even if all the Revised Project trips used a CMP road, the trips would represent at most 1.2 percent of the total daily volumes, which would not be substantial enough to cause congestion and average speeds to deteriorate to LOS F or for the V/C ratio to increase 0.03 on the northbound segment of I-880 (which operated at LOS F in 2010). As a result, the Revised Project's effect on the CMP network is considered to be less than significant.

**MTS Roadway Segments (Criterion #8).** The federal Intermodal Surface Transportation Efficiency Act of 1991 required regional agencies, like the Metropolitan Transportation Commission in the San Francisco Bay Area, to develop a Metropolitan Transportation System (MTS) that included both transit and highways. On the roadway side, the MTS included all interstate highways, state routes, and portions of the street and road system operated and maintained by local jurisdictions. It is broader than and encompasses the CMP network described above in Criterion #7.

The City of Oakland has developed a screening threshold to determine whether projects need to evaluate potential impacts to the MTS; the threshold is similar to that used by Congestion Management Agencies throughout the Bay Area and is intended to identify more substantial projects that could affect the MTS. Specifically, projects that generate 100 or more PM peak hour trips above the existing general plan land use designation or above the existing conditions warrant more detailed study. As noted above in Criterion #6, the Revised Project would generate about 12 PM peak hour trips and thus would not be expected to affect the MTS, and its effects would be less than significant.

**Transit (Criterion #9).** The Revised Project would be served by an existing AC Transit bus stop within walking distance of the Phase V Project Site. The small scale of the Revised Project (128 senior housing units) would not necessitate construction of a new bus stop or modification to AC Transit's bus routes. Additionally, as described in Criterion #1 above, the Revised Project would have a less-than-significant impact on intersection LOS, and would therefore not increase delays or reduce travel speed for AC Transit buses. Since the Revised Project would not substantially increase AC Transit travel times, the impact on bus transit service would be less than significant.

**Vehicle, Pedestrian, and Bicycle Safety (Criteria #10-13).** The Revised Project would be constructed on an infill site, with residential development to the north and south, and an existing road network providing local circulation and access to the Phase V Project Site. As a result, the Revised

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<sup>82</sup> Alameda County Transportation Commission, 2010 Level of Service Monitoring Report, September 2010, pp. A-3, A-5, A-14, and A-16.

Project would not include construction of new off-site roadways. The proposed land use is a residential development for seniors, and consequently would not require use of equipment or machinery that could pose a serious traffic hazard. There are no bus facilities within the Project area and as described in Criterion #9 above, the Revised Project would have a less-than-significant impact regarding delays to AC Transit bus travel times. The Phase V Project Site is located within a contained residential development with limited traffic and would not expose pedestrians to dangerous, unsignalized intersection conditions. As noted in Table 3.16-1 above, all of the study intersections surrounding the Project area are signalized. Lion Way would provide access to the Phase V Project Site and would lead to an onsite surface parking lot in the southern portion of the Phase V Project Site via a driveway along Lion Way (see Figure 2-3, in Chapter 2, Project Description). The Revised Project would also include sidewalks along the Phase V Project Site frontage. The driveway would be designed to provide vehicles with adequate line of sight, thereby reducing risks to bicycles and pedestrians.

The Revised Project would not include removal of pedestrian refuge islands and/or bulbouts, would not increase the street crossing distance for Lion Way, would not increase pedestrian or vehicle volumes at unsignalized or uncontrolled intersections, would not include addition of new vehicle travel lanes, and would not result in the removal or degradation of existing bikeways. Therefore, the Revised Project would result in a less-than-significant impact on motorist, pedestrian, and bus rider safety.

**Railroad Crossings (Criterion #14).** Western Pacific and Southern Pacific rail lines pass within a quarter mile of the Phase V Project Site; specifically, the tracks are adjacent to and parallel San Leandro Street with intersections at 66<sup>th</sup> Avenue and 69<sup>th</sup> Avenue. The Western Pacific and Southern Pacific rail lines cross 66<sup>th</sup> Avenue and 69<sup>th</sup> Avenue at grade. According to the Traffic Impact Analysis conducted for the 2003 IS/MND, the greatest percentage of vehicle trips (30 percent) associated with the Original Project would travel to and from I-880, crossing the at-grade railroad tracks at either 66<sup>th</sup> Avenue or 69<sup>th</sup> Avenue. It is reasonable to assume that for the Revised Project, a similar percentage of vehicle trips would travel across the at-grade railroad crossings (representing a conservative assumption). However, as described in Criterion #1, above, overall the Revised Project would not result in the generation of a substantial number of new vehicle trips and, therefore, would not generate a substantial number of vehicle trips traveling across the at-grade rail crossings at 66<sup>th</sup> Avenue and 69<sup>th</sup> Avenue. In addition, the Revised Project would not include a new or modified bus route that would result in a substantial number of buses traveling over the at-grade railroad crossing identified above. Furthermore, there is a pedestrian undercrossing located near 72nd Avenue and Snell Street provides access to the Coliseum BART Station and the area west of San Leandro Street. This undercrossing allows pedestrians to travel west of the Western Pacific and Southern Pacific railroad lines without crossing them at-grade. Accordingly, the Revised Project would have a less-than-significant impact on the generation of multi-modal traffic traveling across an at-grade railroad crossing.

**Compliance with Alternative Transportation Policies (Criterion #15).** The Revised Project is less than a 0.5 mile from the Coliseum BART Station. As described earlier in Section 3.10, Land Use and Planning, the Revised Project is within a Transit Oriented Development (S-15) zoning district. The S-15 zoning district is intended to create, preserve, and enhance areas devoted primarily to serve multiple

nodes of transportation and to feature high-density residential, commercial, and mixed-use development. As a high density, senior housing development, the Revised Project would comply with the intention of the S-15 zoning district. Additionally, by locating senior housing within walking distance of multiple public transit options (AC Transit and BART) at the Coliseum BART Station, the Revised Project would be supportive of the Public Transit and Alternative Modes Policy, the Sustainable Development Initiative, the LUTE, and the Pedestrian Master Plan. In particular, because the Revised Project would result in additional housing near the Coliseum BART Station, the Revised Project would promote Policy T4.6 in the LUTE. Policy T4.6 states that alternative modes of transportation should be accessible for all of the City's population, including the elderly, disabled, and disadvantaged. This policy is reiterated in the Pedestrian Master Plan. Therefore, the Revised Project would not conflict with adopted policies supporting alternative transportation, resulting in no impact.

**Construction-Related Impacts (Criterion #16).** As described under Criterion #1 above, the study intersections surrounding the Phase V Project Site all operate at LOS D or better and vehicle trips generated by the Revised Project would not degrade LOS on any of these intersections. Daily and peak hour construction-related vehicle trips would be less than project-related vehicle trips, and, therefore, would also not adversely affect intersection LOS. The Phase V Project Site is served by a minor road with minimal traffic and importance to the surrounding circulation network. Also, prior to the issuance of a grading or building permit, in accordance with SCA-33, the Project Sponsors and contractor would meet with the appropriate City 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. Therefore, construction of the Revised Project would have a less-than-significant impact on the local circulation system.

**Air Traffic (Criterion #17).** The Revised Project would result in the construction of 128 senior housing units. The Revised Project would not involve the use of airplanes. Thus, the Revised Project would have no impact on air traffic patterns. Further as noted earlier in Section 3.8, Hazards and Hazardous Materials, the Oakland Airport Land Use Compatibility Plan delineates an "Airport Influence Area," within which new land uses and development projects are subject to policies presented in the Airport Land Use Compatibility Plan. The Airport Influence Area extends east to San Leandro Street; however, the Phase V Project Site lies east of San Leandro Street. As a result, the Revised Project would not result in changes in the operations or activities at the Oakland International Airport.

**Cumulative Impacts (Criterion #18).** The 2003 IS/MND determined that under long-term cumulative conditions, all intersections would operate at LOS D or better with implementation of the Original Project. Similarly, the updated traffic study conducted for Addendum, which reflected the cumulative land use forecasts for the City at that time (2007), found that all intersections would operate at LOS D or better. Cumulative projects considered in the Addendum include, but are not limited to individual projects under the Coliseum Area Redevelopment Plan (little has occurred), the BART Oakland Airport Connector (under construction), and the Metroport Project (completed). It is important to note that the completed Metroport Project is sizably different from the original development proposed for this project site. The 2002 Metroport Final EIR evaluated the development of a 1.6 million sf office space and a 300-room hotel in a multi-phased implementation approach. An Addendum to the 2002 Final

EIR was completed in 2006, which considered the development of two 30,000 sf commercial buildings and a 6,500 sf restaurant on the project site. The balance of the site evaluated in the Metroport EIR is now occupied by Wal-Mart and other retail and restaurant establishments. Finally, in 2007 an Initial Study was completed for a proposed Toyota automobile dealership on a remaining vacant site within the larger Metroport project site. As of 2011, the Toyota automobile dealership is operational, and the Metroport Phase V Project Site is built-out. Although the Revised Project would result in construction of 128 senior housing units compared to 28 for-sale units evaluated in the Addendum, as described in the evaluation of net Revised Project effects below (see Table 3.16-2), the change in proposed development at the Phase V Project Site would have a negligible effect on vehicle trip generation. As such, it is expected that under future cumulative conditions with implementation of the Revised Project, all study intersections would operate at LOS D or better.

Further, with the exception of the Coliseum Area Specific Plan(s) just being initiated by the City, there have been virtually no new development proposals in the project vicinity since the Addendum was published in 2009. At this time, the Coliseum Area Specific Plan(s) is in the early stages of development, and details of the plan are to be defined as the planning effort unfolds. Therefore, any analysis involving possible traffic impacts of the Coliseum Area Specific Plan(s) would be speculative and are not considered for the purposes of this document.

In light of the above, the Revised Project would not exceed any of the thresholds identified in Criteria #1-17 in the future year scenario and the Revised Project would not result in cumulatively considerable transportation/traffic effects.

**Planning Related Non-CEQA Issues (Criterion #19).** The Revised Project would comply with applicable planning-related regulations and the relatively few trips generated by the Revised Project would not be expected to result in traffic circulation issues as described below.

*Parking.* Per Section 17.116.110 of the Planning Code, one parking space per dwelling unit is required for multifamily housing, which would mean that the Revised Project requires 128 parking spaces. However; the City allows a 75 percent reduction in required parking spaces for senior housing, which translates into 32 spaces. The Revised Project would include a surface parking lot with 32 parking spaces and one loading zone in the southern portion of the Phase V Project Site. As such, the Revised Project would meet the City's minimum parking requirement.

*Transit Ridership.* Transit trips were calculated for the Original Project. The Original Project trip generation assumed that transit trips accounted for approximately 17 percent of all senior housing trips and that the remaining 83 percent of all the trips generated by the proposed senior housing units were vehicle trips. Based this modal-split factor, the Revised Project would generate approximately 76 transit trips on a weekday daily basis and approximately two transit trips in the AM peak hour and two transit trips in the PM peak hour. Based on the Alameda County Congestion Management Agency's (ACCMA) Countywide Transportation Demand Model, used for the 2003 IS/EA, Bay Area Rapid Transit (BART) and AC Transit are estimated to serve 10 percent and 7 percent of total Revised Project trips, respectively.

As identified in the 2003 IS/EA, the primary AC Transit bus stop serving the Project area is at the Coliseum BART Station. According to the Traffic Impact Analysis (TIS) conducted for the 2003 IS/EA, during the AM peak hour, 238 passengers boarded AC Transit buses and during the PM peak hour, 236 passengers boarded at the Coliseum BART Station. The Revised Project would result in a 0.8 percent increase in passenger boarding during the AM and PM peak hours for AC Transit buses at the Coliseum BART Station. The TIS determined that the Original Project would increase AC Transit boarding at the Coliseum BART Station by 6 percent in the AM peak hour and 3 percent in the PM peak hour and would not exceed 125 percent of the average load factor for AC Transit buses. Because the Revised Project would result in fewer additional AM and PM peak hour passengers than the Original Project, it follows that the Revised Project would also not exceed 125 percent of the average load factor for AC Transit buses.

*Queuing.* As noted in Criterion #1 above, the Revised Project would have a less-than-significant impact on intersection LOS and would therefore not substantially increase traffic congestion. In addition, the Revised Project would not include new traffic control devices, turn lanes, or intersections. As a result, the Revised Project would not be expected to create queues at intersections in the Project vicinity.

*Traffic Control Devices.* The Revised Project would not include new traffic control devices, turning lanes, or any other off-site road improvement.

*Collision History.* As noted in Criterion #1 above, the Revised Project would generate few additional vehicle trips and would not include street crossings, turn lanes, or intersection modifications. Therefore, the Revised Project would have minimal impact on collision history in the Project vicinity.

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## **3.17 UTILITIES AND SERVICES SYSTEMS**

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### **Prior Environmental Analysis and Conclusions**

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#### **Prior Environmental Impact Findings**

The 2003 IS/EA determined that the previous development proposed for the entire Lion Creek Crossings Phase V Project Site would result in a less-than-significant effect because it was determined that the applicable utility providers had sufficient capacity to accommodate the demands of the Original Project. The 2009 Addendum did not identify new impacts associated with utilities and services systems.

#### **2003 IS/EA Mitigation Measures**

The 2003 IS/EA identified the following mitigation measure to reduce impacts related to utilities to a less-than-significant level:

*UT-2.1 Wastewater Capacity Analysis.* As part of the public improvement plans for the Revised Project, an analysis shall be completed to confirm available wastewater capacity within the affected subbasins and specify replacement or rehabilitation improvements of the existing

system to ensure that there is available capacity for the demand created by the Revised Project from the EBMUD interceptor system to the proposed project connection. These improvements shall be included in the final public improvement plans.

*UT-3.1 Prepare Construction Waste Diversion Plan.* Prior to issuance of building permits, the Project Sponsor shall submit a diversion plan for review and approval by the City of Oakland. The plan will specify the methods by which the development will make a good faith effort to divert 50 percent of the construction waste generated by the Revised Project from landfill disposal. After approval of the plan, the Project Sponsor will implement the plan.

*UT-3.2 Prepare Operational Waste Diversion Plan.* Prior to the issuance of building permits, the Project Sponsor shall submit a diversion plan for review and approval by the City of Oakland. The plan shall specify the methods by which the development will make a good faith effort to divert 75 percent of the solid waste generated by operation of the Revised Project.

*(NOTE: Mitigation Measures UT-3.1 and UT-3.2 are not applicable to the Revised Project because they are replaced by SCA-36 regarding construction-related and operational waste reduction and recycling, further described below.)*

### **Standard Conditions of Approval**

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Since City of Oakland approval of the Original Project and adoption of the 2003 IS/EA, the City has prepared Standard Conditions of Approval that apply to new development projects. The Standard Conditions of Approval that relate utilities and that would apply to the Revised Project are listed below. If the City approves the Revised Project, the Conditions of Approval will be adopted as requirements of the Revised Project and would ensure that no significant utility impacts occur. As a result, the Conditions of Approval are not listed as mitigation measures.

**SCA-36: 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](http://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 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-80: Post-Construction Stormwater Management Plan.** (Please refer to Section 3.9, Hydrology and Water Quality.)

**SCA-81: Maintenance Agreement for Stormwater Treatment Measures.** (Please refer to Section 3.9, Hydrology and Water Quality.)

**SCA-91: Stormwater and Sewer.** (Please refer to Section 3.9, Hydrology and Water Quality.)

**Supplemental SCA-H: 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 the LEED / 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. The green building point level/certification requirement for the Revised Project is 50 points 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 Build It Green / 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.

## **Existing Conditions**

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Since publication of the 2003 IS/EA existing conditions in the Project vicinity as they relate to utilities and service systems have remained relatively unchanged. The service providers identified in the 2003 IS/EA would still be responsible for servicing the Phase V Project Site. As such, an updated description is not necessary.

## **Significance Criteria and Impact Assessment**

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### **CEQA Thresholds/Criteria of Significance**

A project would have a significant effect on utilities and service systems if it would:

1. Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board.
2. Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects.
3. Exceed water supplies available to serve the project from existing entitlements and resources, and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects.
4. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which could cause significant environmental effects.
5. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects.
6. Violate applicable federal, state, and local statutes and regulations related to solid waste.
7. Violate applicable federal, state and local statutes and regulations relating to energy standards.
8. Result in a determination by the energy provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.

### **Impact Assessment**

**Wastewater Impacts (Criteria #1 and 4).** The Revised Project would result in the construction of 128 senior housing units on the currently undeveloped Phase V Project Site and would therefore increase the generation of wastewater over existing conditions. Wastewater generated from the

Revised Project would be conveyed to the East Bay Municipal Utility District's (EBMUD) Main Wastewater Treatment Plant (MWWTP) located in West Oakland. The MWWTP has a Regional Water Quality Control Board (RWQCB) permitted average dry weather flow capacity of 120 million gallons per day (mgd). During peak wet weather events, the MWWTP has a primary treatment capacity of up to 320 mgd and a secondary treatment capacity of 168 mgd. However, the EBMUD MWWTP can provide capacity for a short-term hydraulic peak of 415 mgd through operation of an onsite wet weather storage basin.<sup>83</sup> The average annual flow of treated wastewater from the service area is currently 80 mgd.

Under existing storm conditions, maximum flow can exceed capacity at the MWWTP. However, EBMUD operates storage basins that provide additional capacity for a short-term hydraulic peak of 415 mgd as well as two wet weather treatment facilities (WWF) in Oakland (the San Antonio Creek WWF and the Oakport WWF). EBMUD's wet weather facilities handle excess sewage during storms when flows exceed the capacity of the district's main wastewater treatment plant due to infiltration of stormwater into sanitary sewage pipes.

Based on the City's 2007 – 2014 Housing Element Final Environmental Impact Report (EIR), it is assumed that wastewater generation is approximately 80 percent of water demand.<sup>84</sup> As identified under Criterion #3, below, the Revised Project would require approximately 13,720 gallons of water per day, or 0.014 mgd. Accordingly, the Revised Project would generate approximately 10,976 gallons of wastewater per day, or 0.011 mgd. Wastewater generated from operation of the Revised Project would represent approximately 0.03 percent of the MWWTP's remaining average dry weather capacity of 40 mgd. Therefore, the MWWTP would have sufficient permitted capacity to accommodate the increase in average dry weather flow associated with the Revised Project, and the Revised Project would not result in the need to construct new wastewater treatment facilities or expansion of existing facilities provided that the Revised Project and the wastewater generated by the Revised Project meet the requirements of the current EBMUD Wastewater Control Ordinance, which stipulates that wastewater may be discharged into community sewers for interception, treatment, and disposal by EBMUD provided that such wastewater does not contain substances prohibited, or exceed limitations of wastewater strength, set forth in the Wastewater Control Ordinance.<sup>85</sup> Further, according to the Wastewater Control Ordinance, all dischargers are required to pay a use charge for disposal services, which reflects the quantity, quality, and flow of the discharged wastewater. As a senior housing development, the Revised Project would not require a discharge permit and would not discharge wastewater in violation of EBMUD's Wastewater Control Ordinance.<sup>86</sup> The sewer lines in the Project area (to which the Revised Project would connect) were entirely replaced as part of the

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<sup>83</sup> City of Oakland, General Plan – Housing Element Update 2007 – 2014 EIR: Initial Study, November 5, 2010, page 197.

<sup>84</sup> City of Oakland, General Plan – Housing Element Update 2007 – 2014 EIR: Initial Study, November 5, 2010, page 209.

<sup>85</sup> Vince De Lange, Supervisor of Wastewater Planning, East Bay Municipal Utility District, Email Communication, October 26, 2011.

<sup>86</sup> EBMUD, Wastewater Control Ordinance, No. 355-11.

Original Project and, therefore, are compliant with EBMUD's recommendation to rehabilitate existing sewer lines to reduce infiltration and inflow during wet weather events.<sup>87</sup>

In addition, according to the 2007 – 2014 Housing Element Final EIR, EBMUD has anticipated a 20 percent increase in future wastewater flow for its planning purposes.<sup>88</sup> The 0.011 mgd of wastewater associated with the Revised Project would be within this anticipated future increase in flow. Because the Revised Project would involve a new connection to the City's sewer system, SCA-91 regarding confirmation of available stormwater and sanitary sewer capacity and implementation of necessary improvements would apply before completion of the final design for the Revised Project's sewer service. Compliance with this SCA would further ensure that the City's sewer system has adequate capacity to accommodate wastewater generated by the Revised Project. Impacts related to wastewater treatment requirements and capacity of wastewater infrastructure would be less than significant.

**Stormwater Drainage Impacts (Criterion #2).** The Revised Project would increase the amount of impervious surface cover at the Phase V Project Site compared to existing bare dirt and stockpiled materials. Consequently, development of the Phase V Project Site would increase the amount of stormwater runoff that would drain from the site. The Revised Project, however, is part of a five-phase development proposal, for which hydraulic and storm drainage plans were prepared when the development was first approved following the 2003 IS/EA. As such, the Revised Project would not contribute stormwater runoff that was not anticipated or could not be accommodated by the now built storm drains. Because the 2003 IS/EA concluded that implementation Original Project would not have a significant effect on the existing stormwater drainage system capacity, and the Revised Project would result in similar surface runoff during storm events, the Revised Project would not require construction of new stormwater drainage facilities or expansion of existing facilities. Impacts related to stormwater drainage facilities would be less than significant. Further, because the Revised Project would require a new connection to the City's stormwater drainage system, SCA-91 regarding storm drainage availability would apply. As noted in Section 3.9, Hydrology and Water Quality, the Revised Project would be subject to the C.3 Provision contained in the Municipal Regional Permit (enforced through SCA-80 and SCA-81), which require development and implementation of a post-construction stormwater management plan. Compliance with SCA-80, SCA-81, and SCA-91 would further ensure that the City's drainage system has adequate capacity to accommodate runoff generated by the Revised Project.

**Water Supply Impacts (Criterion #3).** EBMUD is a publicly owned utility that provides potable water to the City of Oakland. It delivers water to approximately 1.34 million people in a 332-square-mile area that includes parts of Alameda and Contra Costa Counties.<sup>89</sup> According to the City's 2007 – 2014 Housing Element Final EIR, residential water use can be estimated using an average rate of 70 gallons per capita per day. The Revised Project would be occupied by approximately 196 residents, resulting in a potable water demand for approximately 13,720 gallons of water per day, or 0.014 mgd.

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<sup>87</sup> Vince De Lange, Supervisor of Wastewater Planning, East Bay Municipal Utility District, Email Communication, October 26, 2011.

<sup>88</sup> City of Oakland, General Plan – Housing Element Update 2007 – 2014 EIR: Initial Study, November 5, 2010, page 198.

<sup>89</sup> EBMUD, Water Resources Planning Division, *Urban Water Management Plan 2010*, June 2011.

The Revised Project would be within EBMUD's Ultimate Service Boundary and current service area. There is sufficient capacity within EBMUD's existing water supply to meet the demands of the Revised Project.<sup>90</sup> The Revised Project would not require construction of new water facilities or expansion of existing facilities and, therefore, would have a less-than-significant impact on water supply.

**Solid Waste Impacts (Criteria #5-6).** Waste Management of Alameda County (WMAC) provides solid waste collection services to the City of Oakland and is the largest collector in Alameda County. Solid waste generated in the City is taken to the Davis Street Transfer Station in San Leandro.<sup>91</sup> In 2008, the transfer station output was 595,249 tons of municipal solid waste. The station's average daily outflow of 2,560 tons is well below the permit limit of 5,600 tons per day. Solid waste is then transported to the Altamont Landfill for final disposal. Both the Davis Street Transfer Station and the Altamont Landfill are owned and operated by WMAC. The Altamont Landfill has a permitted landfill area of 472 acres and is permitted to receive a maximum of 1.6 million tons per year and 11,150 tons per day. In 2008, Altamont Landfill received an estimated 1.8 million tons of waste; however, of this amount, approximately 1.2 million tons represent waste disposal and the remainder are materials recovered for use onsite. Average daily inflow was approximately 4,980 tons per day on a five-day per week basis. As of January 2009, the landfill has a remaining capacity of approximately 43 million tons<sup>92</sup> and an expected closure date of 2040.<sup>93</sup>

The Alameda County Integrated Waste Management Plan (ACWMP) includes a waste diversion goal of 75 percent by 2010. According to the ACWMP, Alameda County's overall waste diversion rate was 67 percent in 2008 and the City of Oakland achieved a 66 percent diversion rate in the same year. Alameda County as a whole met the State-mandated 50 percent diversion rate for the year 2000 and has maintained and exceeded it each year.<sup>94</sup> The Alameda County Waste Reduction and Recycling Act of 1990 (Measure D) established a countywide goal to annually divert a volume of waste equivalent to 75 percent of the waste generated in 2000 by 2010. In March 2006, the City adopted a Zero Waste Goal by 2020 and in December 2006 passed a resolution adopting a Zero Waste Strategic Plan. The Zero Waste Strategic Plan provides a framework of policies and initiatives that guide the planning and decision making process to achieve the City's Zero Waste Goal. The City currently exceeds the 50 percent waste reduction goal mandated by State law (AB 939).<sup>95</sup>

According to the 2007 – 2014 Housing Element Final EIR, the average annual volume of solid waste produced by a household of Oakland residents in multifamily units was 1,962 pounds in 2008. According to ABAG Projections 2009, in 2010, the City had an average rate of 2.62 persons per

<sup>90</sup> Email communication with David Rehnstrom, EBMUD, October 10, 2011.

<sup>91</sup> Alameda County Waste Management Authority, Alameda County Integrated Waste Management Plan, amended January 26, 2011.

<sup>92</sup> According to the Alameda County Integrated Waste Management Plan, 43 million tons is the approximate remaining refuse capacity as of 2008 as reported by the operator of the Altamont Landfill.

<sup>93</sup> Alameda County Waste Management Authority, Alameda County Integrated Waste Management Plan, amended January 26, 2011, Table 2-8.

<sup>94</sup> Alameda County Waste Management Authority, Alameda County Integrated Waste Management Plan, amended January 26, 2011.

<sup>95</sup> City of Oakland, Facilities and Environment, The Future: A "Zero Waste" Oakland, website: <http://www2.oaklandnet.com/Government/o/PWA/o/FE/s/GAR/OAK024364>, accessed November 11, 2011.

household. Therefore, average annual per capita solid waste generation was approximately 748.85 pounds in 2008, or 2.05 pounds per capita per day. The Revised Project would result in approximately 196 new residents at the Phase V Project Site. Based on the average annual per capita solid waste generation of 2.05 pounds, the Revised Project would generate approximately 402 pounds per day, or 146,774.6 pounds per year. Assuming that Oakland continues to achieve at least a 66 percent diversion rate, the Revised Project would generate approximately 49,903 pounds of landfill waste per year. This represents less than one percent of the Altamont Landfill's permitted annual capacity. Therefore, the Revised Project would not result in the need for construction of new solid waste facilities or expansion of existing facilities.

Construction and operation of the Revised Project would be subject to the City's SCA-36 regarding implementation of a Construction and Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP). Per Chapter 15.34 of the Municipal Code, the WRRP must specify the methods by which the development will divert construction and demolition debris waste generated by the Revised Project from landfill disposal in accordance with current City requirements (demolition would not be required for the Revised Project). The ODP must identify how the Revised Project would comply with the Recycling Space Allocation Ordinance, (Chapter 17.118 of the 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 Revised Project from landfill disposal in accordance with current City requirements. As a result, solid waste disposal impacts would be less than significant.

**Energy (Criteria #7-8).** The Pacific Gas and Electric Company (PG&E) supplies electricity to approximately 5.1 million electric customers and 4.3 million natural gas customers throughout northern and central California, including customers in the City of Oakland.<sup>96</sup> As of 2010, PG&E energy sources consisted of non-emitting nuclear generation (23.8 percent), large hydroelectric facilities (15.6 percent) and eligible renewable resources (15.9 percent), such as wind, geothermal, biomass and small hydro. The remaining portion came from natural gas/fossil (21.8 percent) and unspecified sources (22.9 percent).<sup>97</sup>

New residential development, including the Revised Project, is subject to Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings. Title 24, Part 6, of the California Code of Regulations (Energy Efficiency Standards for Residential and Nonresidential Buildings) was established in 1978 in response to a legislative mandate to reduce California's energy consumption. The State of California updates the Title 24 standards periodically to allow for the incorporation of new energy efficiency technologies and methods. Compliance with these standards is verified and enforced through the local building permit process. Thus, the Revised Project would not violate state or local statutes or regulations relating to energy standards.

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<sup>96</sup> PG&E, Company Profile: History, website: <http://www.pge.com/about/company/profile/>, accessed October 11, 2011.

<sup>97</sup> PG&E, Environment: Clean Energy Solutions, website: <http://www.pge.com/about/environment/pge/cleanenergy/index.shtml>, accessed October 11, 2011.

As described in the 2003 IS/EA, the existing buildings in the Project area, and the Phase V Project Site, are served by PG&E. Because the Phase V Project Site is already served by PG&E for electricity and natural gas, and the demand for electricity and natural gas would increase by 128 units over existing conditions, the increase in demand for energy would be negligible and would not necessitate a major expansion of power facilities. Therefore, the energy demand associated with the Revised Project would not result in a significant physical environmental effect. The Revised Project would have a less-than-significant impact with regard to energy facilities and regulations. Compliance with the regulatory measure describe below would ensure that the Revised Project meet Title 24 energy conservation requirements.

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# **Appendix A**

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## **Applicable Mitigation Measures and Standard Conditions of Approval**



# Appendix A

## Applicable Mitigation Measures and Standard Conditions of Approval

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### MITIGATION MEASURES

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#### Air Quality

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*AQ-1.1 Implement Construction Dust Control Measures.* The Project Sponsor shall require the following practices be implemented by including them in the contractor construction documents:

- a. Water all active construction areas at least twice daily.
- b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- c. Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at the construction sites.
- d. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at the construction sites.
- e. Sweep public streets adjacent to construction sites daily (with water sweepers) if visible soil material is carried onto the streets.
- f. Hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- g. Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- h. Limit traffic speeds on unpaved roads to 15 miles per hour.
- i. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- j. Replant vegetation in disturbed areas as quickly as possible.
- k. Install wheel washers for all exiting trucks or wash off the tires or tracks of all trucks and equipment leaving the construction site.
- l. Install wind breaks at the windward sides of the construction areas
- m. Suspend excavation and grading activities when wind (as instantaneous gusts) exceeds 25 miles per hour.

## **Biological Resources**

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**BIO-1.1** *Limitation of Construction Activities During Breeding Season.* Trees adjacent to the Revised Project site shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Surveys shall be conducted within 15 days prior to start of work from March 15 through May 31, and within 30 days prior to the start of work from June 1 through August 15. Surveys shall be submitted to the Planning and Zoning Division. If the survey indicates the potential presences of nesting raptors or other birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the CDFG, and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.

## **Cultural Resources**

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- CR-1.1** *Formulate and Implement Archaeological Monitoring Plan.* As part of the submittal for grading and/or building permits for the Revised Project, the applicant shall formulate and implement a general archaeological monitoring plan during construction. This plan shall require that a qualified archaeologist, retained by the Project Sponsor, monitor construction activities that may cause an adverse change to significant subsurface historical resources, as defined by Public Resources Code Section 5020.1(j). The plan shall be reviewed and approved by the City prior to the issuance of a building or grading permit for the Revised Project.
- CR-2.1** *Redesign Portions of the Revised Project as Necessary to Avoid Historic Resources.* If a property on the Phase V Project Site is determined to meet one or more of the criteria for National Register eligibility, then the Project Sponsor shall redesign the Revised Project to avoid the impact to the historic resource.

*(NOTE: This mitigation measure is included for informational purposes, but due to the fact that there are no historic properties on the Phase V Project Site, it is no longer applicable.)*

## **Hazards and Hazardous Materials**

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**HM-1.1** *Perform Pre-Construction Hazardous Materials Surveys and Manage Properly if Hazardous Materials are Identified.* All structures designated to have suspect hazardous building materials removed during demolition or renovation should be inspected by a qualified inspector prior to demolition. Abatement of ACBMs and/or lead paint shall be implemented prior to demolition or renovation. Any PCB-containing equipment or fluorescent lights containing mercury vapors should be removed and properly disposed.

*HM-2.2 Incorporate Site Design Elements to Eliminate Potential Exposure Pathways.* By incorporating project design elements such as creating an impermeable surface cover over portions of the site that may contain contaminated soil, or by importing clean soil for use in open space areas, exposure pathways of potential residual contaminants in the soil and/or groundwater to future on-site receptors would either be eliminated or reduced to within acceptable health risk levels.

## **Hydrology and Water Quality**

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*HY-5.1 Prepare and Implement Recommendations from Flood Study.* The Project Sponsor shall prepare a flood study of the Project Site to the satisfaction of the City to determine precise flood elevations and measures to control flooding prior to final design. Recommendations from the study or their equivalent shall be incorporated into the project design, as deemed appropriate by the City.

*(NOTE: The Flood Study was a requirement of the Lion Creek Crossings Project and would have included recommendations for design of all five phases of development, including the Revised Project. As such, this mitigation measure is not applicable to the Revised Project)*

## **Noise**

*NO-1.2 Implement Best Management Practices for Pile Driving Noise.* The project contractor(s) shall implement, but not be limited to, the following best management practices:

- a. In the event that construction activities such as pile driving, which inherently produce loud, pulsating noise, are required, other techniques such vibratory pile driving or cast-in place piles shall be utilized.
- b. Require at least 30 days written notice to surrounding residents and businesses (minimum of 300 foot radius) of proposed pile driving activity and estimated duration.
- c. Pile driving or other extreme noise generating activity (90 dBA or above) shall be limited to between 8:00 am to 4:00 pm, Monday through Friday, with no pile driving or other extreme noise-generating activity permitted between 12:30 and 1:30 pm., or other mid-day hour as established and noticed. Pile driving or other extreme noise generating activity is prohibited on Sundays and holidays. Pile driving on Saturdays will be evaluated on a case by case basis, with criteria including the proximity of residential uses and a survey of residents' and businesses' preferences for whether Saturday activity is acceptable if the overall duration of the pile driving is shortened.
- d. To further mitigate potential pile driving and/or other extreme noise generating construction impacts, site-specific noise attenuation measures shall be further developed and then implemented under the supervision of a qualified acoustical consultant. This plan shall be based on the final design of the Revised Project and shall be submitted for

review and approval by the City to ensure that maximum feasible noise attenuation is achieved. The following measures are likely to be necessary if pile driving is used:

- i. “Quiet” pile driving technology shall be used where feasible, considering geotechnical, structural requirements, and other conditions; and
- ii. The effectiveness of noise attenuation shall be evaluated by taking noise measurements during construction.

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## Utilities

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*UT-2.1 Wastewater Capacity Analysis.* As part of the public improvement plans for the Revised Project, an analysis shall be completed to confirm available wastewater capacity within the affected subbasins and specify replacement or rehabilitation improvements of the existing system to ensure that there is available capacity for the demand created by the Revised Project from the EBMUD interceptor system to the Revised Project connection. These improvements shall be included in the final public improvement plans.

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## CITY OF OAKLAND STANDARD CONDITIONS OF APPROVAL

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The following are the City of Oakland Standard Conditions of Approval applicable to this Revised Project:

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### Aesthetics, Shadow, and Wind

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**SCA-40: 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.

**SCA-12: Required Landscape Plan for New Construction and Certain Additions to Residential Facilities.** *(Prior to issuance of a building permit.)* Submittal and approval of a landscape plan for the entire site is required for the establishment of a new residential unit (excluding secondary units of five hundred (500) square feet or less), and for additions to Residential Facilities of over five hundred (500) square feet. The landscape plan and the plant materials installed pursuant to the approved plan shall conform with all provisions of Chapter 17.124 of the Oakland Planning Code, including the following:

- a. Landscape plan shall include a detailed planting schedule showing the proposed location, sizes, quantities, and specific common botanical names of plant species.
- b. Landscape plans for projects involving grading, rear walls on downslope lots requiring conformity with the screening requirements in Section 17.124.040, or vegetation management prescriptions in the S-11 zone, shall show proposed landscape treatments for all graded areas, rear wall treatments, and vegetation management prescriptions.

- c. Landscape plan shall incorporate pest-resistant and drought-tolerant landscaping practices. Within the portions of Oakland northeast of the line formed by State Highway 13 and continued southerly by Interstate 580, south of its intersection with State Highway 13, all plant materials on submitted landscape plans shall be fire-resistant. The City Planning and Zoning Division shall maintain lists of plant materials and landscaping practices considered pest-resistant, fire-resistant, and drought-tolerant.
- d. All landscape plans shall show proposed methods of irrigation. The methods shall ensure adequate irrigation of all plant materials for at least one growing season.

## **Air Quality**

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### **SCA-A: Construction-Related Air Pollution Controls (Dust and Equipment Emissions).** *(Ongoing throughout, 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 Bay Area Air Quality Management District (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 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. 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.

- i. 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.

## **Biological Resources**

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**SCA-45: 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-46: 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:

- j. 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.
- k. 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.
- l. 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.
- m. 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.
- n. 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.
- o. 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-47: Tree Protection During Construction.** *(Prior to issuance of a demolition, grading, or building permit)* Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist:

- p. Before the start of any clearing, excavation, construction or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the City Tree Reviewer. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree.
- q. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the City Tree Reviewer from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree.
- r. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the Tree Reviewer from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the tree reviewer. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree.
- s. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration.
- t. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Agency of such damage. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed.
- u. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.

**SCA-82: Erosion, Sedimentation, and Debris Control Measures.** *(Prior to issuance of demolition, grading, or construction-related permit)* The project applicant shall submit an erosion and sedimentation control plan for review and approval by the Building Services Division. All work shall

incorporate all applicable “Best Management Practices (BMPs) for the construction industry, and as outlined in the Alameda Countywide Clean Water Program pamphlets, including BMP’s for dust, erosion and sedimentation abatement per Chapter Section 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to, the following:

- a. On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the creek.
- b. In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected.
- c. Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible.
- d. All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted.
- e. Install filter materials (such as sandbags, filter fabric, etc.) acceptable to the Engineering Division at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.
- f. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains.
- g. Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek.
- h. Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site.
- i. Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution.

- j. Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.
- k. Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek, street, gutter, storm drains.
- l. All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Control Board (RWQCB).
- m. Temporary fencing is required for sites without existing fencing between the creek and the construction site and shall be placed along the side adjacent to construction (or both sides of the creek if applicable) at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of Planning and Zoning.
- n. All erosion and sedimentation control measures shall be monitored regularly by the project applicant. The City may require erosion and sedimentation control measures to be inspected by a qualified environmental consultant (paid for by the project applicant) during or after rain events. If measures are insufficient to control sedimentation and erosion then the project applicant shall develop and implement additional and more effective measures immediately.

**SCA-83: Creek Protection Plan.** (Prior to and ongoing throughout demolition, grading, and/or construction activities)

- a. The approved creek protection plan shall be included in the project drawings submitted for a building permit (or other construction-related permit). The project applicant shall implement the creek protection plan to minimize potential impacts to the creek during and after construction of the project. The plan shall fully describe in plan and written form all erosion, sediment, stormwater, and construction management measures to be implemented on-site.
- b. If the plan includes a stormwater system, all stormwater outfalls shall include energy dissipation that slows the velocity of the water at the point of outflow to maximize infiltration and minimize erosion. The project shall not result in a substantial increase in stormwater runoff volume or velocity to the creek or storm drains.

**SCA-84: Regulatory Permits and Authorizations.** *(Prior to issuance of a demolition, grading, or building permit within vicinity of the creek)* Prior to construction within the vicinity of the creek, the project applicant shall obtain all necessary regulatory permits and authorizations from the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), California Department of Fish and Game, and the City of Oakland, and shall comply with all conditions issued by applicable agencies. Required permit approvals and certifications may include, but not be limited to the following:

- a. U.S. Army Corps of Engineers (Corps): Section 404. Permit approval from the Corps shall be obtained for the placement of dredge or fill material in Waters of the U.S., if any, within the interior of the project site, pursuant to Section 404 of the federal Clean Water Act.
- b. Regional Water Quality Control Board (RWQCB): Section 401 Water Quality Certification. Certification that the project will not violate state water quality standards is required before the Corps can issue a 404 permit, above.
- c. California Department of Fish and Game (CDFG): Section 1602 Lake and Streambed Alteration Agreement. Work that will alter the bed or bank of a stream requires authorization from CDFG.

**SCA-85: Creek Monitoring.** *(Prior to issuance of a demolition, grading, or building permit within vicinity of the creek)* A qualified geotechnical engineer and/or environmental consultant shall be retained and paid for by the project applicant to make site visits during all grading activities; and as a follow-up, submit to the Building Services Division a letter certifying that the erosion and sedimentation control measures set forth in the Creek Protection Permit submittal material have been instituted during the grading activities.

**SCA-86: Creek Landscaping Plan.** *(Prior to issuance of a demolition, grading, or building permit within vicinity of the creek)* The project applicant shall develop a final detailed landscaping and irrigation plan for review and approval by the Planning and Zoning Division prepared by a licensed landscape architect or other qualified person. Such a plan shall include a planting schedule, detailing plant types and locations, and a system for temporary irrigation of plantings.

- a. Plant and maintain only drought-tolerant plants on the site where appropriate as well as native and riparian plants in and adjacent to riparian corridors. Along the riparian corridor, native plants shall not be disturbed to the maximum extent feasible. Any areas disturbed along the riparian corridor shall be replanted with mature native riparian vegetation and be maintained to ensure survival.
- b. All landscaping indicated on the approved landscape plan shall be installed prior to the issuance of a Final inspection of the building permit, unless bonded pursuant to the provisions of Section 17.124.50 of the Oakland Planning Code.
- c. All landscaping areas shown on the approved plans shall be maintained in neat and safe conditions, and all plants shall be maintained in good growing condition and, whenever necessary replaced with new plant materials to ensure continued compliance with all applicable landscaping requirements. All paving or impervious surfaces shall occur only on approved areas.

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## Cultural Resources

**SCA-52: 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 Sponsor 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 Sponsor 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 Sponsor 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 Phase V 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 Sponsor 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-53: Human Remains.** *(Ongoing throughout demolition, grading, and/or construction)* In the event that human skeletal remains are uncovered at the Phase V Project Site during construction or groundbreaking 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-54: 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 Revised 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.

## **Geology and Soils**

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**SCA-55: Erosion and Sedimentation Control Plan.** *(Prior to any grading activities)*

- a. The Project Sponsor 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 Sponsor may be necessary. The Project Sponsor 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 Sponsor shall ensure that the storm drain system shall be inspected and that the Project Sponsor shall clear the system of any debris or sediment.

**SCA-55: Erosion and Sedimentation Control Plan.** *(Ongoing throughout grading and construction activities)*

- a. The Project Sponsor 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.

## **Hazards and Hazardous Materials**

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**SCA-35: Hazards Best Management Practices.** *(Prior to commencement of demolition, grading, or construction)* The Project Sponsor and construction contractor shall ensure that construction of Best Management Practices (BMPs) are implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following:

- a. Follow manufacture's 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; and
- 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

**SCA-64: 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-68: Best Management Practices for Soil and Groundwater Hazards.** *(Ongoing throughout demolition, grading, and construction activities)* 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.

## **Hydrology and Water Quality**

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**SCA-75: Stormwater Pollution Prevention Plan (SWPPP).** *(Prior to and ongoing throughout demolition, grading, and/or construction activities)* The Project Sponsor 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 Sponsor must file a notice of intent (NOI) with the SWRCB. The Project Sponsor 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 Sponsor 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 through the completion of the project. After construction is completed, the Project Sponsor shall submit a notice of termination to the SWRCB.

**SCA-80: 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 of 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

Revised 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.

**SCA-80: Post-Construction Stormwater Management Plan.** *(Prior to final permit inspection)* The applicant shall implement the approved stormwater management plan.

**SCA-81: 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:

- a. 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
- b. 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.

**SCA-82: Erosion, Sedimentation, and Debris Control Measures.** (Please refer to Biological Resources.)

**SCA-83: Creek Protection Plan.** (Please refer to Biological Resources.)

**SCA-84: Regulatory Permits and Authorization.** (Please refer to Biological Resources.)

**SCA-85: Creek Monitoring.** (Please refer to Biological Resources.)

**SCA-86: Creek Landscaping Plan.** (Please refer to Biological Resources.)

**SCA-91: 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.

## **Land Use and Planning**

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**SCA-45: Tree Removal Permit.** (Please refer to Biological Resources.)

**SCA-46: Tree Replacement Plantings.** (Please refer to Biological Resources.)

**SCA-47: Tree Protection During Construction.** (Please refer to Biological Resources.)

**SCA-83: Creek Protection Plan.** (Please refer to Biological Resources.)

## **Noise**

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**SCA-28: 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 am and 4:00 pm 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.
  - 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-29: 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-30: 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-31: Interior Noise** (*Prior to issuance of a building permit and Certificate of Occupancy*) 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), and/or other appropriate features/measures, 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 prior to issuance of building permit. Final recommendations for sound-rated assemblies, and/or other appropriate features/measures, will 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-32: 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.

## Public Services

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**SCA-71: 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.

## Transportation/Traffic

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**SCA-33: 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. 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.
- e. Provision for accommodation of pedestrian flow.

## Utilities

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**SCA-36: 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](http://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 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-80: Post-Construction Stormwater Management Plan.** (Please refer to Section 3.9, Hydrology and Water Quality.)

**SCA-81: Maintenance Agreement for Stormwater Treatment Measures.** (Please refer to Section 3.9, Hydrology and Water Quality.)

**SCA-91: Stormwater and Sewer.** (Please refer to Section 3.9, Hydrology and Water Quality.)

**Supplemental SCA-H: 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 the LEED / 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. The green building point level/certification requirement for the Revised Project is 50 points 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 Build It Green / 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.