Safeway Redevelopment Project
Broadway at Pleasant Valley Avenue

Draft Environmental Impact Report

SCH No. 2009062097

Prepared for:

City of Oakland
250 Frank H. Ogawa Plaza
Oakland, Ca 94612

January, 2013

LAMPHIER - GREGORY
Urban Planning, Environmental Analysis & Project Management

CITY OF OAKLAND

Department of Planning, Building & Neighborhood Preservation
Planning & Zoning Division
250 Frank H. Ogawa Plaza, Suite 3315, Oakland, California, 94612-2032

COMBINED NOTICE OF RELEASE AND AVAILABILITY OF THE DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC HEARING FOR THE SAFEWAY REDEVELOPMENT PROJECT (BROADWAY @ PLEASANT VALLEY AVENUE)

PROJECT TITLE:	**Safeway Redevelopment Project**
PROJECT SPONSOR:	**Property Development Centers, Inc. (an affiliate of Safeway, Inc.)**
PROJECT LOCATION:	**5050-5100 Broadway, Oakland, CA (APN 014-1242-002-03 & 014-1242-005-07)**
CASE NO.	**CMDV09-135; CP09-090; ER09-007**

DESCRIPTION OF PROJECT: The Project involves the redevelopment of the existing Rockridge Shopping Center, including the demolition of all 185,500 square feet of existing buildings on the site and the construction of a new Safeway store and other retail, office, and restaurant space, totaling approximately 322,500 square feet of commercial space (293,200 square feet of gross leasable floor area and an additional 29,300 square feet of common space). A total of approximately 967 off-street parking spaces are proposed. Parking would be located in surface parking lots, on the rooftop of the new Safeway store, and in a three-level parking garage located above commercial space. Also proposed are modifications to streets in the project vicinity including changes to the Broadway/51st Street/Pleasant Valley Avenue, Pleasant Valley Avenue/Gilbert Street, Broadway/Coronado Avenue, and Broadway/College Avenue intersections. The project site is not listed on the Cortese List of hazardous materials sites.

ENVIRONMENTAL REVIEW: A Draft Environmental Impact Report (DEIR) has been prepared for the Project under the requirements of the California Environmental Quality Act (CEQA) pursuant Public Resources Code Section 21000 *et. seq.* The DEIR analyzes potentially significant environmental impacts in the following environmental categories: Aesthetics; Agricultural Resources; Air Quality; Biological Resources; Cultural Resources; Geology and Soils; Greenhouse Gas Emission; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use, Plans and Policies; Mineral Resources; Noise and Vibration; Population and Housing; Recreation; Transportation, Circulation and Parking; and Utilities and Public Services. The Draft EIR identifies significant unavoidable environmental impacts related to Transportation, Circulation and Parking. Copies of the DEIR are available for review or distribution to interested parties at no charge at the Department of Planning, Building and Neighborhood Preservation, Planning and Zoning Division, 250 Frank H. Ogawa Plaza, 2nd Floor Zoning Counter, Oakland, CA, 94612, Monday through Friday, 8:00 a.m. to 4:00 p.m. (Wednesday 9:30 a.m. to 4:00 p.m.). The DEIR may also be reviewed at the following website: http://www2.oaklandnet.com/Government/o/PBN/OurServices/Application/DOWD009157.

PUBLIC HEARING:

The City Planning Commission will conduct a public hearing on the DEIR and the project on **February 20, 2013**, at **6:00 p.m.** in the Sgt. Mark Dunakin Hearing Room (Hearing Room 1), City Hall, 1 Frank H. Ogawa Plaza, Oakland, CA.

The City of Oakland is hereby releasing the DEIR, finding it to be accurate and complete and ready for public review. Members of the public are invited to comment on the DEIR and the project. There is no fee for commenting, and all comments received will be considered by the City prior to finalizing the EIR and making a decision on the project. Comments on the DEIR should focus on the sufficiency of the EIR in discussing possible impacts on the physical environment, ways in which potential adverse effects might be minimized, and alternatives to the project in light of the EIR's purpose to provide useful and accurate information about such factors. Comments may be made at the public hearing described above or in writing. Please address all written comments to Darin Ranelletti, Planner III, City of Oakland, Department of Planning, Building and Neighborhood Preservation, Planning and Zoning Division, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA, 94612; (510) 238-6538 (fax); or e-mailed to dranelletti@oaklandnet.com. Comments should be received no later than **4:00 p.m.** on **February 25, 2013**. Please reference case number ER09-007 in all correspondence. If you challenge the environmental document or project in court, you may be limited to raising only those issues raised at the Planning Commission public hearing described above, or in written correspondence received by the Department of Planning, Building and Neighborhood Preservation on or prior to **4:00 p.m.** on **February 25, 2013**. After all comments are received, a Final EIR will be prepared and the Planning Commission will consider certification of the Final EIR and render a decision on the project at a later meeting date to be scheduled. For further information, please contact Darin Ranelletti, Planner III, at (510) 238-3663 or dranelletti@oaklandnet.com.

January 11, 2013

SCOTT MILLER
Interim Planning and Zoning Director
Environmental Review Officer

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Appendices

(Technical appendices are included on a Compact Disk included in the back cover of the Draft EIR document.)

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Introduction

Purpose of EIR

In compliance with the California Environmental Quality Act (CEQA), this Draft Environmental Impact Report (EIR) is a public information document that identifies and evaluates the environmental consequences of the proposed Safeway Redevelopment Project located at Broadway and Pleasant Valley Avenue (Project). This EIR is designed to inform City staff, the Planning Commission, City Council, other interested agencies, and the general public of:

- the proposed Project and the potential environmental consequences of the Project,
- standard conditions of approval and mitigation measures recommended to lessen or avoid significant adverse impacts, and
- a reasonable range of feasible alternatives to the Project.

The information contained in the EIR will be reviewed and considered by public agencies prior to making a decision to approve, reject, or modify the proposed Project. The City of Oakland (City) is the lead agency for environmental review of the proposed Project.

Proposed Project

Site

The 15.40-acre Project site is located on the northeast corner of the intersection of Pleasant Valley Avenue and Broadway in the City of Oakland, Alameda County, California (See **Figure 1-1**). The site is comprised of two Assessor's Parcels; Number 14-1242-5-7 and 14-1242-2-3. The Project site is generally bounded by Broadway (west); Pleasant Valley Avenue (south); the California College of Arts, the Claremont Country Club (north); Claremont Pond and an American Automobile Association (AAA) office (east).

Existing Context

In 1964 and 1965, the six buildings that now make up the existing shopping center (called the Rockridge Shopping Center) were constructed (See **Figure 1-2**). Five of the shopping center's six existing buildings are generally located along the site's northerly boundary set back from Pleasant Valley Avenue, and one building is a free-standing structure situated directly at the northeast corner of Pleasant Valley Avenue and Broadway. Existing tenants include Safeway, CVS Pharmacy, Dress Barn, Starbucks and others totaling approximately 185,462 square feet of commercial space, supported by 615 off-street parking spaces.

Figure 1-1
Project Site Location

Source: Google Earth

Figure 1-2
Existing Project Site

Source: PD Centers

Project Description

The proposed Project consists of the phased demolition and redevelopment of the Rockridge Shopping Center.[1] The Project generally consists of two key phases: 1) demolition of the existing CVS Pharmacy building and construction of a new Safeway supermarket; and 2) demolition of the remainder of the existing shopping center and its replacement with a new shopping center. At buildout, the Project will have resulted in demolition of all 185,500 square feet of currently existing commercial-retail space, redeveloped with approximately 322,500 square feet of new commercial building space (293,200 square feet of gross leasable floor area and an additional 29,300 square feet of common space), as shown on **Figure 1-3**. The Project includes new landscaping, streetscape features and pedestrian plaza areas; and a re-configuration of the parking area and circulation layout.

Environmental Review Process

Initiating the Environmental Review Process

Subsequent to receiving the application for environmental review, the City of Oakland Department of Planning, Building and Neighborhood Preservation determined that the proposed Project was subject to CEQA, and decided that an EIR would be required for the environmental review.

EIR Scope

The City of Oakland circulated a Notice of Preparation (NOP) on June 25, 2009 (see **Appendix 1A**). The public comment period for the scope of the EIR lasted from June 25, 2009 through July 25, 2009. The NOP was sent to adjacent property owners and was posted at the Project site. The NOP was also sent to responsible agencies, organizations and interested individuals. Additionally, the NOP was sent to the State Clearinghouse.

A scoping session before the City Planning Commission was held for the Project on July 15, 2009. Both written and oral comments received by the City on the NOP were taken into account during the preparation of the EIR. The written comments received prior to the close of the public comment period on July 15, 2009 are included in **Appendix 1B**. The City also received written comments after the close of the public comment period; for informational purposes, these comments are also included in Appendix 1B.

The following environmental topics are addressed in this EIR:

Chapter 4.1: Aesthetics

Chapter 4.2: Air Quality

Chapter 4.3: Biological Resources

[1] As a separate, independent project, Safeway, Inc. also proposes to replace an existing Safeway supermarket and closed gasoline service station with a new two-story building housing a larger Safeway supermarket, seven separate ground-floor retail shops and a restaurant, at 6320 College Avenue, at the northeast corner of College and Claremont Avenues, in Oakland. A Draft EIR for the Safeway Shopping Center – College and Claremont Avenues project (State Clearinghouse # 2009112008 and 2009102100) was made available for public review on July 1, 2011 through August 15, 2011. That separate project is still being considered for approval by the City of Oakland. At the time this EIR was prepared, that project was scheduled for decision at the City Council on December 18, 2012. Although they are separate projects, each of these projects is considered in the cumulative analysis of the other project's EIR.

Figure 1-3
Proposed Project - Artist's Rendering

Source: Benner Strange Architects

Chapter 4.4: Cultural Resources

Chapter 4.5: Geology and Soils

Chapter 4.6: Greenhouse Gas Emissions

Chapter 4.7: Hazards and Hazardous Materials

Chapter 4.8: Hydrology and Water Quality

Chapter 4.9: Land Use, Plans and Policies

Chapter 4.10: Noise and Vibration

Chapter 4.11: Transportation, Circulation and Parking

Chapter 4.12: Utilities and Public Services

Chapter 4.13: Other Less-than–Significant Effects

Report Organization

The EIR is organized into the following chapters:

- *Chapter 1 – Introduction*: Discusses the overall EIR purpose; provides a summary of the proposed Project; describes the EIR scope; and summarizes the organization of the EIR.
- *Chapter 2 – Summary*: Provides a summary of the significant environmental impacts that would result from implementation of the proposed Project, and describes Standard Conditions of Approval and mitigation measures recommended to avoid or reduce significant impacts.
- *Chapter 3 – Project Description*: Provides a description of the Project objectives, Project site, site development history, the proposed development, and required approval process.
- *Chapter 4 – Setting, Impacts, Standard Conditions of Approval, and Mitigation Measures*: Describes the following for each environmental technical topic: existing physical setting, applicable regulatory setting including relevant City of Oakland Standard Conditions of Approval; thresholds of significance; potential environmental impacts and their level of significance; Standard Conditions of Approval relied upon to ensure significant impacts would not occur; mitigation measures recommended when necessary to mitigate identified impacts; and resulting level of significance following implementation of mitigation measures, when necessary. Cumulative impacts are also discussed in each technical topic section.

  Potential impacts are identified by level of significance, as follows:

  - (**LTS**) - less-than-significant impact
  - (**LTS with SCA**) - less-than-significant impact with implementation of uniformly applied development standards or Standard Conditions of Approval
  - (**S**) - significant impact
  - (**SU**) - significant and unavoidable impact

  The significance level is identified for each impact before and after implementation of recommended mitigation measure(s), where necessary.
- *Chapter 5 – Alternatives*: Evaluates a reasonable range of alternatives to the proposed Project and identifies an environmentally superior alternative.

- *Chapter 6 – CEQA-Required Assessment Conclusions*: Provides the required analysis of growth-inducing impacts, significant irreversible changes, effects found not to be significant and significant unavoidable impacts.
- *Chapter 7 – Report Preparation*: Identifies preparers of the EIR, references used, and the persons and organizations contacted.
- *Appendices*: The appendices contain the NOP and written comments submitted on the NOP, as well as other technical studies and reports relied upon in the EIR.

Public Review

This Draft EIR is available for public review and comment during the period identified on the Notice of Release / Availability of a Draft EIR accompanying this document. This Draft EIR and all supporting technical documents and the reference documents are available for public review at the City of Oakland Department of Planning, Building and Neighborhood Preservation, Planning Division, under case ER #09-007.

During this time, written comments on the Draft EIR may be submitted to the City of Oakland Department of Planning, Building and Neighborhood Preservation Planning Division at the address indicated on the notice. Oral comments on the Draft EIR may be stated at the public hearing which shall be held as indicated on the notice.

Following the public review and comment period, the City will prepare responses to all comments received on the environmental analysis in this Draft EIR during the specified review period. The responses and any other revisions to the Draft EIR will be prepared as a Response to Comments document. The Draft EIR and its appendices, together with the Response to Comments document, will constitute the Final EIR for the Project.

Use of the EIR

Pursuant to CEQA, this EIR is a public information document for use by governmental agencies and the public to identify and evaluate potential environmental consequences of the Project, to evaluate and recommend mitigation measures that would substantially lessen or eliminate adverse impacts, and to examine a range of feasible alternatives to the Project. The information contained in this EIR is subject to review and consideration by the City of Oakland (see Project Review and Approval, below) prior to the City's decision to approve, reject or modify the proposed Project. The EIR will be used by the City and any other responsible agencies in connection with all discretionary approvals necessary for the Project.

The City must ultimately certify that it has reviewed and considered the information in the EIR and that the EIR has been completed in conformity with the requirements of CEQA before making any decision of the proposed Project. This EIR identifies significant effects that would result from the proposed Project. Therefore, pursuant to CEQA Guidelines Section 15091, the City cannot approve the Project unless it makes one or more of the following findings:

- That changes or alternations have been required in, or incorporated into the Project which avoid or substantially lessen the significant environmental effects as identified in the EIR.
- That such changes or alterations are within the responsibility and jurisdiction of another public agency (not the City of Oakland), and that such changes have been adopted by such other public agency, or can and should be adopted by such other agency.
- Specified economic, legal, social, technological or other considerations make infeasible the mitigation measures or Project alternatives identified in the EIR.

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Executive Summary

Project Overview

Property Development Centers, Inc. (an affiliate of Safeway, Inc.), proposes to redevelop the existing Rockridge Shopping Center, including the demolition of all 185,500 square feet of existing buildings on the site. Removed buildings would be replaced with construction of a new "Lifestyle"[1] Safeway store along with other retail, office and restaurant space, resulting in a total of approximately 322,500 square feet of new commercial building space (293,200 square feet of gross leasable floor area and an additional 29,300 square feet of common space). This represents an increase of approximately 137,000 square feet over existing development on the site. The applicant also proposes modifications to the adjacent streets and public rights-of-way to improve access and circulation for all travel modes and to provide new signalized left-turn access onto Broadway.

In early 2009, Property Development Centers, Inc. submitted an application to the City of Oakland for environmental review of the Project. On June 25, 2009 the City of Oakland issued a Notice of Preparation, determining that a project-level EIR would be the appropriate document to analyze the potential environmental effects of the proposed Project under CEQA. This EIR addresses environmental topics pertaining to Aesthetics; Air Quality; Biological Resources; Cultural Resources; Geology and Soils; Greenhouse Gas Emissions; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use, Plans and Policies; Noise and Vibration; Transportation, Circulation and Parking; Utilities and Public Services; and other environmental effects found to be less than significant.

Site Location

The 15.4-acre Project site is located on the northeast corner of the intersection of Pleasant Valley Avenue and Broadway in the City of Oakland, Alameda County, California.

The Project site is currently designated on the General Plan Land Use and Transportation Element (LUTE) Diagram as Community Commercial. The Project is consistent with this Oakland General Plan land use designation.

The effective zoning designation of the Project site is split into three different zoning districts.[2] The southwestern comer of the site, roughly equal to the location of the Chase Bank building, has an effective zoning of C-40 Community Thoroughfare Commercial. The central portion of the site has an effective

[1] The "Lifestyle" Safeway store is part of a corporate branding campaign intended to differentiate these stores from competitors as a more upscale shopping experience. Generally, these types of stores are designed with a more inviting decor with warm ambiance and subdued lighting, and containing special elements such as sushi and olive bars and the addition of in-store coffee kiosks. Many Safeway store locations are being converted to the "Lifestyle" format.

[2] The applicable zoning for the Project is the zoning that was in effect at the time the Project application was deemed complete in 2010.

zoning of C-30 District Thoroughfare Commercial. The eastern portion of the site has an effective zoning of R-50 Medium Density Residential.

Key Components of the Project

The Project would be constructed in two phases over approximately 20 months. Construction is anticipated to begin in July 2013 and end in March 2015. Project phasing is intended to enable the shopping center to remain operational and economically viable throughout the construction period, to capitalize on the current opportunity to move the Safeway grocery store into the current CVS Pharmacy site soon after the current CVS lease expires, and to match future phase development to meet both current and expected future retail market demands.

Buildings

At completion, the Project would include demolition of the entire 185,500 square feet of the existing 1 story shopping center. The shopping center would be replaced by an approximately 322,500 square-foot[3] new shopping center anchored by an approximately 65,000 square-foot new Safeway store. The new buildings would range in height from 1 to 4 stories. The new Safeway would be a single story building, but with high ceilings it would appear to be 2 stories in height.

Parking

The Project proposes a total of 967 off-street parking spaces, including 851 standard spaces, 30 designated handicap spaces and 86 designated compact spaces. Parking would be located in surface parking lots and along drive aisles throughout the site, on a rooftop parking lot over the Safeway store and adjacent buildings, and in a centralized parking garage with three levels of parking over ground floor retail space.

Pedestrian and Bicycle Access

The Project proposes a substantially expanded pedestrian and bicycle network for the site, including:

- A continuous sidewalk that connects with small plazas ringing the entire site, separated only at the two vehicle entry points,
- Separated pedestrian and vehicle access provided at each of the entry points into the site, as well as a new pedestrian connection on Broadway near the Pleasant Valley Avenue/Broadway intersection,
- A number of routes leading pedestrians to the new Safeway store from Pleasant Valley Avenue, and
- Two routes that would lead pedestrians into the site from the Broadway/Coronado Avenue intersection.

The pedestrian and bicycle routes would interconnect a number of plazas. The two main plazas would be located along Broadway at the Pleasant Valley Avenue intersection and just north of the intersection, connecting through the buildings at this location. The internal street would also have a number of smaller plazas and wider sidewalks for outdoor cafes and public seating. The landscaped edge near the quarry pond would have two smaller plazas which serve as scenic outlooks over the pond.

[3] Of the total 322,536 square feet within the proposed new shopping center, 293,233 square feet would be gross leasable floor area and approximately 29,303 square feet would be common space (e.g., stairs and loading corridors)

Vehicle Access

The current shopping center has three vehicle access points along Broadway. Under the proposed Project, the two most southerly vehicle access points would be eliminated, and the intersection at Coronado Avenue would be converted to a signalized intersection providing full turning movements with 1 inbound and 2 outbound lanes. The current shopping center also has two vehicle access points along Pleasant Valley Avenue. These access points would remain where they currently exist, but the main entry would be realigned and re-striped to provide 3 inbound lanes and 2 outbound lanes.

Off-Site Roadway Modifications

The Project also proposes a number of roadway modifications on Broadway and 51st Street/Pleasant Valley Avenue to generally improve access and circulation for all travel modes and to specifically provide signalized left-turn access on Broadway to and from the Project site. Off-site roadway modifications proposed as part of the Project include the following.

- Broadway would be reduced from three through lanes to two through lanes in each direction between College Avenue and 49th Street.
- Class 2 bicycle lanes would be provided on both sides of Broadway between College Avenue and just south of 51st Street/Pleasant Valley Avenue.
- The Project driveway on Broadway opposite Coronado Avenue would be signalized to provide left turns in and out of the Project site. The proposed signal would be coordinated with the existing signals on Broadway at 45th Street, 51st Street/Pleasant Valley Avenue, College Avenue, and Broadway Terrace. The intersection would provide an exclusive left-turn lane from southbound Broadway to the Project site. The proposed signal would also provide a protected pedestrian crossing connecting the residential neighborhood west of Broadway to the Project site.
- The provision for the southbound left-turn lane from Broadway into the Project site would require the elimination of the existing median break that provides access to Wendy's Restaurant from northbound Broadway. As such, the northbound left-turn lane on Broadway at College Avenue would be modified to provide left-turn access into the existing Wendy's Restaurant on the opposite side of Broadway from the Project site.
- The Broadway/51st Street/Pleasant Valley Avenue intersection would be modified to increase vehicle capacity, to provide a six-foot wide median pedestrian refuge island, and to provide more efficient and safer signal operations.
- The Gilbert Street/Project Driveway/Pleasant Valley Avenue intersection would also be modified to provide additional turn lanes and the intersection signal equipment would be upgraded to provide protected phasing for the westbound Pleasant Valley Avenue left-turn movement.
- The locations of several bus stops would be moved from the near side to the far side of (i.e., from before to after) the intersection at northbound Broadway and Pleasant Valley Avenue, at eastbound 51st Street/Pleasant Valley Avenue at Broadway, and at eastbound Pleasant Valley Avenue at Gilbert Street.

The proposed modifications along Broadway can be accommodated within the existing curb-to-curb right-of-way. Providing a second left-turn lane from eastbound Pleasant Valley Avenue into the Project site would require widening Pleasant Valley Avenue by an additional 1 to 4 feet along the Project frontage.

Public Agency Approvals

This EIR is intended to cover all approvals necessary to implement the Project. These approvals include, but are not limited to the following.

City of Oakland

- Approval of an Interim Conditional Use Permit to allow for commercial use in the R-50 Medium Density Residential Zone pursuant to Chapter 17.01 of the Oakland Planning Code;
- Design Review pursuant to Chapter 17.136 of the Oakland Planning Code;
- Zoning variances (if required);
- Approval of a Category IV Creek Protection Permit for exterior development and work that may include earthwork, landscape walls, fences, patios, decks, private drainage improvements, irrigation systems and trenching conducted within the 20 foot setback from the top of bank of the adjacent watercourse (the quarry pond) pursuant to Chapter 13.16 of the Oakland Municipal Code;
- Approval of a Conditional Use Permit (for any drive-through facilities or alcohol sales);
- Approval of a Subdivision Map (or lot line adjustment);
- Tree removal permits pursuant to the City's Protected Trees Ordinance (Chapter 12.36 of the Oakland Municipal Code);
- Encroachment permits for work within and close to public rights-of-way (Chapter 12.08 of the Oakland Municipal Code); and
- Demolition permits, grading permits, and building permits.

Other Agencies Whose Approval May be Required

- Bay Area Air Quality Management District (BAAQMD) – Granting of permits for stationary source air emissions and compliance with Regulation 2, Rule 1 for all portable construction equipment subject to that rule.
- East Bay Municipal Utilities District (EBMUD) – Granting new water service connections and meters.
- State Water Resources Control Board (SWRCB) – Acceptance of Notice of Intent to obtain coverage under the General Construction Activity Storm Water Permit.
- San Francisco Bay Regional Water Quality Control Board (RWQCB) – Water quality certification under Section 401 of the Clean Water Act may be necessary for landscaping adjacent to the quarry pond.
- California Department of Fish and Game (CDFG) – A Streambed Alteration Agreement pursuant to California Fish and Game Code Sections 1600–1616 may be necessary for landscaping adjacent to the quarry pond.

Summary of Impacts and Mitigation Measures

The following **Table 2-1**: Summary of Impacts and Mitigation Measures provides a summary of potential environmental impacts, applicable Standard Conditions of Approval, recommended mitigation measures, and the resulting level of significance after implementation of all mitigation measures. For a more complete discussion of potential impacts and recommended mitigation measures, please refer to the specific discussions in the respective individual chapters of this Draft EIR.

Significant and Unavoidable Impacts

For purposes of this EIR, the following impacts are considered significant and unavoidable. Although mitigation measures consisting of physical modifications to intersection operations have been identified, such modifications would adversely affect other travel modes and conflict with City policy concerning pedestrian and bicyclist safety and comfort, therefore resulting in secondary impacts. Traffic operations at these intersections could be further improved by providing additional automobile travel lanes. However, such modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way and/or loss of bicycle lanes, on-street parking, or medians, and are therefore considered to be infeasible.

Broadway/51st Street/Pleasant Valley Avenue (Intersection #7)

- **Impact Trans-5:** The Project would degrade intersection operations from LOS D to LOS E during the weekday PM peak hour at the Broadway/51st Street/Pleasant Valley Avenue (#7) intersection under 2015 Conditions. The proposed Project would also add traffic that would increase delay for the critical eastbound through movement by more than six seconds during the Saturday midday peak hour, which the intersection would operate at LOS E regardless of the proposed Project.
- **Impact Trans-10**: The Project would increase the volume-to-capacity (v/c) ratio for the intersection by 0.01 or more, and the critical movement v/c ratio for the eastbound left, eastbound through, westbound left, northbound through, and the southbound left movements by 0.02 or more during the weekday PM peak hour, and it would increase v/c ratio for the intersection by 0.01 or more and the critical movement v/c ratio for the eastbound left, eastbound through, and, northbound through movements by 0.02 or more during the Saturday midday peak hour at the Broadway/51st Street/Pleasant Valley Avenue (#7) intersection under 2035 Conditions, which would operate at LOS F regardless of the Project.

Howe Street/Pleasant Valley Avenue Intersection (Intersection #19)

- **Impact Trans-3, -8 and -13**: The proposed Project would add more than 10 trips to the Howe Street/Pleasant Valley Avenue intersection during the weekday PM and Saturday midday peak hours under Existing plus Project conditions, 2015 Plus Project conditions, and 2035 Plus Project conditions. The intersection would meet the peak hour signal warrant during both time periods.

Piedmont Avenue/Pleasant Valley Avenue (Intersection #20)

- **Impact Trans-14**: The Project would increase the volume-to-capacity (v/c) ratio for the intersection by 0.01 or more, and the critical movement v/c ratio for the eastbound, westbound, and northbound movements by 0.02 or more during the weekday PM, Saturday midday, and Saturday PM peak hours at the Piedmont Avenue/Pleasant Valley Avenue (#20) intersection under 2035 Conditions, which would operate at LOS F regardless of the Project.

Recommended Conditions of Approval

Although not required by CEQA, certain "recommendations" are included in this EIR, and summarized in **Table 2-2**. These recommendations are not necessary to address or mitigate any significant environmental impacts of the Project under CEQA, but are recommended by City staff to address effects of the Project. These recommendations will be considered by decision makers during the course of Project review and may be imposed as Project-Specific Conditions of Approval.

It is not yet known which of these recommendations may be implemented and if so whether it would be as part of the Project or independent of the Project. The environmental consequences of each

recommendation have been considered and none of the recommendations would result in any significant impacts under CEQA.

Alternatives

Chapter 5 presents an analysis of a range of reasonable alternatives to the Project. The following alternatives were analyzed:

- Alternative 1: No Project
- Alternative 2: Safeway Relocation
- Alternative 3: Reduced Project
- Alternative 4: Concept with Commercial Emphasis (RCPC Plan)
- Alternative 5: Concept with Residential Emphasis (ULTRA Plan)

As required by the CEQA Guidelines, an alternative site location was considered but eliminated from further evaluation in this EIR because it would not meet the basic project objectives and would likely result in similar traffic impacts at intersections in the vicinity of any alternative site.

Alternative 1: No Project would be the environmentally superior alternative. Alternative 5: Concept with Residential Emphasis (ULTRA Plan) would be considered environmentally superior in the absence of the No Project alternative. This alternative would generate fewer vehicle trips as compared to all other alternatives (other than "no project" alternatives) as evaluated in this EIR. However, Alternative 5 would also not achieve many of the basic Project objectives.

Areas of Public Concern

The following topics were raised in comments received in response to the June 25, 2009 Notice of Preparation (NOP) of this EIR and at the July 15, 2009 EIR scoping session held before the City's Planning Commission. Each of these topics is addressed in this EIR. Issues of concern (including some non-CEQA issues) include, but are not limited to, the following:

- Aesthetics
  - Overall visual character of site
  - Street frontage character on Broadway and Pleasant Valley Avenue
  - Auto-centric nature of proposed site layout
  - Opportunity for enhancement of quarry pond as site and community amenity
  - Blight and urban decay
- Air Quality
  - Construction period dust
  - Human health risks
- Biological Resources
  - Wildlife habitat in quarry pond
- Geology and Soils
  - Stability of slope at rear of site
- Greenhouse Gas Emissions

- Hydrology and Water Quality
  - Water quality of quarry pond
- Land Use, Plans and Policies
  - Proposed development density, mix of uses and site layout may not be sufficiently urban in character, integrated with surrounding neighborhoods, or supportive of alternative modes of travel
  - Socioeconomic impacts
- Transportation, Circulation and Parking
  - Auto-centric nature of proposed site design
  - Need for safer and more convenient pedestrian and bicycle access
  - Adequacy and appropriateness of parking supply
  - Local and regional traffic congestion
- Utilities and Public Services
  - Demand on public services
- Alternatives
  - Community amenities
  - Mixed-use development
  - Housing
  - Continued street grid

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
Aesthetics		
Impact Aesth-1: Views from the Project site have not been identified as scenic vistas or important visual resources in the Oakland General Plan or by a regulatory agency with jurisdiction over the site. As a result, development of the Project would not significantly alter scenic vistas.	None needed	No impact
Impact Aesth-2: No scenic resources have been formally identified at the Project site, and development of the Project would have no adverse effects on any formally-identified scenic resources.	None needed SCA Aesth-2: Tree Removal Permit and SCA Aesth-3: Tree Replacement Plantings	Less than Significant
Impact Aesth-3: The visual character of the Project site and its surroundings would change as a result of the Project, but the general character of the site would remain as a commercial shopping center. The Project would not substantially degrade but rather would improve the existing visual character and quality of the site and its surroundings.	None needed	No Impact
Impact Aesth-4: Lighting at the site would be modified as part of the proposed Project, but stores and parking areas at the site would still be illuminated in a manner similar to what is currently observed at the site.	None needed SCA Aesth-1: *Lighting Plan*	Less than Significant
Impact Aesth-5: No structures or landscape improvement proposed by the Project would at any time create substantial shadows beyond the Project site and thus would not interfere with any off-site solar collectors or generate shadows that would fall on any public space.	None required	No Impact
Impact Aesth-6: Structures proposed at the	None required	No Impact

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
Project site would not generate shadows that would fall on any historic resources.		
Impact Aesth-7: The Project would not fundamentally conflict with any policies or regulations of the General Plan, Planning Code or Uniform Building Code that address appropriate provisions of adequate light for various types of land uses.	None required	Less than Significant
Impact Aesth-8: Given the limited height of proposed structures at the Project site and the site's location, wind modeling is not necessary and there would be no wind-related impacts associated with the proposed Project.	None required	No Impact
Impact Aesth-9: Considering market conditions, retail sales leakage, existing regulatory controls that address blight, and diverted sales due to the Project, the Project would not cause business closures, long term vacancies and physical deterioration of properties. Therefore, the Project would not result in significant urban decay impacts.	None required	Less than Significant
Cumulative Impact Aesth-10: Implementation of the Project, combined with other past, present, existing, pending and reasonably foreseeable projects that would be visible in the vicinity of the Project site would not result in significant adverse changes to existing visual character, views, light and glare or shadow.	None required	Less than Significant
Air Quality		
Impact Air-1: During construction, the proposed Project would generate fugitive dust from demolition, grading, hauling and construction activities.	None required SCA Air-1: Construction-Related Air Pollution Controls (Dust and Equipment Emissions) SCA Air-2: Asbestos Removal in Structures	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
Impact Air-2: During construction, the proposed Project would generate regional ozone precursor emissions and regional particulate matter emissions from construction equipment exhaust. However, Project-related construction emissions would not generate emissions of criteria air pollutants that would exceed the City's thresholds of significance.	None required SCA Air-1: Construction-Related Air Pollution Controls	Less than Significant
Impact Air-3: The proposed Project's construction-related emissions would not result in the estimated cancer risk, chronic health index, acute health index or annual average $PM_{2.5}$ concentration levels exceeding the individual source significance threshold.	None required SCA Air-1: Construction-Related Air Pollution Controls	Less than Significant
Impact Air-4: Once complete and occupied, the proposed Project would generate emissions of criteria pollutants (ROG, NO_x and PM_{10}), primarily as a result of increased motor vehicle traffic and also from area source emissions. Project-related traffic emissions, combined with anticipated area source emissions, would not generate emissions of criteria air pollutants that would exceed the City's thresholds of significance.	None required SCA Trans-1: Parking and Traffic Management Plan	Less than Significant
Impact Air-5: The Project would include a back-up generator that would emit small amounts of toxic emissions.	None needed	Less than Significant
Impact Air-6: New vehicle trips associated with the proposed Project would add to carbon monoxide concentrations near streets that provide access to the Project site. The carbon monoxide emission levels associated with the Project's vehicle trips would not exceed the City's thresholds of significance.	None needed	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
Impact Air-7: The proposed Project would not frequently create substantial objectionable odors affecting a substantial number of people.	None needed	Less than Significant
Cumulative Impact Air-8: Since the Project would not result in a significant air quality impact, the Project would not result in a considerable contribution to a significant cumulative impact to air quality, and the cumulative impact would be considered less than significant.	None needed	Less than Significant
Cumulative Impact Air-9: The proposed Project's construction-related emissions and operation emissions would not lead to a cumulatively significant risk for cancer, chronic health, acute health or annual average $PM_{2.5}$ concentrations that would exceed the cumulative source significance thresholds.	None needed	Less than Significant
Biological Resources		
Impact Bio-1: Large trees and buildings within the Project site and its immediate vicinity provide potential nesting habitat for birds and roosting habitat for bats which could be disturbed during construction. The quarry pond adjacent to the Project site provides marginally suitable aquatic habitat for the western pond turtle and if present, pond turtles could be adversely affected by construction activities.	SCA Bio-1: Tree Removal During Breeding Season **SCA Bio-1 Implementation: Roosting Bat Survey.** A pre-construction survey for roosting bats should be performed by a qualified biologist within 30 days prior to any removal of trees or structures on the Project site. If no active roosts are found, then no further action would be warranted. If either a maternity roost or hibernacula (structures used by bats for hibernation) is present, the following minimization measures shall be implemented: a) If active maternity roosts or hibernacula are found in trees or structures which will be removed as part of Project construction, the Project should be redesigned to avoid the loss of the tree or structure occupied by the roost to the extent feasible. If an active maternity roost is located and the Project cannot be redesigned to avoid removal of the occupied tree or structure, demolition can commence before maternity colonies form (i.e., prior to March 1) or after young are volant (flying) (i.e., after July 31). Disturbance-free buffer zones as determined by a qualified biologist in coordination with CDFG shall be observed during the maternity roost season (March 1 through July 31). b) If a non-breeding bat hibernacula is found in a tree or structure scheduled for removal, the	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
	individuals should be safely evicted, under the direction of a qualified biologist (as determined by a memorandum of understanding [MOU] with CDFG), by opening the roosting area to allow air flow through the cavity. Demolition can then follow at least one night after initial disturbance for airflow. This action should allow bats to leave during darkness, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Trees or structures with roosts that need to be removed will first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during the darker hours. **Mitigation Measure Bio-1b: Western Pond Turtle Surveys**: A western pond turtle survey should be conducted by a qualified biologist within two weeks prior to any disturbance or removal of upland vegetation around the quarry pond. If a turtle is found , it should be relocated out of harm's way in coordination with CDFG. a) If any turtles are encountered within the construction zone during construction, all work shall halt until the qualified biologist has determined whether it is a western pond turtle or some other species. If it is not a western pond turtle, work may continue. b) If a western pond turtle is found, the CDFG shall be notified regarding the presence of the western pond turtle and all work shall stop until additional exclusion measures have been defined and authorization to proceed is obtained from the CDFG. No person shall handle or otherwise harass any individual western pond turtle encountered during construction, with the exception of handling by the qualified biologist. A plan shall be developed in consultation with the CDFG to relocate the western pond turtle individuals to the nearest protected habitat outside the construction zone and to provide necessary on-site construction avoidance measures to prevent inadvertent take of this species. **Mitigation Measure Bio-1c: Contractor Awareness**. Contractor education should be conducted to make workers aware of measures being taken to protect resources on the site and to contribute to increased vigilance during their work. Before initiation of construction activities within close proximity to the quarry pond, all construction workers shall be trained by the qualified biologist regarding the potential presence of western pond turtle and the fact that this species is to be avoided, and if any turtles are seen, the job foreman must be notified and construction shall be halted until appropriate measures have been taken.	
Impact Bio-2: No wetlands or sensitive natural communities are present at the Project site such that they would be disturbed by Project construction or operation. However, landscape improvements at the edge of the Project site have the potential to adversely affect off-site wetland, riparian and sensitive natural communities.	None required SCA Bio-2: Creek Protection Plan SCA Bio-3: Regulatory Permits and Authorizations SCA Bio-4: Creek Monitoring SCA Bio-5: Creek Landscaping Plan	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
Impact Bio-3: Redevelopment of the Project site as proposed would not adversely affect wildlife movement or nursery sites.	None required	No Impact
Impact Bio-5: Redevelopment of the Project site as proposed would result in removal of four (4) "protected trees" to accommodate new buildings, five (5) protected trees within roadway medians, and two (2) non-protected Monterey pines for improved access to the adjacent quarry pond.	None required SCA Aesth-2: Tree Removal Permit, SCA Aesth-3: Tree Replacement Plantings, and SCA Aesth-4: Tree Protection During Construction	Less than Significant
Impact Bio-6: Although the proposed Project would be subject to the provisions of the City of Oakland Creek Protection Ordinance, there is nothing about the Project that would fundamentally conflict with elements of the ordinance intended to protect biological resources. The Project would not discharge a substantial amount of pollutants into the creek or watercourse, it would not significantly modify the natural flow of water, it would not deposit substantial amounts of new material into a creek or cause substantial bank erosion or instability, nor would it adversely impact a riparian corridor by significantly altering vegetation or wildlife habitat.	None required SCA Bio-2: Creek Protection Plan, SCA Bio-3: Regulatory Permits and Authorizations SCA Bio-4: Creek Monitoring SCA Bio-5: Creek Landscaping Plan	Less than Significant
Cumulative Impact Bio-7: The Project would not result in a significant cumulative impact on biological resources.	None required	Less than Significant
Cultural Resources		
Impact Cultural-1: The Project would not directly result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5.	None needed	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
Impact Cultural-2: The Project would not cause a substantial adverse change in the significance of a known archaeological resource, nor would it directly or indirectly destroy a known unique paleontological resource or site, or unique geologic feature. It is possible that currently unknown archaeological or paleontological resources could be damaged during site grading and construction.	None required SCA Cultural-1: Archaeological Resources SCA Cultural-2: Paleontological Resources SCA Cultural-3: *Human Remains* SCA Cultural-5: Archaeological Resources – Sensitive Areas	Less than Significant
Cumulative Impact Cultural-3: Implementation of the Project would not adversely affect historic or cultural resources, thus it would similarly not combine with other past, present, existing, pending and reasonably foreseeable projects that may have cultural resource impacts.	None required	No Impact
Geology and Soils		
Impact Geo-1: The Project site is located in an area that would be subject to very strong ground shaking and potential liquefaction in a major seismic event.	None required SCA Geo-2: Soils Report	Less than Significant
Impact Geo-2: The cut slope at the Project site's northerly boundary shows evidence of erosion and fallen debris, and could potentially be susceptible to slides.	None required SCA Geo-2: Soils Report **SCA Implementation: Catchment Structures.** Pursuant to recommendations from the 2007 Kleinfelder Geotechnical Investigation, the Project applicant shall reconstruct the on-site catchment structures at the toe of the cut slope along the northerly site boundary. Detailed catchment structure designs shall be included in the required soils report.	Less than Significant
Impact Geo-3: Portions of the easterly side of the Project site near the quarry pond contain clayey soil with variable gravel content, potentially unsuitable as a sub-grade soil for building foundations.	None required SCA Geo-2: Soils Report **SCA Implementation: Excavation of Unsuitable Soils.** Pursuant to recommendations from the 2007 Kleinfelder Geotechnical Investigation, in the event that unsuitable soil is encountered during the construction phase, such soils should be excavated to a firm bottom and the resulting hole should	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
	be backfilled with engineered fill or lean mix concrete.	
Impact Geo-4: Site preparation and construction activity associated with the Project could result in soil erosion as the surface is disrupted.	None required SCA Geo-2: Soils Report	Less than Significant
Impact Geo-5: Soils samples taken at the Project site indicate that near-surface soils are considered to have a low potential for expansion.	None required SCA Geo-2: Soils Report	Less than Significant
Impact Geo-6: The Project site has been previously developed and there are no known wells, pits, swamps, mounds, tank vaults or unmarked sewer lines located below the surface of the site that would be disturbed as a result of the proposed redevelopment.	None needed	Less than Significant
Impact Geo-7: The Project site has been previously developed and there is no evidence to suggest that the site has been previously used as a landfill. Redevelopment of the Project site as proposed would not result in the placement of any structures above landfills.	None needed	No impact
Impact Geo-8: The Project site is currently served by municipal sewage systems, and redevelopment as proposed would continue to be served by these systems. The use of septic systems is not anticipated.	None needed	No Impact
Cumulative Impact Geo-9: Portions of Oakland are underlain by unstable geology and soil conditions, and cumulative development under these conditions could expose people or structures to substantial adverse effects. However, with required implementation of City of Oakland Standard Conditions of Approval, as	None needed SCA Geo-2: Soils Report	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
well as other applicable local and State laws and regulations, cumulative impacts related to unstable geology and soil conditions would remain less than significant.		
Greenhouse Gas Emissions		
Impact GHG-1: Construction and operation of the Project would not result in GHG emissions that exceed City thresholds of significance. Therefore, the Project would result in a less-than-considerable contribution to cumulative global climate change, and thus a less-than-significant impact.	None needed	Less than Significant
Impact GHG-2: Because the estimated GHG emissions of the Project would not exceed the City's numeric significance threshold as analyzed under Impact GHG-1, development and implementation of the Project would also comply with applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions.	None needed	Less than Significant
Hazards and Hazardous Materials		
Impact Haz-1: No portion of the Project site is included on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Environmental Site Assessments prepared for the Project site do not indicate the presence of on-site soil or groundwater contamination at significant levels, and do not indicate that off-site contamination of soil or groundwater presents a concern to construction or operation of the Project. On-site building assessments do indicate that asbestos-containing materials are present in older portions of the shopping center.	None required SCA Haz-2: Environmental Site Assessment Reports/Remediation **SCA Implementation: Soil Sampling.** a. Soil and grab-groundwater samples shall be sought from along the sanitary sewer line further west, behind the existing Safeway store and toward Broadway. Based on the presence of groundwater within approximately 15 feet in depth at the former gas station at 5175 Broadway, it appears that field conditions may be more favorable for encountering groundwater closer to Broadway. Also, additional attempts to collect grab-groundwater samples could be made west of Boring SB-1. If grab-groundwater samples are successfully collected, then the laboratory results will also aid in evaluating the significance of the benzene detection at SB-2.	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
	b. Additional sampling activities for evidence of PCE impacts could be focused on the interior of the dry cleaning lease space. Further sampling across the site was not recommended because of the lack of laterally continuous groundwater, the lack of PCE in groundwater at SB-2 and SB-9, and the limited access along the sanitary sewer line behind the lessee spaces. c. These investigations shall be documented in a report which shall make recommendations for remedial action if appropriate and necessary, and shall be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. SCA Haz-3: Radon or Vapor Intrusion from Soil or Groundwater Sources SCA Haz-10: Lead-Based Paint Remediation SCA Air-2: Asbestos Removal in Structures	
Impact Haz-2: Construction workers, future commercial tenants and shoppers at the Project site may be exposed to hazardous materials during site demolition and construction phases.	None required SCA Haz-7: Other Materials Classified as Hazardous Waste SCA Haz-10: Lead-Based Paint Remediation SCA Air-2: Asbestos Removal in Structures **SCA Implementation: Asbestos Removal.** a. The floor tile and mastic materials that were positive must be removed using floor abatement practices for asbestos in areas scheduled for renovation. All of the original and older floor tiles are considered asbestos containing material (ACM) due to the difficulty of separating and/or removing the asbestos containing mastic component. Any removal shall be performed using Wet methods, following all applicable regulatory guidelines. During the removal of any carpet floorings, areas of black mastic shall be treated as containing asbestos. b. The drywall materials that were positive must be removed using abatement practices for > 1% asbestos, in areas scheduled for renovation. All of the original or older gypsum board assemblies are considered asbestos containing construction material (ACCM), requiring the use of contractors, registered for asbestos-related work. Any removal shall be performed using Wet methods, following all applicable regulatory guidelines. c. The roofing materials that were positive must be removed using roofing abatement practices for asbestos, in areas scheduled for renovation. All of the roof cements are considered as asbestos containing material (ACM), due to the difficulty of separating and/or removing the asbestos containing mastic component. Any removal shall be performed using Wet methods, following all applicable regulatory guidelines.	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
	d. Renovation or demolition work in areas that are not specifically covered by this report shall be re-inspected prior to any disturbance of suspect materials.	
Impact Haz-3: The Project site is located within one-quarter mile of Oakland Technical High School and Emerson Elementary School.	None required SCA Haz-1: Phase I and/or Phase II Reports SCA Haz-2: Environmental Site Assessment Reports/Remediation	Less than Significant
Impact Haz-4: The project site is not located near any public airport, within an airport plan area or near a private airstrip.	None needed	No Impact
Impact Haz-5: With implementation of SCA Trans-2, the requirement to obtain an encroachment permit for work within street rights-of-way, and standard construction period notification requirements to first responders, potential Project impact related to interference with an emergency response plan or emergency evacuation plan would be less than significant.	None required SCA Trans-2: Construction Traffic and Parking	Less than Significant
Impact Haz-6: The Project site is located within a heavily urbanized portion of Oakland. There are no wild lands at the Project site and adjacent areas have been developed (e.g., as a college campus, a golf course and cemeteries) and would not pose a risk of wildland fires.	None needed	No Impact
Cumulative Impact Haz-7: Hazards and hazardous materials impacts are generally site-specific and/or have limited mobility. Thus, the Project would not be expected to have cumulatively considerable effects.	None needed	Less than Significant
Hydrology and Water Quality		
Impact Hydro-1: The Project site is already fully developed and/or paved, and is served with	None needed	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
water from the East Bay Municipal Utility District. Redevelopment of the Project site as proposed would not result in any change in existing groundwater recharge, and would not deplete groundwater resources.		
Impact Hydro-2: The Project site is not subject to potential flooding, and redevelopment of the Project site as proposed would not subject off-site areas to increased flood potential.	None needed	No Impact
Impact Hydro-3: The Project site currently has very little pervious surface and is almost entirely covered by buildings and paved areas. Redevelopment of the site as proposed would not substantially increase impervious surface area and thus would not increase stormwater runoff.	None needed	Less than Significant
Impact Hydro-4: Site preparation and construction activity associated with the proposed Project could result in soil erosion, which could have adverse effects on water quality. During site preparation and construction activity at the site, potentially significant soil erosion impacts could occur.	None required SCA Geo-1: Erosion and Sedimentation Control Plan	Less than Significant
Impact Hydro-5: Site preparation and construction activity associated with the proposed Project site could result in degradation of stormwater quality.	None required SCA Hydro-1: Stormwater Pollution Prevention Plan	Less than Significant
Impact Hydro-6: Operational activities such as vehicular use, landscaping maintenance and other operational activities could potentially introduce pollutants into stormwater runoff, resulting in degradation of downstream water quality.	None required SCA Hydro-2: Post-construction Stormwater Pollution Management Plan SCA Hydro-3: Maintenance Agreement for Stormwater Treatment Measures SCA Hydro-4: Erosion, Sedimentation, and Debris Control Measures	Less than Significant
Impact Hydro-7: Although the proposed Project would be subject to the provisions of the City of	None required	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
Oakland Creek Protection Ordinance, there is nothing about the Project that would fundamentally conflict with elements of the ordinance intended to protect hydrologic resources. The Project would not discharge a substantial amount of pollutants into the creek or watercourse, it would not significantly modify the natural flow of water, it would not deposit substantial amounts of new material into a creek or cause substantial bank erosion or instability, nor would it substantially endanger public or private property or threaten public health or safety.	SCA Bio-2: Creek Protection Plan SCA Bio-3: Regulatory Permits and Authorizations SCA Bio-4: Creek Monitoring SCA Bio-5: Creek Landscaping Plan	
Cumulative Impact Hydro-8: Implementation of the Project, combined with other past, present, existing, pending and reasonably foreseeable projects would not result in significant adverse changes to hydrology and/or water quality.	None needed	Less than Significant
Land Use		
Impact Land Use-1: The Project would redevelop the existing shopping center with a new shopping center, and would not result in the physical division of an existing community.	None needed	No Impact
Impact Land Use-2: The Project would not be incompatible with surrounding land uses.	None needed	Less than Significant
Impact Land Use-3: The Project would not result in a fundamental conflict with any applicable habitat conservation plan or natural community conservation plan.	None needed	No Impact
Noise		
Impact Noise-1: Noise generated by construction activities at the site would not be expected to	None required	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
violate the City of Oakland Noise Ordinance or violate the City of Oakland Noise Ordinance regarding nuisance of persistent construction-related noise, provided that standard construction noise controls are implemented at the site.	SCA Noise-1: Days/Hours of Construction Operation SCA Noise-2: Noise Control SCA Noise-3: Noise Complaint Procedures SCA Noise-5: Pile Driving and Other Extreme Noise Generators	
Impact Noise-2: The Project would not result in a substantial increase in the permanent outdoor ambient noise levels in the Project vicinity above levels existing without the Project.	None needed	No Impact
Impact Noise-3: The Project would not result in a conflict with land use compatibility guidelines used to determine the acceptability of noise for a commercial land use.	None needed	Less than Significant
Impact Noise-4: The Project's operation will not result in new or exacerbated operational noise levels that would exceed the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding operational noise.	None needed	Less than Significant
Impact Noise-5: Temporary project construction activities would not expose adjacent residences to groundborne vibration at levels that could cause cosmetic or structural damage to structures or improvements, and Project occupancy and operation would not generate groundborne vibration at levels that would be perceptible beyond the property boundaries.	None required SCA Noise-1: Days/Hours of Construction Operation SCA Noise-3: Noise Complaint Procedures SCA Noise-5: Pile Driving and Other Extreme Noise Generators	Less than Significant
Cumulative Impact Noise-6: Cumulative increases in noise within the vicinity of the Project area would not result in a 5 dBA L_{dn} permanent increase in ambient noise levels above noise levels without the Project, and the Project's contribution to the cumulative increase in noise would not result in a 3 dBA L_{dn} permanent	None needed	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
increase attributable to the Project.		
Traffic		
Existing plus Project **Impact Trans-1**: The proposed Project would degrade intersection operations from LOS D to LOS E during the Saturday PM peak hour at the signalized Shattuck Avenue/52nd Street intersection (#12).	**Mitigation Measure Trans-1**: Implement the following measures at the Shattuck Avenue/52nd Street intersection: a) Optimize signal timing parameters (i.e., adjust the allocation of green time for each intersection approach). b) Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.	Less than Significant
Impact Trans-2: The signalized Telegraph Avenue/51st Street intersection currently operates at LOS E, even without increased traffic from the Project. The proposed Project would add traffic that would increase delay for the critical southbound left-turn movements by more than six seconds during the weekday PM peak hour.	**Mitigation Measure Trans-2**: Implement the following measures at the Telegraph Avenue/51st Street intersection: a) Optimize signal timing parameters (i.e., adjust the allocation of green time for each intersection approach). b) Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.	Less than Significant
Impact Trans-3: The proposed Project would add more than 10 trips to the Howe Street/Pleasant Valley Avenue intersection during the weekday PM and Saturday midday peak hours under Existing plus Project conditions. The intersection would meet the peak hour signal warrant during both time periods.	**Mitigation Measure Trans-3:** Implementing one of the following measures at the Howe Street/ Pleasant Valley Avenue intersection would reduce the impact to a less than significant level: a) Signalize the intersection, providing actuated operation with permitted left turns and coordinate the signal timings with the adjacent intersections that would be in the same signal coordination group. b) Prohibit on-street parking for about 80 feet along northbound Howe Street just south of Pleasant Valley Avenue to allow right-turning vehicles to bypass the queued left-turning vehicles. c) Prohibit the left-turn movement from Howe Street to westbound Pleasant Valley Avenue during the peak commute periods.	Because of secondary significant impacts associated with each of the identified mitigation measures, these measures are considered infeasible. Significant and Unavoidable
Impact Trans-4: The signalized Piedmont Avenue/Pleasant Valley Avenue intersection currently operates at LOS E, even without increased traffic from the Project. The proposed Project would add traffic that would increase average delay at this intersection by more than	**Mitigation Measure Trans-4**: Implement the following measures at the Piedmont Avenue/Pleasant Valley Avenue intersection: a) Convert signal control equipment from pre-timed to actuated-coordinated operations b) Optimize signal timing parameters (i.e., adjust the allocation of green time for each intersection approach)	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
four seconds during the weekday PM peak hour.	c) Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.	
2015 Intersection Impacts **Impact Trans-5:** The proposed Project would degrade intersection operations from LOS D to LOS E during the weekday PM peak hour at the Broadway/51st Street/Pleasant Valley Avenue (#7) intersection under 2015 Conditions. The proposed Project would also add traffic that would increase delay for the critical eastbound through movement by more than six seconds during the Saturday midday peak hour, which the intersection would operate at LOS E regardless of the proposed Project	**Mitigation Measure Trans-5:** Implementation of the following measures at the Broadway/51st Street/Pleasant Valley Avenue intersection would reduce the impact to a less-than-significant level: a) Install a left-turn lane on the westbound Pleasant Valley Avenue approach. b) Install a left-turn lane on the eastbound 51st Street approach.	These modifications would conflict with City policy concerning pedestrian safety and comfort, therefore resulting in secondary impacts. For these reasons the mitigation is considered infeasible. Significant and Unavoidable
Impact Trans-6: The Shattuck Avenue/52nd Street intersection is projected to operate at LOS E under 2015 Conditions, even without increased traffic from the Project. The proposed Project would add traffic that would increase delay for the critical southbound through movement by more than six seconds during the Saturday PM peak hour, exceeding the City's threshold of significance.	**Mitigation Measure Trans-6**: Implement Mitigation Measure Trans-1.	Less than Significant
Impact Trans-7: The Telegraph Avenue/51st Street intersection is projected to operate at LOS E under 2015 Conditions, even without increased traffic from the Project. The proposed Project would add traffic that would increase delay for the critical southbound left-turn movement by more than six seconds during the weekday PM peak hour.	**Mitigation Measure Trans-7**: Implement Mitigation Measure Trans-2.	Less than Significant
Impact Trans-8: The proposed Project would add more than 10 trips to the Howe Street/Pleasant Valley Avenue (#19) intersection	**Mitigation Measure Trans-8:** Implement Mitigation Measure Trans-3	Because of secondary significant impacts associated with each of

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
during the weekday PM and Saturday midday peak hours under 2015 Plus Project conditions. The intersection would meet the peak hour signal warrant during both time periods.		the identified mitigation measures, these measures are considered infeasible Significant and Unavoidable
Impact Trans-9: The proposed Project would degrade intersection operations from LOS E to LOS F during the weekday PM peak hour at the Piedmont Avenue/Pleasant Valley Avenue (#20) intersection under 2015 Conditions; the Project would also degrade the intersection operations during the Saturday midday and PM peak hour from LOS D to LOS E.	**Mitigation Measure Trans-9:** Implement Mitigation Measure Trans-4.	Less than Significant
2035 Intersection Impacts **Impact Trans-10**: The proposed Project would increase volume-to-capacity (v/c) ratio for the intersection by 0.01 or more, and the critical movement v/c ratio for the eastbound left, eastbound through, westbound left, northbound through, and the southbound left movements by 0.02 or more during the weekday PM peak hour, and it would increase v/c ratio for the intersection by 0.01 or more and the critical movement v/c ratio for the eastbound left, eastbound through, and, northbound through movements by 0.02 or more during the Saturday midday peak hour at the Broadway/51st Street/Pleasant Valley Avenue (#7) intersection under 2035 Conditions, which would operate at LOS F regardless of the Project.	**Mitigation Measure Trans-10** Implement Mitigation Measure Trans-5.	Even with implementation of this mitigation measure, the impact would remain significant and unavoidable. In addition, these modifications would conflict with City policy concerning pedestrian safety and comfort, therefore resulting in secondary impacts. For these reasons the mitigation is considered infeasible. Significant and Unavoidable
Impact Trans-11: The proposed Project would increase intersection volume-to-capacity (v/c) ratio by 0.01 or more during the Saturday PM peak hour at the Shattuck Avenue/52nd Street (#12) intersection under 2035 Conditions, which would operate at LOS F regardless of the Project.	**Mitigation Measure Trans-11:** Implement Mitigation Measure Trans-1.	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
Impact Trans-12: The proposed Project would increase delay for the critical southbound left-turn movement by more than six seconds during the weekday PM peak hour at the Telegraph Avenue/51st Street (#15) intersection under 2035 Conditions, which would operate at LOS E regardless of the Project; the Project would also increase delay for the critical westbound and southbound movements by more than six seconds during the Saturday midday peak hour; the Project would also degrade the intersection during the Saturday PM peak hour from LOS D to LOS E.	**Mitigation Measure Trans-12**: Implement Mitigation Measure Trans-2.	Less than Significant
Impact Trans-13: The proposed Project would add more than 10 trips to the Howe Street/ Pleasant Valley Avenue (#19) during the weekday PM, Saturday midday, and Saturday PM peak hours under 2035 Plus Project conditions. The intersection would meet the peak hour signal warrant during the three time periods.	**Mitigation Measure Trans-13:** Implement Mitigation Measure Trans-3	Because of secondary significant impacts associated with each of the identified mitigation measures, these measures are considered infeasible. Significant and Unavoidable
Impact Trans-14: The proposed Project would increase volume-to-capacity (v/c) ratio for the intersection by 0.01 or more, and the critical movement v/c ratio for the eastbound, westbound, and northbound movements by 0.02 or more during the weekday PM, Saturday midday, and Saturday PM peak hours at the Piedmont Avenue/Pleasant Valley Avenue (#20) intersection under 2035 Conditions, which would operate at LOS F regardless of the Project.	**Mitigation Measure Trans-11**: Implement the following measures at the Piedmont Avenue/Pleasant Valley Avenue intersection: a) Mitigation Measure Trans-4. b) Modify signal control equipment to provide lagging protected phasing in the northbound direction.	After implementation of this measure, the intersection impact would remain significant and unavoidable. No other feasible mitigation measures are available within the existing automobile right-of-way. Significant and Unavoidable
Impact Trans-15: The proposed Project would degrade intersection operations from LOS E to LOS F during the weekday PM peak hour at the Hudson Street/Manila Avenue/College Avenue	**Mitigation Measure Trans-15**: Implement the following measures at the Hudson Street/Manila Avenue/College Avenue intersection: a) Optimize signal timing parameters (i.e., adjust the allocation of green time for each intersection	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
(#24) intersection under 2035 Conditions.	approach). b) Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.	
Impact Trans-16: The proposed Project would not cause congestion of regional significance on a roadway segment on the Congestion Management Program (CMP) and/or the Metropolitan Transportation System (MTS) evaluated per the requirements of the Land Use Analysis Program of the CMP.	None needed	Less than Significant
Impact Trans-17: The proposed Project would not substantially increased travel times for AC Transit buses.	None needed	Less than Significant
Impact Trans-18: The proposed Project would not 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.	None needed	Less than Significant
Impact Trans-19: The proposed Project would not 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.	None needed	Less than Significant
Impact Trans-20: The proposed Project would not directly or indirectly result in a permanent substantial decrease in pedestrian safety.	None needed	Less than Significant
Impact Trans-21: The proposed Project would not directly or indirectly result in a permanent substantial decrease in bus rider safety.	None needed	Less than Significant
Impact Trans-22: The proposed Project would	None needed	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
not directly or indirectly result in a permanent substantial decrease in bicyclist safety.		
Impact Trans-23: The proposed Project would not 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.	None needed	Less than Significant
Impact Trans-24: The proposed Project would not 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.	None needed	Less than Significant
Impact Trans-25: The proposed Project would result in a substantial, though temporary adverse effect on the circulation system during construction.	None required SCA Trans-1: Construction Traffic Management Plan **SCA Implementation: Construction Traffic Management.** The Construction Traffic Management Plan developed for the Project shall include the following: a) A set of comprehensive traffic control measures for motor vehicles, transit, bicycle, and pedestrian access and circulation during each phase of construction. b) A construction period parking management plan to ensure that parking demands for construction workers, site employees, and customers are accommodated during each phase of construction.	Less than Significant
Impact Trans-26: Neighborhood traffic intrusion would not exceed the capacity of affected residential streets, and would not result in a significant impact.	None needed	Less than Significant
Utilities and Public Services		
Impact Util-1: Although the Project will result in the construction of new storm water drainage facilities, the construction of these facilities would not cause significant environmental	None required SCA Util-2: Stormwater and Sewer SCA Air-1: Best Management Practices	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
effects.	SCA Geo-1: Erosion and Sedimentation Control Plan SCA Noise-1: Days/Hours of Construction Operation SCA Noise-2: *Noise Control* SCA Trans-1: Construction Traffic Management Plan	
Impact Util-2: The Project would not generate wastewater flows that would exceed the capacity of existing wastewater treatment facilities or necessitate the expansion of existing wastewater treatment facilities.	None needed	Less than Significant
Impact Util-3: Although the Project will result in the construction of new on-site wastewater collection infrastructure, the construction of such infrastructure would not cause significant environmental effects.	None required SCA Util-2: Stormwater and Sewer SCA Air-1: Best Management Practices SCA Geo-1: Erosion and Sedimentation Control Plan SCA Noise-1: Days/Hours of Construction Operation SCA Noise-2: *Noise Control* SCA Trans-1: Construction Traffic Management Plan	Less than Significant
Impact Util-4: The Project would not exceed water supplies available from existing entitlements and resources.	None needed	Less than Significant
Impact Util-5: Although the Project would result in the construction of certain new on-site water supply infrastructure, the construction of such infrastructure would not cause significant environmental effects.	None required SCA Air-1: Best Management Practices SCA Geo-1: Erosion and Sedimentation Control Plan SCA Noise-1: Days/Hours of Construction Operation SCA Noise-2: Noise Control SCA Trans-1: Construction Traffic Management Plan	Less than Significant
Impact Util-6: The amount of solid waste	None required	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
generated by the proposed Project would not exceed the capacity of the Davis Street Transfer Station or the Altamont Landfill and would not require the construction or expansion of landfill facilities.	SCA Util-1: Waste Reduction and Recycling	
Cumulative Impact Util-7: The Project, in combination with other known past, present, planned or reasonably anticipated future projects would not exceed existing or projected utility capacities.	None needed	Less than Significant
Other Less Than Significant Effects		
Impact Ag-1: The Project would not 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 Cal. Resources Agency to non-agricultural use.	None needed	No Impact
Impact Ag -2: The Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.	None needed	No Impact
Impact Ag-3: The Project would not involve any changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use.	None needed	No Impact
Impact Min-1: The Project would not 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.	None needed	No Impact
Impact Min-2: The Project would not result in loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.	None needed	No Impact

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
Impact Pop-1: The Project would not induce substantial population growth in a manner not contemplated in the General Plan, either directly or indirectly.	None needed	No Impact
Impact Pop-2: The Project would not displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element.	None needed	No Impact
Impact Pub Serv-1: The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities in order to maintain acceptable service ratios, response times or other fire protection service performance objectives.	None required SCA Pub Serv-1: Fire Safety Phasing Plan	Less than Significant
Impact Pub Serv-2: The Project could result in an increase in calls for police protection services, but would not result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities or the need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other Oakland Police Department performance objectives	None needed	Less than Significant
Impact Pub Serv-3: The Project could result in new students for local schools, but would not require new or physically altered school facilities to maintain acceptable performance objectives.	None needed	No Impact
Impact Rec-1: The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that	None needed	Less than Significant

Table 2-1: Summary of Project Impacts, Standard Conditions of Approval, Mitigation Measures and Residual Impacts: Safeway Redevelopment Project at Broadway and Pleasant Valley Avenue

Potential Environmental Impacts	Mitigation Measures / Standard Conditions of Approval (SCA)	Resulting Level of Significance
substantial physical deterioration of the facility would occur or be accelerated.		
Impact Rec-2: The Project does not include recreational facilities nor does it require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	None needed	No Impact

Table 2-2: Summary of Non-CEQA Recommendations

Potential Effects	Recommendation
Vehicle, Pedestrian and Bicycle Safety *Broadway/College Avenue Intersection* The Project would generate additional automobiles, bicycles, and pedestrians at the Broadway/ College Avenue intersection, which currently does not provide a crosswalk on the south approach. In addition, vehicles on southbound College Avenue turn right into Broadway at high speeds due to the angle that College Avenue intersects Broadway. These vehicles may conflict with pedestrians crossing College Avenue or vehicles turning left from northbound Broadway into Wendy's Restaurant.	**Recommendation Trans-15a:** Modify the Broadway/College Avenue intersection so that College Avenue would intersect Broadway at a right angle.
Internal Pedestrian Improvements The internal street in the western portion of the site provides a continuous commercial frontage and is intended as a pedestrian oriented street. The loading berths at Building "M" disrupt the pedestrian flow along the internal street and may result in potential conflicts when trucks are backing into and leaving the loading dock.	**Recommendation Trans-17:** Implement the following in order to improve pedestrian access, circulation, and safety: a) Use different materials and/or striping patterns at all crosswalks within the site, including mid-block crossings, parking aisle crossings, and parking structure driveways. Also, consider using raised speed tables at crosswalks to reduce automobile speeds. b) Ensure adequate sight distance is provided at all crosswalks, especially at midblock and parking structure driveways. c) Potential options to improve pedestrian circulation and safety along the internal street near the loading berths at Building "M" include: • Allow trucks to load/unload along the internal street during non-peak periods. • Provide a pull-out on Pleasant Valley Avenue that would allow trucks to parallel park without interfering with automobile or bicycle flow along Pleasant Valley Avenue. This strategy would also require direct access between the uses on the south side of the internal street and Pleasant Valley Avenue. • Enlarge the existing loading berth adjacent to Building "J." This strategy would require material to be manually delivered to the uses south of the internal street. • Implement a loading management program at Building "M" loading berths to minimize disruptions to pedestrian activity. d) Ensure that all pedestrian paths and sidewalks within the Project site have a minimum width of six feet (10 feet preferred). e) Ensure that all pedestrian facilities provide pedestrian scale lighting.
Bus Rider Safety	**Recommendation Trans-18:** Provide a bus shelter at the bus stops on northbound and southbound Broadway north of Pleasant Valley Avenue/51st Street and on westbound Pleasant Valley Avenue west of Project driveway.

Table 2-2: Summary of Non-CEQA Recommendations

Bicycle Parking	**Recommendation Trans-23**: Implement the following improvements to bicycle parking: a) Locate long-term bicycle parking in the parking structures. b) Ensure the short-term bicycle parking on sidewalks do not block pedestrian circulation. c) Ensure that some short-term bicycle parking spaces can accommodate bicycles with trailers. d) Monitor the usage of long-term and short-term bicycle parking spaces and if necessary provide additional parking spaces. e) Provide shower and locker facilities in a central location that can be accessed by all site employees.
Parking Supply	**Recommendation Trans-24**: Implement the following strategies to reduce overall parking demand for the Project site and better manage the available parking supply: a) Implement a Transportation Demand Management (TDM) plan to encourage more Project employees to use other travel modes than driving as required by SCA Trans-1. b) Encourage employees to use the least convenient parking spaces such as parking spaces on the top deck of the parking structures and behind the buildings. c) Install an automated parking counting system including variable message signs to inform motorists of the number of parking spaces available in the structured parking facilities and reduce potential traffic circulation. d) Implement strategies to manage parking demand and supply during the peak December periods: • Provide attendant parking for employees and/or customers. Automobiles can park in the drive aisles with attendant parking and increase the overall parking capacity of the site. • Provide remote parking for site employees.
Truck Access and Circulation	**Recommendation Trans-25:** Implement a loading management program to ensure that truck deliveries for all Project buildings can be accommodated with minimal disruptions to pedestrian, bicycle, and automobile access, circulation and parking throughout the site. The loading management program should identify loading areas for all Project buildings and truck waiting areas when truck loading areas are occupied.

3

Project Description

Property Development Centers, Inc., an affiliate of Safeway, Inc., is proposing the redevelopment of the existing Rockridge Shopping Center located at Broadway and Pleasant Valley Avenue, including the demolition of all existing buildings on the site and construction of a new Safeway store along with other retail, office and restaurant space. This chapter describes the proposed Safeway Redevelopment Project (Project) which is evaluated in this Environmental Impact Report (EIR). The chapter begins with a description of the Project site, planning context and a discussion of relevant Project background, followed by a detailed description of the proposed Project, Project objectives and a discussion of the intended uses of the EIR for required Project approvals and entitlements.

Project Site

Location

The 15.4-acre Project site is located on the northeast corner of the intersection of Pleasant Valley Avenue and Broadway in the City of Oakland, Alameda County, California (see **Figure 3-1**). The site is under a single ownership and is composed of two parcels: Assessor's Parcel Number (APN) 14-1242-5-7 and APN 14-1242-2-3. The site has approximately 850 feet of frontage along Pleasant Valley Avenue and 480 feet of frontage along Broadway.

The Project site is generally bounded by Broadway (west); Pleasant Valley Avenue (south); the California College of Arts, the Claremont Country Club (north); and Claremont Pond and an American Automobile Association (AAA) office (east).

Existing Site Characteristics

Between the 1870s and the 1950s, the Project site and much of its immediate surroundings were part of a rock quarry last operated by Oliver DeSilva Construction Company. The quarry was permanently closed in 1957.

The Project site's topography is generally flat, but its northern boundary is characterized by a nearly vertical cut slope ranging an average of 35-60 feet above the site, created as a result of the prior quarry operations. Bordering the Project site to the east is a pond that was left after the quarry operations ceased.

The site is about 5 to 8 feet higher than street grade along both Broadway and Pleasant Valley Avenue, probably the result of the placement of fill in this area.

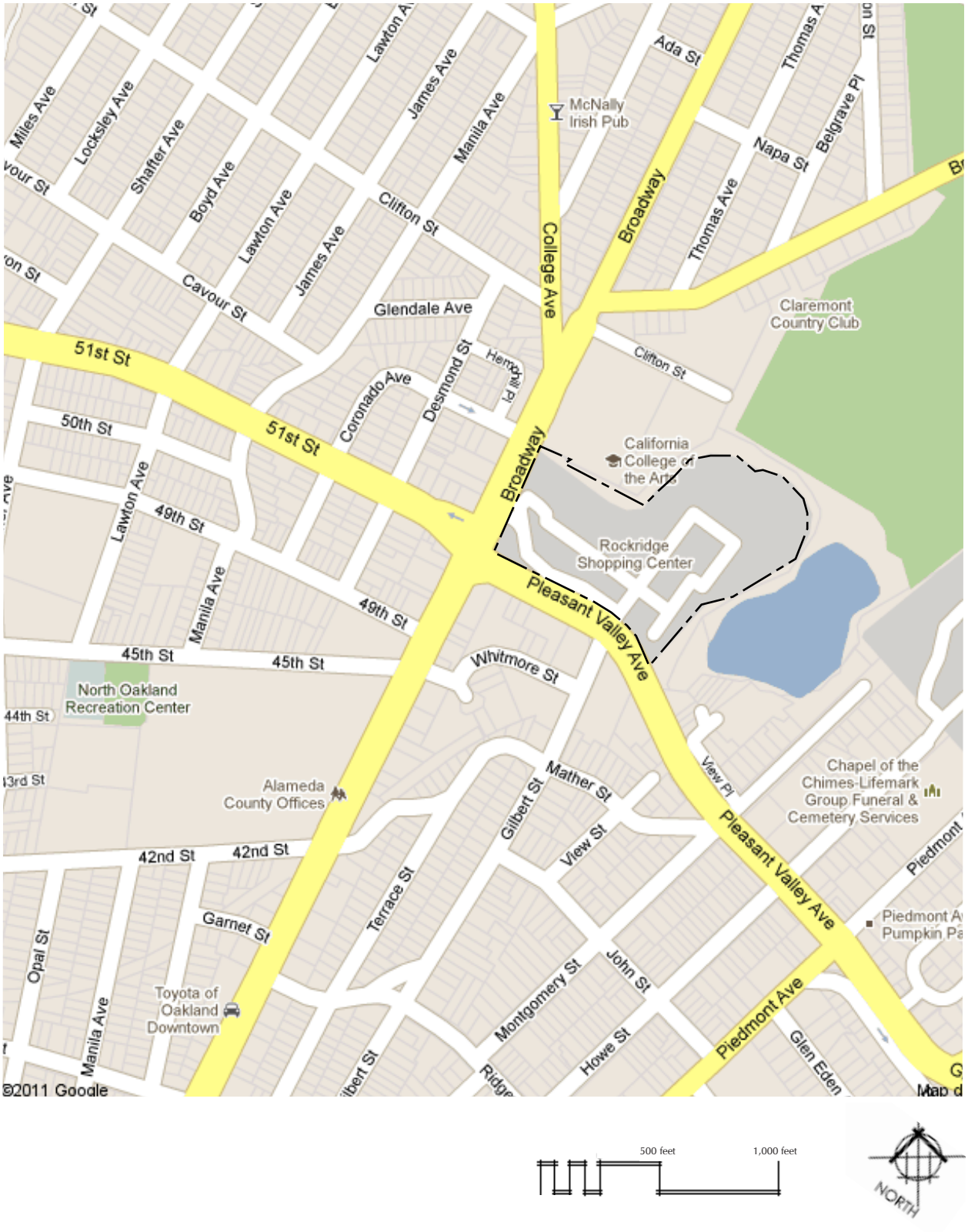


Figure 3-1
Project Site Location

Source: Google Maps

Retail Use

In 1964 and 1965, six buildings were constructed on the Project site that now make up the existing Rockridge Shopping Center (see **Figure 3-2**). Five of the shopping center's six existing buildings are generally located along the site's northerly boundary set back from Pleasant Valley Avenue, and one building is a free-standing structure situated directly at the northeast corner of Pleasant Valley Avenue and Broadway.

The current tenants at the shopping center, by building, include the following:

- Building 1: 18,000 square feet – Chase Bank (see **Figure 3-3**)
- Building 2: 14,906 square feet – Boston Market restaurant, Bank of America and Pet Food Express (see also Figure 3-3)
- Building 3: 47,975 square feet – Safeway (see **Figure 3-4**)
- Building 4: 6,605 square feet – Starbucks, Dress Barn and Ritz Camera (see also Figure 3-4)
- Building 5: 10,756 square feet – PayLess Shoes, Jamba Juice, Game Stop, 1st Title Credit Union, Rockridge Cleaners, Health Foods, and Great Clips (see **Figure 3-5**)
- Building 6: 87,200 square feet – CVS Pharmacy (formerly Longs Drugs - see also Figure 3-5)

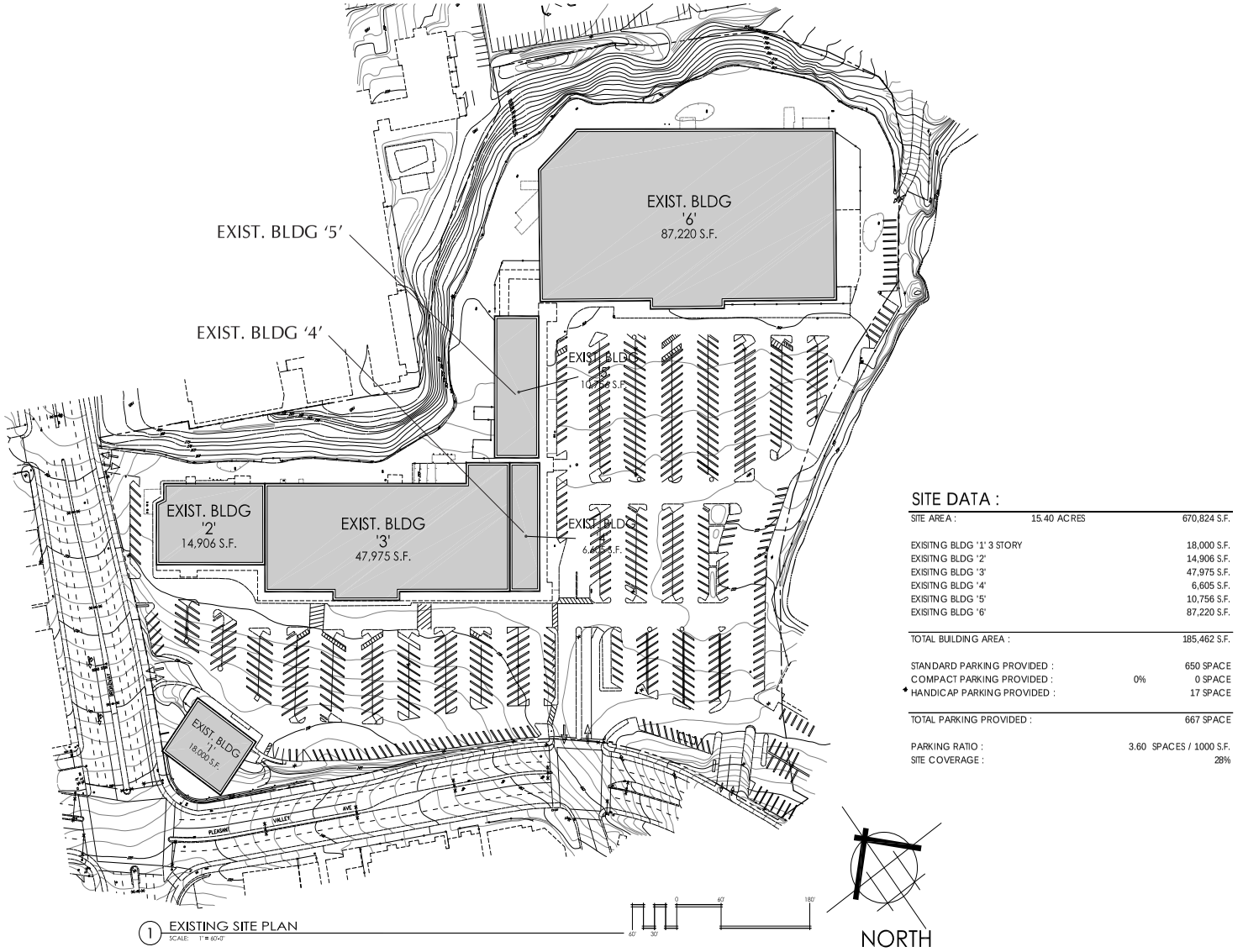
In total, the Project site currently contains approximately 185,465 square feet of commercial building space.

Access and Circulation

Access to the Project site is currently provided at two points along Pleasant Valley Avenue and three points along Broadway. Along Pleasant Valley Avenue the primary access is at the signalized intersection of Pleasant Valley Avenue and Gilbert Street. A second access is provided from Pleasant Valley Avenue near the Project site's southeastern boundary, approximately 210 feet east of the primary access. Along Broadway, the first driveway provides two-way, right-in / right-out unsignalized access to the Project site's main parking lot. Approximately 100 feet further to the north, a second unsignalized right-in / right-out driveway also provides access to the Project site's main parking lot and to the drive aisle along the retail frontages. Approximately 150 feet further to the north at the northwestern corner of the Project site, a third unsignalized driveway provides two-way access to the service road that runs eastward along the site's northern boundary behind the shopping center's buildings. This service road provides access to the service entrances and loading docks, and continues southward along the site's eastern perimeter, eventually leading to the secondary access driveway at Pleasant Valley Avenue.

Existing circulation is typical of similar shopping centers. Rows of diagonal parking spaces are separated by travel aisles, and overall circulation is provided via a two-way perimeter travel lane. Parking stalls are oriented at a forty-five degree angle to the travel aisles.

The majority of the Project site is dedicated to surface parking with 615 off-street parking spaces. The existing parking ratio is 0.3 spaces per 1,000 square feet of building area.



SITE DATA :

SITE AREA :	15.40 ACRES	670,824 S.F.
EXISITNG BLDG '1' 3 STORY		18,000 S.F.
EXISITNG BLDG '2'		14,906 S.F.
EXISITNG BLDG '3'		47,975 S.F.
EXISITNG BLDG '4'		6,605 S.F.
EXISITNG BLDG '5'		10,756 S.F.
EXISITNG BLDG '6'		87,220 S.F.
TOTAL BUILDING AREA :		185,462 S.F.
STANDARD PARKING PROVIDED :		650 SPACE
COMPACT PARKING PROVIDED :	0%	0 SPACE
HANDICAP PARKING PROVIDED :		17 SPACE
TOTAL PARKING PROVIDED :		667 SPACE
PARKING RATIO :		3.60 SPACES / 1000 S.F.
SITE COVERAGE :		28%

Figure 3-2
Existing Project Site, Current Buildings

Source: Benner Stange Architects

Photo 1: Chase Bank, Building 1

Photo 2:West Wing - Building 2

Figure 3-3
Project Site Photos 1 and 2: Existing Center

Source: PD Centers

Photo 3: Existing Safeway, Building 3

Photo 4: Central Building, Buildings 4

Figure 3-4
Project Site Photos 3 and 4: Existing Center

Source: PD Centers

Photo 5: Central Building, Building 5

Photo 6: Existing CVS Phamacy. Building 6 (was Long's Drug)

Figure 3-5
Project Site Photos 5 and 6: Existing Center

Source: PD Centers

Surrounding Land Uses

Bordering the Project site to the east is a pond that was left after the quarry operations stopped. The Claremont Pond (also known as Old Quarry Pond) is owned by the Claremont Country Club and serves mainly as a water storage facility that supplies the country club's irrigation needs for the golf course. The water surface of the pond is about 20 feet below the shopping center grade, and the top of the bank is about 30 feet from the existing CVS Pharmacy building (asphalt parking and driveway are located between the building and the top of bank of the pond). The banks surrounding the pond are in rock and nearly vertical. On the opposite side of the pond is an extremely steep cut slope (nearly vertical) that is about 80 to 100 feet high.

Other adjacent land uses are mainly institutional (California College of the Arts), recreational (Claremont Country Club) and commercial (AAA office). Commercial uses are also located across Broadway to the west of the site, and residential uses are located across Pleasant Valley Avenue to the south of the site.

Northwest of the Project site is the eastern terminus of College Avenue, a popular business district extending between the cities of Oakland and Berkeley characterized by cafes, boutiques, antique stores, bookstores and professional offices.

Access to State Route 24 is located approximately ¾ mile west of the Project site along 51st Street.

Existing General Plan and Zoning Designations

General Plan

The Project site is currently designated on the General Plan Land Use and Transportation Element (LUTE) Diagram as Community Commercial. The Community Commercial classification is intended to "identify, create, maintain and enhance areas suitable for a wide variety of commercial and institutional operations along the City's major corridors and in shopping districts or centers." Community commercial uses may include neighborhood center uses and larger scale retail and commercial uses, and can be complemented by the addition of urban residential development and compatible mixed-use development. The maximum floor area ratio (FAR) for this land use classification is 5.0.

Zoning

The zoning applicable to the Project site at the time the Project application was deemed complete (December 17, 2010) determines the zoning regulations applied to the Project. At that time, the site was split into three different zoning districts. The southwestern corner of the site, roughly equal to the location of the Chase Bank building, was located in the C-40 Community Thoroughfare Commercial zone. The central portion of the site was located in the C-30 District Thoroughfare Commercial zone. The eastern portion of the site was located in the R-50 Medium Density Residential zone. The entire site was also covered with the S-4 Design Review Combining zone. The S-4 zone is an overlay zone that requires design review for the construction and alteration of buildings. All new construction in the S-4 zone is subject to the City's Design Review procedures.

A new zoning map and accompanying new zoning regulations for the City's residential and commercial areas became effective as of April 14, 2011. Under the new zoning map, the Project site is zoned CC-2 Community Commercial-2. The new zoning is not applicable to the Project because the Project application was deemed complete prior to the new zoning becoming effective.

Pursuant to the R-50 zoning regulations applicable to the eastern portion of the Project site, commercial uses such as those that currently exist and that are proposed under the Project are not considered to be permitted uses. However, the R-50 zoning district conflicts with the Community Commercial General Plan land use designation for the site. In such situations, the City's Guidelines for Determining Project

Conformity with the General Plan and Zoning Regulations indicate that an interim conditional use permit is required to apply the policies of the General Plan to those sites with conflicting zoning. In May 2009, the City made a similar determination for the Project site in conjunction with review of a proposal to remodel the adjacent Emil Villa's restaurant building. In that case, the City applied the standards of the C-30/S-4 zone as the "best-fit" zone for this area. This determination concluded that the C-30/S-4 zone contained the most appropriate zoning standards to use when reviewing that project because the standards best implement the policies of the Community Commercial General Plan designation at the site.

The applicable General Plan land use designations and zoning for the Project site are shown in **Figure 3-6**.

Project Description

Background

On June 1, 2009 Property Development Centers, Inc. (PD Centers, an affiliate of Safeway, Inc.) submitted an application to the City of Oakland for environmental review of their proposed Project. A Notice of Preparation (NOP) for that project was issued on June 24, 2009. At that time, the applicant was proposing a plan for redevelopment of the site that would primarily reconfigure existing building space to support development of a new Safeway store, add new shop space, create additional on-site parking space and add a second story to existing buildings on some portions of the site (see **Figure 3-7**).

A public hearing was held before the City of Oakland Planning Commission on July 15, 2009 to gather comments on that project and to scope the requirements of this EIR. At that hearing, a number of speakers and Commissioners expressed their desire for the applicant to consider a substantially different site plan than what was then proposed to better address a number of issues including urban versus suburban development styles and densities; the mix of proposed land uses; and improved pedestrian, bicycle and transit access.

In response to those comments and other considerations, the Project applicant has reconsidered its plans for the site and has submitted a revised application described below.

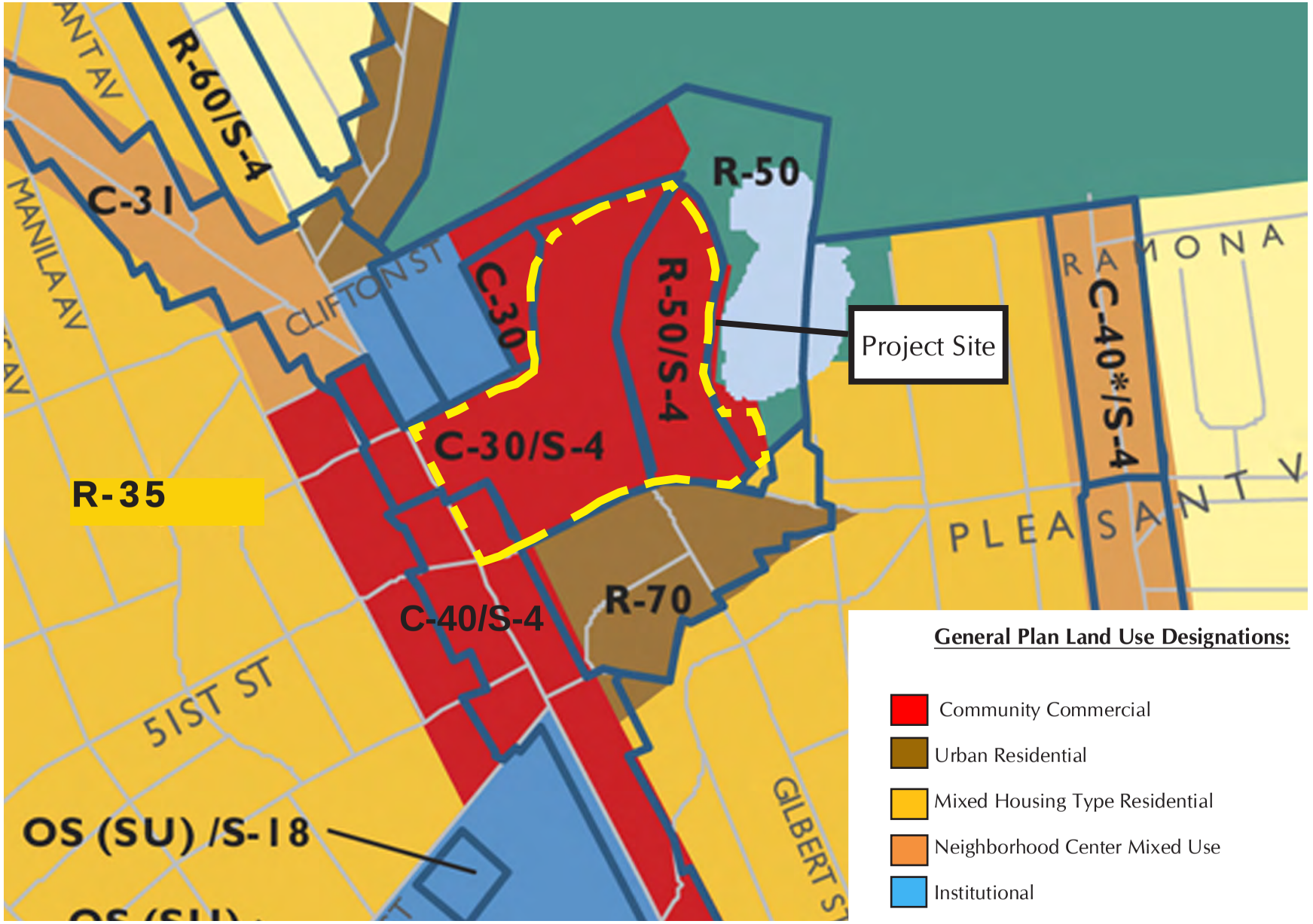


Figure 3-6
Applicable General Plan and Zoning

Source: City of Oakland

Figure 3-7
Original (2009) Project - per NOP

Source: Benner Stange Architects

Current Project Description

Overview

The currently proposed Project (Project) would redevelop the existing Rockridge Shopping Center, including the demolition of all 185,500 square feet of existing buildings on the site. Removed buildings would be replaced with construction of an approximately 65,000-square foot new "Lifestyle"[1] Safeway store along with other retail, office and restaurant space, resulting in a total of approximately 322,500 square feet of new commercial space.[2] This represents an increase of approximately 137,000 square feet over existing development on the site (see **Figure 3-8** and **Table 3-1**).

The Project would be constructed in phases over approximately 20 months. Initially, the existing CVS Pharmacy building and the adjacent retail building would be demolished and replaced by a new Safeway store. The existing Safeway store would continue to operate during the construction of the new Safeway. Once the existing Safeway relocates to the new building, the existing Safeway and all of the other existing buildings on the site would be demolished and replaced with new 2- to 3-story buildings containing retail and restaurant uses on the ground floor and office and retail uses on the second floor.

A total of approximately 967 off-street parking spaces are proposed. Parking would be located in surface parking lots and along drive aisles throughout the site, on a rooftop parking lot over the new Safeway store and adjacent new commercial buildings, along a new internal "shopping street," and in a three level parking garage located over retail space. The applicant also proposes modifications to the adjacent streets and public rights-of-way to improve access and circulation for all travel modes, and to provide new signalized left-turn access onto and from Broadway, and a new building identified for a restaurant use would be located adjacent to Claremont Pond, with an outdoor patio overlooking the pond.

[1] The "Lifestyle" Safeway store is part of a corporate branding campaign intended to differentiate these stores from competitors as a more upscale shopping experience. Generally, these types of stores are designed with a more inviting decor with warm ambiance and subdued lighting, and containing special elements such as sushi and olive bars and the addition of in-store coffee kiosks. Lifestyle stores have a strong emphasis on providing quality perishables, such as produce, meats, delicatessen items, baked goods, prepared foods, and flowers. Lifestyle stores also include unique merchandising fixtures and a variety of island displays with specialty items. Many Safeway store locations are being converted to the "Lifestyle" format.

[2] Of the total approximately 322,500 square feet, approximately 293,200 square feet would be gross leasable floor area and approximately 29,300 square feet would be common space (e.g., stairs and loading corridors).

Figure 3-8
Currently Proposed Project, Site Plan

Source: Benner Stange Arcitects

Table 3-1: Proposed Buildings and Uses (square feet)

Building # (see Figure 3-8)	Grocery (Safeway)	Major Retail	Retail	Restaurant	Office	Bank/ Finance	Total Building Area
A	65,013						65,013
B1			8,179				8,179
B2			4,998				4,998
C1a			6,867				6,867
C1b			10,687				10,687
C2					8,835		8,835
D						8,426	8,426
E				4,695[2]			4,695
F				2,913			2,913
G		10,494					10,494
G2		9,944					9,944
H			14,310				14,310
J			16,331				16,331
K			10,682	2,330			13,012
L0			27,900				27,900
L1a			9,483[3]				9,483
L1b			10,800				10,800
L1c			6,684				6,684
L2a			21,650				21,650
L2b			14,830				14,830
N		7,577					7,577
N2		7,405					7,405
O			2,200				2,200
Subtotal	**65,013**	**35,420**	**165,601**	**9,938**	**8,835**	**8,426**	**293,233**
Common Space[4]							29,303
Total							**322,536**

[1]0 = street level; 1 = ground level; 2 = second story.

[2]Includes 1,800 square foot patio.

[3]Includes 2,701 square foot patio.

[4]Includes common receiving area 'M'. Of the total 322,536 square feet, 293,233 square feet would be gross leasable floor area and approximately 29,303 square feet would be common space (e.g., stairs and loading corridors).

Site Design

The existing shopping center is designed as a traditional suburban shopping center with shops placed to the back of the parcel and parking toward the front along the main street frontage. The 2009 plan would have generally been configured similar to the existing shopping center, but with new two-story additions

onto existing shop space. That design was considered by many who commented on the NOP as not taking full advantage of the site's urban setting, and not contributing in a positive manner to the urban design character of the area. In response to those comments, the current Project (the "Project') has a different layout than the 2009 plan (see **Figures 3-9 and 3-10**).

The new Safeway store with roof-top parking would be located in virtually the same location as the CVS Pharmacy. Adjacent shops would be 2-story buildings with ground floor retail, and office space and roof-top parking at the second level.

New retail, office and restaurant space would be located along the street edge of both Broadway and Pleasant Valley Avenue, fronting a pedestrian-oriented internal street (see **Figure 3-11**). Parking would be located behind these new buildings and generally not visible from the street. Additional parking would be provided in a parking garage with three levels of parking over ground floor retail space, in a surface parking lot in front of the proposed Safeway building and in a rooftop parking lot above the Safeway store and adjacent shops. New buildings would frame the main Project entry off of Pleasant Valley Avenue,

Internal Street / Circulation Plan

Vehicular circulation within the current shopping center is arranged as a series of drive aisles separated by angled parking bays, generally marked by paint on the pavement. The drive aisles do not have any apparent hierarchy that would establish a preferred path of travel, and motorists tend to drive through the parking lot in whatever manner most suits their destination.. The current Project proposes a different circulation system for the site. Each of the Project's two main vehicle entry points at Pleasant Valley Avenue/Gilbert Street, and at Broadway/Coronado Avenue (see **Figure 3-12**) are designed as internal roadways with clear directional options for various destinations marked by curbs, islands and intersection crosswalks.

- Vehicles entering from Pleasant Valley/Gilbert Street (a currently signalized intersection) have the choice of making a right turn toward an outer ring road that leads to the upper Safeway parking lot, staying straight to access the main parking lot, or making a left turn onto an interior street which is lined on both sides with new storefronts.
- Vehicles entering from Broadway/Coronado Avenue (a proposed new signalized intersection) can either stay straight on a new northerly boundary road leading straight to and through the main parking lot and the upper level Safeway parking lot, or can turn right onto the new interior street.

The only other proposed vehicle access point would be the existing secondary access driveway at Pleasant Valley Avenue east of Gilbert Street. This driveway provides access to the adjacent parcel (the site of the AAA building – not a part of the Project) and the proposed building on the east side of the main entry. The other two existing curb cuts along Broadway (south of Coronado Avenue) would be removed.

The western portion of the property is redesigned from its current configuration to establish the new internal roadway. It would function much like an urban street, with storefronts along the street edge separated from the travel-way by sidewalks and perpendicular parking. All parking spaces within the Project would be designed perpendicular to the drive aisles, as opposed to the current 45-degree angled parking bays.

Figure 3-9
Project Site Plan, 2nd Level

Source: Benner Stange Arcitects

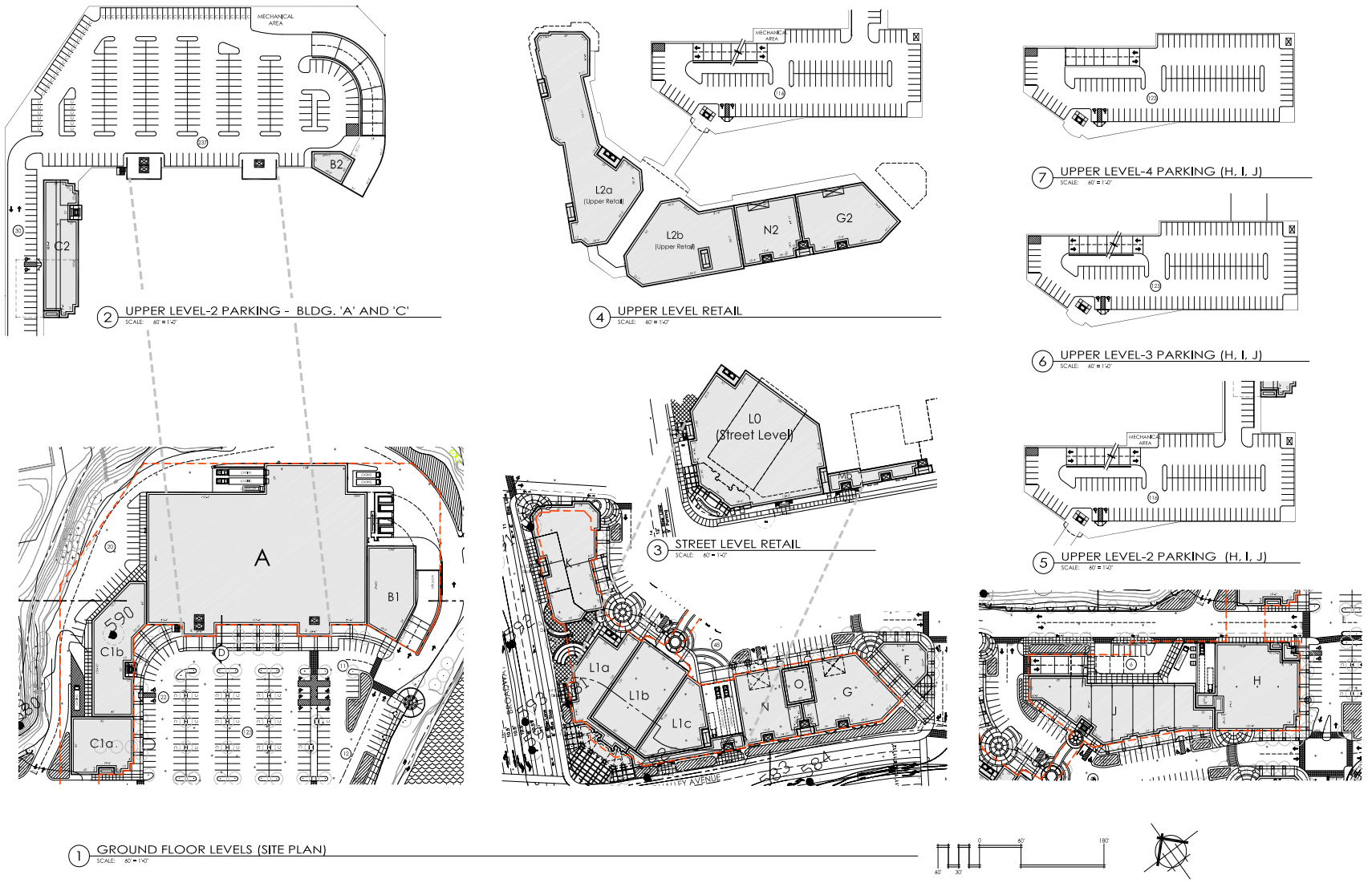


Figure 3-10
Project Site Plan, Upper Level Stacking Plans

Source: Benner Stange Arcitects

Figure 3-11
Proposed Project - Urban Street Edge

Source: Benner Stange Arcitects

Main Pleasant Valley Avenue Entrance

Broadway Entrance and Internal Street

Figure 3-12
Proposed Primary Access Points

Source: Benner Stange Architects

Pedestrian Access

Current pedestrian and bicycle access to the site is not pronounced, with sidewalks along both Pleasant Valley Avenue and Broadway but no distinct pedestrian or bicycle routes leading from those fronting sidewalks into the shopping center. Pedestrians and bicyclists generally share the drive aisles and parking fields with vehicles, with no separately designated routes. Public comments on the NOP suggested that the Project should better address alternative modes of travel, particularly pedestrian and bicycle access at the site. The current Project responds to those comments with a substantially expanded pedestrian and bicycle network (see **Figure 3-13**) for the site:

- A continuous sidewalk that connects with small plazas would ring the entire site, separated only at the two vehicle entry points.
- Separated pedestrian and vehicle access would be provided at each of the entry points into the site, as well as via a new pedestrian connection on Broadway near the Pleasant Valley Avenue/Broadway intersection.
- A number of routes would lead pedestrians to the new Safeway store from Pleasant Valley Avenue: a westerly route along the new storefronts, a raised sidewalk through the parking lot, and an easterly sidewalk/bicycle path with overlooks along the landscaped bank of the adjacent quarry pond.
- Two routes would lead pedestrians into the site from the Broadway/Coronado Avenue intersection: a sidewalk/bicycle path along the northerly boundary road, and raised sidewalks on both sides of the new internal street.

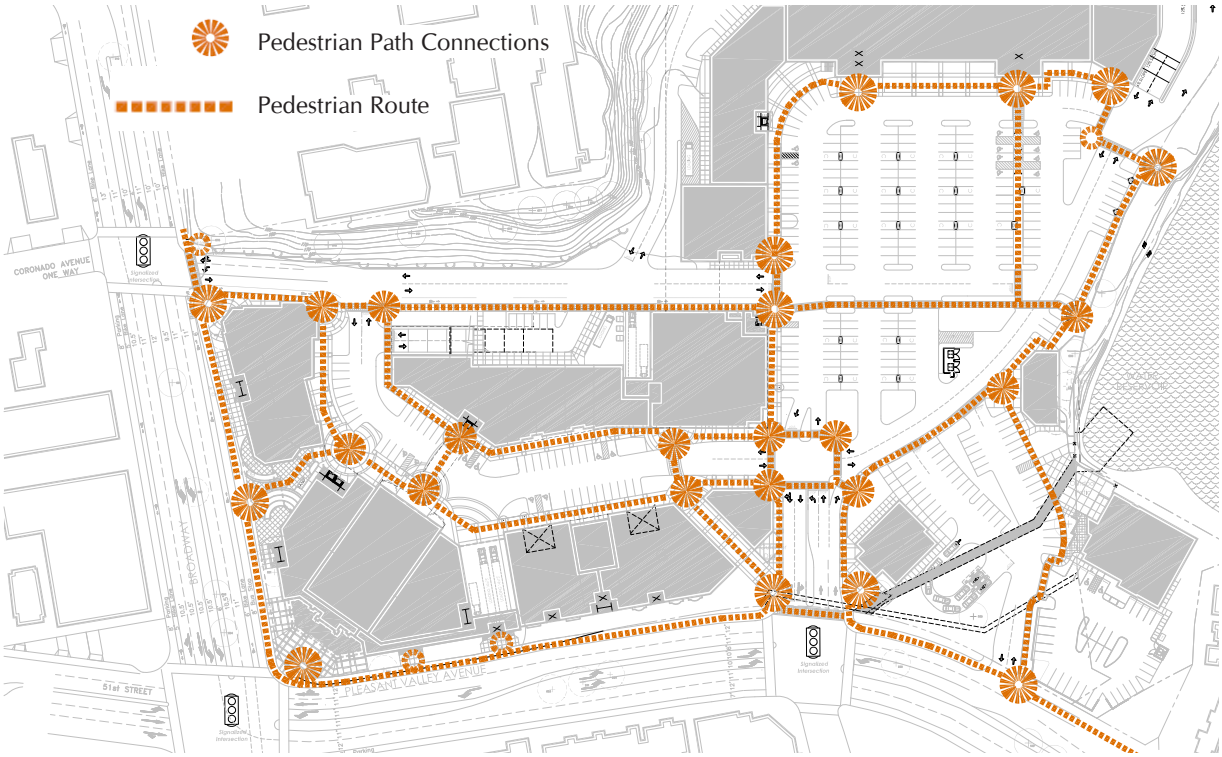
These on-site pedestrian and bicycle routes would interconnect a number of plazas. The two main plazas would be located along Broadway at the Pleasant Valley Avenue intersection and just north of the intersection, connecting through the buildings at this location. The internal street would also have a number of smaller plazas and wider sidewalks for outdoor cafes and public seating. The landscaped edge near the quarry pond would have two smaller plazas which serve as scenic outlooks over the pond.

Architecture

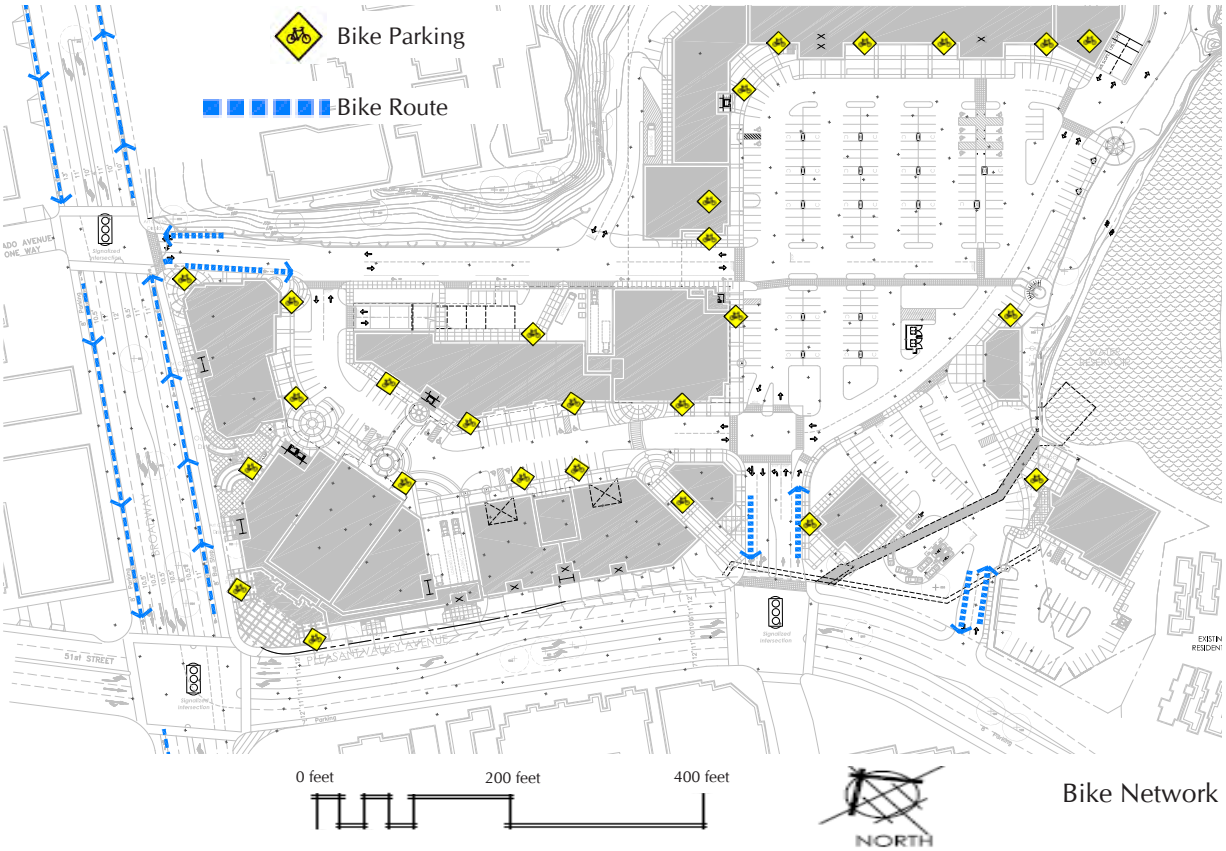
The architectural style of the proposed new buildings would be contemporary commercial architecture with numerous horizontal and vertical planes designed to provide variety and interest, to break up the look of the multi-tenant storefronts and to create diverse character for individual retail tenants. The building footprints would be placed up to the pedestrian way to provide windows to the retail space and encourage a walkable environment. Multi-level floor areas would increase the density of development and increase the urban versus suburban form. The materials proposed for the exterior are a combination of concrete masonry or stucco (both smooth and split-faced finishes); natural stone; masonry (brick); metal canopies, railings, trellises and awnings; and glass storefronts. The colors are neutral to natural color schemes including tan, grey, brown and red hues. Elevations showing the proposed architectural styles are shown on **Figures 3-14 and 3-15**.

Vehicle Access

As discussed above, the current shopping center has three vehicle access points along Broadway; the two most southerly of these access points are limited to right-in/right-out turns only, and the third access is an unsignalized intersection at Coronado Avenue which leads to the rear service drive. Under the proposed Project, the two most southerly vehicle access points would be eliminated, and the intersection at Coronado Avenue would be converted to a signalized intersection providing full turning movements with 1 inbound and 2 outbound lanes.



Pedestrian Network

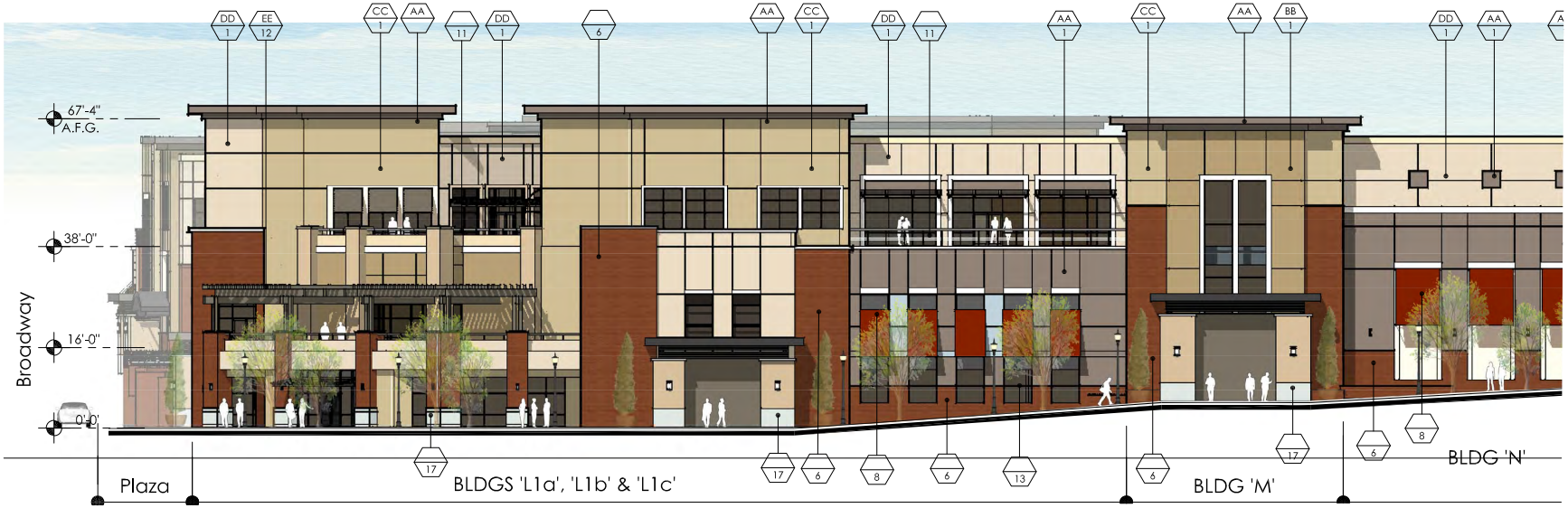


Bike Network

Figure 3-13
Proposed Pedestrian and Bicycle Network

Source: Benner Stange Architects

Elevation 1: New Safeway Elevation



Elevation 2: Pleasant Valley Avenue Elevation (at Broadway)

Figure 3-14
Project Architectural Elevations, New Safeway and Pleasant Valley Avenue

Source: Benner Stange Architects

Elevation 3: Broadway Elevation at Pleasant Valley

R SOUTH ELEVATION

Elevation 4: Interior Street Elevation

Figure 3-15
Project Architectural Elevations, Broadway and Interior

Source: Benner Stange Architects

The current shopping center also has two vehicle access points along Pleasant Valley Avenue; the main shopping center entrance opposite Gilbert street, which is a fully signalized intersection with 1 inbound lane and 1 outbound lane, and an easterly secondary driveway which permits only right-in/right-out movements. These access points would remain where they currently exist, but the main entry would be realigned and re-striped to provide 3 inbound lanes and 2 outbound lanes.

Parking

The existing shopping center currently contains a total of 615 off-street parking spaces, nearly all of them contained within the large surface parking lot between the retail stores and Pleasant Valley Avenue.

The Project proposes a total of approximately 967 off-street parking spaces, including 851 standard spaces, 30 designated handicap spaces and 86 designated compact spaces. Parking would be located in surface parking lots and along drive aisles throughout the site, on a rooftop parking lot over the Safeway store and adjacent to Buildings B and C, and in a centralized parking garage with three levels of parking over ground floor retail space (Buildings H and J).

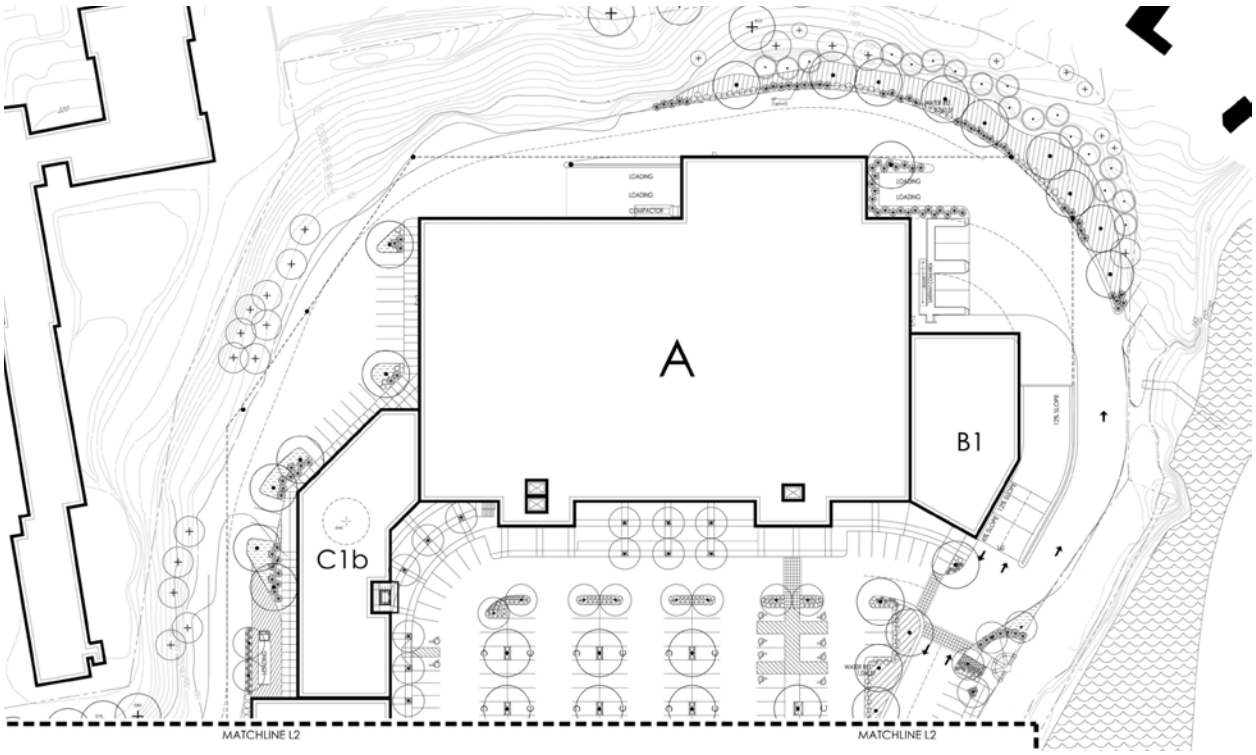
Landscaping, Plazas and Open Space

The proposed landscaping plan (see **Figure 3-16**) includes parking lot landscaping with new trees planted at each end of the surface parking aisles and within planter islands placed along the centerline of the parking aisles, at a ratio of approximately one tree per 8 parking spaces. New trees would also be planted along internal sidewalks, at pedestrian crossings and in landscaped areas along the perimeter of the Project site. Pedestrian circulation would be distinguished through the use of decorative brick paving material for easy identification. Additionally, new plaza areas would be provided along Broadway and along the new internal street, and a sidewalk and landscaping would be provided along the easterly site boundary adjacent to Claremont Pond and the outdoor patio restaurant at Building E. The plazas are intended to be accessible to neighbors, and would include lighted towers, restaurant patios and wider sidewalks to accommodate seating, outdoor art and flowers.

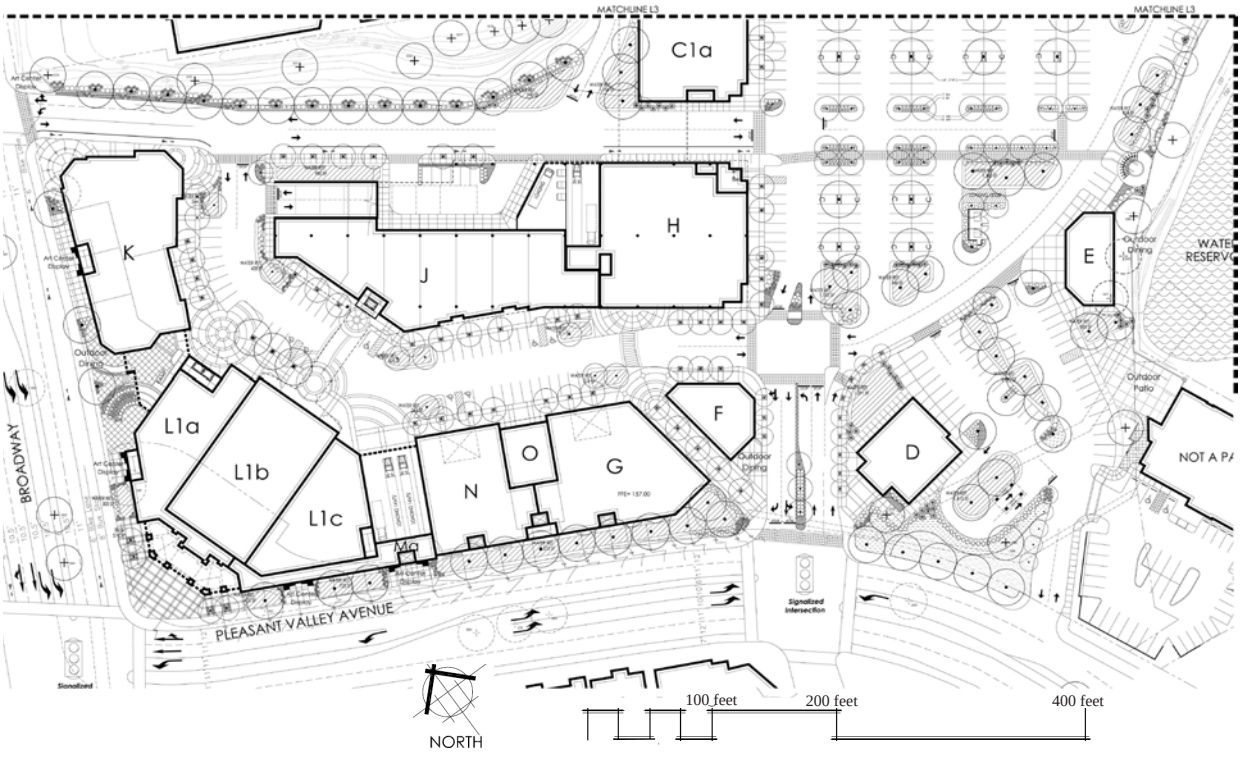
Off-Site Roadway Modifications

The Project proposes a number of roadway modifications on Broadway and 51st Street/Pleasant Valley Avenue to generally improve access and circulation for all travel modes and to specifically provide signalized left-turn access on Broadway to and from the Project site. Off-site roadway modifications proposed as part of the Project include the following.

- Broadway would be reduced from three through lanes to two through lanes in each direction between College Avenue and 49th Street to accommodate new bike lanes.
- Class 2 bicycle lanes would be provided on both sides of Broadway between College Avenue and just south of 51st Street/Pleasant Valley Avenue.
- The two existing right-in/right-out Project driveways on Broadway between Pleasant Valley Avenue and Coronado Avenue would be eliminated.
- The Project driveway on Broadway opposite Coronado Avenue would be signalized to provide left turns in and out of the Project site. The proposed signal would be coordinated with the existing signals on Broadway at 45th Street, 51st Street/Pleasant Valley Avenue, College Avenue, and Broadway Terrace. The intersection would provide an exclusive left-turn lane from southbound Broadway to the Project site. The proposed signal would also provide a protected pedestrian crossing connecting the residential neighborhood west of Broadway to the Project site.
- The five metered on-street parking spaces on the west side of Broadway between College and Coronado Avenues would be removed.



Northerly Portion of Site



Southerly Portion of Site

Figure 3-16
Project Landscape Plan

Source: Chrisopher Freshley, Landscape Architect

- The provision for the southbound left-turn lane from Broadway into the Project site would require the elimination of the existing median break that provides access to Wendy's Restaurant from northbound Broadway. The northbound left-turn lane on Broadway at College Avenue would be modified to provide left-turn access into the existing Wendy's Restaurant on the opposite side of Broadway from the Project site.
- At the Broadway/51st Street/Pleasant Valley Avenue intersection:
  - The southbound approach would be modified from the current configuration which provides one shared right/ through lane, one exclusive through lane, one shared through/left lane, and one exclusive left-turn lane to provide one shared right/through lane, one through lane, and two left-turn lanes. In addition, the southbound approach would also provide a six-foot wide median pedestrian refuge island.
  - The northbound approach would be modified from the current configuration which provides one shared right/ through lane, one through lane, and one shared through/left lane to provide one shared right/ through lane, one through lane, and one exclusive left-turn lane. In addition, the northbound approach would also provide a six-foot wide median pedestrian refuge island. These modifications would result in loss of four on-street parking spaces on the east side of Broadway just south of 51st Street/Pleasant Valley Avenue.
  - Intersection signal equipment would be upgraded to replace the existing split phasing with protected left-turn phasing in the north/south direction, which would result in more efficient and safer signal operations.
  - The existing northbound and southbound right-turn slip lanes and "pork chop" islands (northwest and southeast corners of the intersection, respectively) would be eliminated. The reconstructed northwest corner of the intersection would be designed to accommodate access to the three driveways that would lose their access. In addition, the reconstructed northwest corner would also be redesigned to provide four parking spaces on 51st Street to replace the five parking spaces on the slip lane that would be eliminated.
  - The median on the westbound Pleasant Valley Avenue approach would be widened to provide an 11-foot wide median pedestrian refuge island.
- At the Gilbert Street/Project Driveway/Pleasant Valley Avenue intersection:
  - A second left-turn lane would be provided from eastbound Pleasant Valley Avenue into the project site.
  - The westbound approach would be modified from the current configuration which provides one right-turn lane, one through lane, and one shared through/left lane to provide one shared right/ through lane, one through lane, and one exclusive left-turn lane within the current right-of-way.
  - Three in-bound lanes would be provided at the Project driveway entrance to accommodate the two eastbound left turns and the shared right turn off of Pleasant Valley Avenue.[3]
  - One right-turn lane and a shared through/left-turn lane would be provided on the southbound Project driveway exit.
  - The intersection signal equipment would be upgraded to replace the existing permitted left-turn phasing with protected phasing for the westbound Pleasant Valley Avenue left-turn movement.

[3] Not all images of the Project used in this EIR show the Pleasant Valley Avenue entrance at Gilbert Street with three in-bound travel lanes. Many images show only two in-bound lanes at this Project entrance. However, in all cases, the analysis in this EIR (where relevant) has assumed three in-bound lanes as described above.

- The following bus stops would be moved from the near-side to the far-side of (i.e., from before to after) the intersection:
  - Northbound Broadway from just south of Pleasant Valley Avenue to north of Pleasant Valley Avenue. The proposed configuration would result in an eight-foot wide bus stop just north of Pleasant Valley Avenue. In addition, the adjacent sidewalk would also be widened by three feet.
  - Eastbound 51st Street/Pleasant Valley Avenue from just west of Broadway to about 150 feet east of Broadway. This would also result in loss of four on-street parking spaces east of Broadway which can be replaced west of Broadway. In addition, one or more street trees may also need to be removed to accommodate the new bus stop.
  - Eastbound Pleasant Valley Avenue from just west to just east of Gilbert Street.

The proposed modifications along Broadway can be accommodated within the existing curb-to-curb right-of-way. Providing a second left-turn lane from eastbound Pleasant Valley Avenue into the Project site would require widening Pleasant Valley Avenue. Pleasant Valley would be widened from 71 feet (curb-to-curb) to 75 feet just east of Broadway, and from 78 feet to 79 feet just west of Gilbert Street.

Rooftop Mechanical Equipment Shields

Noise from roof-top mechanical equipment is subject to the City's Noise Ordinance standards, which stipulates that the operation of all roof-top or other mechanical equipment must meet a design standard of 45 dBA at adjacent residences, taking into account all operational noise. The Project applicant has proposed that all mechanical equipment used during operation of the Project will be designed and used with shielding or other noise attenuation as necessary to fully comply with this standard. The types of shielding that may be required will be dependent upon the specific mechanical equipment used, and will be determined prior to City approval of mechanical building permits.

Employment

As of May 2009, employment at the existing Safeway store was 142 people. Employment for the remainder of the shopping center varies by establishment, but is estimated (using a ratio of approximately 750 square feet of space per worker[4]) at approximately 183 people (137,500 square feet not including Safeway ÷ 750 square feet per employee). Thus, the total current employment at the existing shopping center is estimated to be approximately 325 people.

Safeway expects to increase its employment to approximately 212 people once the proposed larger Safeway goes into operation. By using the same employment ratio for the remainder of the Project development, the Project results in an estimated approximately 343 new employees.. Thus, the total projected employment under the Project is estimated to be approximately 555 people or an increase of approximately 230 employees over existing conditions.

Project Construction Schedule and Phasing

The Project would be constructed in two phases over approximately 20 months. Construction is anticipated to begin in July 2013 and end in March 2015. Project phasing is intended to enable the shopping center to remain operational and economically viable throughout the construction period, to capitalize on the current opportunity to move the Safeway grocery store into the current CVS Pharmacy site soon after the current CVS lease expires, and to match future phase development to meet both current

[4] USDOE, Energy Information Administration, *Commercial Buildings Energy Consumption Survey*, 1995, which determined a combined average of approximately 766 square feet per worker for all commercial uses, nationwide.

and expected future retail market demands. Phasing of the Project would occur as shown in **Table 3-2** and **Figures 3-17** and **3-18**, and as described below.

Table 3-2: Proposed Construction Phases
(Square feet)

Phase I

Land Use Types	Existing	Demolished/Vacated	Proposed New	Change	Total
Grocery	47,975	(47,975)	65,013	17,038	65,013
Pharmacy	87,220	(87,220)		(87,220)	
Retail, other	24,769	(10,756)	23,864	13,108	37,877
Bank / Financial	21,000				21,000
Office, other			8,835	8,835	8,835
Restaurant	4,500				4,500
Common Space					
Total	185,464	(145,951)	97,712	(48,239)	137,225

Phase II

Land Use Types	After Phase I	Demolished/Vacated	Proposed New	Change	Total
Grocery	65,013			-	65,013
Pharmacy	-			-	-
Retail, other	37,877	(14,013)	167,674	153,661	191,538
Bank / Financial	21,000	(21,000)	8,426	(12,574)	8,426
Office, other	8,835			-	8,835
Restaurant	4,500	(4,500)	19,421	14,921	19,421
Common Space	-		29,303	29,303	29,303
Total	137,225	(39,513)	195,521	185,311	322,536

Total Project

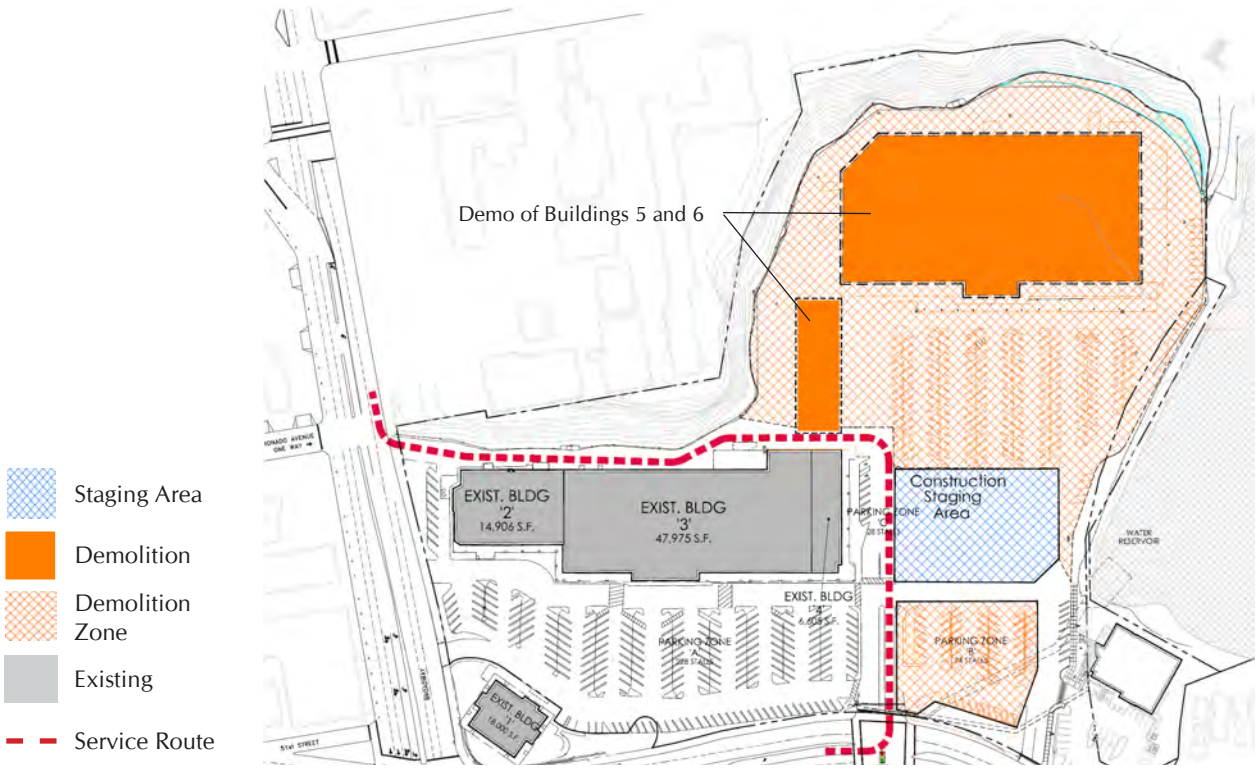
Land Use Types	Existing	Demolished/Vacated	Proposed New	Change	Total
Grocery	47,975	(47,975)	65,013	17,038	65,013
Pharmacy	87,220	(87,220)	-	(87,220)	-
Retail, other	24,769	(24,769)	191,538	166,769	191,538
Bank / Financial	21,000	(21,000)	8,426	(12,574)	8,426
Office, other	-	-	8,835	8,835	8,835
Restaurant	4,500	(4,500)	19,421	14,921	19,421
Common Space		-	29,303	29,303	29,303
Total	185,464	(185,464)	322,536	137,072	322,536

Phase I

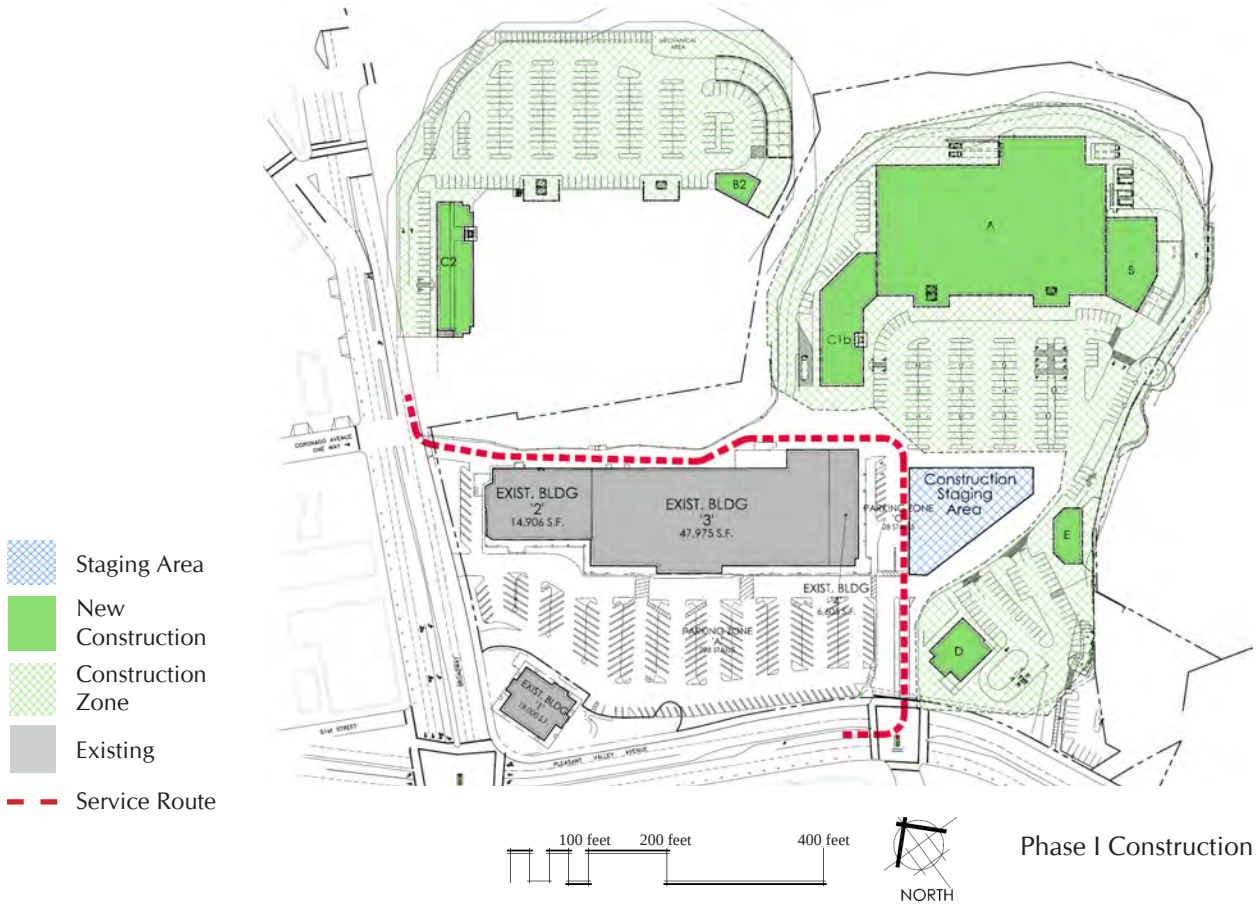
Phase I construction is anticipated to last approximately 10 months, from July 2013 to April 2014. Phase I activities are shown in **Figure 3-17** and described below:

- Phase I would begin with demolition of the approximately 87,200 square-foot Building 6 (the current CVS Pharmacy) and the approximately 10,750 square-foot Building 5 (currently containing PayLess Shoes, Jamba Juice, Game Stop, 1st Title Credit Union, Rockridge Cleaners, Health Foods, and Great Clips). Removal of Building 5 would enable construction equipment to access through the center of the site between Building 4 and Building 6, from the Pleasant Valley Avenue/Gilbert Street entrance to the Broadway/Coronado Avenue exit. Demolition activities may include the remediation of hazardous materials. Hazardous materials that may be found on the site are detailed in Chapter 4.9: Hazards and Hazardous Materials. Remediation would include "wet" method demolition practices, on-site stockpile management and monitoring for dust and vapors, and off-site transportation and disposal of asbestos containing material.
- Establishment of a staging area for construction in approximately the center of the existing parking lot.
- Construction of the new approximately 65,000 square-foot Safeway store (new Building A). The new grocery would be a single story building but with high ceilings, appearing to be a 2-story height. The roof of the new Safeway store would provide roof-top parking for up to 240 vehicles, accessed by ramps at both the east and west ends of the building. A new loading space and trash and recycling receptacles would be located at the northeast corner of this building, accessed by an outer ring road. Once completed, the existing Safeway store would be vacated and relocated to this new space.
- Flanking the new grocery store on the east would be construction of a small 1-story retail building of approximately 8,200 square feet (Building B), potentially including a garden center or other retail use accessory to the grocery.
- To the west of the new Safeway store would be a new 2-story building of approximately 26,400 square feet (Building C). The ground level would contain smaller retail spaces and the upper floor would be comprised of office space and roof-top parking. The new Building C would be slightly smaller in length than the existing building at this location, enabling construction of a new driveway access past this building, leading from the rear service drive directly through to the main eastern parking lot. This driveway would provide more convenient access to the Safeway store from Broadway.
- The surface parking lot in front of the new Safeway would be resurfaced and re-striped in a perpendicular (rather than angled) design.

The eastern edge of the site would be improved with landscaping, a pedestrian path and small plazas overlooking the adjacent quarry pond.



Phase I Demolition



Phase I Construction

Figure 3-17
Project Phasing Plan, Phase I

Source: PD Centers

Phase II

Phase II would last approximately 10 months, from May of 2014 to March of 2015. Phase II activities are shown in **Figure 3-18** and described below.

- Demolition of the approximately 15,000 square-foot Building 2 (Boston Market restaurant, Bank of America and Pet Food Express), the approximately 48,000 square-foot Building 3 (the current Safeway), the approximately 6,600 square-foot Building 4 (Starbucks, Dress Barn and Ritz Camera), and the approximately 18,000 square-foot Building 1 (Chase Bank).
- Construction of Building D at the northeast corner of the Pleasant Valley Avenue/Gilbert Street entrance. This building would be an approximately 8,400 square-foot bank with a drive through and associated surface parking spaces. The drive through aisle would be accessed via the driveway connection to Pleasant Valley Avenue east of the main entrance intersection.
- New 2- and 3-story buildings totaling approximately 144,800 square feet of retail and restaurant space would be constructed along the Broadway and Pleasant Valley Avenue frontages (Buildings F, G, O, N, L and K). Some of the shops would face out onto Broadway and Pleasant Valley Avenue and all would have storefront presence facing onto a new internal street.
- Additional new retail space totaling approximately 30,600 square feet would be constructed along the north side of this new internal street. Buildings H and J would contain a parking garage with three levels of parking over ground floor retail space.
- A new Broadway/Coronado Avenue entrance/exit drive would be constructed along the northerly site boundary as a major new entry into the shopping center.
- The existing median in Broadway near the Coronado Avenue intersection would be removed.
- A new internal street would be constructed to connect the new Broadway/Coronado Avenue entrance/exit drive to the main entry at Pleasant Valley Avenue/Gilbert Street. This internal street would form an "L" shape, with the top portion of the "L" connecting to the Broadway entry drive and the lower-right portion of the "L" connecting to the Pleasant Valley entry drive. Perpendicular parking spaces would be arranged along this internal street, along with sidewalks, small plazas and landscaping. This internal street would also provide access to the loading docks for Buildings F, G, O, N, L and K.
- A new traffic signal would be installed at Broadway/Coronado Avenue.
- Lane improvements and median changes would be constructed on Broadway, along with circulation changes on Coronado Avenue.
- Removal of the existing median in Pleasant Valley Avenue between Gilbert Street and Broadway, and the sidewalk and portions of the landscaping along Pleasant Valley Avenue.
- A new median in Pleasant Valley Avenue and lane improvements on both Pleasant Valley Avenue and Broadway would be constructed.
- Final construction would include resurfacing and re-striping of the portion of the surface parking lot which had been used as the construction staging area, and of the Pleasant Valley Avenue/Gilbert entrance/exit.
- A pedestrian aisle would connect through the parking lot from the main entry at Pleasant Valley Avenue directly to the new Safeway store.

Demo Buildings 1, 2, 3 and 4

Staging Area
Demolition
Demolition Zone
Existing
Service Route

Phase II Demolition

Staging Area
New Construction
Construction Zone
Existing
Service Route

100 feet 200 feet 400 feet

NORTH

Phase II Construction

Figure 3-18
Project Phasing Plan, Phase II

Source: PD Centers

Project Objectives

In general, the purpose of the Project is to redevelop existing space at the site to support development of a new Lifestyle Safeway store and to add new commercial space at the site.

The specific Project objectives are as follows:

- Revitalize the 15.4-acre site at the intersection of Pleasant Valley Avenue and Broadway through phased redevelopment of the existing 1960s suburban style commercial development with a vibrant urban shopping environment composed of an approximately 65,000 square foot Safeway store and approximately 228,000 square feet of other leasable space for retail, restaurant, office, and associated uses.
- Improve Safeway store to offer a more comprehensive range of retail services and products to Safeway's customers, including: an on-site "from scratch" bakery; a pharmacy; expanded wine, cheese and floral offerings; an expanded deli (including warm food table, and prepared catering food items); a "service" meat and seafood service (as compared to the pre-packaged items currently available); organic produce; and one or more specialty drink kiosks.
- Provide a more functional and efficient shopping area configuration by improving access and walkability to create a sense of place where customers can enjoy amenities from all the retailers within the center, thereby enhancing the overall shopping experience.
- Construct an urban infill development that accommodates a larger grocery store anchor than currently exists and that attracts and retains other high-quality retail tenants, including those that will provide shopping options to local customers that are not currently available in the City.
- Construct a retail development that will provide significant benefits to the City and community in terms of increased employment opportunities, tax revenues and shopping opportunities.
- Enable the shopping center, especially the grocery store, to remain operational throughout the construction period.
- Coordinate development in phases in order to meet both current and expected future retail market demands.
- Construct energy efficient buildings using environmentally-friendly design practices incorporating "green" features where possible.
- Improve aesthetics of the site through native and drought-tolerant landscaping, while maintaining and protecting adjacent surface waters.
- Comply with all applicable agreements pertaining to the property, including the terms of a land lease that precludes development of housing on the site.
- Improve site circulation by consolidating access points, developing an outer ring road and providing internal roadways with clear direction options for various destinations within the center.
- Enhance pedestrian and bicycle access to the project site by providing a meandering sidewalk that substantially encircles the site and new plaza areas as well as a pedestrian/bike path along the eastern edge of the site.
- Provide sufficient parking to serve the needs of Safeway and other retail tenants that has direct and convenient access from major thoroughfares and will be inviting, well-lit, safe and screened to a greater degree than current conditions from pedestrians and motorists.
- Provide several hundred construction jobs as well as approximately 70 new union jobs with Safeway and approximately 170 new positions with the expansion of the retail center.

- Complete the project on schedule and within budget.
- Capitalize on the current opportunity to move the Safeway grocery store into the CVS Pharmacy site soon after the current CVS lease expires.

Uses of this EIR

It is anticipated that this EIR will provide environmental review for all City of Oakland discretionary approvals and action necessary for this Project, as well as for all approvals needed from other governmental agencies. A number of City permits and approvals would be required before the development of the Project could proceed. As Lead Agency for the proposed Project, the City of Oakland would be responsible for the approvals required for development. A list of required permits and approvals that may be required by the City includes:

- Approval of an Interim Conditional Use Permit to allow for commercial use in the R-50 Medium Density Residential Zone pursuant to Chapter 17.01 of the Oakland Planning Code;
- Design Review pursuant to Chapter 17.136 of the Oakland Planning Code;
- Zoning variances (if required);
- Approval of a Category IV Creek Protection Permit for exterior development and work that may include earthwork, landscape walls, fences, patios, decks, private drainage improvements, irrigation systems and trenching conducted within the 20 foot setback from the top of bank of the adjacent watercourse (the quarry pond) pursuant to Chapter 13.16 of the Oakland Municipal Code;
- Approval of a Conditional Use Permit (for any drive-through facilities or alcohol sales);
- Approval of a Subdivision Map (or lot line adjustment);
- Tree removal permits pursuant to the City's Protected Trees Ordinance (Chapter 12.36 of the Oakland Municipal Code);
- Encroachment permits for work within and close to public rights-of-way (Chapter 12.08 of the Oakland Municipal Code); and
- Demolition permits, grading permits, and building permits.

Other Agencies Whose Approval May be Required

- Bay Area Air Quality Management District (BAAQMD) – Granting of permits for stationary source air emissions and compliance with Regulation 2, Rule 1 for all portable construction equipment subject to that rule.
- East Bay Municipal Utilities District (EBMUD) – Granting new water service connections and meters.
- State Water Resources Control Board (SWRCB) – Acceptance of Notice of Intent to obtain coverage under the General Construction Activity Storm Water Permit.
- San Francisco Bay Regional Water Quality Control Board (RWQCB) – water quality certification under Section 401 of the Clean Water Act may be necessary for landscaping adjacent to the quarry pond.
- California Department of Fish and Game (CDFG) – A Streambed Alteration Agreement pursuant to California Fish and Game Code Sections 1600–1616 may be necessary for landscaping adjacent to the quarry pond.

4

Setting, Impacts, Standard Conditions of Approval and Mitigation Measures

This chapter contains an analysis of the environmental topics relevant to the proposed Project, and constitutes the major portion of this Draft EIR. Sections 4.1 through 4.15 describe the existing setting for each topic analyzed in this EIR relevant to the proposed Project, the potential impacts that could result from implementation of the Project, relevant City policies and Standard Conditions of Approval that would minimize potential adverse effects that could result from implementation of the Project, and additional mitigation measures if necessary to reduce impacts of the Project.

The following provides an overview of the scope of the analysis included in this chapter, organization of the sections, the methods for determining what impacts are significant, and the applicability of the City's Uniformly Applied Development Standards (also referred to as Standard Conditions of Approval).

Environmental Topics

The June 24, 2009 Notice of Preparation (NOP) for this EIR indicated that the proposed Project may have environmental impacts related to aesthetics, air quality, biological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation, and utilities/service systems. The NOP also indicated that it was not anticipated that the Project would have significant environmental impacts on agricultural resources, cultural resources, land use plans and policies, mineral resources, population and housing, public services or recreation, but that these environmental factors would also be analyzed in an EIR.

As indicated in the NOP, the following environmental topics are addressed in this EIR:

- 4.1: Aesthetics
- 4.2: Air Quality
- 4.3: Biological Resources
- 4.4: Cultural Resources
- 4.5: Geology and Soils
- 4.6: Greenhouse Gas Emissions
- 4.7: Hazards and Hazardous Materials
- 4.8: Hydrology and Water Quality
- 4.9: Land Use, Plans and Policies
- 4.10: Noise
- 4.11: Transportation, Circulation and Parking
- 4.12: Utilities and Public Services

- 4.13: Other Less-than-Significant Effects

Format of Topic Sections

Each environmental topic section generally includes two main subsections: (1) Setting; and (2) Impacts (construction, Project and cumulative), Standard Conditions of Approval, and Mitigation Measures. Identified significant impacts are identified, together with corresponding mitigation measures.

The following notations are provided after each identified significant impact and mitigation measure:

- LTS = Less than Significant
- LTS with SCA = Less than Significant with implementation of uniformly applied development standards or Standard Conditions of Approval
- S = Significant
- SU = Significant and Unavoidable

These notations indicate the significance of the impact with and without mitigation.

Determination of Significance

Under CEQA, a significant effect is defined as a substantial or potentially substantial adverse change in the physical environment. Each of the following impact evaluations is prefaced by criteria of significance which are the thresholds for determining whether an impact is significant. The criteria of significance used in this EIR are derived from the City of Oakland's CEQA Thresholds/Criteria of Significance. The Thresholds are offered as guidance in preparing environmental review documents. The City requires use of these Thresholds unless the location of the project or other unique factors warrants the use of different thresholds. The Thresholds are intended to implement and supplement provisions in the CEQA Guidelines for determining the significance of environmental effects, including Sections 15064, 15064.5, 15065, 15382 and Appendix G, and form the basis of the City's Initial Study and Environmental Review Checklist.

The Thresholds are intended to be used in conjunction with the City's Uniformly Applied Development Standards and Conditions of Approval (see discussion below), which are incorporated into projects as Conditions of Approval regardless of the determination regarding a project's environmental impacts.

CEQA requires the analysis of potential adverse effects of the project on the environment. Potential effects of the environment on the project are legally not required to be analyzed or mitigated under CEQA. However, this document nevertheless analyzes potential effects of the environment on the project in order to provide information to the public and decision-makers. Where a potential significant effect of the environment on the project is identified, the document, as appropriate, identifies Standard Conditions of Approval and/or project-specific non-CEQA recommendations to address these issues (see discussion below).

Uniformly Applied Development Standards and Conditions of Approval

The City's Thresholds are intended to be used in conjunction with the City's Uniformly Applied Development Standards and Conditions of Approval. These Uniformly Applied Development Standards and Conditions of Approval (referred to in the EIR as Standard Conditions of Approval or SCA) are incorporated into projects as conditions of approval regardless of the determination of a project's environmental impacts. 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, avoid or substantially reduce a project's environmental effects.

In reviewing project applications, the City determines which Standard Conditions of Approval are applied, based upon the zoning district, community plan, and the type(s) of permit(s)/approvals(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 creek side properties. Because these Standard Conditions of Approval are mandatory City requirements, the impact analysis assumes that these will be imposed and implemented by the project. If a Standard Condition of Approval would reduce a potentially significant impact to less than significant, the impact will be determined to be less than significant and no mitigation is 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, 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 less-than-significant levels.

Cumulative Analysis Context

CEQA defines cumulative as "two or more individual effects which, when considered together, are considerable, or which can compound or increase other environmental impacts." Section 15130 of the CEQA Guidelines requires that an EIR evaluate potential environmental impacts when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. These impacts can result from a combination of the proposed project together with other projects causing related impacts. "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects."

The methodology used for assessing cumulative impacts typically varies depending on the specific topic being analyzed. For example, the geographic and temporal (time-related) parameters related to a cumulative analysis of air quality impacts are not necessarily the same as those for a cumulative analysis of noise or aesthetic impacts. This is because the geographic area that relates to air quality is much larger and regional in character than the geographic area that could be impacted by potential noise or aesthetic impacts from a proposed project and other cumulative projects/growth. The noise and aesthetic cumulative impacts inherently are more localized than air quality and transportation impacts which are more regional in nature. Accordingly, the parameters of the respective cumulative analyses in this document are determined by the degree to which impacts from this Project are likely to occur in combination with other development projects.

Since 2000, the City of Oakland has developed and maintained a cumulative growth scenario and land use database primarily for use in cumulative transportation analyses for Oakland EIRs. Oakland's growth scenario is developed using a forecast-based approach (i.e., an approach based on regional forecasts of economic activity and demographic trends). The Association of Bay Area Government's (ABAG) projections provide the citywide and regional economic and demographic inputs. The scenario also incorporates extensive local information and input regarding the locations for growth and change within the City including past, present, existing, pending and reasonably foreseeable future development in the

area surrounding the Project site. The latter provide specificity about growth and development in Oakland for use in allocating growth to subareas and traffic analysis zones (TAZs) within the City. Transportation analyses using the Alameda County Transportation Commission (ACTC) travel demand model require inputs at the TAZ level. The scenario also includes existing development conditions within the baseline and growth projections for adjacent jurisdictions. The forecast-based approach for defining the cumulative growth scenario is used as a basis for cumulative analysis of transportation and transportation-related noise, air quality and greenhouse gas emissions impacts.

For other cumulative topics analyzed in this EIR which have a closer geographic cumulative context, a "list method" of past, present and reasonably foreseeable future projects, based on the City's latest list of Major Development Projects, is used.[1]

The cumulative discussions that follow explain the geographic scope of the area affected by each cumulative effect, and draw on the information in the cumulative growth scenario consistent with the defined geographic area.

Recommended Conditions

Although not required by CEQA, certain "Recommendations" are included in this EIR. These recommended conditions are not necessary to address or mitigate any significant environmental impacts of the Project under CEQA, but are recommended by City Staff to address effects of the Project. These recommendations will be considered by decision makers during the course of Project review and may be imposed as Project-Specific Conditions of Approval.

[1] As a separate, independent project currently before the City of Oakland for consideration for approval, Safeway, Inc. also proposes to replace an existing Safeway supermarket and closed gasoline service station with a new two-story building housing a larger Safeway supermarket, seven separate ground-floor retail shops and a restaurant, at 6320 College Avenue, at the northeast corner of College and Claremont Avenues. As with other projects on the City's list of Major Development Projects, that project is included in the cumulative analysis if and when applicable, based on the environmental issue addressed.

4.1

Aesthetics

This chapter evaluates the proposed Project's potential aesthetic effects. It describes the existing visual character of the site and evaluates the changes that development of the Project as proposed would have with respect to visual impacts and shadows.

This chapter is based on field surveys of the Project site and a review of data provided by the City and the Project applicant. Materials reviewed for the purposes of this aesthetics analysis include aerial photographs, site plans, architectural elevations and planning documents. The site plan, drawn to scale, provides building locations with respect to the overall site and the architectural elevations convey a realistic sense of the Project in elevation as well as perspective drawings.

Physical Setting

The following includes a description of the visual quality of the Project site and its surroundings and views in the vicinity of the site.

Local Context

The Project site is located in an urbanized portion of Oakland adjacent to two major arterials (Broadway and Pleasant Valley Avenue). Existing land uses are varied and include commercial, public, institutional and residential uses along major streets in the area.

With the exception of several apartment buildings across Pleasant Valley Avenue from the Project site, most structures in the immediate vicinity do not exceed three stories in height. The structures in the vicinity of the Project site vary greatly in physical appearance and range from Victorian-era homes to modern, multi-story residential and commercial buildings. Building setbacks from the street vary, with parking areas in front of several buildings. There are a number of prominent billboards in the vicinity. There is a large pond along the east side of the Project site.

Visual Character of the Surrounding Area

Given the urban nature of the Project area, views from the Project site of the surrounding area are generally limited to the immediate developed area adjacent to the site. The adjacent pond is visible from much of the site.

Visual Character of the Site

The Project site currently supports a variety of one-story retail buildings in a conventional shopping mall configuration, with a large parking field located in front of the stores. There is some landscaping in the parking areas, and trees along the edges of the Project site.

View Corridors

View corridors are defined as the total field of vision from a specific viewpoint. They are formed by physical elements (i.e., buildings) that guide lines of sight and control view directions available to

pedestrians or motorists. Public view corridors are in areas where views are available from publicly-accessible places such as city streets, parks and other public spaces. The Project site is not located within any formally-identified view corridor.

Light and Glare

Sources of light and glare on and in the vicinity of the Project site are typical of a highly-urbanized area located adjacent to major arterials. Existing light sources include exterior building lighting, security lighting for buildings and exterior surface parking lots, signage, street lights and vehicular traffic.

Shadows

With the exception of the bank building on the corner of Broadway/Pleasant Valley Avenue (which is a 2-story building), buildings currently located at the Project site do not exceed one story in height. None of the existing buildings produce shadows that adversely affect adjacent off-site buildings or properties.

Urban Decay

Urban decay is defined as, among other characteristics, visible symptoms of physical deterioration that invite vandalism, loitering, and graffiti that are caused by a downward spiral of business closures and long term vacancies. This physical deterioration to properties or structures is so prevalent, substantial, and lasting for a significant period of time that it impairs the proper utilization of the properties and structures, and the health, safety, and welfare of the surrounding community. The manifestations of urban decay include such visible conditions as plywood-boarded doors and windows, parked trucks and long term unauthorized use of the properties and parking lots, extensive gang and other graffiti and offensive words painted on buildings, dumping of refuse on site, overturned dumpsters, broken parking barriers, broken glass littering the site, dead trees and shrubbery together with weeds, lack of building maintenance, homeless encampments, and unsightly and dilapidated fencing.

Current Retail Market Conditions

Retail market conditions are strong in the Project's market area. The City of Oakland has a low retail vacancy rate, with few vacancies in the market area's major commercial shopping nodes. Long-term retail vacancy is not a prevalent issue in the market area. There are limited retail properties in Piedmont and thus no appreciable retail vacancy in Piedmont. Existing retail vacancies generally appear well-maintained and retail vacancies in the market area are typically absorbed quickly, especially in the market area's major retail shopping districts. There are only limited instances of poorly maintained retail vacancies within the market area.

Despite a high level of sales within the Project's market area, a substantial amount of demand generated by market area residents "leaks" from the market area, meaning that sufficient retail shopping opportunities are not available in the market area to fully capture demand generated by market area residents. An exception to this leakage is in the food & beverage category, where the market area is estimated to attract 24% more sales than would be expected from resident spending alone. Inclusive of this sales attraction, the market area as a whole leaks 41% of resident spending potential, meaning that 41% of resident spending on average is spent outside the market area, resulting in lost jobs, personal income and sales tax revenues to the community.

Existing Blight and Urban Decay

During fieldwork conducted in October, 2011 for the Urban Decay Analysis (see **Appendix 4.1**), with periodic subsequent field visits throughout 2012, there were only a few visible signs of litter, graffiti,

weeds, or rubbish associated with existing commercial nodes in the Project's market area, most notably at the periphery of some of the nodes.

Regulatory Setting

The main documents that are applicable to aesthetics and visual quality within and around the Project site are the Land Use and Transportation Element of the General Plan, the Oakland Planning Code, and applicable Standard Conditions of Approval.

City of Oakland

Oakland General Plan

Land Use and Transportation Element. The Land use and Transportation Element (LUTE) is intended to guide land use and development within the City of Oakland. Applicable aesthetic resources policies are listed below:

> *Policy T6.2: Improving Streetscapes*. The City should make major efforts to improve the visual quality of streetscapes. Design of the streetscape, particularly in neighborhoods and commercial centers, should be pedestrian-oriented and include lighting, directional signs, trees, benches, and other support facilities.
>
> *Policy N1.5: Designing Commercial Development*. Commercial development should be designed in a manner that is sensitive to surrounding residential uses.
>
> *Policy I/C4.3: Reducing Billboards*. Billboards should be reduced or eliminated in commercial and residential areas in Oakland neighborhoods through mechanisms that minimize or do not require the expenditure of city funds.
>
> *Policy N1.8: Making Compatible Development*. The height and bulk of commercial development in "Neighborhood Mixed-Use Center" and "Community Commercial" areas should be compatible with that which is allowed for residential development.

Open Space, Conservation and Recreation Element. The Open Space, Conservation and Recreation Element of the General Plan (OSCAR) promotes the preservation and good design of open space, and the protection of natural resources to improve aesthetic quality in Oakland. The following policies are relevant to visual resource concerns associated with the proposed Project:

> *Policy OS-10.1: View Protection*. Protect the character of existing scenic views in Oakland, paying particular attention to: (a) views of the Oakland Hills from the flatlands; (b) views of downtown and Lake Merritt; (c) views of the shoreline; and (d) panoramic views from Skyline Boulevard, Grizzly Peak Road, and other hillside locations.
>
> *Policy OS-10.2: Minimizing Adverse Visual Impacts*. Encourage site planning for new development which minimizes adverse visual impacts and takes advantage of opportunities for new vistas and scenic enhancement.
>
> *Policy OS-10.3: Underutilized Visual Resources*. Enhance Oakland's underutilized visual resources, including the waterfront, creeks, San Leandro Bay, architecturally significant buildings or landmarks, and major thoroughfares.

Oakland Planning Code - Design Review

The designs of new projects in Oakland are subject to the following performance criteria that are utilized as part of the City's Design Review process:

For Nonresidential Facilities and Signs

1. That the proposal will help achieve or maintain a group of facilities which are well related to one another and which, when taken together, will result in a well-composed design, with consideration given to site, landscape, bulk, height, arrangement, texture, materials, colors, and appurtenances; the relation of these factors to other key facilities in the vicinity; and the relation of the proposal to the total setting as seen from key points in the surrounding area. Only elements of design which have some significant relationship to outside appearance shall be considered, except as otherwise provided in Section 17.136.060;
2. That the proposed design will be of a quality and character which harmonizes with, and serves to protect the value of, private and public investments in the area;
3. That 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.

Blight and Urban Decay

City ordinances, such as the City of Oakland Municipal Code of Ordinances Chapter 8.10 on Graffiti, Section 8.18.060 on Noxious Weeds, Chapter 8.24 on Property Blight, Section 8.38.170 on Dumping Garbage, Chapter 8.54 on Vacant Building Registration, Chapter 12.04 on Sidewalk, Driveway, and Curb Construction and Maintenance, require property owners to maintain their properties so as not to create a nuisance by creating a condition that reduces property values and promotes blight and neighborhood deterioration. Enforcement of these ordinances can help prevent physical deterioration due to any long-term closures of retail spaces. Code enforcement is managed by the City of Oakland's Building Services Division. They look into the accumulation of trash, debris, graffiti, and other blight on properties. The Building Services Division is responsible for enforcement and is allowed to take actions needed to enforce the ordinances. Also, according to Municipal Code Section 15.08.110, the owner in violation, "is liable for any costs, expenses, accruing interest, and disbursements paid for or incurred by the City of Oakland and any of its contractors in correction, abatement, and prosecution of the violation."[1] Citizens can report code violations through a telephone hotline or online form. Once a complaint is issued and determined valid, the owner has 16 days to pay the violation ticket or work with the City to fix the violation. Similar codes also exist in the City of Piedmont, such as the City of Piedmont Municipal Code of Ordinances Chapter 6 on the Abatement of Nuisances.[2]

City of Oakland's Standard Conditions of Approval

The City's Standard Conditions of Approval relevant to this impact topic are listed below for reference. The conditions of approval will be adopted as requirements of the proposed Project if the Project is approved by the City to help ensure that no significant impacts (for the applicable topic) occur. As a result, they are not listed as mitigation measures.

> **SCA Aesth-1: 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.

[1] City of Oakland Municipal Code, Section 15.08.110, "Abatement of Violations," http://library.municode.com/index.aspx?clientid=16308&stateid=5&statename=california (accessed November 18, 2011).

[2] City of Piedmont Municipal Code, "Chapter 6 Abatement of Nuisances," pages 6-2, 6-3, and 6-4 http://www.ci.piedmont.ca.us/html/city_code/pdf/chapter6.pdf (accessed July 5, 2012).

SCA Aesth-2: 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 Aesth-3: 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 Aesth-4: 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.

Impacts, Standard Conditions of Approval and Mitigation Measures

Criteria of Significance

The Project would result in a significant impact related to aesthetics if it would:

Scenic Resources:

1. Have a substantial adverse effect on a public scenic vista[3];

4. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state or locally designated scenic highway;

5. Substantially degrade the existing visual character or quality of the site and its surroundings;

Light and Glare:

6. Create a new source or substantial light or glare which would substantially and adversely affect daytime or nighttime views in the area;

[3] Only impacts on scenic views enjoyed by members of the public generally (but not private views) are potentially significant.

Shadows:

7. Introduce landscape that now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code Section 25980-25986);
8. Cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photo-voltaic solar collectors;
9. Cast shadow that substantially impacts the beneficial use of any public or quasi-public park, lawn, garden, or open space;
10. Cast shadow on an historic resource, as defined by CEQA Section 15064.2(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 or eligibility for listing in the National Register of Historic Places, California Register of Historic Resources, Local register of historic resources or a historical resource survey form (DPR Form 523) with a rating of 1-5;

Adequate Lighting

11. 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 provisions of adequate light related to appropriate uses; or

Wind

12. Create winds exceeding 36 mph for more than 1 hour during daylight hours during the year. [4]

Scenic Vistas

Impact Aesth-1: Views from the Project site have not been identified as scenic vistas or important visual resources in the Oakland General Plan or by a regulatory agency with jurisdiction over the site. As a result, development of the Project would not significantly alter scenic vistas. (**LTS**)

Given the urban nature of the area, views from and through the Project site of the surrounding area are generally limited to the immediate developed area adjacent to the site. Views to the East Bay hills and downtown Oakland are limited by surrounding development. Views from the Project site have not been identified as scenic vistas or important visual resources in the Oakland General Plan or by a regulatory agency with jurisdiction over the site. No views of San Francisco Bay are available from the Project site. Development of the Project would not significantly alter scenic vistas. As indicated in **Figure 4.1-1**, views from vantage points to the north of the site, which are substantially elevated at the top of the rock outcropping, would look primarily out and across the site and the Project's buildings would not obstruct long distance views from these areas. Views of the Project from surrounding private properties are not public views and so are not considered a potential environmental impact under CEQA.

[4] 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.

Mitigation Measures

None needed

Scenic Resources

Impact Aesth-2: No scenic resources have been formally identified at the Project site, and development of the Project would have no adverse effects on any formally-identified scenic resources. (**LTS with SCA**)

Scenic resources are defined to include, but are not limited to trees, rock outcroppings and historic buildings within a state or locally designated scenic highway. Certain trees located on the Project site which will be removed are ornamental landscape species with minor scenic value. The loss of these trees will be compensated by replacement plantings as proposed by the Project (see Project Description, Landscape Plans) and as required pursuant to SCA Aesth-2 and -3. The prominent rock outcroppings and significant geologic features, which remain from prior quarrying activities at the site, will not be disturbed by the Project. The site contains no historic resources or other potentially significant scenic resources.

Mitigation Measures

None needed

Visual Character and Quality

Impact Aesth-3: The visual character of the Project site and its surroundings would change as a result of the Project, but the general character of the site would remain as a commercial shopping center. The Project would not substantially degrade but rather would improve the existing visual character and quality of the site and its surroundings. (**LTS**)

As shown in Figures **4.1-2 and -3**, the existing visual character of the Project site is that of a traditional suburban style shopping mall, with retail stores to the rear of the lot and a large parking area in front of the stores.

Implementation of the Project would change the visual character of the site. For example, much of the existing surface parking lot which is currently along the street frontage of both Broadway and Pleasant Valley Avenue would be replaced with new, 2 and 3-story buildings and associated landscaping. As suggested by the artist renderings of the Project, the design of the shopping center would be more urban in character, with denser development, taller buildings, newer architecture and an internal street pattern. These changes would improve rather than degrade the existing visual character and quality of the site. Older buildings would be replaced with newer, more modern and architecturally more interesting building design

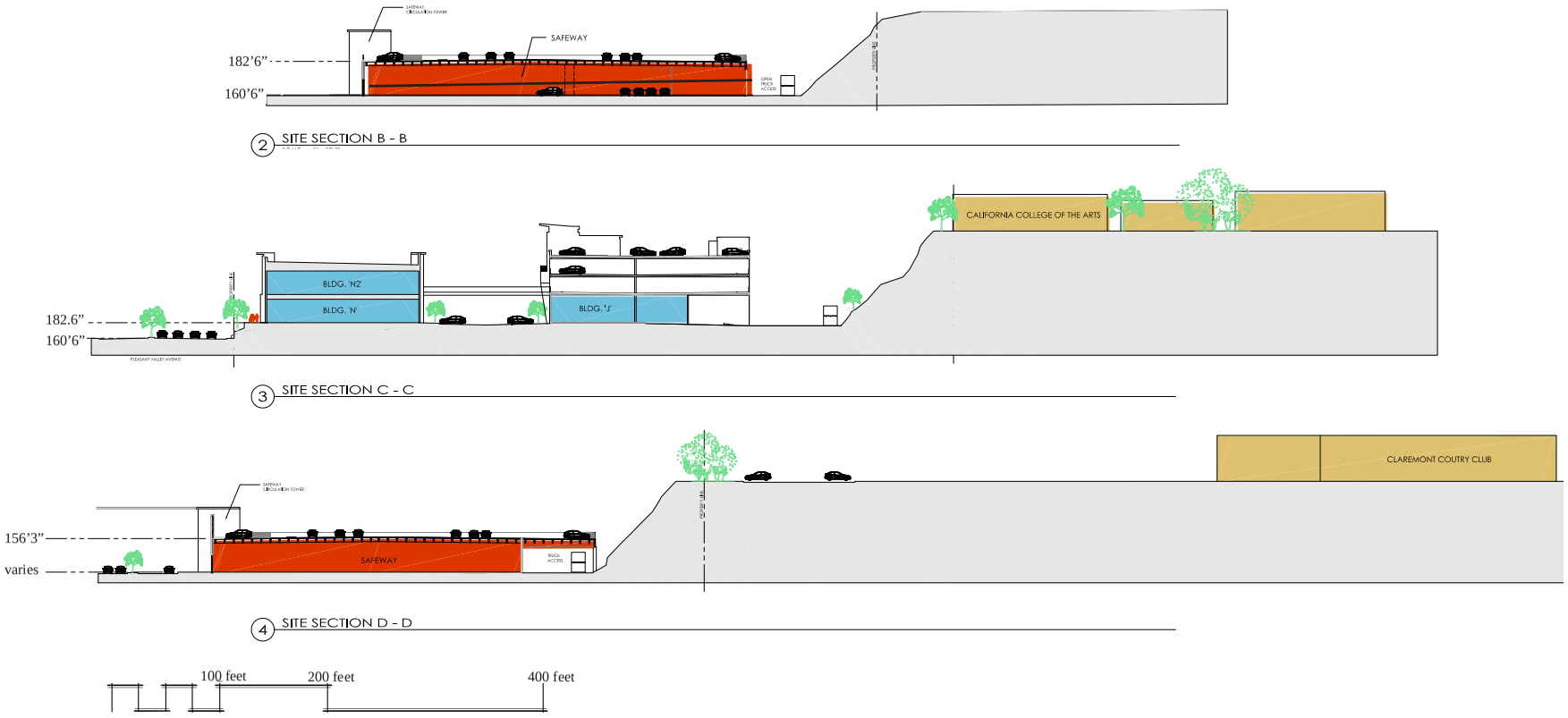


Figure 4.4-1
Cross Sections Showing Views Over Project from Northerly Properties

Source: Benner Stange Architects

Existing View from Broadway Looking East

Proposed View from Broadway Looking East

Figure 4.1-2
Existing and Proposed Views from Broadway

Source: Benner Stange Architects

Existing View from Pleasant Valley

Proposed View from Pleasant Valley

Figure 4.1-3
Existing and Proposed Views from Pleasant Valley

Source: Benner Stange Architects

Design Review Criteria

The Planning Commission, upon recommendation of the Design Review Committee, will ultimately determine whether the design of the Project is appropriate and adequate. The following analysis evaluates the Project against the design review findings that the Planning Commission must make to approve the Project pursuant to Section 17.136 of the Municipal Code. This evaluation is not intended to presuppose the Planning Commission's determination, but is provided here to indicate the environmental factors that may be applicable toward that determination.

1) That the proposal will help achieve or maintain a group of facilities which are well related to one another and which, when taken together, will result in a well-composed design, with consideration given to site, landscape, bulk, height, arrangement, texture, materials, colors, and appurtenances; the relation of these factors to other key facilities in the vicinity; and the relation of the proposal to the total setting as seen from key points in the surrounding area. Only elements of design which have some significant relationship to outside appearance shall be considered, except as otherwise provided in Section 17.136.060.

   Although the proposed Project consists of several buildings arranged on the site, the architectural style of each building is similar in appearance and detail. New buildings will be well related to one another in regard to architectural style and grouping (bulk, height, arrangement, texture, materials, colors, and appurtenances), and will result in a well-composed design. The architectural style does not seek to mimic or imitate the design of any of its surrounding buildings (which consist of an assortment of historic institutional buildings, small single-family cottages, garden apartments, mid-rise apartments and large box-like commercial structures), but instead proposes a design that is unique to the Project. The Project design seeks to create an improved relationship to the adjacent quarry pond through landscape and construction of a pedestrian pathway.

2) That the proposed design will be of a quality and character which harmonizes with, and serves to protect the value of, private and public investments in the area;

   New building placement along the frontages of Broadway and Pleasant Valley Road will replace and improve upon the prominence of current views of the parking lots. New landscaping along the easterly edge of the site will improve and enhance the aesthetic value of the adjacent quarry pond. New landscaping and hardscape improvements (courtyards, pedestrian amenities, etc.) throughout the Project site would improve upon the total Project site setting as seen from key points in the surrounding area (see **Figures 4.1-4 and -5**.

3) That 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.

   As indicated in Chapter 4.9: Land Use and Policy Consistency of this EIR, the Project is consistent in all significant respects with the policies of the City of Oakland's General Plan, including the Land Use and Transportation Element and all other applicable General Plan elements. With the exception of the need for a minor variance for height limits, the Project is also consistent with the applicable regulations of the Zoning ordinance. The height limit variance does not introduce any adverse physical environmental effects.

Mitigation Measures

None needed

View of Parking Structure and Pedestrian Bridge

View of New Internal Street and Plaza

Figure 4.1-4
Artist's Renderings, Internal Views of Project

Source: Benner Stange Architects

View from Pleasant Valley Entrance to Plaza

View from Safeway Parking Deck

Figure 4.1-5
Artist's Renderings, Internal Views of Project

Source:Benner Stange Architects

Light and Glare

Impact Aeasth-4: Lighting at the site would be modified as part of the proposed Project, but stores and parking areas at the site would still be illuminated in a manner similar to what is currently observed at the site. (**LTS with SCA)**

The Project's proposed schematic Lighting Plan (see **Figure 4.1-6**) includes new ornamental building lighting on the prominent edges of new buildings (generally placed at approximately 9 feet high along the outer walls) as well as new ornamental light pole fixtures in the parking lots (anticipated to be 15 to 20 feet tall), and new ceiling light fixtures installed in the ceilings above parking decks. Final lighting plans showing the precise location, size and type of fixtures will be prepared at later stages of final design for the Project.

Standard Conditions of Approval

Implementation of SCA Aesth-1: Lighting Plan would require that proposed lighting fixtures be adequately shielded to a point below the light bulb and reflector to prevent unnecessary glare onto adjacent properties. Final design plans must be submitted to the Planning and Zoning Division and the Electrical Services Division of the Public Works Agency for their review and approval to ensure that lighting is architecturally integrated into the site. If approved, the Project would be required to comply with Standard Condition of Approval Aesth-1, ensuring that light and glare impacts would be reduced to a level of less than significant.

Mitigation Measures

None needed

Figure 4.1-6
Project Lighting Plan

Source: Benner Stange Architects

Landscape Shadows, Shadows on Solar Collectors, Shadows on Public Space

Impact Aesth-5: No structures or landscape improvement proposed by the Project would at any time create substantial shadows beyond the Project site and thus would not interfere with any off-site solar collectors or generate shadows that would fall on any public space. (**No Impact**)

The shadow studies prepared for the proposed Project are shown in **Figures 4.1-7 through -10**. As shown, the longest shadows would be generated in winter during the morning and evening, but none of the shadows cast by the proposed buildings would fall on existing adjacent structures, off-site solar collectors or public spaces.

Mitigation Measures

None needed

Shadows on Historic Resources

Impact Aesth-6: Structures proposed at the Project site would not generate shadows that would fall on any historic resources. (**No Impact**)

There are historic structures located on the California College of the Arts property adjacent to the Project site to the northwest. However, given the topography of the area and the design of the Project, the Project's most significant (i.e., longest) shadows that would occur at 3:00 p.m. on a winter day (as shown on Figure 4.1-9) would not cast shadows that would materially impair the resource's historic significance by materially altering those physical characteristics of the resource that convey its historical significance.

Mitigation Measures

None needed

Adequate Lighting

Impact Aesth-7: The Project would not fundamentally conflict with any policies or regulations of the General Plan, Planning Code or Uniform Building Code that address appropriate provisions of adequate light for various types of land uses. (**LTS**)

The Project would not require an exception or variance to the policies of the General Plan and would not require an exception or variance to the regulations found in the Uniform Building Code. The Project would require a minor zoning variance to the height limitations of the Planning Code, but this variance would not preclude the provision of adequate natural light into the Project site. Furthermore, implementation of SCA Aesth-1: Lighting Plan would ensure that new lighting provided at the Project site is adequate and appropriate for all proposed uses and will not "spill" over onto adjacent properties.

Mitigation Measures

None needed

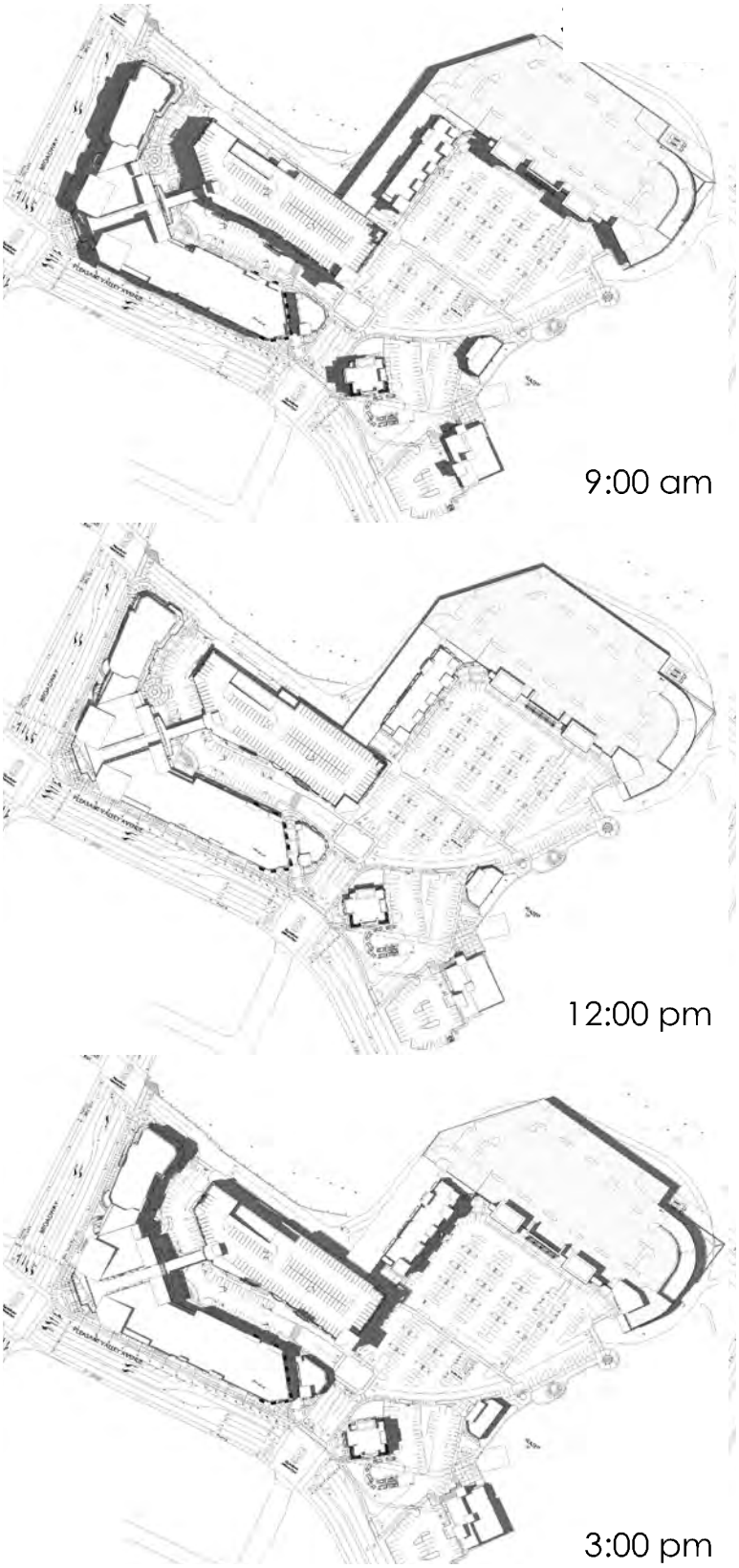


Figure 4.1-7
Shadow Study, Spring Equinox

Source: Benner Stange Architects

Figure 4.1-8
Shadow Study, Fall Equinox

Source: Benner Stange Architects

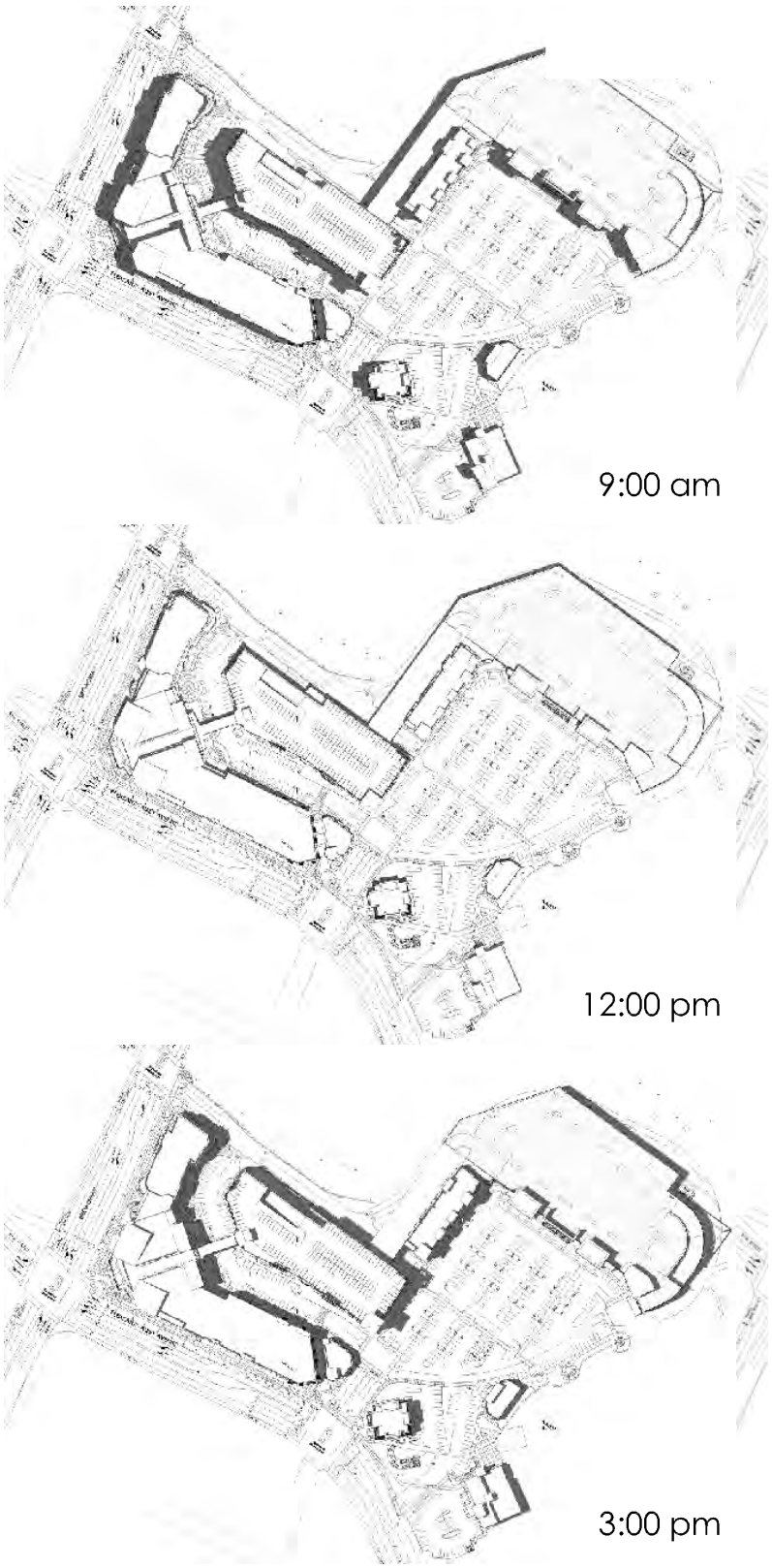


Figure 4.1-9
Shadow Study, Summer Solstice

Source: Benner Stange Architects

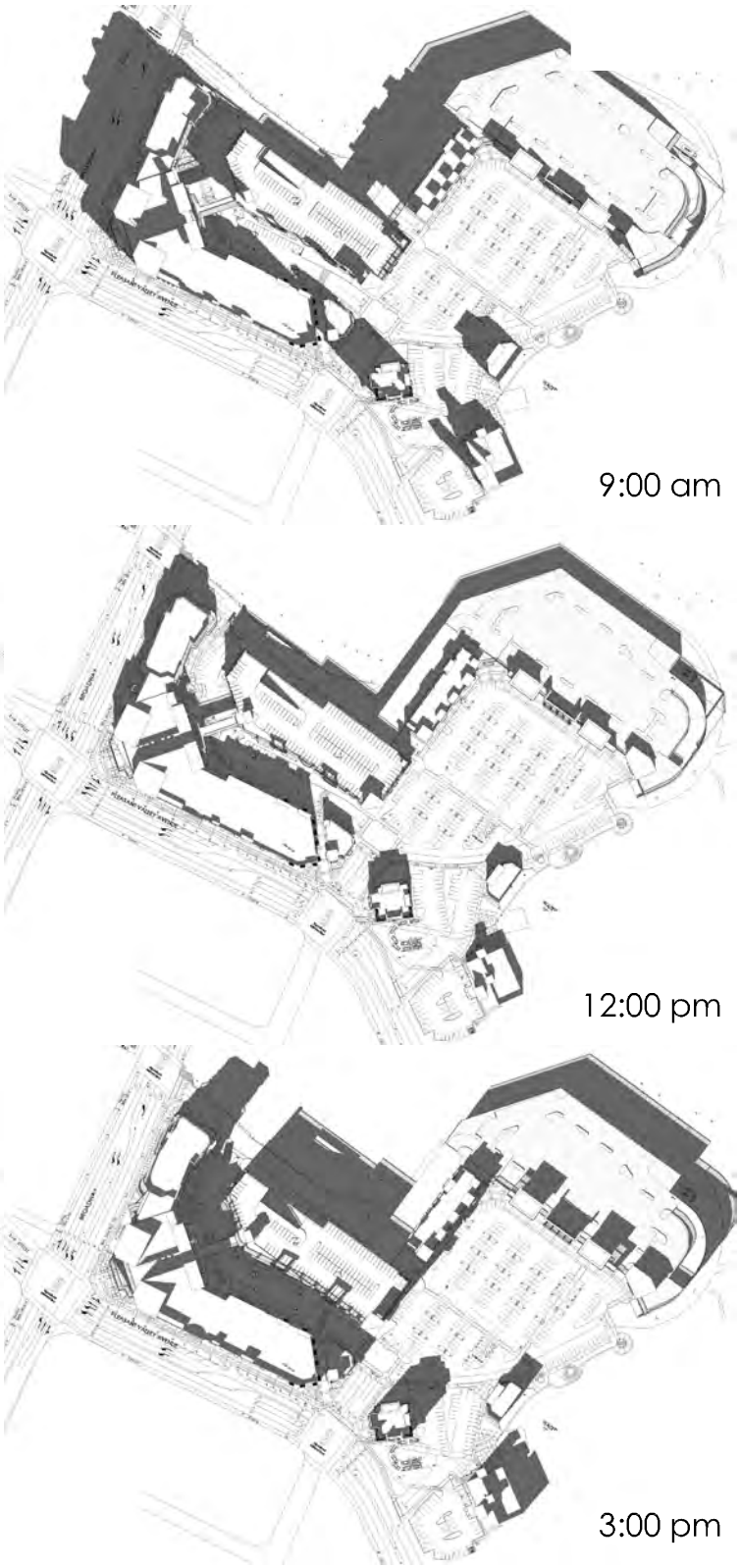


Figure 4.1-10
Shadow Study, Winter Solstice

Source: Benner Stange Architects

High Winds

Impact Aesth-8: Given the limited height of proposed structures at the Project site and the site's location, wind modeling is not necessary and there would be no wind-related impacts associated with the proposed Project. (**No Impact**)

The City of Oakland requires wind modeling for proposed structures that exceed 100 feet in height and that are located adjacent to a substantial body of water because such structures are considered more likely to result in wind impacts. Such taller structures may, in some circumstances, have the potential to generate surface-level winds which could exceed 36 miles per hour for more than one daylight hour each year. None of the structures proposed at the Project site would exceed 100 feet in height and the site is not located near a substantial surface water body. The adjacent quarry pond is not considered to be a "substantial" body of water such as the San Francisco Bay or Lake Merritt.

Mitigation Measures

None needed

Urban Decay

Impact Aesth-9: Based on consideration of market conditions, retail leakage, existing regulatory controls that address blight, and diverted sales due to the Project, the Project would not cause business closures, long term vacancies and physical deterioration of properties. Therefore, the Project would not result in substantial urban decay impacts. (**LTS**)

This section evaluates the potential for the Project to result in urban decay and visual blight by diverting retail sales from existing stores and thus causing business closures, long term vacancies and physical deterioration of properties. This evaluation summarizes the results of an Urban Decay Analysis conducted for the Project, which is presented in its entirety in **Appendix 4.1**. The Urban Decay Analysis based its conclusions upon consideration of current market conditions and retail sales leakage, regulatory controls that limit blight (described in the Regulatory Setting section), and diverted sales due to the Project.

Retail market conditions are strong in the market area. The City of Oakland has a low retail vacancy rate, with few vacancies in the market area's major commercial shopping nodes. Long-term retail vacancy is not a prevalent issue in the market area. There is no appreciable retail vacancy in Piedmont. Retail vacancies in the market area are typically absorbed quickly, especially in the market area's major retail shopping districts.

After consideration of out of market area sales and recaptured sales leakage, the Project has the potential to divert $14.2 million in sales from existing market area retailers, including food sales generated by market area residents as well as home furnishings and appliance sales. Despite the Project's sales impacts, especially in the food & beverage category, existing retailers would not be expected to close as a result of the Project opening. Existing market area stores that would be most affected by sales diverted to the Project would be those stores that are already most directly competitive with the existing Safeway store, namely the Trader Joe's on College Avenue, the Safeway at College and Claremont, Piedmont Grocery on Piedmont Avenue, the Safeway on Grand Avenue, Whole Foods on Bay Place, and the Trader Joe's on Lakeshore Avenue. These most directly competitive existing stores are high retail sales performers and are anticipated to be able to withstand the enhanced competition. Even with the loss of some degree of sales to the expanded, more upscale "Lifestyle" Safeway store, particularly initially as shoppers explore the broader options available, smaller niche stores would continue to provide quality of service and products not available at Safeway, and are also anticipated to be able to withstand the competition from the Project.

Additionally, the market area is anticipated to be characterized by continued retail leakage in almost all major retail categories. This remaining leakage would continue to sustain existing retailers, and if any existing stores do close, would provide an opportunity for other retailers to enter the marketplace focused on satisfying unmet retail demand. Continued household growth within the market area would also offset some of the Project's anticipated sales impacts on existing market area grocery and food stores.

Given the size of Oakland's retail market, more than 200,000 square feet of retail space would need to become vacant to increase Oakland's retail vacancy rate by 1.0%. Even with a 1.0% increase in the vacancy rate, Oakland's retail market would still be operating at a relatively healthy overall vacancy rate.

Existing retail vacancies generally appear well-maintained. Existing measures to maintain private commercial property in good condition in the market area are generally effective. City ordinances, such as the City of Oakland Municipal Code of Ordinances Chapter 8.10 on Graffiti, Section 8.18.060 on Noxious Weeds, Chapter 8.24 on Property Blight, Section 8.38.170 on Dumping Garbage, Chapter 8.54 on Vacant Building Registration, Chapter 12.04 on Sidewalk, Driveway, and Curb Construction and Maintenance, require property owners to maintain their properties so as not to create a nuisance by creating a condition that reduces property values and promotes blight and neighborhood deterioration. Similar codes also exist in the City of Piedmont, such as the City of Piedmont Municipal Code of Ordinances Chapter 6. These existing regulatory controls will help prevent potential urban decay in the event any existing retailers in the market area close following the opening of the Project.

Therefore, based on consideration of market conditions, diverted sales and additional retail leakage, and existing regulatory controls that address blight, the Project would not cause business closures, long term vacancies and physical deterioration of properties, and the urban decay impacts of the Project would be less than significant.

Mitigation Measures

None needed

Cumulative Aesthetic Resources Impacts

Cumulative Impact Aesth-10: Implementation of the Project, combined with other past, present, existing, pending and reasonably foreseeable projects that would be visible in the vicinity of the Project site would not result in significant adverse changes to existing visual character, views, light and glare or shadow. (**LTS**)

Geographic Context

The geographic area considered for the cumulative analysis of land use issues includes the area in close proximity to the Project Site including the upper Broadway corridor, the "lower" College Avenue corridor and the surrounding north Oakland neighborhoods. This area was defined because it includes the Project Site, the immediately surrounding neighborhoods, and a larger context for the Project. This area does not include any other major projects identified on the City's Major Project List as of July 2012.[5]

As analyzed throughout this section, the Project would not result in a significant aesthetic impact by creating a substantial adverse effect on a scenic vista; substantially damaging scenic resources; substantially degrading the existing visual character or quality of the site and its surroundings; creating a new source of substantial light or glare; introducing landscape that would now or in the future cast

[5] http://www2.oaklandnet.com/oakca/groups/ceda/documents/report/oak025453.pdf

substantial shadows on existing solar collectors; casting shadow that substantially impairs the function of a building using passive solar heat collection, impairing the beneficial use of any public or quasi-public park, lawn, garden, or open space, or shadow on a historic resource.

Cumulative Shadow Impacts

For the vast majority of the year, the Project would not cast shadows beyond the Project site or its adjacent public right-of-way. Only during the late afternoon in the winter season would Project-generated shadows cast onto adjacent properties to the north, and these shadows would not shade a public park or open space, nor would they materially affect an historic resource. The Project would not cast shadows onto the same locations as shadows cast by other reasonably foreseeable development projects, nor would other cumulative projects cast shadows into the same locations as the shadows cast by the Project. The Project's shadows would not contribute to any significant cumulative increase in shadows other than those which it casts on its own. Although cumulative development within the upper Broadway corridor would result in greater areas being shadowed at various times of the day, the Project's contribution to increased shadows would not have an adverse cumulative effect on solar collection, beneficial uses of parks or shadowing of historic resources and the cumulative shadow impact would be less than significant.

Cumulative Visual Character and Viewshed Impacts

Project structures, when combined with structures associated with other recent or reasonably foreseeable future development projects in the vicinity, would alter the overall cumulative aesthetic character of the area by adding new identifiable architectural elements and increasing the overall urban character of the Broadway corridor. Given the height of the Project (a maximum of approximately 70 above ground surface at its highest location) and its setting within a prior quarry (which depresses the site in comparison to the surrounding topography to the north and west) the Projects' buildings would not be visible from many long-range vantage points or scenic vistas, and would not add to a cumulatively adverse change in the visual character of the surroundings. The Project's contribution to the potential overall increase in building height and massing (particularly along Broadway) would not constitute a demonstrably negative cumulative aesthetic effect, and the cumulative visual impact would be less than significant.

The proposed Project is consistent with the City's General Plan land use designation for the site and together with the majority of past, present, existing, pending and reasonably foreseeable future development projects, is subject to the City's Design Review process. The purpose of the Design Review process is to consider the design treatment and relationship of buildings to the surrounding built environment and ensure no significant adverse aesthetic impacts would result. All future development that could occur in the vicinity of the Project site would be required to adhere to established restrictions, guidelines, standards, policies and criteria that address building appearance, height, bulk, configuration and suitability to the environmental context. In particular, the City's Design Review criteria set forth in the Oakland Planning Code primarily considers a project's appropriateness to its physical setting. The Design Review process would ensure that future projects, taken together, would not result in significant adverse cumulative effects to aesthetics.

Cumulative Urban Decay Impacts

The Urban Decay Analysis of the Project conducted for this EIR evaluated 12 retail development projects in the Project's market area and surrounding areas that have the potential to contribute along with the Project to cumulative market area diverted sales, and associated potential for business closures, vacancies and urban decay. Only five of the cumulative projects are within the market area. These projects include the following:

- Civiq, located at 51st Street and Telegraph Avenue in Oakland - a mixed-use development with 19,500 square feet of retail, 100 residential units, and 60,000 square feet of office space, with unknown timing;
- BevMo! on Piedmont Avenue in Oakland – a retail beverage store seeking a CUP to locate in space previously occupied by Blockbuster;
- MacArthur BART Transit Village in Oakland – an affordable housing and redevelopment project adjacent to the BART station comprising 624 residential units, 42,500 square feet of retail/commercial space, and surface parking;
- Valdez & 23rd Street Project in Oakland – a mixed use project with 281 residential units, 500-car parking structure, including 250 public spaces, and potential space for 12,000 square feet of retail.; and
- College & Claremont Safeway expansion, located at College and Claremont avenues, 36,787 net new square feet of retail, including expansion and conversion of a Safeway store to a Lifestyle store, 1.1 miles from the Project site, EIR and public review in progress, potential completion date 2015.

These five projects vary in distance from the Project site, ranging from 0.6 miles for the 51st Street and Telegraph Avenue project and 2.0 miles for the Valdez & 23rd Street Project.

Of particular relevance to the cumulative analysis are the plans for the College & Claremont Safeway site. An existing 24,260-square foot Safeway store with 1,120 square feet of pad space is proposed to be redeveloped with an expanded 51,510-square-foot Safeway store and an additional 9,537 square feet of restaurant and retail space. The result will comprise a net increase of 36,787 square feet of commercial space. This net increment of retail space is estimated to generate $26.1 million in net new retail sales, of which 28% are estimated to be generated by this Project's market area residents, or $7.3 million.

These cumulative projects, together with the Project, have the potential to increase the market area sales from $14.2 million for just the Project to $59.7 million. As with the Project, based on consideration of market conditions, diverted sales and additional retail leakage, and existing regulatory controls that address blight, the Urban Decay Analysis concluded that these cumulative projects would not cause business closures, long term vacancies and physical deterioration of properties, and cumulative urban decay impacts would be less than significant.

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4.2

Air Quality

This chapter describes existing air quality, identifies potential air quality impacts of the Project, discusses the effects of air quality on the Project and recommends mitigation measures to reduce or eliminate potentially significant air quality impacts where possible and appropriate. This analysis has been prepared using methodologies and assumptions from the May, 2012 Bay Area Air Quality Management District's (BAAQMD) *California Environmental Quality Act Air Quality Guidelines* (CEQA *Guidelines*).[1] Technical air quality emission modeling for this chapter of the EIR has been provided by ENVIRON International, Inc.

The analysis of greenhouse gas emissions and global climate change is presented in Chapter 4.6: Greenhouse Gas Emissions.

Physical Setting

The following discussion provides an overview of existing air quality conditions in the region and Oakland area. Ambient standards and the regulatory framework relating to air quality are summarized. Climate, air quality conditions, and typical air pollutant types and sources are described.

Regional Air Quality

The Project site is located within the City of Oakland, which is located in the San Francisco Bay Area Air Basin (SFBAAB), a large, shallow air basin ringed by hills that taper into a number of sheltered valleys around the perimeter. Two primary atmospheric outlets exist. One is through the Golden Gate Strait, a direct outlet to the Pacific Ocean. The second outlet extends to the northeast, along the west delta region of the Sacramento and San Joaquin Rivers.

The City of Oakland is within the jurisdiction of the BAAQMD. Air quality conditions in the SFBAAB have improved significantly since BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen dramatically. Exceedance of air quality standards occurs primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

Ozone levels, measured by peak concentrations and the number of days over the State 1-hour standard, have declined substantially as a result of aggressive programs by the BAAQMD and other regional, State and Federal agencies. The reduction of peak concentrations represents progress in improving public health; however, the Bay Area still exceeds the State standard for 1-hour ozone.

Levels of particulate matter (PM_{10} and $PM_{2.5}$) in the Bay Area have exceeded State standards at least two times per year during the past three years. The Bay Area is considered a non-attainment area for PM_{10} and $PM_{2.5}$ relative to the State standard, and unclassified for the federal standards.

[1] Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Guidelines Update*, May 2012.

No exceedance of the State or federal carbon monoxide (CO) standards has been recorded at any of the region's monitoring stations since 1991. The Bay Area is currently considered a maintenance area for State and federal CO standards.

The BAAQMD's 2009 Ozone Attainment Plan (OAP) contains district-wide control measures to reduce ozone precursor emissions (e.g., ROG and NO_x) and particulate matter. Ozone, in particular, results from the reaction of organic gases (ROG) and nitrogen oxide (NO_x) in the atmosphere. To reduce ozone, its precursors (ROG and NO_x) are regulated. The State standards for these pollutants are at least as stringent as the national standards.

Toxic air contaminants (TACs) are not criteria pollutants, but are associated with health-related effects and have appreciable concentrations in the Bay Area. The US Environmental protection Agency (EPA) and the California Air Resources Board (ARB) have identified over 800 substances that are emitted into the air that may affect human health. Some of these substances are considered to be carcinogens, while others are known to have other adverse health effects. As part of ongoing efforts to identify and assess potential health risks to the public, BAAQMD has collected and compiled air toxic emissions data from industrial and commercial sources of air pollution throughout the Bay Area. Monitoring data and emissions inventory of toxic air contaminants helps the BAAQMD determine health risk to Bay Area residents. The 2003 emissions inventory shows that emissions of many TACs are decreasing in the Bay Area.

Ambient monitoring concentrations of TACs indicates that pollutants emitted primarily from motor vehicles (1,3-butadiene and benzene) account for slightly over one-half of the average calculated cancer risk from ambient air in the Bay Area.[2] According to the BAAQMD, ambient benzene levels declined dramatically in 1996 with the advent of Phase 2 reformulated gasoline. Due to this reduction, the calculated average cancer risk based on monitoring results has been reduced to 143 in one million. However, this risk does not include the risk resulting from exposure to diesel particulate matter or other compounds not monitored. Although not specifically monitored, recent studies indicate that exposure to diesel particulate matter may contribute significantly to cancer risk (approximately 500 – 700 in one million) that is greater than all other measured TACs combined.[3]

[2] BAAQMD, 2007, *Toxic Air Contaminant Control Program Annual Report 2003 Volume 1*, August.

[3] Ibid.

Table 4.2-1: Regional Attainment Status

Pollutant	Federal Status	State Status
Ozone (O_3) – 1-Hour Standard	No Designation	Serious Non-attainment
Ozone (O_3) – 8-Hour Standard	Marginal Non-attainment	Non-attainment
Respirable Particulate Matter (PM_{10})	Unclassified	Non-attainment
Fine Particulate Matter ($PM_{2.5}$)	Unclassifiable/Attainment	Non-attainment
Carbon Monoxide (CO)	Attainment/Unclassified	Attainment
Nitrogen Dioxide (No_2	Attainment/Unclassified	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Sulfates	No Designation	Attainment
Lead	No Designation	Attainment
Hydrogen Sulfide	No Designation	Unclassified
Visibility Reducing Particles	No Designation	Unclassified

Source: Bay Area Air Quality Management District.
California Air Resource Board

Local Climate and Air Quality

Air quality is a function of both local climate and local sources of air pollution. The amount of a given air pollutant in the atmosphere is determined by the amount of pollutant released and the atmosphere's ability to transport and/or dilute that pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain, and for photochemical pollutants, sunshine.

The City of Oakland is located in the Northern Alameda and Western Contra Costa subregion of the SFBAAB. This climatological subregion stretches from Richmond to San Leandro. Its western boundary is defined by the Bay, and its eastern boundary by the Oakland-Berkeley Hills. The Oakland-Berkeley Hills have a ridge line height of approximately 1,500 feet, a significant barrier to air flow. The most densely populated area of the subregion lies in a strip of land between the Bay and the lower hills.

In this area, marine air traveling through the Golden Gate, as well as across San Francisco and through the San Bruno Gap, is a dominant weather factor. The Oakland-Berkeley Hills cause the westerly flow of air to split off to the north and south of Oakland, which causes diminished wind speeds. The prevailing winds for most of this subregion are from the west.

Temperatures in this subregion have a narrow range due to the proximity of the moderating marine air. Maximum temperatures in summer average in the mid-70's, with minimums in the mid-50's. Winter highs are in the mid- to high-50's, with lows in the low- to mid-40's.

The air pollution potential is lowest for the parts of the subregion that are closest to the Bay, due largely to good ventilation and less influx of pollutants from upwind sources. The occurrence of light winds in the evenings and early mornings occasionally causes elevated pollutant levels.

The air pollution potential at the northern (Richmond) and southern (Oakland, San Leandro) parts of this subregion is marginally higher than communities directly east of the Golden Gate, because of the lower frequency of strong winds.

This subregion contains a variety of industrial air pollution sources. Some industries are quite close to residential areas. The subregion is also traversed by frequently congested freeways. Traffic and congestion, and the motor vehicle emissions they generate, are increasing.

Pollutant monitoring results for the years 2007 (when monitoring began at the new station on November 1) to 2009 (as of September 30th) are shown in **Table 4.2-2**, at the closest monitoring station to the Project site for which data was available (9925 International Boulevard, Oakland).[4] Ambient air quality monitoring stations indicate that air quality in the Project area has generally been good. As indicated in the monitoring results, no violations of the State PM_{10} standard were recorded during the monitoring period. No violations of the federal PM_{10} standard were recorded during the monitoring period. During the monitoring period, one violation of the federal $PM_{2.5}$ standard occurred at this monitoring station on February 3, 2009. The State 1-hour ozone standard and the federal 8-hour ozone standard have not been exceeded during the monitoring period at this monitoring station. Both State and federal NO_2 standards were not exceeded in this area during the monitoring period.

Table 4.2-2: Ambient Air Quality Monitoring Data at 9925 International Boulevard, Oakland

Pollutant	Standard	Days Standard Exceeded		
		2007*	2008	2009**
Ozone	State 1-Hour	0	0	0
Ozone	Federal 8-Hour	0	0	0
Ozone	State 8-Hour	0	0	0
PM_{10}	Federal 24-Hour	0	0	0
PM_{10}	State 24-Hour	0	0	0
$PM_{2.5}$	Federal 24-Hour	0	0	3
Nitrogen Dioxide	State 1-Hour	0	0	0

Notes:
*Monitoring began at this station on November 1, 2007.
**Monitoring data through September 30, 2009 only.
PM_{10} and $PM_{2.5}$ are measured every sixth day, so the number of days exceeding the standard is estimated.
Source: Telephone Conversation with Kent Chrysler, BAAQMD on 11/24/09, CARB Air Quality Data Statistics at http://www.arb.ca.gov/adam/index.html .

Air Quality Issues

Six key air quality issues – local CO hotspots, vehicle emissions, fugitive dust, odors, construction equipment exhaust and toxic air contaminants – are described below.

Vehicle Emissions

Long-term air emission impacts are those associated with changes in automobile travel within the City. Mobile source emissions would result from vehicle trips associated with increased vehicular travel. As is true throughout much of the U.S., motor vehicle use is projected to increase substantially in the region. The BAAQMD, local jurisdictions, and other parties responsible for protecting public health and welfare will continue to seek ways of minimizing the air quality impacts of growth and development in order to avoid further exceedance of the standards.

[4] Other monitoring sites are located at Filbert Street in Oakland, on 6th Street in Berkeley and in Concord. The International Boulevard site is the closest and most representative site of these several locations.

Construction Equipment Exhaust

Construction activities cause combustion emissions from utility engines, heavy-duty construction vehicles, equipment hauling materials to and from construction sites, and motor vehicles transporting construction crews. Exhaust emissions from construction activities vary daily as construction activity levels change. The use of construction equipment results in localized exhaust emissions.

Local Carbon Monoxide Hotspots

Local air quality is most affected by CO emissions from motor vehicles. CO is typically the pollutant of greatest concern because it is created in abundance by motor vehicles and it does not readily disperse into the air. Because CO does not readily disperse, areas of vehicle congestion can create "pockets" of high CO concentrations called "hot spots." These pockets have the potential to exceed the State 1-hour standard of 20.0 ppm and/or the 8-hour standards of 9.0 ppm.

While CO transport is limited, it disperses with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthful levels that adversely affect local sensitive receptors (e.g., residents, schoolchildren, the elderly, hospital patients, etc.). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

Fugitive Dust

Fugitive dust emissions are generally associated with demolition, land clearing, exposure of soils to the air, and cut and fill operations. Dust generated during construction varies substantially on a project-by-project basis, depending on the level of activity, the specific operations, and weather conditions.

Odors

Odors are also an important element of local air quality conditions. Specific activities can raise concerns on the part of nearby neighbors. Major sources of odors include restaurants, manufacturing plants, and agricultural operations. While sources that generate objectionable odors must comply with air quality regulations, the public's sensitivity to locally produced odors often exceeds regulatory thresholds.

Toxic Air Contaminants

In 1998, the ARB identified diesel engine particulate matter as a toxic air contaminant (TAC). Facilities that may have substantial diesel exhaust emissions include truck stops; warehouse/distribution centers; large commercial or industrial facilities; high volume transit centers; schools with high volume of bus traffic; high volume highways or high volume arterial/roadways with high levels of diesel traffic.

Determining how hazardous a substance is depends on many factors, including the amount of the substance in the air, how it enters the body, how long the exposure lasts, and what organs in the body are affected. One major way these substances enter the body is through inhalation of either gases or particulates. While many gases are harmful, very small particles penetrate deep into the lungs, contributing to a range of health problems. Exhaust from diesel engines is a major source of these airborne particles. California's Office of Environmental Health Hazard Assessment (OEHHA) has determined that long-term exposure to diesel exhaust particulates poses the highest cancer risk of any TAC it has evaluated. Fortunately, improvements to diesel fuel and diesel engines have already reduced emissions of some of the contaminants, which, when fully implemented, will result in a 75 percent reduction in particle emissions from diesel-powered trucks and other equipment by 2010 (compared to 2000 levels) and an 85 percent reduction by 2020. Similarly, improvements have been made to

significantly reduce TAC emissions from gasoline-powered vehicles. These improvements are anticipated to continue into the foreseeable future.

The BAAQMD's Community Air Risk Evaluation (CARE) Program examined TAC emissions from stationary sources, area sources, and on-road and off-road mobile sources. This program included developing a TAC emissions inventory and conducting computer modeling to identify areas in the San Francisco Bay Area Air Basin (SFBAAB) that are cumulatively impacted from sources of TACs. Demographic data was then used to identify communities of individuals that are disproportionably impacted from high concentrations of TACs. According to the findings of Phase 1 of the CARE Program, diesel PM accounts for about 80 percent of the inhalation cancer risk from TACs in the SFBAAB. The highest diesel PM emissions occur in the urban core areas of Concord, eastern San Francisco, western Alameda County, Redwood City/East Palo Alto, Richmond/San Pablo, and San Jose.

Sensitive Receptors

For purposes of air quality and public health and safety, sensitive receptors are generally defined as land uses with population concentrations that would be particularly susceptible to disturbance from dust and air pollutant concentrations, or other disruptions associated with project construction and/or operation. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Schools, hospitals and convalescent homes are considered to be relatively sensitive to poor air quality because children, the elderly and the infirm are more susceptible to respiratory disease and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

In the immediate vicinity of the Project site there are numerous sensitive receptors including multi-family residences immediately across Pleasant Valley Avenue south from the Project site, the apartment building and the Claremont Country Club immediately to the north and adjacent to the site, and homes to the east on Montgomery Street and View Place.

Regulatory Setting

The Federal Clean Air Act (FCAA) governs air quality in the United States. In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulation under the California Clean Air Act (CCAA). At the federal level, the EPA administers the FCAA. The CCAA is administered by ARB at the State level, and by the Air Quality Management Districts at the regional and local levels. The BAAQMD regulates air quality at the regional level.

Air quality standards, the regulatory framework, and State and Federal attainment status are discussed below.

Air Quality Standards

Both State and federal governments have established health-based Ambient Air Quality Standards (AAQS) for six air pollutants: carbon monoxide (CO); ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb) and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. These standards are designed to protect public health and welfare with a reasonable margin of safety.

In addition to primary and secondary AAQS, the State of California has established a set of episode criteria for O_3, CO, NO_2, SO_2 and PM. These criteria refer to episode levels representing periods of short-

term exposure to air pollutants that actually threaten public health. Health effects are progressively more severe as pollutant levels increase.

California AAQS and National AAQS for the criteria pollutants are listed in **Table 4.2-3**. Health effects of these criteria pollutants are described in **Table 4.2-4**.

Table 4.2-3: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standard	National Standard
Ozone	1 Hour	0.09 ppm	---
	8 Hour	0.070 ppm	0.075 ppm
Carbon Monoxide	1 Hour	20 ppm	35 ppm
	8 Hour	9.0 ppm	9 ppm
Nitrogen Dioxide	1 Hour	0.18 ppm	---
	Annual	0.03 ppm	0.053 ppm
Sulfur Dioxide	24 Hour	0.04 ppm	0.14 ppm
	Annual	---	0.030 ppm
Particulates	24 Hour	50 ug/m3	150 ug/m3
< 10 microns	Annual	20 ug/m3	---
Particulates	24 Hour	---	35 ug/m3
< 2.5 microns	Annual	12 ug/m3	15 ug/m3

Concentrations: ppm = parts per million ug/m3 = micrograms per cubic meter
Source: Bay Area Air Quality Management District, Bay Area Pollution Summary – 2008.

Table 4.2-4: Health Effects of Air Pollutants

Pollutant	Health Effects	Examples of Sources
Suspended Particulate Matter(PM 2.5 and PM 10)	• Reduced lung function • Aggravation of the effects of gaseous pollutants • Aggravation of respiratory and cardio respiratory diseases • Increased cough and chest discomfort • Soiling • Reduced visibility	• Stationary combustion of solid fuels • Construction activities • Industrial processes • Atmospheric chemical reactions
Ozone (O_3)	• Breathing difficulties • Lung damage	Formed by chemical reactions of air pollutants in the presence of sunlight; common sources are motor vehicles, industries, and consumer products
Carbon Monoxide (CO)	• Chest pain in heart patients • Headaches, nausea • Reduced mental alertness • Death at very high levels	Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Lead (Pb)	• Organ damage • Neurological and reproductive disorders • High blood pressure	• Metals processing • Fuel combustion • Waste disposal
Nitrogen Dioxide (NO_2)	Lung damage	See carbon monoxide sources
Toxic Air Contaminants	• Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders	• Cars and trucks, especially diesels • Industrial sources such as chrome platers • Neighborhood businesses such as dry cleaners and service stations • Building materials and products

Source: ARB and EPA, 2005

Federal Regulatory Setting

Federal Clean Air Act (FCAA)

The 1970 FCAA authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The FCAA Amendments of 1990 (FCAAA) changed deadlines for attaining national standards, as well as remedial actions required of areas of the nation that exceed the standards. Under the FCAAA, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans (SIPs) to demonstrate how they will achieve the national standards for O_3 by specified dates. The FCAAA requires that projects receiving federal funds demonstrate conformity to the approved SIP and local air quality attainment plan for the region. Conformity with the SIP requirements also satisfies the FCAAA requirements.

United States Environmental Protection Agency

At the Federal level, EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the FCAA, as amended in 1970, 1977 and 1990.

The FCAA required EPA to establish primary and secondary national AAQS. The FCAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The FCAAA added requirements for states with non-attainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA has responsibility to review all state SIPs to determine conformation to the mandates of the FCAAA and determine if implementation will achieve air quality goals. If the EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the non-attainment area that imposes additional control measures. Failure to submit an appropriate SIP or to implement the plan within the mandated timeframe may result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

State Regulatory Setting

California Clean Air Act (CCAA)

In 1988, the CCAA required that all air districts in the State endeavor to achieve and maintain California ambient air quality standards for CO, O_3, SO_2 and NO_2 by the earliest practical date. The CCAA provides districts with new authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each district plan is to achieve a 5 percent annual reduction, averaged over consecutive three-year periods, in district-wide emissions of each non-attainment pollutant or its precursors. Additional physical or economic development within the region would tend to impede the emissions reduction goals of the CCAA. Generally, the State standards for these pollutants are more stringent than the national standards.

California Air Resources Board (ARB)

The ARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California, and for implementing the CCAA. The CCAA requires that all air districts in California endeavor to achieve and maintain California ambient air quality standards by the earliest practical date. The act specifies that districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources, and provides districts with the authority to regulate indirect sources.

ARB is primarily responsible for developing and implementing air pollution control plans to achieve and maintain the National ambient air quality standards. The ARB has primary responsibility for statewide pollution sources and produces a major part of the State Implementation Plan. Local air districts are still relied upon to provide additional strategies for sources under their jurisdiction. The ARB combines this data and submits the completed State Implementation Plan to EPA.

Other ARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control and air quality management districts), establishing California Ambient Air Quality Standards (CAAQS), which in many cases are more stringent than the National Ambient Air Quality Standards (NAAQS), determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, and off-road vehicles.

Air Quality and Land Use Handbook

The ARB has developed an Air Quality and Land Use Handbook, which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.[5] The ARB handbook recommends that planning agencies strongly consider proximity to these sources when finding new locations for "sensitive" land uses such as homes, medical facilities, daycare centers, schools and playgrounds.

Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners and large gasoline service stations. Key recommendations in the Handbook include taking steps to avoid siting new, sensitive land uses (including residences, day care centers, playgrounds or medical facilities):

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day.
- Within 1,000 feet of a major service and maintenance rail yard.
- Immediately downwind of ports (in the most heavily impacted zones) and petroleum refineries.
- Within 300 feet of any dry cleaning operation (for operations with two or more machines, provide 500 feet).
- Within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater).

The Handbook specifically states that its recommendations are advisory, and acknowledges land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

The Project site is occupied by commercial uses, which are not sensitive land uses. The Project site is not located within 500 feet of a freeway or urban roads with more than 100,000 vehicles/day, it is not within 1,000 feet of a major service and maintenance rail yard or immediately downwind of the Ports or a petroleum refinery, and is not within 300 feet of a large gas station.

Bay Area Air Quality Management District

BAAQMD is the primary agency responsible for assuring that the NAAQS and CAAQS are attained and maintained in the Bay Area. BAAQMD's jurisdiction includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo and Santa Clara counties, and the southern portions of Solano and Sonoma counties. The Air District's responsibilities in improving air quality in the region include: preparing plans for attaining and maintaining air quality standards; adopting and enforcing rules and regulations; issuing permits for stationary sources of air pollutants; inspecting stationary sources and responding to citizen complaints; monitoring air quality and meteorological conditions; awarding grants to reduce mobile emissions; implementing public outreach campaigns; and assisting local governments in addressing climate change.

The BAAQMD attains and maintains air quality conditions in the San Francisco Bay Area Air Basin (SFBAAB) through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of the BAAQMD includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of

[5] California Air Resources Board, 2005, *Air Quality and Land Use Handbook: A Community Health Perspective*, April.

air pollution. The BAAQMD also inspects stationary sources of air pollution and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the FCAA, FCAAA, and the CCAA.

Ozone Attainment Plan

The BAAQMD prepared the 2009 *Ozone Attainment Plan* to address non-attainment of the National 1-hour ozone standard in the SFBAAB. The purpose of the 2009 OAP is to:

- Update the Bay Area 2005 Ozone Strategy in accordance with the requirements of the CCAA to implement "all feasible measures" to reduce ozone;
- Consider the impacts of ozone control measures on particulate matter (PM), air toxics, and greenhouse gases in a single, integrated plan;
- Review progress on improving air quality in recent years;
- Establish emission control measures to be adopted or implemented in the 2009-2012 timeframe.

Similarly, the BAAQMD prepared the 2009 Clean Air Plan to address non-attainment of the CAAQS.

BAAQMD CEQA Guidelines

On June 2, 2010 the BAAQMD adopted *Thresholds of Significance for use in Determining the Significance of Projects' Environmental Effects under the California Environmental Quality Act* and published *CEQA Guidelines* for consideration by lead agencies. In addition to thresholds of significance for greenhouse gas (GHG) emissions, the thresholds lowered the previous (1999) threshold of significance for annual emissions of Reactive Organic Gases (ROG), Nitrogen Oxides (NO_x) and particulate matter exhaust (PM_{10}), and set a standard for smaller particulates ($PM_{2.5}$) and fugitive dust.

On March 5, 2012 the Alameda County Superior Court issued a judgment finding that the Air District had failed to comply with CEQA when it adopted the thresholds. The court did not determine whether the Thresholds were valid on the merits, but found that the adoption of the thresholds was a project under CEQA. The court issued a writ of mandate ordering the District to set aside the thresholds and cease dissemination of them until the Air District had complied with CEQA. In view of the court's order, lead agencies will need to determine appropriate air quality thresholds of significance based on substantial evidence in the record. Lead agencies may rely on the Air District's updated CEQA Guidelines (updated May 2012) for assistance in calculating air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures.

City of Oakland

Relevant policies and conditions from the City's General Plan and Standard Conditions of Approval are described below:

General Plan

Open Space Conservation and Recreation Element. The Open Space Conservation and Recreation (OSCAR) Element of the City of Oakland's General Plan includes the following policies related to air quality:

> *Policy CO-12.1*: Promote land use patterns and densities which help improve regional air quality conditions. The City supports efforts of the responsible public agencies to reduce air pollution.
>
> *Policy CO-12.4:* Require that development projects be designed in a manner which reduces potential adverse air quality impacts.

Policy CO-12.6: Control of Dust Emissions. Require construction, demolition, and grading practices which minimize dust emissions. These practices are currently required by the City and include the following:

- Avoiding earth moving and other major dust generating activities on windy days.
- Sprinkling unpaved construction areas with water during excavation, using reclaimed water where feasible. (Watering can reduce construction-related dust by 50 percent.)
- Covering stockpiled sand, soil, and other particulates with a tarp to avoid blowing dust.
- Covering trucks hauling dirt and debris to reduce spills. If spills do occur, they should be swept up promptly before materials become airborne.
- Preparing a comprehensive dust control program for major construction in populated areas or adjacent to sensitive uses like hospitals and schools.
- Operating construction and earth-moving equipment, including trucks, to minimize exhaust emissions.

City of Oakland's Standard Conditions of Approval

The City's Standard Conditions of Approval relevant to air quality are listed below for reference. These Conditions of Approval were cited in the December 2007 Initial Study, and will be adopted as requirements of the proposed Project if the Project is approved by the City to help reduce and/or avoid potentially significant impacts on air quality occur. As a result, they are not listed as mitigation measures.

SCA Air-1: Construction-Related Air Pollution Controls (Dust and Equipment Emissions). *Ongoing throughout demolition, grading, and/or construction.* During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the 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 is 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 BAAQMD shall also be visible. This information may be posted on other required on-site signage.

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

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

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

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

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

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

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

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

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

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

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

u. The project applicant shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate matter (PM) reduction compared to the most recent California Air Resources Board (CARB) fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as they become available.

v. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings).

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

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

SCA Air-2: Asbestos Removal in Structures. *Prior to issuance of a demolition permit.* If asbestos-containing materials (ACM) are found to be present in building materials to be removed, the project applicant shall submit specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations, including but not necessarily limited to: California Code of Regulations, Title 8; Business

and Professions Code; Division 3; California Health & Safety Code 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended.

Impacts, Standard Conditions of Approval and Mitigation Measures

Criteria of Significance[6]

The Project would result in a significant impact related to air quality if it would:

Project Impacts:

1. During project construction result in average daily emissions of 54 pounds per day of ROG, NO_x, or $PM_{2.5}$ or 82 pounds per day of PM_{10};
2. During project operation result in average daily emissions of 54 pounds per day of ROG, NO_x, or $PM_{2.5}$ or 82 pounds per day of PM_{10}; or result in maximum annual emissions of 10 tons per year of ROG, NO_x, or $PM_{2.5}$ or 15 tons per year of PM_{10};
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;
4. During either project operation or project construction expose persons by siting a new source or a new 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 greater than 0.3 micrograms per cubic meter of annual average $PM_{2.5}$ [7] or;
5. Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people. [8]

Cumulative Impacts:

1. During either project operation or project construction expose persons by siting a new source or a new receptor to substantial levels of TACs resulting in (a) a cancer risk level greater than 100 in a

[6] The City's thresholds of significance which are used in this EIR to make determinations regarding the significance of the Project's air quality and greenhouse gas emissions impacts are based on the May 2010 BAAQMD Thresholds of Significance and the evidence developed by BAAQMD to support those Thresholds. The technical and scientific basis for the BAAQMD's 2010 Thresholds was not rejected by the court. Use of the City's thresholds is consistent with and authorized by CEQA Guidelines Section 15064. These thresholds of significance remain in effect, and have not been challenged.

[7] Pursuant to BAAQMD May 2012 updated CEQA Guidelines, when siting new TAC sources consider receptors located within 1,000 feet, and when siting new 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. The cumulative analysis should consider the combined risk from all existing and reasonably foreseeable future sources. For this threshold receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers.

[8] For this threshold sensitive receptors include residential uses, schools, daycare centers, nursing homes, and medical centers.

million, (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0, or (c) an increase of greater than 0.8 micrograms per cubic meter of annual average PM2.5.

2. If a project exceeds the identified project-level significance thresholds, its emissions would be also be cumulatively considerable.

Construction Period Fugitive Dust Emissions

Impact Air-1: During construction, the proposed Project would generate fugitive dust from demolition, grading, hauling and construction activities. The fugitive dust emissions associated with these construction activities would be effectively reduced to a level of less than significant based on implementation of required City of Oakland Standard Conditions of Approval. (**LTS with SCA**)

Project-related construction activities including demolition, site preparation, earthmoving and general construction activities would generate short-term emissions of fugitive dust. Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. In the absence of mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM_{10} and $PM_{2.5}$ concentrations may be adversely affected on a temporary and intermittent basis. In addition, the fugitive dust generated by construction would include larger particles that would fall out of the atmosphere within several hundred feet of the site and could result in nuisance-type impacts.

Standard Conditions of Approval

The City of Oakland considers implementation of effective and comprehensive dust control measures (Best Management Practices) recommended by the BAAQMD as the threshold of significance for fugitive dust emissions (both PM_{10} and $PM_{2.5}$); if a project complies with specified dust control measures, it would not result in a significant impact related to construction period dust emissions. In order to be protective of the health of nearby residences as well as to reduce dust emissions that could affect regional air quality, the Project is required to implement BAAQMD recommended construction period dust control measures pursuant to the City's Standard Conditions of Approval, and to comply with the requirements found under the City Municipal Code (Section 15.36.100; Dust Control Measures). These measures include both "Basic" and "Enhanced" measures for the Project since the Project meets several of the criteria for enhanced measures. The City's Standard Conditions of Approval **SCA Air-1** is consistent with both the "Basic" and "Enhanced" measures recommended by the BAAQMD including, but not limited to:

- watering of all exposed surfaces of active construction;
- covering all trucks hauling soil, sand, and other loose materials;
- removing all visible mud or dirt track-out onto adjacent public roads, paving all roadways, driveways, sidewalks, etc. as soon as feasible; and
- enclosing, covering and watering exposed stockpiles.

Furthermore, to reduce the potential for asbestos-laden dust emissions, the Project is required to implement **SCA Air-2** which requires certified asbestos removal, encapsulation, or enclosure of any identified asbestos containing materials in accordance with all applicable laws and regulations, including but not necessarily limited to those of the California Code of Regulations, the California Health & Safety Code and the Bay Area Air Quality Management District's regulations and rules.

Implementation of these standard conditions of approval would ensure that the impact of construction-period fugitive dust remains at a less than significant level.

Mitigation Measures

None needed

Construction Period Criteria Air Pollutants and Precursor Emissions

Impact Air-2: During construction, the proposed Project would generate regional ozone precursor emissions and regional particulate matter emissions from construction equipment exhaust. However, Project-related construction emissions would not generate emissions of criteria air pollutants that would exceed the City's thresholds of significance. (**LTS with SCA**)

Project-related construction activities including demolition, site preparation, earthmoving and general construction activities would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. Emissions generated from these activities include dust particles that are 10 microns or less in diameter (PM_{10}) and particles that are less than 2.5 microns in diameter ($PM_{2.5}$), combustion emissions of criteria pollutants (ROG, NO_x, CO, SO_x and PM_{10}) from operation of construction equipment and from worker vehicles, and evaporative emissions (ROG) from asphalt paving and architectural coating applications.

The City's significance thresholds consider construction emissions, even though temporary, to result in a significant impact if daily maximum emissions of construction-related criteria air pollutants or precursors would exceed 54 pounds per day of ROG, NO_x and $PM_{2.5}$, or 82 pounds per day of PM_{10} (with the PM values linked to construction exhaust emissions only).

Quantification of construction-period emissions has been conducted. The California Emissions Estimator Model (CalEEMod, Version 2011.1.1) has been used to quantify construction-related criteria air pollutants and precursors.[9] Input and assumptions used in the model run for the Project's construction period effects include the following:

- Start Date and Construction Schedule: This analysis has assumed a conservatively early start date for initiation of Phase I construction starting in July 2013. Phase I construction is anticipated to last approximately 10 months, ending by April 2014. Phase II construction would commence almost immediately thereafter, beginning in May 2014 and lasting approximately 10 months until March of 2015.
- Demolition Volume: During Phase I, approximately 490,000 cubic feet of building material is assumed to be demolished and removed (Buildings 5 and 6). During Phase II, approximately 438,000 cubic feet of building material is assumed to be demolished and removed (Buildings 1, 2, 3 and 4).

[9] CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model incorporates Pavley standards and Low Carbon Fuel standards into the mobile source emission factors. The model was developed in collaboration with the air districts of California. Default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is free of charge and will be periodically updated when modifications are warranted. The model is an accurate and comprehensive tool for quantifying air quality impacts from land use projects throughout California. The model can be used for a variety of situations where an air quality analysis is necessary or desirable including California Environmental Quality Act (CEQA) documents.

- Debris Hauling*:* CalEEMod defaults were used assuming a truck hauling capacity of 20 cubic yards (or 540 cubic feet), and a round trip hauling distance of 30 miles.
- Excavation*:* Excavation volume is expected to be minimal (only that associated with new building foundation footings) as no below grade structures are proposed.
- Construction/Coating/Paving*:* CalEEMod defaults were automatically extrapolated from the above input. Architectural coating (painting) is assumed to rely on low-VOC paint pursuant to the requirements of SCA Air-1.

Standard Conditions of Approval

For all proposed projects, BAAQMD recommends implementation of all Basic construction control measures, whether or not construction-related emissions exceed applicable thresholds of significance. The Project would be subject to these Basic construction control measures through implementation of the City's Standard Conditions of Approval **SCA Air-1**, including but not limited to:

- minimizing idling times by shutting equipment off when not is use or reducing the maximum idling time to five minutes;
- maintaining and properly tuning all construction equipment in accordance with the manufacturer's specifications;
- achieving an off-road equipment fleet-average of 20% NOx reduction and 45% particulate matter reduction compared to the most recent CARB fleet average;
- using low volatile organic compound coatings that are more stringent than local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings).

These standard conditions of approval are incorporated into the CalEEMod air quality model as input. The CalEEMod output sheets are included in **Appendix 4.2A**.

Based on this input data, the average daily criteria pollutant emissions associated with Project-related construction activity is identified in **Table 4.2-5** for reactive organic gases (ROG) and nitrogen oxides (NO_x) (two precursors of ozone) and particulate matter (PM_{10} and $PM_{2.5}$).

Table 4.2-5: Project Construction Emission Estimates, Average Daily Emissions (in Pounds Per Day)

	Reactive Organic Gases	Nitrogen Oxides	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Phase I Construction				
Average Daily Regional Emissions	28	28	0.9	0.9
Phase II Construction				
Average Daily Regional Emissions	42	33	1.0	1.0
Significance Threshold	54.0	54.0	82.0	54.0
Exceed?	No	No	No	No

Source: Lamphier-Gregory, 2010

As indicated in the table, Project-related average daily construction emissions would not exceed the City's significance thresholds for ROG, NO_x, PM_{10} or $PM_{2.5}$. Thus, the Project's regional ozone

precursor emissions and regional particulate matter emissions during construction would be less than significant.

Mitigation Measures

None needed

Construction Period Health Risks to Adjacent Sensitive Receptors

Impact Air-3: The proposed Project's construction-related emissions would not result in the estimated cancer risk, chronic health index, acute health index or annual average $PM_{2.5}$ concentration levels exceeding the individual source significance threshold. **(LTS)**

An analysis of local risk and hazard impacts (including hazards from fine particulate matter ($PM_{2.5}$) concentrations) resulting from the proposed Project's construction activities has been prepared. The Project's construction entails the commercial building construction as well as roadway construction to the south and west of the site. The Project's construction is scheduled to occur for 20 months spanning two construction phases from July 2013 to March 2015, and is proposed to consist of the following:

- Demolition of all 185,500 square feet of existing commercial buildings.
- Construction of approximately 323,000 square feet of new commercial buildings, including a Safeway grocery store, retail, office, and restaurant spaces.
- Construction of surface parking, rooftop parking, and a three-level above-ground parking garage totaling approximately 967 parking spaces.

The roadway construction to the south of the site is expected to occur for approximately 5 months (from June 2014 to October 2014), and the roadway construction to the west of the site is expected to occur for approximately 3 months (from June 2014 to August 2014). Roadway construction is proposed to consist of demolition, installing new traffic signals, paving and landscaping.

Toxic Air Contaminants (TAC) Emissions

Project construction-related TAC emissions are due to fuel-combusting construction equipment and mobile sources. Construction-related emissions of reactive organic gases (ROG) and particulate matter (PM_{10} and $PM_{2.5}$) from construction equipment and mobile sources were calculated from CalEEMod model results. Emission of diesel particulate matter (DPM) is assumed to be equal to PM_{10} emissions. To estimate construction-related total particulate matter (PM_{10} and $PM_{2.5}$) emissions and maximum daily total organic gases (TOG) emissions, CalEEMod incorporated the Project's equipment list and usage information[10][11] and calendar year-specific emission factors for 2013-2015 from OFFROAD2007. Equipment load factors in CalEEMod are obtained from OFFROAD2007.

Exhaust PM_{10} emissions from off-road equipment from on-site and roadway construction were used to estimate annual average DPM concentrations. Exhaust and fugitive $PM_{2.5}$ emissions from on-site construction and exhaust $PM_{2.5}$ emissions from roadway construction were used to estimate annual average $PM_{2.5}$ concentrations. CalEEMod's daily maximum output of ROGs were converted to total

[10] CalEEMod provided default phase duration, equipment list and activity was used to estimate emissions for site construction. For roadway construction, the Project sponsor provided phase duration, equipment list and activity estimate emissions.

[11] CalEEMod GHG and criteria pollutant construction emissions include on-site and off-site vehicle activity as well as non-mobile emissions such as those from architectural coatings.

organic gases (TOG) based on guidance from USEPA.[12] Emissions calculated by CalEEMod were reduced by 33% to account for errors in the load factors in the OFFROAD2007 database included in CalEEMod, consistent with guidance from ARB.[13] PM_{10} and $PM_{2.5}$ emissions were further reduced by 45% per City Standard Conditions of Approval (SCA Air-1). PM_{10} and $PM_{2.5}$ emissions were even further reduced by 45% per BAAQMD CEQA Guidelines to account for the 2-minute idling restriction in the Oakland SCA.[14]

TAC emissions from construction are shown in **Table 4.2-6**. Detailed calculations and assumptions along with the CalEEMod outputs are provided in Appendix 4.2A.

Table 4.2-6: TAC Emissions from Construction

Construction Phase	Timeline	DPM (tons)	PM2.5 (tons)	TOG (max. lbs/day)
On Site	July 2013-Mar 2015	0.16	0.35	10
Roadway, south	June 2014 – Oct. 2014	0.0041	0.0041	1.6
Roadway, north	June 2014 – Aug 2014	0.0041	0.0041	0.83

Source: ENVIRON, Intl.., October 2012

For modeling purposes, annual average emissions of PM_{10} and $PM_{2.5}$ (expressed in grams per second), were derived by taking the total emissions and dividing by the construction duration (days), number of working hours per day, and 3,600 to convert from hours to seconds. Maximum hourly emissions of TOGs (expressed in grams per second) were derived by the maximum daily TOG emissions from on-site and from roadway construction divided by the number of working hours per day, and 3,600 to convert from hours to seconds. It is conservatively assumed that the maximum daily emissions from on-site construction occur concurrently with the maximum daily emissions from the roadway construction. Modeled construction-related emission rates for TOG, PM_{10} and $PM_{2.5}$ (in grams per second) are also shown in Appendix 4.2B.

Project Construction Risks

Project construction-related risks were analyzed by estimating ambient air concentrations of diesel particulate matter (DPM), $PM_{2.5}$, and total organic gases (TOG). To estimate air concentrations, AERMOD (a Gaussian air dispersion model) was used. Additional details on the air dispersion modeling are presented in Appendix 4.2B. AERMOD incorporates emission factors, source parameters and 5 years

[12] USEPA. 2010. Conversion Factors for Hydrocarbon Emission Components. July. Available online at: http://www.epa.gov/oms/models/nonrdmdl/nonrdmdl2010/420r10015.pdf. Accessed October 11, 2012

[13] In September 2010, the ARB announced that its methods used to estimate the load factor for off-road equipment were incorrect and led to an overestimate of emissions by a factor of at least 33%. ARB is currently revising their emissions model, OFFROAD, which has not yet been released. In the meantime, direction from ARB is to reduce the load factors by 33% to take into account this error. The slides from the ARB workshop discussing this change are available online at: http://www.arb.ca.gov/msprog/ordiesel/documents/emissions_inventory_presentation_full_10_09_03.pdf. Accessed October 11, 2012

[14] BAAQMD. 2012. California Environmental Quality Act Air Quality Guidelines. May. Available online at:http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_Final_May%202012.ashx?la=en. Accessed September 21, 2012.

of meteorological data to estimate air concentrations of inert pollutants. As discussed above, emission rates were developed using data from CalEEMod. A 20-meter-by-20-meter array of volume sources was used to represent construction activity at the site. Roadway construction activity was represented by an array of 10-meter-by-10-meter volume sources. Construction activities are assumed to occur only in the daytime between 7 a.m. and 5 p.m. Hence emissions were modeled for the hours of 7 a.m. to 5 p.m. only. The model was run with 5 years of upper air and surface data from year 2007 to 2011, obtained from the meteorological station at the Oakland Airport, the most representative station in the vicinity of the Project. The met data meets BAAQMD's 90% completeness by quarter requirement since it has less than 10% of the hours missing when evaluated on a quarterly basis.

The calculation of concentrations for use in a health risk assessment (HRA) requires the selection of appropriate concentration averaging times. The annual average DPM and $PM_{2.5}$ dispersion factors were modeled for use in calculating the cancer risks and chronic non-cancer hazards associated with DPM emissions and annual average $PM_{2.5}$ concentration associated with $PM_{2.5}$ emissions. The maximum hourly dispersion factor was modeled to determine acute hazards associated with speciated emissions of TOG. The urban setting was used, to better reflect the characteristics of the surrounding area. An array of receptors with 10-meter spacing extending out to 1,000 feet from the Project boundary was used over all land uses. Receptors were placed on four vertical levels to account for multi-story residences, at 1.8 meters to simulate adult breathing height, in accordance with BAAQMD Guidance, and at 4.8, 7.8 and 10.8 meters to simulate a second, third and fourth story, respectively.

There are numerous sensitive receptors that are within 200 meters from the edge of the Project site, including:

- approximately 20 single-family homes west of Broadway along Desmond and Coronado Streets (approximately 280 meters from the existing CVS, and about 120 meters from the construction zone for the other retail buildings near Broadway),
- several multi-family housing developments south of Pleasant Valley Avenue (approximately 210 meters from the existing CVS, and about 40 meters from the construction zone for the other retail buildings near Pleasant Valley Avenue),
- the California College of the Arts (approximately 90 meters from the existing CVS, and about 40 meters from the construction zone for the other retail buildings at the northerly portion of the site), the Far West Alternative School (approximately 100 meters from the existing CVS, and 210 meters from the construction zone for the other retail buildings at the northerly portion of the site), and an apartment building (about 60 meters but uphill of the quarry slope from the existing CVS, and about 40 meters from the construction zone for the other retail buildings at the northerly portion of the site) to the north, and
- approximately 20 single-family homes along Montgomery (approximately 145 meters from the existing CVS, and about 270 meters from the construction zone for the other retail buildings) and several single-family and multi-family housing developments on View Place (approximately 175 meters from the existing CVS, and about 130 meters from the construction zone for the other retail buildings) west of the Project site.

Each of the sensitive receptor locations was included in the model array.

Cancer risk, chronic health index (HI), and acute health index (HI) were calculated from ambient annual and hourly concentrations using intake factors, cancer potency factors, and chronic and acute reference exposure levels calculated consistent with Office of Environmental Health Hazard Assessment

(OEHHA)[15] and BAAQMD[16] guidance. As shown in **Table 4.2-7**, the chronic HI, acute HI, and annual $PM_{2.5}$ concentration are below the thresholds.

Table 4.2-7 Construction-Period Health Risk Analysis for Off-Site Sensitive Receptors

	Cancer Risk (per million)	Chronic Health Risk (Index #)	Acute Health Risk (Index #)	PM2.5 Concentration (ug/m^3)
Calculated Value at Max Exposed Individual Sensitive Receptor (Cal. College of Arts)	6	0.008	0.13	0.09
Threshold	10	1	1	0.3
Exceed Threshold?	No	No	No	No

Source: ENVIRON, December 2012

Construction-related cancer risks are estimated to be 6-in-a-million at the off-site maximally exposed individual sensitive receptor (MEISR). This is less than the 10-in-a-million threshold. The location of the MEISR is at the California College of the Arts, which is not a residential location. All receptor locations, including the MEISR, were conservatively evaluated with resident child exposure parameters since it would result in higher risks than any other sensitive population. Exposure parameters can be found in Appendix 4.2B. Since the MEISR is the highest off-site cancer risk, all other locations would have lower risks and fall under threshold levels.

Mitigation Measures

None needed

Operational Related Criteria Air Pollutants

Impact Air-4: Once complete and occupied, the proposed Project would generate emissions of criteria pollutants (ROG, NO_x and PM_{10}), primarily as a result of increased motor vehicle traffic and also from area source emissions. Project-related traffic emissions, combined with anticipated area source emissions, would not generate emissions of criteria air pollutants that would exceed the City's thresholds of significance. (**LTS**)

The City's thresholds of significance consider operational emission to result in a significant impact if the additional maximum operational emissions of criteria air pollutants would exceed 54 pounds per day or 10 tons per year of ROG, NO_x and $PM_{2.5}$, and 82 pounds per day or 15 tons per year of PM_{10}.

The CalEEMod Version 2001.1.1 computer program was used to calculate both the existing baseline criteria pollutant emissions generated by operation of the existing shopping center, and the criteria pollutant emissions generated by operation of the proposed new shopping center (the Project).

[15] Cal/EPA. 2003. The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. Office of Environmental Health Hazard Assessment. August

[16] BAAQMD. 2010. Air Toxics NSR Program Health Risk Screening Analysis (HRSA) Guidelines. January. Available online at: http://baaqmd.gov/~/media/Files/Engineering/Air%20Toxics%20Programs/hrsa_guidelines.ashx. Accessed October 11, 2012

For both of these scenarios, location factors related to the Project site have been included into the analysis as provided for in the model. These factors include its location in a fairly higher-density urban environment with a broad mix of surrounding uses, the general availability of transit (AC Transit busses traveling the Broadway corridor, and the amount of sidewalks and bike paths provided within a 1-mile square area surrounding the site. CalEEMod input assumptions and output sheets are included as Appendix 4.2B.

The maximum daily and total annual emissions of criteria pollutants (ROG, NO_x, PM_{10} and $PM_{2.5}$) generated by the proposed Project operations are shown below in **Table 4.2-8**. From these Project emissions, the current "baseline" emissions from the existing shopping center have been subtracted out, resulting in a net increase in criteria pollutants associated with the Project. These net new increases in criteria pollutants are then compared to the City's significance thresholds to determine significance.

Table 4.2-8: Project Operational Emission Estimates (2013)

	Reactive Organic Gases	Nitrogen Oxides	PM_{10} (total)	$PM_{2.5}$ (total)
Daily Emissions (lbs/day)				
Operations (Vehicle Emissions)	56.9	132.6	50.4	5.8
Area Source Emissions	8.2	0	0	0
Energy Emissions	0.5	1.1	0	0
Total Regional Emissions	65.6	133.7	50.4	5.8
Less Baseline (Existing Operational Emissions)	- 49.3	- 105.2	- 3.0	- 3.0
Net Additional Area/Operational Emissions	*16.4*	*28.5*	*47.4*	*1.2*
Significance Threshold	54.0	54.0	82.0	54.0
Exceed?	No	No	No	No
Annual Emissions (tons/yr)				
Operations (Vehicle Emissions)	10.4	24.2	9.2	1.0
Area Source Emissions	1.5	0.1	0	0
Energy Emissions	0.1	0.2	0	0
Total Regional Emissions	12.0	24.4	9.2	1.0
Less Baseline (Existing Operational Emissions)	- 9.0	- 19.2	- 7.6	- 0.9
Net Additional Area/Operational Emissions	*3.0*	*5.2*	*1.6*	*0.1*
Significance Threshold	10	10	15	10
Exceed?	No	No	No	No

Source: Lamphier-Gregory, 20011

Project-related emissions, as shown in Table 4.3-6, would not exceed the City's thresholds of significance for ROG, NO_x, PM_{10} or $PM_{2.5}$. Therefore, criteria pollutant emissions during project operations would have a less than significant effect on regional air quality.

Standard Conditions of Approval

Although the Project's net increase in emissions would not exceed the applicable thresholds, these emissions would be even further reduced with implementation of Standard Condition of Approval **SCA**

Trans-1: Parking and Traffic Management Plan (see Chapter 4.11). This condition requires the project applicant to develop and implement a Transportation Demand Management Plan for the Project capable of further reducing single-occupant vehicle use at the site through a variety of strategies including enhancement and promotion of transit and other alternative modes of travel.

Mitigation Measures

None needed

Operational Toxic Air Emissions

Impact Air-5: The Project would include a back-up generator that would emit small amounts of toxic emissions. (**LTS**)

The Project includes a 60-kW natural gas-fired emergency generator, a source of operational-related TAC and $PM_{2.5}$ emissions. This emergency generator will support the Safeway supermarket in the unlikely event of a power outage. Emission factors from the California Air Toxics Emission Factors (CATEF)[17] and the USEPA's AP-42[18] were used to estimate TAC and $PM_{2.5}$ emissions for the natural gas internal combustion engine, in accordance with BAAQMD permit evaluation guidance.[19] For emissions estimation purposes, it was assumed that the emergency generator would be permitted for 100 hours. Detailed emissions calculations can be shown in Appendix 4.2B. Based on these calculations, annual average emissions and maximum hourly emissions of TACs do not exceed any BAAQMD TAC Trigger Levels, the emission threshold levels below which the resulting health risks are not expected to cause, or contribute significantly to, adverse health effects.

The concentrations of $PM_{2.5}$ from the natural gas emergency generator was estimated and compared to the operational-related $PM_{2.5}$ concentration threshold. Concentrations were estimated using the USEPA SCREEN3 model using worst-case meteorological conditions. The calculation of emissions using the SCREEN3 model with worst-case meteorological conditions is very conservative and typically provides calculations that are higher than actual concentrations. The model was conducted taking into account the effects that the buildings would have on air movement, as well as both simple and complex terrain algorithms to account for elevated terrain immediately north of the Safeway building. Since the exact location of the emergency generator has not yet been identified, this analysis conservatively assumes that the highest concentration estimated by the SCREEN3 model to potentially occur at any receptor. Using all the foregoing conservative assumptions, the highest annual-average concentration of $PM_{2.5}$ as estimated by the SCREEN3 model is 0.02 $\mu g/m^3$. This value is substantially lower than the individual project threshold of 0.3 $\mu g/m^3$. This would be a less-than-significant impact.

Mitigation Measures

None needed

[17] Available at: http://www.arb.ca.gov/ei/catef/catef.htm Accessed 11/14/2012

[18] Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources. Chapter 3.2 Natural Gas-fired Reciprocating Engines. Available at: http://www.epa.gov/ttn/chief/ap42/ch03/final/c03s02.pdf (Accessed 11/14/2012)

[19] BAAQMD Permit Handbook. Section 5.2.3.2. Stationary Natural Gas Engines. Available at: http://hank.baaqmd.gov/pmt/handbook/rev02/PH_00_05_02_03_02.pdf (Accessed 11/14/2012)

Carbon Monoxide Concentrations

Impact Air-6: New vehicle trips associated with the proposed Project would add to carbon monoxide concentrations near streets that provide access to the Project site. The carbon monoxide emission levels associated with the Project's vehicle trips would not exceed the City's thresholds of significance. (**LTS**)

Vehicular traffic associated with the project would emit carbon monoxide (CO) into the air along roadway segments and near intersections. Since CO does not readily disperse, areas of vehicle congestion can create pockets of high CO concentrations called "hot spots." Typically, high CO concentrations are associated with roadways and intersections operating at deficient levels of service (LOS) or with extremely high traffic volumes.

Emissions and ambient concentrations of carbon monoxide have decreased greatly in recent years. These improvements are due largely to the introduction of cleaner burning motor vehicles and motor vehicle fuels. No exceedance of the State or national CO standard has been recorded at any of the Bay Area's monitoring stations since 1991. The Bay Area has attained the state and national CO standard.[20] However, because elevated CO concentrations are generally fairly localized, heavy traffic volumes and congestion can lead to high levels of CO, or "hot spots," while concentrations at the closest air quality monitoring station may be below state and national standards.

The City's thresholds of significance indicate that a project contributing to CO concentrations exceeding the California Ambient Air Quality Standard (CAAQS) of 9 parts per million (ppm) averaged over 8 hours and 20 ppm for 1 hour would be considered to have a significant impact. A project is unlikely to exceed these thresholds if the following conditions are met: [21]

Is the project 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 is the redevelopment of a shopping center and does not involve any roadway modifications. It is consistent with the 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.

Would the project result in an affected intersection experiencing more than 44,000 vehicles per hour, or 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)?

> The proposed Project would not contribute a substantial number of vehicle trips to any intersection experiencing more than 44,000 vehicles per hour, or to any intersection experiencing more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited. Peak hour traffic volumes at all surrounding intersections are well below the 44,000 vehicle-per-hour criteria and are projected to remain below that level in 2015 and 2030.

Since the Project would not exceed these conditions, the Project would be expected to result in a less-than-significant impact to air quality from CO concentrations.

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[20] California Air Resources Board, *2006 Area Designations for State Ambient Air Quality Standards – Carbon Monoxide*, Figure 4 (http://www.arb.ca.gov/desig/adm/2006/state_co.pdf) and *February 2009 Area Designations for National Ambient Air Quality Standards – Carbon Monoxide* (http://www.arb.ca.gov/desig/adm/2008/fed08_co.pdf).

[21] BAAQMD, May 2010 CEQA Guidelines

Mitigation Measures

None needed

Odor

Impact Air-7: The proposed Project would not frequently create substantial objectionable odors affecting a substantial number of people. (**LTS**)

Under the City of Oakland's thresholds of significance, odor impacts that could result from siting a new odor source near existing sensitive receptors or siting a new sensitive receptor near an existing odor source would cause a significant impact. Examples of land uses that have the potential to generate considerable odors include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The proposed Project would not include uses that have been identified by the City of Oakland as potential sources of objectionable odors. The operation of the proposed Project would not generate objectionable odors. The proposed Project includes grocery, restaurant and other retail uses that could generate cooking odors that are not normally considered objectionable. Additionally, any food services would need to comply with local ordinances regarding trash maintenance and appropriate ventilation of cooking areas.

The proposed Project would have a less than significant odor impact because it would not frequently create substantial objectionable odors affecting a substantial number of people.

Mitigation Measures

None needed

Cumulative Air Quality Impacts

Cumulative Impact Air-8: The Project would not individually result in a considerable contribution to a significant cumulative impact to air quality, and the cumulative impact would be considered less than significant. (**LTS**)

For purposes of this cumulative analysis, the geographic context considered for cumulative air quality impacts is the regional air basin, which contributes to regional emissions of criteria pollutants, and basin-wide projections.

The San Francisco Area Air Basin (SFBAAB) is currently designated as a non-attainment area for state and national ozone standards and national particulate matter ambient air quality standards. SFBAAB's non-attainment status is attributed to the region's development history. Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is unnecessary.

According to City of Oakland significance thresholds, any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. However, since the Project would not result in a significant air quality impact, the Project would

not individually contribute significantly to a cumulatively considerable impact to air quality, and the cumulative impact would be considered less than significant.

Mitigation Measures

None needed

Cumulative Health Risks

Cumulative Impact Air-9: The proposed Project's construction-related emissions and operation emissions would not lead to a cumulatively significant risk for cancer, chronic health, acute health or annual average $PM_{2.5}$ concentrations that would exceed the cumulative source significance thresholds. (**LTS**)

The following provides an evaluation of cumulative risks from all off-site sources within 1,000 feet from the Project boundary, as well as from on-site sources, to evaluate the cumulative impact on off-site receptors.

Off-site Stationary Sources

BAAQMD has developed a Stationary Source and Risk Analysis Tool ("BAAQMD Risk Analysis Tool") for permitted sources to identify off-site stationary sources of TACs. The BAAQMD Risk Analysis Tool for Alameda County has been used to compile a list of potential stationary sources to be evaluated within 1,000 feet of the Project boundary. Five stationary sources, consisting of one diesel generator, one co-generation plant and three gas dispensing facilities were identified within 1,000 feet of the Project. The impacts of these sources were estimated using a distance-based multiplier for diesel engines from the BAAQMD Diesel Internal Combustion (IC) Engine Distance Multiplier Tool[22] and using BAAQMD Distance Adjustment Multiplier for Gasoline Dispensing Facilities.[23] For the Claremont Country Club gas dispensing facility (where screening values were not available) and for the Claremont House co-generation plant (which is composed of a diesel engine and gas fired cogeneration unit), impacts were estimated using BAAQMD-provided emissions data and screening level risk calculator.

Roadways

The impacts of roadways were analyzed consistent with the BAAQMD CEQA Guidelines. BAAQMD provides screening tools to assess the impact of roadways on nearby receptors. The estimated cancer risk from the roadways obtained using the screening tool for surface streets depends on the distance between the receptor and the nearest travel lane of the roadway, the average number of vehicles that travel on the roadway in a day, and the orientation of the roadway. The distance between the receptor and the roadway was determined using geographical information software, and the average daily traffic (ADT) was obtained from data reported by the California Environmental Health Tracking Program.[24] When the roadway ADT or distance between a receptor and a roadway is between two values in the screening

[22] BAAQMD 2012. Diesel Internal Combustion (IC) Engine Distance Multiplier Tool. June. Available online at: http://baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/Multiplier%20Tools%20May%202012/Diesel%20IC%20Engine%20Multiplier%20Tool.ashx?la=en. Accessed October 11, 2012

[23] BAAQMD 2012. Gasoline Dispensing Facility (GDF) Distance Multiplier Tool. June. Available online at: http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/Multiplier%20Tools%20May%202012/Diesel%20IC%20Engine%20Multiplier%20Tool.ashx?la=en. Accessed October 11, 2012

[24] California Environmental Health Tracking Program traffic spatial linkage web service. Available online at: http://www.ehib.org/traffic_tool.jsp. Accessed October 11, 2012

tables, linear interpolation was performed to obtain the cancer risk at the reported distance and ADT. Four roadways were identified within the 1,000 foot zone of influence with daily traffic greater than 10,000 vehicles: Pleasant Valley Avenue, Broadway, Broadway Terrace and College Avenue.

Cumulative Impacts on Off-Site Receptors

Table 4.2-9 shows the maximum estimated cancer risk, chronic HI, and PM2.5 concentration from the stationary sources at the maximum exposed individual receptor (MEIR) off-site. The cumulative impacts evaluation was completed for the off-site MEIR by summing the impacts from Project construction, off-site stationary sources and nearby roadways. As shown, the sum of cancer risks is less than the CEQA cumulative threshold of 100 in a million. Similarly, the estimated chronic HI and the annual average $PM_{2.5}$ concentrations fall below the corresponding significance thresholds for cumulative impacts.

Cumulative Impacts on Off-Site Receptors (Operational)

TAC emissions from the natural gas-fired emergency generator are not expected to lead to adverse health effects. However, there is some incremental contribution to $PM_{2.5}$ concentrations as a result of the operation of the emergency generator. The highest contribution to $PM_{2.5}$ concentration from off-site sources would be due to roadways. Specifically, a location near the proximity of College Avenue, Broadway Avenue, and Broadway Terrace would likely have the highest contribution to $PM_{2.5}$ concentration from offsite sources. If it were to be assumed that the highest concentration of $PM_{2.5}$ from the emergency generator would be at this location, the cumulative $PM_{2.5}$ concentration would be 0.66 $\mu g/m^3$. This concentration would not exceed the cumulative threshold of 0.8 $\mu g/m^3$. This approach is very conservative in that the actual operational $PM_{2.5}$ from the natural gas fired emergency generator would likely be much closer to the location of the Safeway store, and therefore would have dramatically lower contributions from the roadways.

Mitigation Measures

None needed

Table 4.2-9: Cumulative Community Risks and Hazards

	During Construction			During Operation
Facility	**Cancer Risk (# in 1 million)**	**Chronic HI**	**$PM_{2.5}$ Concentration. (ug/m^3)**	**$PM_{2.5}$ Concentration. (ug/m^3)**
Project Construction/Operation	6.0	0.008	0.09	0.02
Claremont County Club (5295 Broadway Terrace)	0.04	0.00001	NA	NA
Unocal (5300 Broadway)	0.28	0.0004	NA	NA
Claremont House (4500 Gilbert Street)	0.93	0.0049	0.008	0.008
Betts Sud Machine (4400 Piedmont Avenue)	0.1	0.000015	NA	NA
Pleasant Valley Ave.	1.6	< 0.03	0.1	0.03
Broadway Ave.	4.3	< 0.03	0.18	0.27
Broadway Terrace	0.9	< 0.03	0.03	0.14
College Ave.	2.4	< 0.03	0.10	0.22
Total	**16.3**	**0.12**	**0.44**	**0.66**
Cumulative Threshold	100	10	0.8	0.8
Exceed Cumulative Threshold?	No	No	No	No

Source: ENVIRON, 2012

4.3

Biological Resources

This section evaluates the proposed Project's potential impacts on biological resources. This section describes the existing biological resources in the vicinity of the site and evaluates the changes that development of the Project might have with respect to biological resources. The analysis and discussion in this section of the EIR is based primarily on the following:

- *Biological Resources Evaluation*, prepared for this EIR by AECOM, May 1, 2009.
- *Tree Inventory and Assessment Report*, prepared for this EIR by AECOM, revised December 3, 2010.[1]

Setting

Existing Biological Resources at the Project Site

On Site Trees

Although it has been supporting a wide range of commercial uses and associated parking spaces for more than 40 years, the Project site contains mature landscaping. As required by the City of Oakland, a survey of all existing protected trees either on the site or within 10 feet of development activity has been completed. Pursuant to the City of Oakland Tree Protection Ordinance, the City of Oakland defines protected trees as California and coast live oaks measuring four inches in diameter at breast height (dbh) or larger, and all other trees measuring nine inches dbh, except eucalyptus and Monterey pine. However, Monterey pines are protected when located on city property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed.

Vegetation on the site consists mainly of ruderal grasses and forbs on the cliff face and around the north side of the quarry pond, and large stands of non-native blue gum (*Eucalyptus globulus*) on top of the cliffs to the north and the east and south above the quarry pond. Other vegetation on site is comprised of landscape ornamental plantings around the buildings and parking lot.

The most abundant trees on the Project site are blue gum, found in large stands on the cliff top and surrounding the quarry pond to the north, east and south. The blue gums and other eucalyptus species are excluded from protection under the City's ordinance. The interior parking lot islands do not contain protected trees. Many of the trees in the parking lot islands are young and are smaller than the minimum size requirement for protection under the municipal code. Coast live oaks with a dbh less than 4 inches are located within the parking islands, although the majority of oaks found in the parking lot area are holly oaks (*Quercus illicifolia*), none of which are protected due to their small size.

A total of 30 protected trees and three Monterey pines (33 trees representing 11 different species) were observed and tagged in the study area (which includes all areas to be affected during Project construction

[1] These reports are available for review at the City's Planning Division offices

plus a 30-foot buffer zone, including medians) during the tree inventory conducted on March 4, 2009 and December 1, 2010. The location of the protected trees is shown in **Figure 4.3-1**. **Table 4.3-1** lists each protected tree identified during the inventory.

Many of the protected trees are located in maintained landscape spaces around the buildings and parking lot. The other protected trees are found on the perimeter of the property, the median strips of Broadway and Pleasant Valley Avenue, or on the cliff north of the building complex. The most common protected tree species found in the study area were California sycamore (*Platanus racemosa*) and Cootamundra wattle (*Acacia baileyana*). Three of the 30 protected trees are Coast live oaks, which are native to the area. All three of these trees are found in the cliff at the north side of the building complex.

Of the 33 trees within the study area (including the 3 Monterey pines), 18 were rated good suitability for preservation, 8 were rated moderate, and 7 were rated poor. Trees rated "good" have good health and structural stability, and the potential for longevity at the site. Trees rated "moderate" may require more management and may have shorter life spans than those rated "good". Trees rated "poor" have poor health or significant structural defects that cannot be abated with treatment. Trees in this category can be expected to decline regardless of management practices.

Table 4.3-1: Tree Inventory Data

Tag	Latin Name	Common Name	DBH Total	DBH_1	DBH_2	DBH_3	DBH_4	DBH_5	Health	Structure	Age	Suitability for Preservation	Comment
575	Schinus molle	Peruvian pepper tree	14	14					3	2	mature	moderate	On cliffside behind Safeway growing straight out
576	Quercus agrifolia	Coast live oak	8.5	5	3.5				3	2	young	poor	stump w/ two trunk size sprouts
577	Acacia baileyana	Cootamundra wattle	10.6	10.6					2	2	over mature	poor	very lopsided growth; top largely dead
578	Acacia baileyana	Cootamundra wattle	12.5	7	5.5				2	2	mature	poor	canopy very thin; dual trunks at base; weak branch attachments
579	Acacia baileyana	Cootamundra wattle	36.6	4.5 x 2	4.0 x 5	3.0 x 2	1.6		1	1	over mature	poor	nothing but epicormic growth on main upright trunk; remainder dead
580	Acacia baileyana	Cootamundra wattle	13.5	3.5 x 2	2.5 x 2	1.5			3	3	mature	moderate	suppressed by large eucalyptus above; multi-trunked at base
581	Ulmus parvifolia	Chinese elm	12	12					3	4	mature	good	has had some large branches removed but healing and well corrected

Table 4.3-1: Tree Inventory Data

Tag	Latin Name	Common Name	DBH Total	DBH_1	DBH_2	DBH_3	DBH_4	DBH_5	Health	Structure	Age	Suitability for Preservation	Comment
582	Ulmus parvifolia	Chinese elm	11.9	11.9					3	3	mature	moderate	appears three large branches have torn out in the pase, 1 at base, with large areas where bark has been stripped
583	Platanus racemosa	California sycamore	9.1	9.1					3	4	mature	good	pruned up for clearance but done well, at early age
584	Platanus racemosa	California sycamore	9.4	9.4					3	3	mature	good	has more attachements close together than 583 but still o.k.
585	Olea europaea	olive	14.2	5.6	3.6	3.2	1.1	0.7	3	3	mature	good	typically multi-trunked; canopy a little thin but still fine
586	Pinus pinea	Italian stone pine	41.8	41.8					4	3	mature	good	dual-trunks at 5' though bark appears pressed at 3' - included?
587	Pinus radiata	Monterey pine	18.2	18.2					2	4	mature	poor	canopy is thin - to an extent that indicates a potential problem

Table 4.3-1: Tree Inventory Data

Tag	Latin Name	Common Name	DBH Total	DBH_1	DBH_2	DBH_3	DBH_4	DBH_5	Health	Structure	Age	Suitability for Preservation	Comment
588	Pinus radiata	Monterey pine	21.3	21.3					3	3	mature	moderate	pruned for wire clearance; slight lean - stress crack on lean-to side
589	Pinus radiata	Monterey pine	15.8	15.8					2	3	mature	poor	lots of branch tip dieback; some small branches dead; symptoms of drought stress for these Monterey pines?
590	Eriobotrya deflexa	bronze loquat	16.6	5.1	3.3 x 2	2.1	2	0.8	4	3	mature	good	multi-trunked at base
591	Platanus racemosa	California sycamore	10.9	10.9					3	4	mature	good	median tree
592	Platanus racemosa	California sycamore	10.3	10.3					3	3	mature	good	median tree
593	Platanus racemosa	California sycamore	12	12					4	4	mature	good	median tree
594	Platanus racemosa	California sycamore	15.8	15.8					3	4	mature	good	median tree; few epicormic sprouts on lower scaffold branches
595	Olea europaea	olive	14.4	7.8	6.6				4	3	mature	good	dual trunked at base
596	Acacia melanoxylon	blackwood acacia	15.8	15.8					4	3	mature	moderate	at top of cliff leaning out with some correction

Table 4.3-1: Tree Inventory Data

Tag	Latin Name	Common Name	DBH Total	DBH_1	DBH_2	DBH_3	DBH_4	DBH_5	Health	Structure	Age	Suitability for Preservation	Comment
597	Acacia melanoxylon	blackwood acacia	15.8	15.8					4	2	mature	moderate	two trees fused at base to 4.5’
598	Cedrus atlantica	Atlas cedar	24.5	24.5					4	4	mature	good	on top of cliff, away from ledge
599	Quercus agrifolia	Coast live oak	9.1	6.5	2.6				4	3	mature	good	slightly lopsided growth (slope side) but otherwise fine
601	Acacia baileyana	Cootamundra wattle	10	5.5	4.5				3	2	young	poor	stump w/lg trunk-sized sprouts; lg trunk ripped out w/area of rot
602	Quercus agrifolia	Coast live oak	5	5					3	4	mature	good	inaccessible to tag; canopy somewhat thin
603	Acacia melanoxylon	blackwood acacia	9	9					3	3	mature	moderate	on cliff, no access; leaning in; broken off limb at 3’
198	Platanus racemosa	California sycamore	9.5	9.5					4	4	mature	good	
199	Platanus racemosa	California sycamore	9.5	9.5					4	4	mature	good	very small wound w/rot near base
200	Platanus racemosa	California sycamore	12.9	12.9					4	3	mature	good	8"x12" wound near base
201	Platanus racemosa	California sycamore	9.2	9.2					2	3	mature	gpd	wounds at base; lots of small branch dieback; thin canopy

Table 4.3-1: Tree Inventory Data

Tag	Latin Name	Common Name	DBH Total	DBH_1	DBH_2	DBH_3	DBH_4	DBH_5	Health	Structure	Age	Suitability for Preservation	Comment
218	Platanus racemosa	California sycamore	13.0	13.0					4	3	mature	moderate	large wound on trunk, avg. 8" wide by 4' plus high from base; tree still appears vigorous

Tags 587, 588, 589 Not protected but written notice and public posting required for removal EDAW -Tree Inventory Report for the Rockridge Safeway Project

Source: EDAW | AECOM, *Tree Inventory and Assessment Report: Rockridge Safeway Project, Oakland, Alameda County, California*, revised December 2010

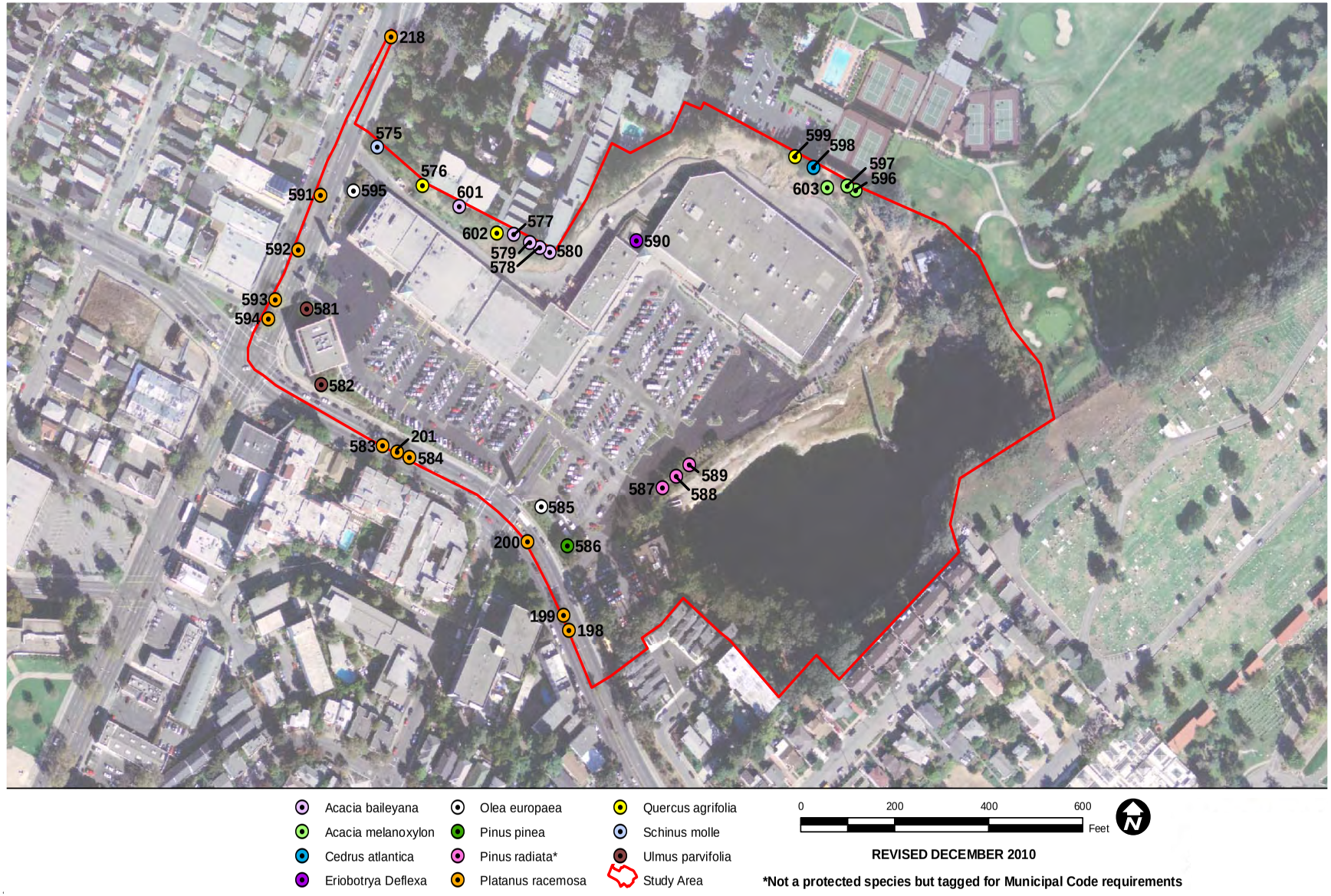

Figure 4.3-1
Protected Trees in the Study Area

Source: AECOM

Adjacent Biological Resources

Property immediately adjacent to the Project site contains areas of fairly dense vegetation, including a number of trees (some of which may be Protected Trees).

The Claremont Pond (also known as Old Quarry Pond) is an adjacent facility owned by the Claremont Country Club. The quarry pond serves mainly as a water storage facility which supplies the country club's irrigation needs for the golf course. As indicated above, it is also a potential habitat for local plants and wildlife. Although redevelopment of the Project site is not likely to have any direct effects on the quarry pond and its associated habitats, the area adjacent to the quarry pond is proposed for amenity improvements including new landscaping and a pedestrian path.

A reconnaissance-level site assessment was conducted on March 4, 2009. The entire study area (see **Figure 4.3-2**) was surveyed on foot, all distinct habitat types were identified, and all plant and wildlife species observed or detected by sign were recorded. This survey was intended as an initial evaluation of on-site habitat types and an assessment of the potential for occurrence of special-status plant and wildlife species within the study area. Although not part of the Project site, the quarry pond and surrounding banks were the primary focus of the survey, since they have some potential to provide biological value as compared with the developed shopping center at the Project site.

Plant Communities and Wildlife Habitats

The study area supports highly disturbed lands characterized by ruderal vegetation and ornamental landscape. Large stands of non-native blue gum (*Eucalyptus globules*) surround the quarry pond and dominate the cliff tops on the north side of the study area. A very small patch of coyote brush (*Baccharis pilularis*) is present on the northeast portion of the study area adjacent to the Claremont Country Club. Vegetation communities and wildlife habitats present within the study area are shown in **Figure 4.3-3**.

Wildlife habitats are typically distinguished by vegetation types, with varying combinations of plant species providing different resources for use by wildlife. The following is a discussion of existing habitats found in the study area, and the wildlife species they have the potential to support. Because most of the study area is developed, its value to wildlife species is greater for those that can persist in disturbed areas with little habitat complexity, and are habituated to human activities.

Within the study area, eucalyptus woodlands are located on the cliff tops to the north and surrounding the quarry pond. Here, the canopy is dominated by Tasmanian blue gum trees 40 to 80 feet in height. The understory supports mostly non-native grasses such as wild oats (*Avena fatua*) and ripgut brome (*Bromus diandrus*). Occasional related species present are blackwood acacia (*Acacia melanoxylon*) and Cootamundra wattle (*Acacia baileyana*). Eucalyptus woodland is not a native plant community, and is not described in Sawyer and Keeler-Wolf (1995); it would be classified as an upland following Cowardin *et al.* (1979).

Non-native woodlands provide cover for reptiles, amphibians, mammals and potential nest sites for avian species. Locations where understory vegetation is inhibited, such as the eucalyptus woodland found in the study area, provide less structure and cover for understory and ground foraging and nesting species. Although the characteristics of trees required by birds varies by species, the highest quality trees for birds tend to be those that are large (i.e., are tall and have a large diameter at breast height) and have large branches to support nests, dense foliage to conceal nests, peeling bark, and/or cavities. The large eucalyptus trees in the study area have potential to support nesting and foraging birds (via flowers, seeds and associated insects), including raptors, passerines and wading birds. Eucalyptus stands in the study area have the potential to support waterbird nests, especially given the adjacency of aquatic foraging habitat, although no evidence of such nests was detected during the EDAW surveys or discovered during EDAW research.

Figure 4.3-2
Project Study Area for Biological Resources

Source: AECOM

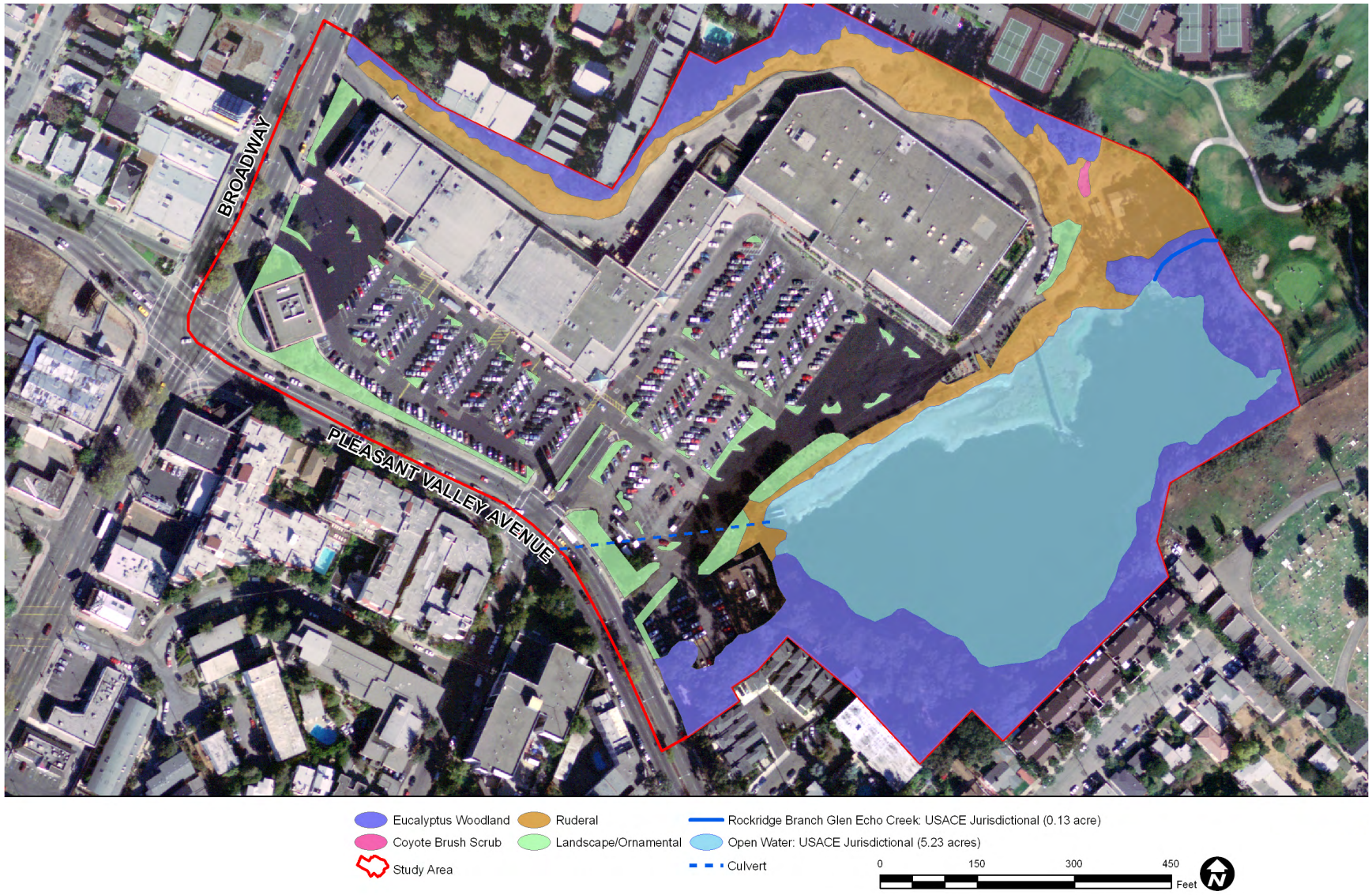

Figure 4.3-3
Study Area Vegetation Communities and Wildlife Habitats

Source: AECOM

Ruderal Vegetation

Ruderal vegetation is typical of disturbed lands on which the native vegetation has been completely removed by human activities such as grading, disking, cultivation or other surface disturbances. Such areas, if left undeveloped, may become re-colonized by invasive exotic species as well as certain weedy native species. It is usually dominated by non-native annual species, although perennial species may also be a significant component.

Ruderal vegetation in the study area is found on the cliff face to the north and along the west side of the quarry pond. Common non-native plant species found in the study area include wild oats, ripgut brome, scotch broom (*Genista monspessulana*), English ivy (*Hedera helix*), fennel (*Foeniculum vulgare*), wild radish (*Raphanus sativa*), mustard (*Brassica sp.*), cheeseweed (*Malva parviflolia*), spiny sowthistle (*Sonchus asper*), cranesbill (*Geranium dissectum*), and redstem fillaree (*Erodium cicutarium*). Native species present were miner's lettuce (*Claytonia perfoliata*), California poppy (*Eschscholzia*), and narrowleaf milkweed (*Asclepias fascicularis*). Ruderal vegetation as it occurs in the study area is not specifically described by Sawyer and Keeler-Wolf (1995), although portions of it conform to the California annual grassland series. Ruderal vegetation in the study area would be classified as upland following Cowardin *et al.* (1979).

Wildlife species generally associated with disturbed ruderal lands that would be expected to occur in the study area include raccoon (*Procyon lotor*), opossum (*Didelphus virginianus*), European starling (*Sturnus vulgaris*), and mourning dove (*Zenaida macroura*). Killdeer (*Charadriusa vociferous*) are also often associated with open disturbed substrates. Other wildlife species that are common in disturbed landscapes and adapted to human activity which likely occur in ruderal vegetation in the study area include house mice (*Mus musculus*), black rat (*Rattus rattus*), American crow (*Corvus brachyrhynchos*), western scrub jay (*Aphelocoma californica*), and Brewer's blackbird (*Euphagus cyanocephalus*), among others. The lack of woody vegetation limits nesting opportunities primarily to ground nesting birds such as killdeer (*Charadrius vociferous*). Rodents provide foraging opportunities in open ruderal areas for larger birds such as raptors and herons that may nest in eucalyptus woodlands in the study area.

Landscaped/Ornamental Lands

Landscaped lands are those on which the native vegetation has been completely removed and replaced with ornamental horticultural species. These areas include planting beds, parking lot islands, planter boxes and median strips. Such areas are not expected to support any naturally occurring vegetation, although invasive native and non-native plant species frequently colonize landscaped sites. Landscaped areas have little potential to support unique or rare botanical resources.

Landscaped/Ornamental lands within the study area include the parking lot islands and surrounding planter beds, the median strips and the ornamental landscaping surrounding the buildings. Landscape/ornamental species found within the study area include holly oak (*Quercus ilex*), Italian stone one (*Pinus pinea*), olive (*Olea europaea*), bronze loquat (*Eriobotrya deflexa*), Chinese juniper (*Juniperus chinensis*), box (*Buxus sempervirens*), Japanese pittosporum (*Pittosporum tobira*), African lily (*Agapanthus africanus*), English ivy and gazania (*Gazania linearis*). Disturbed/landscaped lands as they occur in the study area are not specifically described by Sawyer and Keeler-Wolf (1995) and would be classified as upland following Cowardin *et al.* (1979).

Landscaped and ornamental vegetation in the study area provides habitat for many of the same wildlife species as ruderal areas, although trees and shrubs provide more structure for foraging and nesting birds. House finches (*Carpadacus mexicanus*) and house sparrows (*Passer domesticus*) are common in such habitats.

Coyote Brush Scrub

Coyote brush scrub is considered a sub-type of northern (Franciscan) coastal scrub. It differs primarily by the dominance of coyote brush. These scrub types consist of low shrubs up to six feet tall with a well-developed herbaceous or low woody understory. Vegetative cover is mostly dense with scattered grassy openings. While northern coastal scrub is best developed on windy, exposed sites with shallow, rocky soils, an increase in soil depth and moisture availability seems to favor dominance by coyote brush. This vegetation community is distributed in patches from southern Oregon to Point Sur in Monterey County (Holland 1986).

In the northeast of the study area by the Claremont Country Club is a small parch of coyote brush best described as coyote brush scrub. Coyote brush is the sole shrub in this area. The understory is ruderal vegetation dominated by non-native grasses as described in the ruderal vegetation section, above. Coyote brush scrub corresponds to the coyote brush series as classified by Sawyer and Keeler-Wolf (1995) and is classified as upland following Cowardin *et al.* (1979).

Chaparral habitat, often interspersed with other habitats, provides foraging and nesting habitat for species that are attracted to edges of communities. The scrub habitat in the study area is limited to a small patch that provides some additional cover for native and non-native wildlife species. Reptiles likely to use this habitat include western fence lizard (*Sceloporus occidentalis*). Avian species found in edge communities that may occur in the study area include California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*) and California towhee (*Pipilo crissalis*) that forage among leaf litter for invertebrates. Native mammals utilizing chaparral habitats that may occur in the study area include brush rabbit (*Sylvilagus audubonii*), Botta's pocket gopher (*Thomomys bottae*) and deer mice (*Peromyscus maniculatus*). California towhee and black tailed deer (*Odocoileus hemionus*) were observed in this habitat during the site visit.

Open Water

Open water aquatic habitats such as lakes and reservoirs support numerous native and non-native fish species such as Sacramento sucker (*Catostomus occidentalis*), rainbow trout (*Oncorhynchus mykiss*), largemouth bass (*Micropterrus salmoides*), smallmouth bass (*Micropterus dolomieu*), bluegill (*Lepomis macrochirus*), and common carp (*Cyprinus carpio*). This habitat is also important to a variety of non-fish species such as Pacific chorus frog (*Pseudacris regilla*), western toad (*Bufo boreas*), California newt (*Taricha torosa*), red swamp crayfish (*procambarus clarkia*), western pond turtle (*Actinemys marmorata*), a California species of special concern, and numerous insects and aquatic insect larvae that provide food for fish, amphibians, aquatic reptiles and bats. Many bird species also rely upon open water habitats for foraging, including mallard (*Anas platyrhynchos*), American coots (*Fulica americana*), numerous other waterfowl, and water bird species such as double-crested cormorant.

The quarry pond in the study area (adjacent to the Project site) provides over five acres of open water habitat for commonly occurring fish, amphibians and bird species such as those described above. It also provides a drinking water source for common bird and mammal species occurring in upland habitats. The shoreline is characterized by steep banks on all sides with the vegetation ranging around the quarry pond from disturbed grasses and shrubs adjacent to the shopping center to eucalyptus woodland and ornamental ivy on the remaining banks. The bank below the residential development across from the shopping center is a steep cliff of exposed rock greater than 100 feet high. At the time of the site visit, the water level was high and the stairwell and maintenance walkway were completely submerged. Natural wetland or emergent marsh vegetation was absent from the quarry pond and its shoreline. American coot, mallard, American crows and western gulls (*Larus occidentalis*) were observed in this habitat during the site visit.

Special-Status Species

Special-status plant species include those listed as endangered, threatened, rare or those species proposed for listing by the U.S. Fish and Wildlife Service, the California Department of Fish and Game, and the California Native Plant Society.

Based on a review of the California Natural Diversity Database (CDFG 2009), and AECOM's knowledge of the region, a total of 30 special-status species have been recorded as occurring in the region of the study area (**Figure 4.3.4**). None of the 30 species are expected to occur on the Project site due to the disturbed and developed nature. All 30 species were determined to have no potential to be present on site due to an absence of suitable habitat, or are presumed absent because they would have been detectable during the reconnaissance-level site assessment.

Special-status wildlife species are defined as animals which are listed under either the Federal Endangered Species Act or the California Endangered Species Act, or which are classified as Species of Special Concern by the California Department of Fish and Game, are on the CDFG Watch List, or are tracked by the California Natural Diversity Database (CNDDB). Based on a literature review and a familiarity with the fauna within the Project region, several special-status animal species were considered to have at least some potential to occur within the region or have been recorded historically in the Project vicinity. Most of these wildlife species are not expected to occur at the Project site due to a lack of suitable habitat. In addition, the Project site is isolated from extant populations of these species and suitable habitats in the region due to surrounding urbanization.

Special-status mammals, birds and fish that occur in salt marsh and bayshore habitats within five miles of the site (i.e., salt marsh harvest mouse [*Reithrodontomys reviventris*] and California least tern [*Sterna antillarum browni*], both federally- and state-listed Endangered) have no potential for occurrence at the Project site due to its developed nature, and are not addressed in this EIR.

The quarry pond within the study area (adjacent to the Project site) is characterized by steep banks, lacks emergency marsh vegetation, and is likely inhabited by predatory fish species based on the depth and presence of permanent water. These qualities diminish its value as habitat for native aquatic resources such as California red-legged frog (*Rana aurora draytoni*), a federally-listed Threatened and a California Species of Special Concern. Although the creek feeding the quarry pond has hydrologic connectivity to other aquatic features in the region, there is no connectivity to natural habitats that support the species due to the surrounding urban development which extends to the golf course and beyond. The closest California red-legged frog occurrence is located in the Oakland hills east of Highway 13, and was recorded in the 1940's. Sacramento perch (*Archoplites interruptus*), a California Species of Special Concern is known from Lake Anza in Tilden Park (Contra Costa County), although it is not expected in the quarry pond due to a lack of aquatic vegetation and refuge habitat.

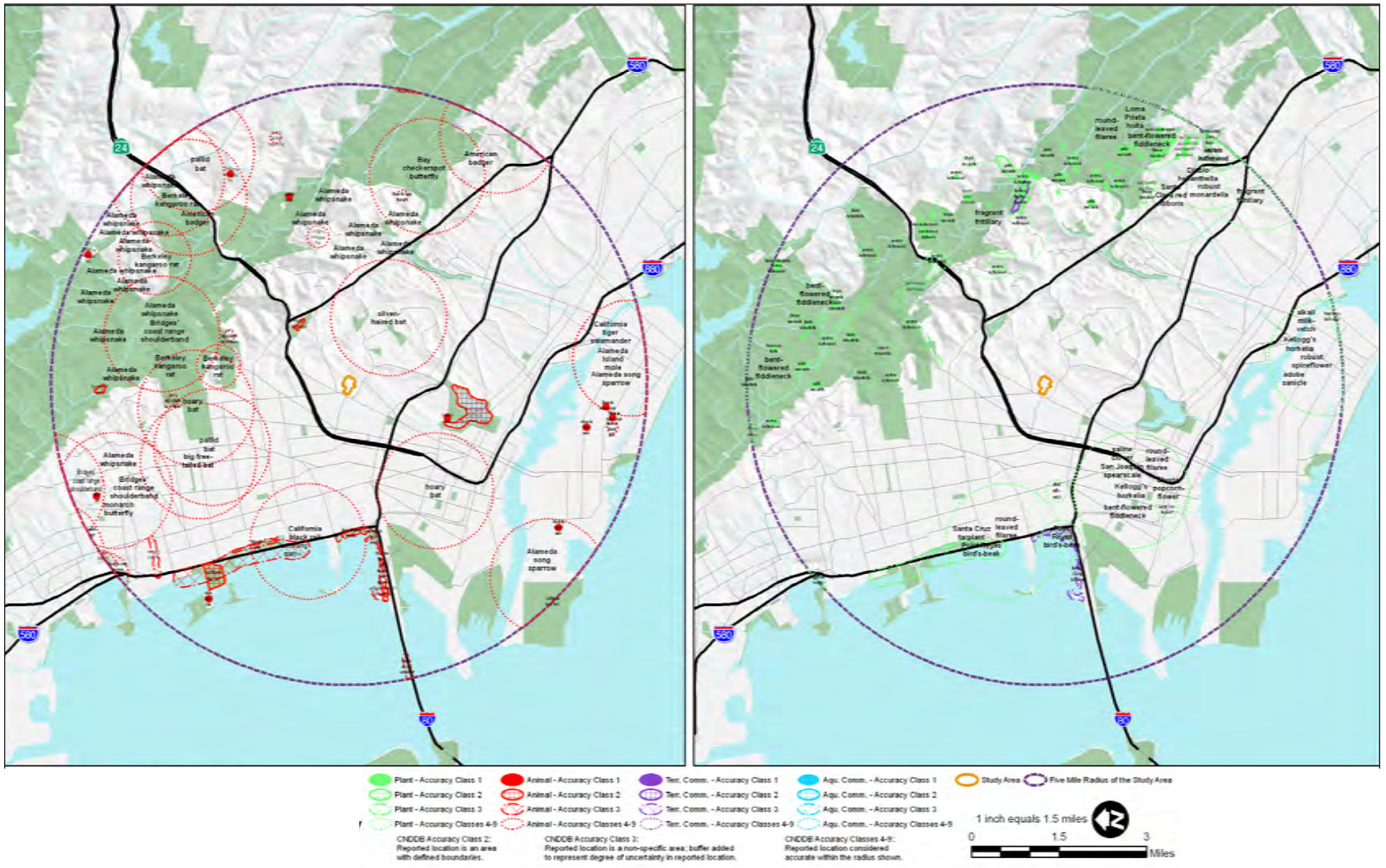

Figure 4.3-4
Special Status Species in the Region

Source: AECOM

Table 4.3-2: Potentially Occurring Special-Status Wildlife Species

Common Name	Scientific Name	Status	Potential For Occurrence
State or Federally Endangered or Threatened Species			
Amphibians			
California tiger salamander	Ambystoma californiense	FT; CSC	None —extirpated from region
California red-legged frog	Rana draytonii	FT; CSC	Not expected — no suitable habitat and lack of occurrences
Reptiles			
Alameda whipsnake	Masticophis lateralis euryxanthus	FT, ST	Not expected no suitable habitat and isolated from known populations
Invertebrates			
Bay checkerspot butterfly	Euphydryas editha bayensis	FT	None —extirpated from region
California Species of Special Concern, State Protected, or Federal Candidate Species			
Invertebrates			
Lee's microblind harvestman	Microcina leei	CNDDB	Not expected — no suitable habitat
Bridge's coast range shoulderband snail	Helminthoglypta nickliniana bridgesi	CNDDB	Not expected — no suitable habitat
Monarch butterfly	Danaus plexippus	CNDDB	Not expected — eucalyptus habitat is not well sheltered from winds
Brackish water snail	Mimic tryonia	CNDDB	None — extirpated from region
Fish			
Sacramento perch	Archoplites interruptuts	CSC	Not expected — no suitable habitat
Amphibians			
Foothill yellow-legged frog	Rana boylii	CSC	Not expected — no suitable habitat
Reptiles			
Western pond turtle	Clemmys marmorata	CSC	Low — pond provides marginal habitat
Mammals			
San Francisco dusky-footed woodrat	Neotoma fuscipes annectens	CSC	Not expected —no suitable habitat and isolated from natural areas
American badger	Taxidea taxus	CSC	Not expected – no suitable habitat and isolated from natural areas
Hoary bat	Lasiurus cinereus	CNDDB	Low
Silver haired bat	Lasionycteris noctivagans	CNDDB	Low
Pallid bat	Antrozus pallidus	CSC	Low
Big free-tailed bat	Nyctinomops macrotis	CSC	Low
Birds			
Cooper's hawk (nesting only)	Accipiter cooperii	WL	Low — eucalyptus woodland provides potential nesting habitat
Sharp-shinned hawk (nesting only)	Accipiter striatuts	WL	Low— eucalyptus woodland provides potential foraging habitat
Golden eagle (nesting/wintering)	Aquila chrysaetos	CSC; CFP	Not expected no suitable habitat and too urbanized
California Yellow warbler (nesting only)	Dendroica petechia brewsteri	CSC	Not Expected — no suitable riparian habitat
Northern harrier	Circus cyaneus	CSC	Not expected - no suitable open habitat and too urbanized

Table 4.3-2: Potentially Occurring Special-Status Wildlife Species

Common Name	Scientific Name	Status	Potential For Occurrence
Alameda song sparrow	Melospiza melodia pusillula	CSC	Not expected — no suitable salt marsh habitat
White-tailed kite (nesting only)	Elanus leucurus	CFP	Low — eucalyptus woodland provides potential nesting habitat
Saltmarsh common yellowthroat	Geothlypis trichas sinuosa	CSC	Not expected — no suitable salt marsh habitat

*Status Codes		
	FE = Listed as endangered by the Federal Government	ST = Listed as threatened by the State of California
	FT = Listed as threatened by the Federal Government	CFP = Fully protected under the California Fish and Game Code
	FPT = Proposed Listed as threatened by the Federal Government	CSC = California Species of Special Concern
	FC = Federal Candidate Species	WL = California Department of Fish and Game Watch List
	SE = Listed as endangered by the State of California	CNDDB = Tracked by the California Natural Diversity Data Base

Source: EDAW | AECOM, *Biological Resources Evaluation: Rockridge Safeway Project, Oakland, Alameda County, California.*

The small scrub patch at the Project site is not large enough to support Alameda whipsnake (*Masticophis lateralis euryxanthus*), federally-listed Threatened, and State-listed Threatened, which are known from shrub habitats in the Oakland hills within five miles east of the site. These occurrences are located east of Highway 13 and numerous roads, residential and commercial developments create a substantial dispersal barrier to the study area. Other special-status species which have been recorded historically within five miles of the study area, but are now considered extirpated (CDFG 2009) from the region due to development and habitat loss, include:

- California tiger salamander (*Ambystoma californiense*), federally-listed Threatened and a California Species of Special Concern
- Berkeley kangaroo rat (*Dipodomys heermanni berkeleyenisis*), a species tracked by CNDDB
- Brackish water snail (*Mimic tryonia*), a species tracked by CNDDB
- Bay checkerspot butterfly (*Euphydyas editha bayensis*), federally-listed Threatened

Potentially Occurring Special Status Species

Special-status species with a potential to occur within the study area include waterbirds, nesting birds and potentially roosting bats and western pond turtle.

Waterbirds

Shorebirds and water birds encompass species that are strongly dependent upon aquatic and wetland habitat, and include such families as loons (*Gaviidae*), grebes (*Podicipedidae*), pelicans (*Pelecanidae*), herons and egrets (*Ardeidae*), swans, geese and ducks (*Anatidae*), Gruiformes (*Gruidae*, cranes, *Rallidae*, rails, coots, moorhens), gulls (*Laridae*), non-sandpiper shorebirds (*Charadriidae*, *Haematopodidae*, *Recurvirostridae*, plovers, oystercatchers, stilts and avocets), and sandpipers (*Scolopacidae*).

Nesting Birds

Raptors: Most raptors such as white-tailed kites (*Elanus leucurus*), California Fully Protected, red-tailed hawks (*Buteo jamaicensis*), red-shouldered hawks, and Coopers hawk (*Accipter cooperii)*, a California Watch List species, nest in mature, large coniferous or deciduous trees and use twigs or branches as

nesting material. Smaller raptors such as American kestrel (*Falco sparverius*) and western screech owl (*Otus kennoicottii*) may nest in cavities in anthropogenic structures and trees. Short-eared owls (*Asio flkammeus*) and northern harriers (*Circus cyaneus*), both California Species of Special Concern, nest on the ground in grassland, marshes and agricultural fields with tall vegetation. Common raptors such as American kestrels, great horned owl (*Bubo virginianus*), common barn owl (*Tyto alba*) and red-tailed hawks could nest on site and are afforded protection under the Migratory Bird Treaty Act and California Department of Fish and Game Code. The nesting period for raptors generally occurs between December 15 and August 31.

Special-Status Passerine and Non-Passerine Land Birds: Passerines (perching birds) are a taxonomic grouping that consists of several families including swallows (*Hirundinidae*), larks (*Alaudidae*), crows, ravens and jays (*Corvidae*), shrikes (*Laniidae*), vireos (*Vireonidae*), finches (*Fringillidae*) and Emberzids (*Emberzidae,* warblers, sparrows, blackbirds, etc.), among others. Non-passerine birds are a non-taxonomic based grouping typically used by ornithologists to categorize a loose assemblage of birds. Families grouped into this category include kingfishers (*Alcedinidae*), woodpeckers (*Picadae*), swifts (*Apodidae*), hummingbirds (*Trochilidae*), and pigeons and doves (*Columbidae*), among others. Habitat, nesting and foraging requirements for these species are wide ranging, therefore outlining generic habitat requirements for this grouping is difficult. These species typically use most habitat types and are known to nest on the ground, in shrubs and trees, on buildings, under bridges and within cavities, crevices and manmade structures. Many of these species migrate long distances and all birds except starlings, English house sparrows and rock doves (pigeons) are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code. The nesting period for passerines and non-passerine land birds occurs between February 1 and August 31.

Roosting Bats

Four special-status bat species are considered to have at least some potential to occur within the trees and buildings located in the study area, including the following:

- Pallid bat (*Antrozous pallidus*), a California Species of Special Concern
- Silver-haired bat (*Lasionycteris noctivagans*), a species tracked by the California Natural Diversity Data Base
- Big free-railed bat (*Nyctinomops macrotis*), a California Species of Special Concerns
- Hoary bat (*Lasiurus cinereus*), a species tracked by the California Natural Diversity Data Base

These species have been recorded historically within five miles of the site, although occurrences are dated from the early part of the 20th century (CDFG 2009). These species variously use mature trees, snags, crevices and human-made structures (such as buildings and bridges) for roosting, either for winter roosting (hibernacula) or for forming nursery colonies. Bats are generally site faithful, and will not abandon an established roosting area unless disturbed.

Western Pond Turtle

The western pond turtle is the only fresh-water turtle native to greater California (Storer 1930). The literature describes two subspecies of western pond turtle: the northwestern pond turtle (*A.m. marmorata*) and the southwestern pond turtle (*A.m. pallida*). Overall, western pond turtles are habitat generalists, and have been observed in slow-moving rivers and streams (e.g., oxbows), lakes, reservoirs, permanent and ephemeral wetlands, stock ponds and sewage treatment plants. They prefer aquatic habitat with refugia such as undercut banks and submerged vegetation (Holland 1994), and require emergent basking sites such as mud banks, rocks, logs and root wads to thermoregulate their body temperature (Holland 1994, Bash 1999).

Western pond turtles regularly utilize upland terrestrial habitats, most often during the summer and winter, especially for oviposition (females), overwintering, seasonal terrestrial habitat use and overland dispersal (Reese 1996, Holland 1994). Females have been reported ranging as far as 500 meters (1,640 feet) from a watercourse to find suitable nesting habitat (Reese and Welsh 1997). Nest sites are most often situated on south or west-facing slopes, are sparsely vegetated with short grasses or forbs, and are scraped in sands or hardpacked, dry silt or clay soils (Holland 1994, Rathbbun et al. 1992, Holte 1994, Reese and Welsh 1997). Western pond turtles exhibit high site fidelity, returning in sequential years to the same terrestrial site to nest or overwinter (Reese 1996).

Regulatory Setting

This section briefly describes federal, state, and local regulations, permits, and policies pertaining to biological resources and wetlands as they apply to the proposed Project.

Federal Regulations

Federal Endangered Species Act

Implementation of the federal Endangered Species Act (ESA) is overseen by the US Fish and Wildlife Service (USFWS) which has jurisdiction over plants, wildlife and most freshwater fish, and the National Marine Fisheries Service (NMFS) which has jurisdiction over anadromous fish, marine fish, and mammals. The ESA prohibits the "take" of any fish or wildlife species listed as threatened or endangered, including the destruction of habitat that could hinder species recovery.

Under Section 9 of the ESA, the take prohibition applies to wildlife and fish species, but also prohibits acts to remove, cut, dig up, damage, or destroy an endangered plant species in knowing violation of any state law or in the course of criminal trespass. Candidate species and species that are proposed or under petition for listing receive no protection under Section 9 of the federal ESA.

Section 10 of the ESA requires the issuance of an "incidental take" permit before any public or private action may be taken that would potentially harm, harass, injure, kill, capture, collect, or otherwise hurt (i.e., take) any individual of an Endangered or Threatened species. The permit requires preparation and implementation of a habitat conservation plan that would offset the take of individuals that may occur, incidental to implementation of the Project by providing for the overall preservation of the affected species through specific mitigation measures.

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (16 U.S.C., Section 703, Supplement I, 1989) states that without a permit issued by the U.S. Department of the Interior, it is unlawful to pursue, hunt, take, capture, or kill any migratory bird. This act encompasses birds as well as bird nests and eggs.

Clean Water Act

The USACE and Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under Sections 404 and 401 of the CWA. Projects that would result in the placement of dredged or fill material into waters of the United States require a Section 404 permit from the USACE.

Wetlands receive protection under Section 404 of the Clean Water Act (CWA). The U.S. Army Corps of Engineers (USACE) exerts jurisdiction over "waters of the U.S.", including, but not limited to, all waters which are subject to the ebb and flow of tide, wetlands and other waters such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools,

wet meadows, playa lakes, or natural ponds, and tributaries of the above features. The extent of waters of the United States is generally defined as that portion which falls within the limits of "ordinary high water". Field indicators of ordinary high water include clear and natural lines on opposite sides of the banks, scouring, sedimentary deposits, drift lines, exposed roots, shelving, destruction of terrestrial vegetation, and the presence of litter or debris. Typically, the width of waters corresponds to the two-year flood event.

Wetlands are defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetland determination under the federal wetland definition adopted by the US Army Corps of Engineers (USACE) requires the presence of three factors:

- wetland hydrology,
- plants adapted to wet conditions, and
- soils that are routinely wet or flooded [33 CFR Section 328.3(b)].

The Supreme Court of the United States ruled in 2001 (January 8, 2001: *Solid Waste Agency of Northwestern Cook County v. United States Army Corps of Engineers et al.*) that certain isolated wetlands do not fall under the jurisdiction of the CWA. This decision was further clarified in the more recent Supreme Court case, *Rapanos v. United States* (2006) (USEPA, 2007). That decision clarified that the term "waters of the United States" includes only those relatively permanent, standing or continuously flowing bodies of water forming geographic features that are described in ordinary parlance as streams, oceans, rivers, and lakes.

State Regulations

California Endangered Species Act

Under the California Endangered Species Act (CESA), the California Department of Fish and Game (CDFG) has the responsibility for maintaining a list of threatened and endangered species (California Fish and Game Code Section 2070). CDFG also maintains a list of "candidate species," which are species formally noticed as being under review for addition to either the list of endangered species or the list of threatened species. In addition, CDFG maintains lists of "species of special concern," which serve as "watch lists." Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present on the project site and determine whether the proposed project could have a potentially significant impact on such species. In addition, CDFG encourages informal consultation on any proposed project that may impact a candidate species.

California Native Plant Protection Act

The California Native Plant Protection Act (NPPA) directs CDFG to carry out the legislature's intent to "preserve, protect, and enhance endangered plants in this state." The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare and to require permits for collecting, transporting, or selling such plants. The California Endangered Species Act expanded upon the original NPPA and enhanced legal protection for plants. CESA established threatened and endangered species categories, and grandfathered all rare animals—but not rare plants—into the act as threatened species. Thus, there are three listing categories for plants in California: rare, threatened, and endangered.

California Fish and Game Code

Under the California Fish and Game Code it is unlawful to take, possess or needlessly destroy the nest or eggs of any bird, and the take, possession or destruction of any birds in the orders *Falconiformes* (hawks) or *Strigiformes* (owls) or of their nests and eggs is prohibited. The Fish and Game Code also allows the designation of a species as Fully Protected. This is a greater level of protection than is afforded by the CESAsince such a designation means the listed species cannot be taken at any time. Bats and other non-game mammals are also protected by the Fish and Game Code, which provides that destruction of an occupied, non-breeding bat roost resulting in the death of bats, or disturbance that causes the loss of a maternity colony of bats (resulting in the death of young) is prohibited.

The California Department of Fish and Game (CDFG) exercises jurisdiction over wetland and riparian resources associated with rivers, streams, and lakes under California Fish and Game Code Sections 1600 to 1607. The CDFG has the authority to regulate work that will substantially divert, obstruct, or change the natural flow of a river, stream or lake; substantially change the bed, channel, or bank of a river, stream or lake; or use material from a streambed. The CDFG's jurisdiction along a river, stream, creek or other water body is usually bounded by the top-of-bank or the outermost edges of riparian vegetation.

CDFG is also authorized under the California Fish and Game Code, Sections 1600–1616, to enter into a Streambed Alteration Agreement with applicants and develop mitigation measures when a proposed project would obstruct the flow or alter the bed, channel, or bank of a river or stream in which there is a fish or wildlife resource, including intermittent and ephemeral streams. The CDFG does not normally assert jurisdiction over wetlands unless they are subject to Streambed Alteration Agreements (California Fish and Game Code Sections 1600–1616) or they support state-listed endangered species, but does provide comments on USACE permit actions under the Fish and Wildlife Coordination Act.

State Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (SWRCB), acting through the nine Regional Water Quality Control Boards, has authority over "waters of the State" under the Porter-Cologne Water Quality Control Act. In creek or river systems, RWQCB takes jurisdiction similar to CDFG, from top of bank to top of bank. The RWQCB also asserts that it has authority over all wetlands, including isolated wetlands.

The SWRCB, acting through the nine Regional Water Quality Control Boards, must also certify that a USACE permit action meets state water quality objectives (CWA, Section 401).

Local Plans and Polices

City of Oakland General Plan

The Open Space, Conservation, and Recreation (OSCAR) Element of the City of Oakland General Plan was adopted in 1996. OSCAR policies pertaining to natural resources with potential relevance to implementation of the proposed Project include the following:

> *Policy CO-6.1*: Protect Oakland's remaining natural creek segments by retaining creek vegetation, maintaining creek setbacks, and controlling bank erosion. Design future flood control projects to preserve the natural character of creeks and incorporate provisions for public access, including trails, where feasible. Strongly discourage projects which bury creeks or divert them into concrete channels.
>
> *Policy CO-7.1*: Protect native plant communities, especially oak woodlands, redwood forests, native perennial grasslands, and riparian woodlands, from the potential adverse impacts of development. Manage development in a way which prevents or mitigates adverse impacts to these communities.

Policy CO-7.4: Discourage the removal of large trees on already developed sites unless removal is required for biological, public safety, or public works reasons.

Policy CO-8.1: Work with federal, state, and regional agencies on an ongoing basis to determine mitigation measures for development which could potentially impact wetlands. Strongly discourage development with immitigable adverse impacts.

Policy CO-9.1: Protect rare, endangered, and threatened species by conserving and enhancing their habitat and requiring mitigation of potential adverse impacts when development occurs within habitat areas.

Policy CO-11.1: Protect wildlife from the hazards of urbanization, including loss of habitat and predation by domestic animals.

Policy CO-11.2: Protect and enhance migratory corridors for wildlife. Where such corridors are privately owned, require new development to retain native habitat or take other measures which help sustain local wildlife population and migratory patterns.

The following policy is from the Land Use and Transportation Element:

Policy W3.3: Native plant communities, wildlife habitats, and sensitive habitats should be protected and enhanced.

City of Oakland Tree Protection Ordinance

The City of Oakland Tree Protection Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) applies to the removal of protected trees under certain circumstances. Factors to be considered in determining significance include the number, type, size, location and condition of the protected trees to be removed and/or impacted by construction and the protected trees to remain, with special consideration given to native trees. Protected trees include the following:

- *Quercus agrifolia* (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger, and
- any other tree measuring nine inches dbh or larger except *Eucalyptus* and *Pinus radiata* (Monterey pine); provided, however, that Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered to be Protected trees.

City of Oakland Creek Ordinance

The City of Oakland's Creek Protection, Storm Water Management, and Discharge Control Ordinance (OMC Chapter 13.16), provides a high level of protection for creeks within Oakland's city limits. The ordinance defines a creek as "…a watercourse that is a naturally occurring swale or depression, or engineered channel that carries fresh or estuarine water either seasonally or year around." In addition, under the ordinance definition, a creek channel must be hydrologically connected to a waterway above or below a project site, and the channel must exhibit a defined bed and bank.

A creek protection permit is required whenever work is to be undertaken on a creekside property. The ordinance prohibits, among other things, the discharge of concentrated stormwater or other modification of the natural flow of water in a watercourse, development within a watercourse or within 20 feet from the top of the bank, and the deposition or removal of any material within a watercourse without a permit. Depending on the type of activity being permitted, conditions of approval may include the submittal of a creek protection plan and/or a hydrology report, revegetation with native plant species, the use of soil bioengineering techniques for bank stabilization and erosion control, and implementation of stormwater quality protection measures. The following activities, among others, are typically not permitted:

- Removal of riparian vegetation;
- Culverting or undergrounding of a creek;
- Moving the location of a creek;
- Structures spanning a creek; and/or
- Riprap, rock gabions, or concrete within the bed or on the creek banks.

Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's Standard Conditions of Approval relevant to biological resources are listed below for reference. If the proposed Project is approved by the City, then all applicable Standard Conditions of Approval would be adopted as conditions of approval and required of the Project to help ensure less-than-significant impacts to biological resources. The Standard Conditions of Approval are incorporated and required as part of the Project, so they are not listed as mitigation measures.

SCA Bio-1: Tree Removal During Breeding Season. To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of raptors shall not occur during the breeding season of December 15 and August 31.

a. If tree removal must occur during the breeding season, all sites shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Pre-removal surveys shall be conducted within 15 days prior to start of work from December 15 through August 31. The pre-removal surveys shall be submitted to the Planning and Zoning Division and the Tree Services Division of the Public Works Agency.

b. 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.

SCA Bio-2: 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 Bio-3: 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 Walter 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 Bio-4: 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 Bio-5: 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.

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.

The following Standard Conditions of Approval were previously identified in Chapter 4.1: Aesthetic Resources, and also pertain to biological resource issues:

SCA Aesth-2: 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 Aesth-3: 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 Aesth-4: 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.

Impacts, Standard Conditions of Approval and Mitigation Measures

Criteria of Significance

The Project would result in a significant impact related to 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 US 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. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
5. 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. Factors to be considered in determining significance include:
    a. The number, type, size, location and condition of (a) the protected trees to be removed and/or impacted by construction and (b) the protected trees to remain, with special consideration given to native trees.[2]
    b. Protected trees include the following: *Quercus agrifolia* (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger, and any other tree measuring nine inches dbh or larger except eucalyptus and *pinus radiata* (Monterey pine); provided, however, that Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered to be Protected trees.

[2] Oakland Planning Code section 17.158.280E2 states that "Development related" tree removal permits are exempt from CEQA if no single tree to be removed has a dbh of 36 inches or greater **and** the cumulative trunk area of all trees to be removed does not exceed 0.1 percent of the total lot area.

7. Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources. 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 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.

Special Status Species and Habitat

Impact Bio-1: Large trees and buildings within the Project site and its immediate vicinity provide potential nesting habitat for birds and roosting habitat for bats, which could be disturbed during construction. Additionally, the quarry pond adjacent to the Project site provides marginally suitable aquatic habitat for the western pond turtle and if present, pond turtles could be adversely affected by Project construction activities. (**LTS with SCA and Mitigation Measures**)

Species protected by the federal and State endangered species acts are not expected to occur on the Project site. Special-status plants are not expected based on a lack of suitable habitat or are presumed absent. The quarry pond and surrounding vegetation provides some habitat value to water birds, nesting birds, roosting bats and potentially western pond turtle. Work in the vicinity of the quarry pond would take place in the shopping center parking lot and includes landscape and hardscape improvements at the ridge of the quarry pond's western slope. The quarry pond is not part of the Project site and no work will occur in or on the pond itself.

Avian Habitat

Common water birds have potential to occur within the quarry pond in the Study Area and may nest in surrounding upland vegetation. The eucalyptus woodland provides potential nesting habitat for communally nesting species such as great blue heron and egrets which are common in the Bay Area, even in urbanized landscapes when aquatic habitats are adjacent. Mallards and coots which were observed during the site visit may nest in ruderal upland habitats.

The large trees within eucalyptus woodlands near the quarry pond provide potential nesting habitat for common and special-status raptors. These species are well adapted to nesting in urban environments, and a Cooper's hawk nest is recently recorded from Downtown Oakland in the vicinity of Lake Merritt (CDFG 2009). The ruderal and landscaped habitats provide foraging opportunities as small mammals and birds are likely present. A red-tailed hawk was observed flying over the quarry pond during the site visit. Short-eared owls and northern harrier are not expected to occur due to a lack of open habitat for foraging and nesting.

Given the diversity of nest sites utilized by perching birds, including many anthropogenic structures, suitable nesting and foraging habitat for commonly occurring passerines occurs within all habitats in the study area with the exception of paved ground. Abandoned and actively used buildings are often utilized by swallows for nesting especially near water sources such as the quarry pond. Ornamental trees and shrubs as well as the eucalyptus woodland provide cover and substrate for nesting that can be a limiting factor in urbanized areas. Special-status passerines such as Alameda song sparrow (*Melospiza melodia*

pusillula), a California Species of Special Concern, are not expected to occur on site due to the urbanized nature and lack of occurrences in the immediate vicinity.

Standard Conditions of Approval

Implementation of Standard Conditions of Approval Bio-1 requires nesting surveys if tree removal is to occur during the breeding season, and establishment of buffers around any identified active nests of raptors or other birds. If approved, the Project would be required to comply with Standard Condition of Approval Bio-1, and implementation of SCA Bio-1 will ensure that potential nesting habitat would not be disturbed during construction and would remain at a level of less than significant.

Bats

Buildings within the shopping center provide potential roost sites, although their active use reduces the potential for bats to be present. The large trees within the eucalyptus woodland also provide cover for use as roosting habitat and the quarry pond provides foraging opportunities for bat species if they occur in the area. Since occurrences in the vicinity are dated and the site is highly disturbed by human activity, sensitive bat species are considered to have a low potential to occur in the study area.

Standard Conditions of Approval

The potential for take of protected bat species would be reduced through implementation of the requirements found in SCA Bio-1. To further implement SCA Bio-1, the following recommendation from the consulting biologist shall be implemented:

> **SCA Implementation: Roosting Bat Survey.** A pre-construction survey for roosting bats shall be performed by a qualified biologist within 30 days prior to any removal of trees or structures on the Project site. If no active roosts are found, then no further action would be warranted. If either a maternity roost or hibernacula (structures used by bats for hibernation) is present, the following minimization measures shall be implemented:
>
> a. If active maternity roosts or hibernacula are found in trees or structures which will be removed as part of Project construction, the Project should be redesigned to avoid the loss of the tree or structure occupied by the roost to the extent feasible. If an active maternity roost is located and the Project cannot be redesigned to avoid removal of the occupied tree or structure, demolition can commence before maternity colonies form (i.e., prior to March 1) or after young are volant (flying) (i.e., after July 31). Disturbance-free buffer zones as determined by a qualified biologist in coordination with CDFG should be observed during the maternity roost season (March 1 through July 31).
>
> b. If a non-breeding bat hibernacula is found in a tree or structure scheduled for removal, the individuals should be safely evicted, under the direction of a qualified biologist (as determined by a memorandum of understanding [MOU] with CDFG), by opening the roosting area to allow air flow through the cavity. Demolition can then follow at least one night after initial disturbance for airflow. This action should allow bats to leave during darkness, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Trees or structures with roosts that need to be removed will first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during the darker hours.

If approved, the Project would be required to comply with Standard Condition of Approval Bio-1, including the biologist's implementation recommendations for roosting bat surveys identified above. Implementation of SCA Bio-1, including the implementation recommendations of the biologist, would reduce potential impacts to bats and their habitat to a level of less than significant.

Western Pond Turtle

The quarry pond adjacent to the Project site provides marginally suitable aquatic habitat for the western pond turtle. The closest occurrence of this species, which can inhabit waterways that are manmade and disturbed by human activity, is from Lake Temescal, just over a mile north of the site. The date of the sighting is unknown, and is based on a museum record (CDFG 2009). Pond turtles require haul out areas for basking. The quarry pond does not provide adequate basking sites due to steep banks as well as the absence of floating debris such as logs or aquatic vegetation. Surrounding uplands are well shaded, which is not optimal for turtles. The only upland area which is potentially suitable for use by turtles, and may allow them to bask, is the ruderal habitat on the eastern bank of the quarry pond, when water levels are low and the slope may be more gradual. At the time of the site visit, the water level was so high that this area was submerged and the narrow band of open vegetation would have been inaccessible due to steep banks. The quarry pond itself is adequate as aquatic habitat since water is present year round and fish and invertebrates are likely available as a food source. Based on the poor quality of the surrounding upland habitat and limited basking opportunities, western pond turtle are considered to have a low potential to occur on site.

Mitigation Measures

Although there is a low potential for western pond turtles to occur at the site, the following mitigation measures shall be implemented to reduce potential impacts to western pond turtle, should they occur:

Mitigation Measure Bio-1a: Western Pond Turtle Surveys: A western pond turtle survey should be conducted by a qualified biologist within two weeks prior to any disturbance or removal of upland vegetation around the quarry pond. If a turtle is found, it should be relocated out of harm's way in coordination with CDFG.

a) If any turtles are encountered within the construction zone during construction, all work shall halt until the qualified biologist has determined whether it is a western pond turtle or some other species. If it is not a western pond turtle, work may continue.

b) If a western pond turtle is found, the CDFG shall be notified regarding the presence of the western pond turtle and all work shall stop until additional exclusion measures have been defined and authorization to proceed is obtained from the CDFG. No person shall handle or otherwise harass any individual western pond turtle encountered during construction, with the exception of handling by the qualified biologist. A plan shall be developed in consultation with the CDFG to relocate the western pond turtle individuals to the nearest protected habitat outside the construction zone and to provide necessary on-site construction avoidance measures to prevent inadvertent take of this species.

Mitigation Measure Bio-1b: Contractor Awareness. Contractor education should be conducted to make workers aware of measures being taken to protect resources on the site and to contribute to increased vigilance during their work. Before initiation of construction activities within close proximity to the quarry pond, all construction workers shall be trained by the qualified biologist regarding the potential presence of western pond turtle and the fact that this species is to be avoided, and if any turtles are seen, the job foreman must be notified and construction shall be halted until appropriate measures have been taken.

Implementation of Mitigation Measures Bio-1a and -1b above would reduce potential impacts to western pond turtles to a level of less than significant.

Wetlands, Riparian Habitat and Sensitive Natural Communities

Impact Bio-2: No wetlands or sensitive natural communities are present at the Project site such that they would be disturbed by Project construction or operation. However, landscape improvements at the edge of the Project site have the potential to adversely affect off-site wetland, riparian and sensitive natural communities. (**LTS with SCA**)

Aquatic resources including riparian areas, wetlands and certain aquatic vegetation communities are considered sensitive biological resources and can fall under the jurisdiction of several regulatory agencies. Any Project modifications to these features would likely require permits and regulatory approvals from USACE, CDFG and RWQCB.

The Project site is located in an urbanized area that has supported commercial uses for many years. No riparian habitat or sensitive natural communities are present at the Project site. However, potentially federal and State jurisdictional waters are located within the immediate vicinity of the Project site, including the day-lighted section of the Rockridge Branch of Glen Echo Creek (0.13 acre) and the quarry pond (5.23 acres), both un-vegetated waters. These off-site features are expected to fall under the jurisdiction of CDFG and the RWQCB (portions of the slope down to the quarry pond below top-of-bank), and the USACE (below ordinary high water mark).

The Project does not propose to conduct any construction or grading within the day-lighted section of the Rockridge Branch of Glen Echo creek or the quarry pond, nor is any construction proposed within the area below the top of bank, which generally coincides with the location of the existing fencing along the current parking area. However, the Project does include proposed landscape improvements and a pedestrian path along the edge of the Project site nearest to the quarry pond to improve aesthetics. Portions of this landscaping and path are within 20 feet of the top of bank.

Standard Conditions of Approval

Implementation of Standard Conditions of Approval Bio-2 through Bio-5 requires that those portions of the landscaping and path that fall within 20 feet of the top of bank obtain approval of a City of Oakland Category IV Creek Protection permit (see further discussion below). Pursuant to the required Creek Protection permit, the Project applicant will be required to submit an Erosion and Sedimentation Control Plan, a Creek Protection Plan and a detailed Landscape Plan; to obtain all regulatory permits and authorizations; and to provide for an on-site monitor during construction to ensure compliance with all applicable Best Management Practices (BMPs). Compliance with the requirements of the City's Creek Protection permit through compliance with SCA Bio-2 through -5 would ensure that the Project would not adversely affect off-site wetlands, riparian habitat and sensitive natural communities.

Additional Permit Requirements

To the extent that details of the Landscape Plan and Creek Protection Plan ultimately approved by the City indicate that any landscape or erosion control work may occur on those portions of the slope below the top of existing bank, these plans would likely be required to also obtain approval of a Streambed Alteration Agreement from the CDFG, and a 401 permit certification from the RWQCB.

Provided that such landscaping plans do not include work in any areas below the ordinary high water mark of the day-lighted section of the Rockridge Branch of Glen Echo creek or the quarry pond, no federal (i.e., USACE) jurisdiction would be affected.

With implementation of Standard Conditions of Approval, the Project will comply with the requirements of the City's Creek Protection Permit and other jurisdictional requirements (as may be applicable), and such compliance will ensure that no potential impacts to wetlands or sensitive natural communities would occur.

Mitigation Measures

None required

Wildlife Movement/Nursery Sites

Impact Bio-3: Redevelopment of the Project site as proposed would not adversely affect wildlife movement or nursery sites. (**No Impact**)

The Project site is located in an urbanized area that has supported commercial uses for more than 40 years. There are no wildlife movement corridors passing through the Project site, and the site is not used as a wildlife nursery.

Mitigation Measures

None required

Habitat Conservation Plans/Natural Community Conservation Plans

Impact Bio-4: Redevelopment of the Project site as proposed would not fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan. (**No Impact**)

No habitat conservation plans or natural community conservation plans are currently in force at the Project site or in the vicinity of the Project site.

Mitigation Measures

None required

Compliance with Oakland Tree Protection Ordinance

Impact Bio-5: Redevelopment of the Project site as proposed would result in removal of four (4) "protected trees" to accommodate new buildings, six (6) protected trees within roadway medians, and two (2) non-protected Monterey pines for improved access to the adjacent quarry pond. Compliance with the provisions of the Oakland Tree Protection Ordinance pursuant to City of Oakland Standard Conditions of Approval would reduce impacts of these tree removals to a level of less than significant. (**LTS with SCA**)

According to the Landscape Plans prepared for the Project, four on-site protected trees, six protected trees within roadway medians, and two non-protected Monterey pines are proposed for removal. Within the site, the following four (4) trees are proposed to be removed in order to accommodate proposed new buildings:

- tree #581, a mature Chinese elm (Ulmus parvifolia) with a total trunk diameter at breast height (dbh) of 12", in good condition located along Broadway near Pleasant Valley Avenue,
- tree #582, a mature Chinese elm (Ulmus parvifolia) with a total trunk diameter at breast height (dbh) of nearly 12", in moderate condition located along Pleasant Valley Avenue,
- tree #590, a mature bronze loquat (Eriobotrya deflexa) with a total trunk diameter of 16.6" dbh, in good condition currently located between and to the rear of the current CVS store and the adjacent building 5, and

- tree #595, a mature olive tree (Olea europaea) with a total trunk diameter of 14.4" dbh, in good condition located along Broadway near the Coronado Drive intersection.

As part of the proposed Project, existing medians within Pleasant Valley Avenue and Broadway adjacent to the Project site are proposed for reconstruction to accommodate turn lanes and other roadway geometries. There are six (6) California sycamore trees, each at least 9-inches in diameter, that would specifically need to be removed in order to accommodate this roadway median work. Three (3) other median trees, also California sycamores, are in immediate proximity to the identified median work and may need to be removed pending final roadway designs.

Additionally, two (2) Monterey pines (Pinus radiate) located along the edge of the Project site near the quarry pond (just north of the new AAA building) would also be removed.[3]

All of the other 18 protected trees on the Project site and within the medians would be retained as part of the Project landscape plan. Additionally, a large number of existing trees which are not large enough to be considered protected trees under the ordinance would also be retained.

The Landscape Plan shows that approximately 90 new trees (a variety of Green Vase Zelkova, London plane, Monterey pine, olive, pear and Magnolia) would be planted throughout the site including within the parking lots, along the Pleasant Valley Road and Broadway frontages and along the edge of the site near the quarry pond.

Standard Conditions of Approval

Compliance with City of Oakland Standard Conditions of Approval to obtain a tree removal permit prior to removal of any "protected trees"(SCA Aesth-2), the requirements for the provision of replacement trees (SCA Aesth-3) and provisions for the protection of trees to remain during construction activities (SCA Aesth-4) would ensure that any potential tree removal necessary for Project construction would be conducted in compliance with City ordinances and regulations, thereby ensuring that this impact remains at a level of less than significant.

Mitigation Measures

None required

Compliance with Oakland Creek Protection Ordinance

Impact Bio-6: Although the proposed Project would be subject to the provisions of the City of Oakland Creek Protection Ordinance, there is nothing about the Project that would fundamentally conflict with elements of the ordinance intended to protect biological resources. The Project would not discharge a substantial amount of pollutants into the creek or watercourse, it would not significantly modify the natural flow of water, it would not deposit substantial amounts of new material into a creek or cause substantial bank erosion or instability, nor would it adversely impact a riparian corridor by significantly altering vegetation or wildlife habitat. (**LTS with SCA**)

Based on review of the proposed Project's site plan, no development or work is proposed within the daylighted section of the Rockridge branch of Glen Echo creek or on the downside slope of the quarry

[3] Monterey pines are only considered protected on City property in development situations involving the proposed removal of more than 5 Monterey pines per acre. Although the Monterey pines within this Project area are not protected, if they are to be removed written notice and public posting of these trees is required by the code and therefore the trees are included in this inventory.

pond. However, the area adjacent to the quarry pond is proposed for amenity improvements including new landscaping and a pedestrian path. Portions of this landscaping and trail are within 20 feet of the top of bank and would thus qualify for a Category IV Creek Protection permit (see Figure 4.8-4 In Chapter 4.8, Hydrology and Water Quality.

Potential Conflicts with the Ordinance

The detailed elements of the appropriate Creek Protection Permit will be required pursuant to subsequent submittals for the Project, as required by SCA Bio-2, -3, -4 and -5. For purposes of this CEQA analysis, the question is whether the proposed Project would fundamentally conflict with elements of the ordinance intended to protect biological resources. These fundamental elements of the ordinance are addressed below.

Would the Project discharge a substantial amount of pollutants into the creek or watercourse?

- The hardscape portions of the trail and small gazebo sites are pitched such that they drain westerly back toward the parking lot rather than eastward toward the quarry pond. Thus, stormwater runoff potentially carrying pollutants from the trail will not discharge toward the quarry pond or the creek.

Would the Project significantly modify the natural flow of water?

- Since no development or work is proposed within the daylighted section of the Rockridge branch of Glen Echo creek or on the downside slope of the quarry pond, the Project would not significantly modify the natural flow of water within the creek or the quarry pond.

Would the Project deposit substantial amounts of new material into the creek or cause substantial bank erosion or instability?

- Pursuant to SCA Hydro-5 and Bio-2 through Bio-5, the Project applicant will be required to submit an Erosion and Sedimentation Control Plan, a Creek Protection Plan and a detailed Landscape Plan, obtain all regulatory permits and authorizations, and provide for an on-site monitor during construction to ensure compliance with all applicable Best Management Practices (BMPs) to avoid and reduce the potential for dust, erosion and sedimentation. Compliance with these plans would ensure that the Project would not deposit a substantial amount of new material into the quarry pond or cause substantial bank erosion.

Would the Project adversely impact a riparian corridor by significantly altering vegetation or wildlife habitat?

- The proposed pedestrian trail is located on land which is currently paved and used as a parking lot, and the trail will be separated from the steep banks of the quarry pond by a tall wrought-iron fence. Thus, construction of the trail will not alter nor endanger any existing riparian vegetation or habitat.

With implementation of Standard Conditions of Approval, the Project will comply with the requirements of the City's Creek Protection Permit and will not fundamentally conflict with those elements of the Creek Protection Ordinance intended to protect biological resources.

Mitigation Measures

None required

Cumulative Biological Resources Impacts

Cumulative Impact Bio-7: The Project would not result in a significant cumulative impact on biological resources. (**LTS**)

The Project vicinity is largely developed. None of the projects on the City's Major Projects list are near the Project site. There are no other projects in the vicinity that would, in combination with the Project, cause significant cumulative impacts on biological resources.

Mitigation Measures

None required

4.4

Cultural Resources

This chapter of the EIR provides a description of the historic setting of the Project site and its surroundings, as well as an assessment of the potential impacts that demolition of the existing shopping center and development of a new shopping center at the Project site would have on historic resources.

Physical Setting

Historic Setting of the Project Site

Prior Quarry Operations

The Project site sits at the location of an old rock quarry originally established in the late 1800s. As indicated in the City of Oakland's Open Space, Conservation and Recreation Element of the General Plan, "[Mineral] deposits between Claremont Canyon and the San Leandro border were especially important to the City's early development. For years these volcanic rocks were mined in quarries and open pits in the East Bay, providing material for road base, paving, curbs and foundation stone." [1]

According to the book: *Rockridge, Images of America* by Robin and Tom Wolf: [2]

> *"The area that has become known as Rockridge was open land lying just east of an Ohlone Indian settlement on Temescal Creek. On Vicente Peralta's rancho, cattle grazed along creek paths that in the future would become Broadway Terrace and Highway 24. Starting with the gold rush, squatters founded Oakland, Peralta's rancho was squeezed into a small area, the railroad boosted Oakland, and the outlying areas of Rockridge became the site of a gravel quarry, cemeteries, the estates of mining tycoons, and a scattering of farms.*
>
> *Some say the name Rock Ridge (then two words) was inspired by the rock quarry then operated by the Oakland Paving Company, which was located at the end of a rocky ridge that ran through the hills. . . "*
>
> *[This quarry,] later known as Bilger Quarry, was a major employer in Rockridge in the second half of the 19th century. At its height, the quarry employed over 200 workers. An on-site dormitory was operated by the quarry, housing approximately 125 workers, most of whom were recent immigrants from Italy. The dormitory organized bocce ball teams that represented the villages in Italy from which the workers came. . . Weekend picnicking at the quarry was a popular pastime of quarry worker families."*

This quarry described above is the where the Project site is located, and the current shopping center sits at the base of the prior quarry operation. The quarry was operated under several ownerships from the 1870's

[1] City of Oakland, *Open Space, Conservation and Recreation Element* (OSCAR) of the General Plan

[2] *Rockridge, Images of America*. Robin and Tom Wolf, published by Arcadia Publishing, copyright 2007

to 1957, when it was permanently closed. The previous quarry walls are still quite visible, as shown in the photograph on **Figure 4.4-1**.

In recognition of the Bilger Quarry site's importance in Oakland's early development, the quarry property (more specifically shown on the Oakland Cultural Heritage Survey as the quarry pond) is designated as a C3 resource (not a designated historic property, but a property of secondary importance not included within an Area of Primary Importance). For purposes of environmental review under CEQA, only those properties designated as Historic Properties, properties designated as Potential Designated Historic Properties (PDHPs) that have an existing rating of "A" or "B" or are located within an Area of Primary Importance, Oakland Landmarks, S-7 Preservation Combining Zone properties, and Preservation Study List properties are considered historic resources.

Existing Shopping Center

In 1964 and 1965, the six buildings that make up the existing shopping center were constructed on the Project site. Since these buildings are not over 50 years old, they do not meet the criteria for designation as an historic resource. Further, these buildings are not associated with events or patterns of events that have made a significant contribution to the broad patterns of local and regional history; they are not associated with the lives of persons important to the nation or to California's past; they do not embody distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master, or possesses high artistic values; nor do these buildings have the potential to yield information important to the prehistory or history of the State or the nation.

No individual structures at the Project site have been listed on, or been determined to be eligible for listing in the National Register of Historic Places or the California Register of Historical Resources, and no existing buildings within the Project site are designated under the Oakland Cultural Heritage Survey as landmarks or Potentially Designated Historic Properties.

Surrounding Historic Resources

Although the Project site and its existing structures are not considered historic resources under CEQA, there are historic resources within the general vicinity.

Nearby Landmarks

Treadwell Mansion

On the property to the immediate north of the Project site at the California College of Arts (5200 Broadway) is the Treadwell Mansion and Stable. This building is an Oakland Landmark and listed on the National Register of Historic Places and the California Register of Historical Resources. The building was constructed in the 1880's (estimated) as the home of John and James Treadwell, owners of the Tesla coal mine in eastern Alameda County. As shown on **Figure 4.4-1**, it is a Stick-Eastlake house and stable. The Stick-Eastlake style was popular in the late 19th century as highly stylized and decorative versions of the Stick style, but there are relatively few surviving examples of this style when compared to other more popular styles of Victorian architecture. The building is important for its architectural style and the age of its construction, as well as its association with the California College of the Arts (see discussion under Areas of Primary Importance, below).

Oakland Technical High School

The Oakland Technical High School main building, which was built in 1914, was declared an Oakland Landmark by the city of Oakland in 1985 and was nominated for the National Register of Historic Places in 1986. The building (see also **Figure 4.4-2**) is located on Broadway between 42nd and 45th Streets,

approximately 1½ blocks southwest of the Project site. Designed by City Architect John J. Donovan, who also designed the Oakland City Hall and Oakland Municipal Auditorium, the building's architectural style is "stripped classical with Viennese Secessionist overtones. The historic main classroom and auditorium building is reinforced concrete trimmed with polychrome terra cotta. The entire Broadway façade, about 600 feet long, is screened with two-story engaged columns alternating with tall, three-part windows." [3]

During the 1970s, the main building was seismically reinforced within its interior while its historic exterior was preserved. The school is owned by the Oakland Unified School District and still operated as a public high school.

Nearby Areas of Primary Importance (API)

Under the City of Oakland Historic Preservation Element, an Area of Primary Importance (API) is defined as "A historically or visually cohesive area or property group identified by the Reconnaissance or Intensive Surveys which usually contains a high proportion of individual properties with ratings of "C" or higher. At least two-thirds of the properties within an API must be contributory to the API (i.e., the must reflect the API's principal historical or architectural themes). APIs appear eligible for the National Register of Historic Places either as districts or as historically-related complexes."[4] As shown on **Figure 4.4-3,** there are a number of APIs within the Project site vicinity.

California College of the Arts API [5]

Frederick Meyer, a cabinetmaker from Germany, came to live in the Bay Area in 1902. He established a cabinet shop and taught at the Mark Hopkins Institute of Art. In 1907, Meyer founded the California College of the Arts in Berkeley to provide an education for artists and designers that would integrate both theory and practice in the emerging Arts and Crafts movement. In 1922 Meyer bought the four-acre James Treadwell estate at Broadway and College Avenue in Oakland and transformed the buildings and grounds into a college campus. In 1936 the school was renamed the California College of Arts and Crafts. Meyer remained president until his retirement in 1944.

After World War II, new programs were added such as wood design, glass, interior architecture, and film/TV, evolving in response to new technologies and changes in the art world. In response to increasing enrollment, the campus expanded after World War II to include the Martinez Hall for painting and printmaking, the Treadwell Ceramic Arts Center, and Founder's Hall. Several gallery spaces host faculty and student exhibitions and reviews. In 2003, in recognition of the institution's growth and the broadening of its focus and offerings, the college changed its name back to the California College of the Arts, and is an internationally respected institution.

[3] City of Oakland, Oakland Cultural Heritage Survey, 1985

[4] City of Oakland, Historic Preservation Element, Appendix A: Definitions

[5] California College of the Arts, http://www.cca.edu/about/history

Remains of Bilger Quarry Walls

California College of Arts - Treadwell Mansion

Figure 4.4-1
Historic Resources in the Vicinity

Sources: http://oaklandgeology.wordpress.com/2008/03/10/rockridge-shopping-center-quarry and http://en.wikipedia.org/wiki/File:Treadwell_Mansion_%28Oakland,_CA%29.JPG

Oakland Technical High School

Chapel of the Chimes

Figure 4.4-2
Historic Resources in the Vicinity

Sources: http://en.wikipedia.org/wiki/Oakland_Technical_High_School and http://www.bluffton.edu/~sullivanm/jmchimes/jmchimes.html

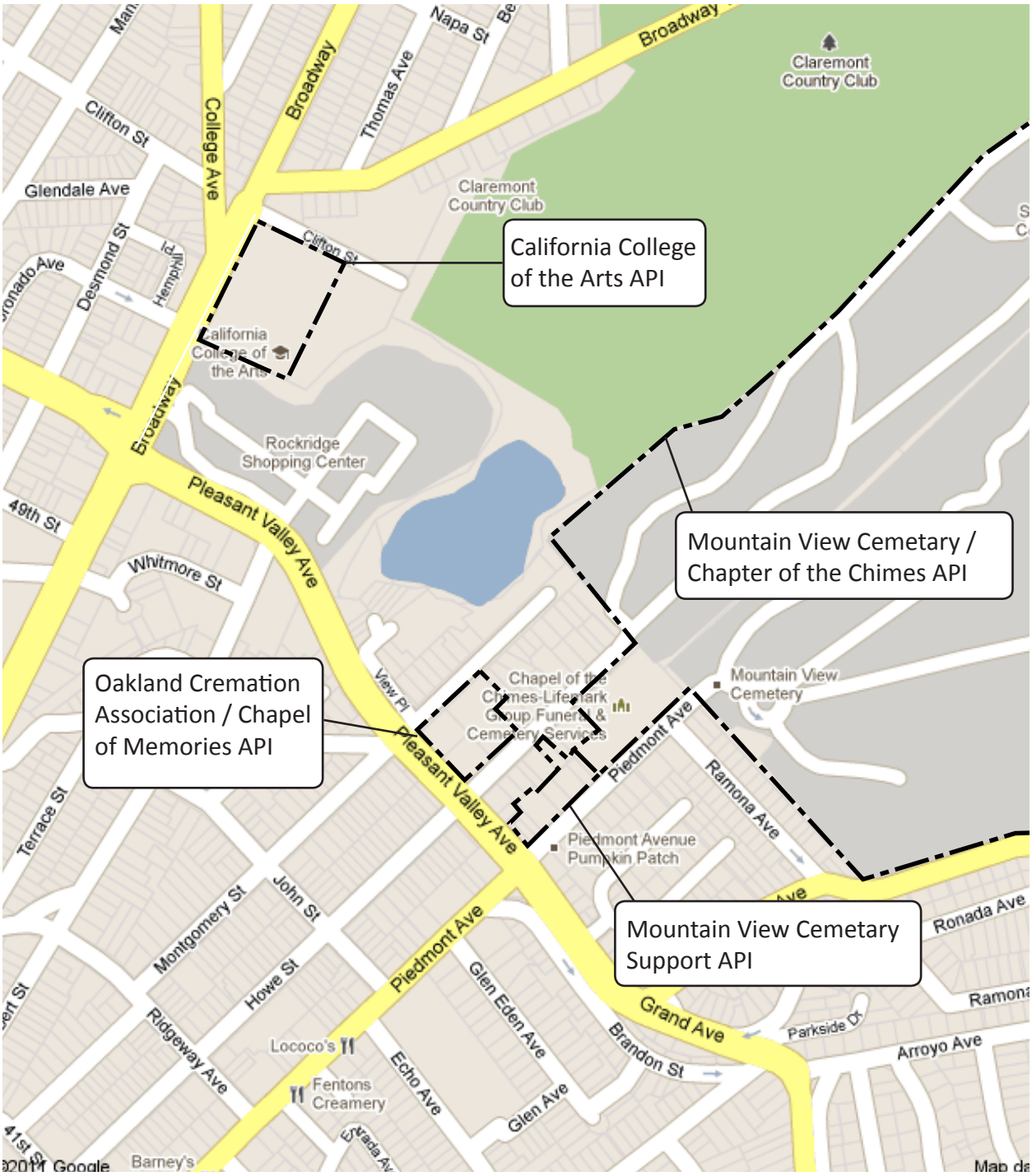

Figure 4.4-3
Historic Area of Importance in the Vicinity

Source: OCHS

Mountain View Cemetery/Chapel of the Chimes API

St. Mary's Cemetery opened in 1863 at the end of what is now Howe Street, and Mountain View Cemetery opened at the head of Piedmont Avenue in 1865, replacing Oakland's original downtown cemetery. St. Mary's was one of the very first cemeteries established in Oakland, located in what was then the outskirts of the City. Originally established to meet the needs of St. Mary's parish, the cemetery grew to its present 42-acre property. The Mountain View Cemetery is a large 226-acre cemetery designed by Frederick Law Olmsted. Olmsted's design draws upon the concepts of American Transcendentalism, integrated Parisian grand monuments and broad avenues. Many of California's important historical figures, drawn by Olmsted's reputation, are buried here. Both of these cemeteries are encompassed in the probable National Register quality Mountain View Cemetery-Chapel of the Chimes historic district.

Adjoining Mountain View Cemetery is the Chapel of the Chimes, located at 4499 Piedmont Avenue. Originally known as the California Crematorium and Columbarium, the OCHS describes this building as follows:

> *"This building is an outstanding example of a Romanesque revival funerary building. Its present form dates from 1927, architect Julia Morgan and builder Conner and Conner. The building is a 1 and 2-story structure with multiple low-gabled tile roofs at several levels, large round-arch windows with cast concrete tracery, and a pyramid-roofed bell tower with open arches. The 1920s building visible from the street incorporates a 1909 building at its center and has numerous rear additions from the 1940-90s, all with distinctive period interiors. The architect, Julia Morgan was California's first licensed woman architect, trained at UC and the Ecole de Beaux Arts. Her large San Francisco firm produced some 800 buildings over a 50-year career, with emphasis on institutional and residential buildings."* [6]

The OCHS rates the Chapel of the Chimes property A1+ (of highest importance) for its design quality and materials and type/style, its historical associations, and designer. It is a primary contributor to the Mountain View Cemetery-Chapel of the Chimes historic district. The building (see **Figure 4.4-2**) appears individually eligible for the National Register of Historic Places.

Mountain View Cemetery Support API

With the opening of the Mountain View and St. Mary's cemeteries, the blocks closest to the gates of the cemetery almost immediately attracted monument shops and residents who worked at the cemetery, as well as several plant nurseries, and other businesses reliant on cemetery trades and customers. This cluster of cemetery-related business occurred at the end of Piedmont Avenue and the adjacent Howe Street. Because of their historical connections to the cemeteries, this area is delineated as a support area to the Mountain View/Chapel of the Chimes API.

The Mountain View Cemetery Support District is a historically related early 20th century mixed-use and commercial district of approximately 19 buildings on part of three blocks lining the Piedmont Avenue approach to Mountain View Cemetery. Buildings within the district are varied in size, age and design, with most buildings dating from the 1900s – 90s. The main property type is early-20th century commercial building, but it also includes period revival funerary buildings and 19th and early 20th century housing. Individual contributors to this district include:

[6] City of Oakland, Oakland Cultural Heritage Survey, DPR Form 523, 1996

- 4460-64 Howe Street, built as the home of Angus and Mary McIsaacs (superintendent of St. Mary's Cemetery) in 1898. It is a representative example of a 19th century vernacular housing, with an OCHS rating of C2+, particularly for its historical associations, and a primary contributor to the district
- 4466 Howe Street, a 20th century vernacular Craftsman housing, with an OCHS rating of Ed2-
- 4449 Piedmont, an early 20th century vernacular "airplane" bungalow, with an OCHS rating of D2-
- 4455 Piedmont Avenue, an early 20th century utilitarian industrial building (Amador Marble Company) with an OCHS rating of B-2+ (front) and C2+ (rear)
- Other contributors include the brick building at 4460 Piedmont built as a Jewish mortuary in 1925, the early 20th century Payne Monument Shop at 4468 Piedmont.

The Mountain View Cemetery Support District is a separate commercial support district to the cemeteries, with a very distinctive character but probably only enough integrity (physical intactness) to be a locally significant district (an API). [7]

Oakland Cremation Association/Chapel of Memories

The Oakland Cremation Association was established in 1902 by Mr. Frank Crawford, and originally included a crematorium and a columbarium. While the Columbarium still stands (with several additions), the Crematorium, which stood at Pleasant Valley and Montgomery, was demolished in 1992.

The Chapel of Memories Columbarium is rated in the OCHS as B+1+, and appears to be individually eligible for listing on the National Register and City Landmark designations.

Other Historic Resources

Archaeological Resources [8]

The East Bay's earliest known inhabitants were aboriginals usually called Ohlones, sometimes Costanoans. Huge shellmounds left by these peoples were once near the mouth of Temescal Creek in Emeryville and on the shores of Brooklyn Basin in what is now the Oakland Estuary. The Ohlones inhabited the area which is now Oakland for at least 3,500 years. At the time of Spanish settlement of the area, there were probably four or five Ohlone villages, all traces of which have long since disappeared, but which may exist as archaeological sites. Three of these villages are believed to have been located in the vicinity of 51st and Telegraph, Trestle Glen, and Holy Names College. The village is believed to have been located in the vicinity of 51st and Telegraph, approximately 0.6 miles west of the Project site.

Spanish Land Grant

In 1820, during California's period of Spanish rule, the Spanish governor of California granted nearly 45,000 acres of land (in what are now the cities of San Leandro, Oakland, Alameda, Emeryville, Piedmont, Berkeley, and Albany) to Don Luis Maria Peralta, a sergeant in the Spanish Army. Peralta divided up the grant among his sons, giving his son Jose Vicente Peralta land that includes present day Rockridge. Vicente built his adobe on Temescal Creek on what is now Vicente Street, approximately 0.7 miles northwest of the Project site.

[7] City of Oakland, Oakland Cultural Heritage Survey

[8] City of Oakland, Historic Preservation Element, Introduction

Oakland's Northward Development

During the period from 1852 to 1897 and through to the 1920s, several events occurred which gave rise to a northerly expansion of the original City of Oakland. In 1860 a telegraph line and road was constructed from Oakland to Sacramento along the route that is now Telegraph Avenue. In 1869, the first transcontinental railroad was completed, with Oakland selected as the western-most terminus. In 1873 a horse car line was constructed along what is now Telegraph Avenue, connecting Oakland to the College of California (now the University of California in Berkeley). In 1903, most of the independent streetcar and electric train lines throughout Oakland were consolidated into the Key Route, which ran along Telegraph Avenue with separate streetcar lines that connected the Key Route into the upper Oakland Hills area. After the 1906 earthquake, many San Franciscans decided to move east to Oakland, resulting in a significant population growth period. Each of these events and developments gave rise to a northward expansion of the City of Oakland, which primarily occurred along the alignments of Telegraph Avenue and Broadway.

Evidence of this period of Oakland's history can still be found along the Broadway corridor in the vicinity of the Project site. Examples include: [9]

- the commercial building at 4800 Broadway (one block south of the Project site at the corner of Whitmore), a 1920s-era period revival commercial building rated D3 under the Oakland Cultural Heritage Survey (OCHS)
- the remodeled store building at 4919-29 Broadway (at the southwest corner of Broadway and 51st Street across from the Project site), a 1927 early 20th century service garage remodeled as early 20th century store building rated F3 under the OCHS due to substantial visible alterations.
- the industrial building at 5107 Broadway (immediately across the street from the Project site), a 1925 industrial building rated a C3 property under the OCHS, particularly for its type/style of design and for the prominence of its architect (McWethy & Greenleaf)
- The store building at 5251-69 Broadway (one block north of the Project site at the corner of College Avenue), a 1910s-era Beaux Arts derivative commercial sore rated a C3 property under the OCHS
- The Myers (May) store building at 5279-85 Broadway (one block north of the Project site on the northerly side of College Avenue), a 1923 example of early 20th century store buildings reflecting neighborhood commercial development and 1902s speculative development. It is rated E3 under the OCHS, principally because its architectural integrity has been seriously compromised by remodels over time.
- The 2-story store/apartment building at 4344 Broadway (approximately 2 blocks north of the Project site), a 1910s-era decorative brick store and apartment building with intricately patterned polychrome brick and stucco work, rated Dc3 under the OCHS
- The 1-story store previously occupied by the Gap at 4400 Broadway (approximately 2 blocks north of the Project site), a 1910s-era Beaux Arts derivative automobile showroom and service garage rated Dc3 under the OCHS.

There are also a number of individual buildings and homes throughout the general vicinity that were constructed during the late 19th through mid-20th century with OCHS ratings of C, D and E. These older homes and buildings can be found south of Pleasant Valley Avenue (particularly along Mather Street), west of Broadway and along Montgomery and Howe Street.

[9] City of Oakland, Oakland Cultural Heritage Survey

Regulatory Setting

Federal

National Historic Preservation Act of 1966 (as amended)

The National Historic Preservation Act (NHPA) of 1966 establishes a program to preserve historic properties throughout the U.S. and, among other things, authorizes the Secretary of the Interior to expand and maintain a National Register of Historic Places composed of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior.

In general, properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture, and that:

- are associated with events that have made a significant contribution to the broad patterns of U.S. history; or
- are associated with the lives of persons significant in the past; or
- embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- have yielded, or may be likely to yield, information important in prehistory or history.

In general, cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register.

No individual structures at the Project site have been listed, or been determined to be eligible for listing in the National Register of Historic Places, and the Project site is not located within an historic district.

State of California

The mission of the State Historical Resources Commission and the Office of Historic Preservation is to preserve and enhance California's irreplaceable historic heritage as a matter of public interest so that its vital legacy of cultural, educational, recreational, aesthetic, economic, social, and environmental benefits will be maintained and enrich the lives of present and future generations.

California Register of Historical Resources

In order for a resource to meet the criteria for listing in the California Register of Historical Resources, it must satisfy all of the following three provisions:

1. It meets one or more of the following four criteria of significance:
    - The resource is associated with events or patterns of events that have made a significant contribution to the broad patterns of local and regional history;
    - The resource is associated with the lives of persons important to the nation or to California's past;
    - The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or

- The resource has the potential to yield information important to the prehistory or history of the State or the nation (this criterion applies primarily to archaeological sites).

2. The resource retains historic integrity (defined below); and
3. It is fifty years old or older (except for rare cases where it can be demonstrated that sufficient time has passed to understand the historical importance of the resource).

The California Register regulations are similar to the criteria used by the National Park Service for the National Register of Historic Places. Any resource listed on or formally determined to be eligible for listing on the National Register is automatically listed on the California Register.[1]

The California Register defines "integrity" as "the authenticity of a property's physical identity, evidenced by the survival of characteristics that existed during the property's period of significance." A property must, therefore, retain enough of its historic character or appearance to be recognizable as an historical resource. California Register regulations specify that integrity is a quality that applies to historic resources in seven ways: location, design, setting, materials, workmanship, feeling, and association. A property must retain most of these qualities to possess integrity.

No individual structures at the Project site have been listed or been determined to be eligible for listing in the California Register of Historical Resources, and the Project site is not located within an historic district.

City Of Oakland

Relevant policies and conditions from the City's General Plan, Municipal Code and Standard Conditions of Approval are described below:

General Plan

Land Use and Transportation Element. The Land Use and Transportation Element (LUTE) is intended to guide development within the City of Oakland. Applicable historic resources policies are listed below:

> *Policy N9.8: Preserving History and Community.* Locations that create a sense of history and community within the City should be identified and preserved where feasible.
>
> *Policy N9.9: Respecting Architectural Integrity.* The City encourages rehabilitation efforts which respect the architectural integrity of a building's original style.

City of Oakland Historic Preservation Element: The City of Oakland's Historic Preservation Element (HPE), adopted in 1994 and amended subsequently, is intended to "provide a broad, multifaceted historic preservation strategy that addresses a wide variety of properties, and is intended to help revitalize Oakland's districts and neighborhoods and secure other preservation benefits."[2] The Element establishes goals and objectives, and provides a means of identifying historic properties in Oakland. It also lists all existing properties currently on the National Register, discusses the Oakland Cultural Heritage Survey's evaluation system, and establishes guidelines for determining landmark eligibility. The Historic Preservation Element of the General Plan (HPE) describes policies for the preservation of Oakland's historic resources. These policies include:

> *Policy 2.4: Landmark and Preservation District Regulations.* Demolitions and removals involving Landmarks or Preservation Districts will generally not be permitted, or be subject to

[1] California Code of Regulations, Title 14, Chapter 11.5, Section 4851(a)

[2] City of Oakland, *City of Oakland General Plan, Historic Preservation Element,* 1994, p. 1-1

postponement unless certain findings are made. Demolition or removal of more important landmarks and of most Preservation District properties will normally not be permitted without the required findings, while demolition or removal of less important landmarks will be subject only to postponement.

- Alterations or new construction involving Landmarks and Preservation Districts will normally be approved if they are found to meet the Secretary of the Interior's Standards for the Treatment of Historic Properties or if certain other findings can be made.
- Findings for approval of demolitions, removals, alterations or new construction involving Landmarks or Preservation Districts will seek to balance preservation of these properties with other concerns.

Policy 3.1: Avoid or Minimize Adverse Historic Preservation Impacts Related to Discretionary City Actions. This City will make reasonable efforts to avoid or minimize adverse effects on the Character-Defining Elements of existing or Potential Designated Historic Properties (PDHPs) which could result from private or public projects requiring discretionary actions.

Policy 3.7: Property Relocation Rather than Demolition. As a condition of approval for all discretionary projects involving demolition of existing PDHPs, the City will normally require that reasonable efforts be made to relocate the properties to an acceptable site.

The HPE also provides the following policy for identification of historic resources for CEQA purposes:

Policy 3.8: Definition of "Local Register of Historical Resources" and the Historic Preservation "Significant Effects" for Environmental Review purposes: For purposes of environmental review under CEQA, the following properties will constitute the City of Oakland's Local Register of Historic Resources:

- All Designated Historic Properties
- Those Potential Designated Historic Properties that have an existing rating of "A" or "B" or are located within an Area of Primary Importance.
- Until complete implementation of Action 2.1.2 (Re-designation), the "Local Register" will also include the following designated properties: Oakland Landmarks, S-7 Preservation Combining Zone properties, and Preservation Study List properties.

Action 3.8.1: Include Policy 3.8's definitions of "Local Register of Historical Resources" and historic preservation "significant effect" in the City's Environmental Review Regulations. Amend the Regulations to include specific measures that may be considered to mitigate significant effects to a Historical Resource. Measures appropriate to mitigate significant effects to a Historical Resource may include one or more of the following measures depending on the extent of the proposed addition or alteration.

- Modification of those elements of the Project design adversely affecting the character elements of the property.
- Relocation of the affected Historical Resource to a location consistent with its historical or architectural character.

If the above measures are not found to be feasible, the following measures may be considered:

- Modification of the Project design to include restoration of the remaining historic character of the property.
- Modification of the Project design to incorporate or replicate elements of the building's original architectural design.

- Salvage and preservation of significant features and materials of the structure in a local museum or within the new project.
- Measures to protect the Historical Resource from effects of on-site or other construction activities.
- Documentation in a Historic American Buildings Survey report or other appropriate format:
- Photographs, oral history, video, etc.
- Placement of a plaque, commemorative marker, or artistic or interpretive display on the site providing information on the historical significance of the resource.
- Contribution to a Facade Improvement Fund, the Historic Preservation Revolving Loan Fund, the Oakland Cultural Heritage Survey, or other program appropriate to the character of the resource.

Oakland Cultural Heritage Survey (OCHS)

The Historic Preservation element lays out a rating system for designating historic properties as derived from the OCHS. The OCHS uses a five tier rating system for describing the historic importance of an individual property, "A" (Highest Importance), "B" (Major Importance), "C" (Secondary Importance), "D" (Minor Importance), E (No Importance). The ratings are derived from evaluations based on the following criteria:

- Visual Quality/Design: Evaluation of exterior design, interior design, materials and construction, style or type, supporting elements, feelings of association, and importance of designer.
- History/Association: Association of person or organization, the importance of any event, association with patterns, and the age of the building.
- Context: Continuity and familiarity of the building within the district.
- Integrity and Reversibility: Evaluation of the building's condition, its exterior and interior alterations, and any structural removals.

Properties that have the potential for improvement are assigned both an "existing" and "contingency" rating (e.g., Ca). The existing rating describes the current condition of the property, and is denoted by an upper case letter. The contingency rating evaluates the possible rating if certain improvements were made, and is designated by a lower case letter. A (+) or a (-) following the rating indicates a slightly higher or lower rating.

Individual properties are also rated based on the historic importance of the surrounding properties, or district: "1" (Area of Primary Importance), "2" (Area of Secondary Importance), or "3" (Not in an Area of Primary or Secondary Importance). The importance of the individual property to the district is designated by a "+" (Contributor to the District) or "-" (Not a Contributor). For example, a property designated "Ba-1+ is a B-rated property with a possibility of attaining an A- rating, and is a contributor to an Area of Primary Importance.

City of Oakland's Standard Conditions of Approval

The City's Standard Conditions of Approval relevant to cultural resources are listed below for reference. These Conditions of Approval will be adopted as requirements of the proposed Project if the Project is approved by the City to help ensure that significant impacts are reduced. As a result, they are not listed as mitigation measures.

> **SCA Cultural-1: Archaeological Resources:** *Ongoing throughout demolition, grading, and/or construction.* Pursuant to CEQA Guidelines section 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted.

a. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Oakland. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

b. In considering any suggested measure proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while measures for historical resources or unique archaeological resources are carried out.

c. Should an archaeological artifact or feature be discovered on-site during project construction, all activities within a 50-foot radius of the find would be halted until the findings can be fully investigated by a qualified archaeologist to evaluate the find and assess the significance of the find according to the CEQA definition of a historical or unique archaeological resource. If the deposit is determined to be significant, the project applicant and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate measure, subject to approval by the City of Oakland, which shall assure implementation of appropriate 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 Cultural-2: Paleontological Resources. *Ongoing throughout demolition, grading, and/or construction.* In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 1995,1996)). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.

SCA Cultural-3: Human Remains. *Ongoing throughout demolition, grading, and/or construction.* In the event that human skeletal remains are uncovered at the project site during construction or ground-breaking activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.

SCA Cultural-5: Archaeological Resources – Sensitive Areas (*Prior to issuance of a demolition, grading, or building permit*). The project applicant shall implement either Provision A (Intensive Pre-

Construction Study) or Provision D (Construction ALERT Sheet). However, if in either case a high potential presence of historic-period archaeological resources on the project site is indicated, or a potential resource is discovered, the project applicant shall also implement all of the following provisions:

a. Provision B (Construction-Period Monitoring),

b. Provision C (Avoidance and/or Find Recovery), and

c. Provision D (to establish a Construction ALERT Sheet if the Intensive Pre-Construction Study was originally implemented per Provision A, or to update and provide more specificity to the initial Construction ALERT Sheet if a Construction Alert Sheet was originally implemented per Provision D).

Provisions A through Provisions D are detailed as follows:

d. Provision A: Intensive Pre-Construction Study - The project applicant, upon approval from the City Planning and Zoning Division, may choose to complete a site-specific, intensive archaeological resources study prior to soil-disturbing activities occurring on the project site. The purpose of the site-specific, intensive archaeological resources study is to identify early the potential presence of history-period archaeological resources on the project site. If that approach is selected, the study shall be conducted by a qualified archaeologist approved by the City Planning and Zoning Division. If prepared, at a minimum, the study shall include:

    i. An intensive cultural resources study of the project site, including subsurface presence/absence studies, of the project site. Field studies conducted by the approved archaeologist(s) may include, but are not limited to, auguring and other common methods used to identify the presence of archaeological resources;

    ii. A report disseminating the results of this research;

    iii. Recommendations for any additional measures that could be necessary to mitigate any adverse impacts to recorded and/or inadvertently discovered cultural resources.

    iv. If the results of the study indicate a high potential presence of historic-period archaeological resources on the project site, or a potential resource is discovered, the project applicant shall hire a qualified archaeologist to monitor any ground disturbing activities on the project site during construction (see Provision B, Construction-Period Monitoring, below), implement avoidance and/or find recovery measures (see Provision C, Avoidance and/or Find Recovery, below), and prepare an ALERT Sheet that details what could potentially be found at the project site (see Provision D, Construction ALERT Sheet, below).

e. Provision B: Construction-Period Monitoring - Archaeological monitoring would include briefing construction personnel about the type of artifacts that may be present (as referenced in the ALERT Sheet, require per Provision D, Construction ALERT Sheet, below) and the procedures to follow if any are encountered, field recording and sampling in accordance with the Secretary of Interior's Standards and Guidelines for Archaeological Documentation, notifying the appropriate officials if human remains or cultural resources are discovered, or preparing a report to document negative findings after construction is completed. If a significant archaeological resource is discovered during the monitoring activities, adherence to Provision C, Avoidance and/or Find Recovery, discussed below), would be required to reduce the impact to less than significant. The project applicant shall hire a qualified archaeologist to monitor all ground-disturbing activities on the project site throughout construction.

f. Provision C: Avoidance and/or Find Recovery - If a significant archaeological resource is present that could be adversely impacted by the proposed project, the project applicant of the specific project site shall either:

g. Stop work and redesign the proposed project to avoid any adverse impacts on significant archaeological resource(s); or,

    i. If avoidance is determined infeasible by the City, design and implement an Archaeological Research Design and Treatment Plan (ARDTP). The project applicant shall hire a qualified archaeologist who shall prepare a draft ARDTP that shall be submitted to the City Planning and Zoning Division for review and approval. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical. The project applicant shall implement the ARDTP. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant.

h. Provision D: Construction ALERT Sheet - The project applicant, upon approval from the City Planning and Zoning Division, may choose to prepare a construction ALERT sheet prior to soil-disturbing activities occurring on the project site, instead of conducting site-specific, intensive archaeological resources pursuant to Provision A, above. The project applicant shall submit for review and approval by the City prior to subsurface construction activity an "ALERT" sheet prepared by a qualified archaeologist with visuals that depict each type of artifact that could be encountered on the project site. Training by the qualified archaeologist shall be provided to the project's prime contractor; any project subcontractor firms (including demolition, excavation, grading, foundation, and pile driving); and/or utilities firm involved in soil-disturbing activities within the project site.

i. The ALERT sheet shall state, in addition to the basic archaeological resource protection measures contained in other standard conditions of approval, that in the event of discovery of the following cultural materials, all work must be stopped in the area and the City's Environmental Review Officer contacted to evaluate the find: concentrations of shellfish remains; evidence of fire (ashes, charcoal, burnt earth, fire-cracked rocks); concentrations of bones; recognizable Native American artifacts (arrowheads, shell beads, stone mortars [bowls], humanly shaped rock); building foundation remains; trash pits, privies (outhouse holes); floor remains; wells; concentrations of bottles, broken dishes, shoes, buttons, cut animal bones, hardware, household items, barrels, etc.; thick layers of burned building debris (charcoal, nails, fused glass, burned plaster, burned dishes); wood structural remains (building, ship, wharf); clay roof/floor tiles; stone walls or footings; or gravestones.

    i. Prior to any soil-disturbing activities, each contractor shall be responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, and supervisory personnel.

If the project applicant chooses to implement Provision D, Construction ALERT Sheet, and a potential resource is discovered on the project site during ground disturbing activities during construction, the project applicant shall hire a qualified archaeologist to monitor any ground disturbing activities on the project site during construction (see Provision B, Construction-Period Monitoring, above), implement avoidance and/or find recovery measures (see Provision C, Avoidance and/or Find Recovery, above), and prepare an updated ALERT Sheet that addresses the potential resource(s) and other possible resources based on the discovered find found on the project site.

Impacts, Standard Conditions of Approval and Mitigation Measures

This section assesses the potential for adverse impacts related to historic resources resulting from demolition of the existing shopping center and construction of the new proposed Project.

Criteria of Significance

The Project would result in a significant impact related to cultural resources if it would:

1. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5. Specifically a "substantial adverse change" includes physical demolition, destruction, relocation, or alteration of a 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 §15064.5;
3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
4. Disturb any human remains, including those interred outside of formal cemeteries.

City of Oakland Definition of Historic Resources

The City of Oakland defines an historical resource under CEQA as one that meets the following criteria:

- A resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources
- A resource included in Oakland's Local Register of Historical Resources (which includes all Designated Historic Properties [Landmarks, Heritage Properties, Study List Properties, Preservation Districts, and S-7 and S-20 Preservation Combining Zone Properties], and those Potential Designated Historic Properties that have an existing rating of "A" or "B" or are located within an Area of Primary Importance), unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
- A resource identified as significant (e.g., rated 1-5) in a historical resource survey recorded on Department of Parks and Recreation Form 523, unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
- Any object, building, structure, site area, place, record, or manuscript which the Oakland City Council determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the determination is supported by substantial evidence in light of the whole record. Generally, a resource is considered "historically significant" if it meets the criteria for listing on the California Register of Historical Resources CEQA Guidelines Section 15064.5; or
- A resource that is determined by the City Council to be historically or culturally significant even though it does not meet the other four criteria listed here.

Definition of Impact to Historic Resources

Under CEQA Guidelines Section 15064.5 (b), a project with an effect that may cause a substantial adverse change in the significance of an historic resource is a project that may have a significant effect on the environment. Substantial adverse change in the significance of an historical resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an 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 an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources.
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Historic Resources

Impact Cultural-1: The Project would not directly result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5. (**LTS**)

The Project site is the location of the original Oakland Paving Company/Bilger Quarry. In recognition of the Bilger Quarry site's importance in Oakland's early development, the quarry property (more specifically shown on the Oakland Cultural Heritage Survey as the Old Quarry Pond) is rated under the OCHS as C3 (a property of secondary importance not included within an Area of Primary Importance). It is not included on nor has it been found eligible for inclusion on the National Register of Historical Resources, the California Register of Historical Resources or the Local Register. It has not been documented on a DPR Form 523 historical resources survey form with a rating of 1 through 5. Therefore, the Project site is not considered a significant historical resource as defined in CEQA Guidelines §15064.5. Redevelopment of the existing shopping center with a new, more modern and larger retail center would not alter or change the significance of the Oakland Paving Company/Bilger Quarry site. The landscape improvements along the Project site's easterly edge near the quarry pond would enhance access and views of this remnant of the quarry.

Although the Project site is located in an area of Oakland with numerous historic resources, including Oakland Landmarks and Areas of Primary Importance, redevelopment of the existing shopping center with a new, more modern and larger retail center would not alter or change the significance of these nearby resources. The existing shopping center has been located in the vicinity of these nearby historic resources for nearly 50 years, and the Project will not directly affect nor indirectly change the historic context of these surrounding sites.

The nearest historic resource to the Project site is the Treadwell Mansion at the California College of the Arts, located immediately to the north of the site. High levels of groundborne vibration can damage fragile buildings. The Federal Transit Administration (FTA) has indicated that non-engineered timber and masonry buildings can be exposed to groundborne vibration levels of 0.2 inches per second without experiencing structural damage. Equipment anticipated to be used during construction includes flatbed

delivery trucks, drill rigs, excavators, dump trucks, front-end loaders, bobcats, jackhammers, concrete trucks, and portable generators. The operation of heavy-duty construction equipment (e.g., a large bulldozer) generates typical vibration levels of 0.089 inches per second at a distance of 25 feet. Construction activity involving heavy-duty construction equipment would be further than 25 feet from the Treadwell Mansion. Therefore, groundborne vibration exposure levels at the Treadwell Mansion would be less than 0.2 inches per second, and this historical resource would not be expected to experience structural damage. In addition, the Treadwell Mansion existed at this location throughout the period of quarrying activities at the Project site, and thus survived without damage the vibrations associated with that quarry activity.

Mitigation Measures

None needed

Archaeological or Paleontological Resources, and Human Remains

Impact Cultural-2: The Project would not cause a substantial adverse change in the significance of a known archaeological resource, nor would it directly or indirectly destroy a known unique paleontological resource or site, or unique geologic feature. It is possible that currently unknown archaeological or paleontological resources could be damaged during site grading and construction. Implementation of City of Oakland Standard Conditions of Approval will reduce such potential impacts to a level of less than significant. (**LTS with SCA**)

There are no known archaeological resources or known unique paleontological resources at the Project site. Given the prior use of the site as a quarry operation, it is highly unlikely that any archaeological resource or unique paleontological resource is present. As the location of an active rock quarry for nearly 80 years (from the 1870s to 1957, when it was permanently closed), the site could be considered a unique geologic feature, however, this geologic feature has been the site of an existing shopping center for nearly 50 years. Redevelopment of the existing shopping center with a new, more modern and larger retail center will not further alter or change the significance of this geologic feature.

However, since the Project site is located in relative proximity to the location of a believed Ohlone village, in proximity to the original Vicente Peralta rancho, and is the location of an historic-period quarry operation, there is the potential that remnants from the old quarry operation or other unknown archaeological or paleontological resources could be buried beneath the site. Discovery of such resources during demolition and construction activity for the Project is unlikely given that quarrying operations continued to occur on the site until the late 1950s, and then the site was filled and graded to support construction of the existing shopping center. According to the *Geotechnical Investigation* for the site, fill material primarily consisting of clay with thin layers of gravel and sand were placed to a depth of 20 to 30 feet in portions of the site to level the site for construction of the existing shopping center in the 1960s, although depth to bedrock is less than 3 feet near the rock slope along the north end of the shopping center adjacent to the old quarry walls.

Standard Conditions of Approval

In the event of an unanticipated discovery of historic, archaeological or unique paleontological resources during demolition or construction activities associated with the Project, SCA Cultural-1 and -2 requires that excavations within 50 feet of the find be temporarily halted or diverted until the discovery is examined by a qualified archaeologist or paleontologist, documented and evaluated for significance, and procedures established to consider avoidance of the resource or preparation of an excavation plan if avoidance is unfeasible. There is a higher likelihood that previously undiscovered historic-period

archaeological resources related to historic-period settlement of Oakland could be discovered during construction due to the site's historic use as a quarry. SCA Cultural-5, which further implements SCA Cultural-1, specifies additional intensive pre-construction survey, construction period monitoring, and avoidance and recovery measures that would apply to the Project. Implementation of Standard Conditions of Approval SCA Cultural-1, -2 and -5 would ensure that potential impacts related to the discovery of currently unknown, but potentially present archaeological resources remain at a level of less than significant.

Mitigation Measures

None needed

Cumulative Cultural Resource Impacts

Cumulative Impact Cultural-3: Implementation of the Project would not adversely affect historic or cultural resources, thus it would similarly not combine with other past, present, existing, pending and reasonably foreseeable projects may have cultural resource impacts. **(No Impact)**

While other reasonably foreseeable projects throughout Oakland may adversely affect city-wide historic resources, the Project would not directly result in a substantial adverse change in the significance of an on-site historical or cultural resource or directly or indirectly result in a substantial adverse change in the significance of a nearby historical or cultural resource. Thus, the Project would not contribute to any cumulative adverse impacts to cultural resources.

Mitigation Measures

None needed

4.5

Geology and Soils

This chapter evaluates the proposed Project's potential impacts related to geology and soils. This section describes the existing geology and soil conditions in the vicinity of the site, and evaluates the extent to which geology and soil conditions may affect development of the Project as proposed. The analysis and discussion in this section of the EIR is based primarily on the September 14, 2007 *Geotechnical Investigation, Safeway Replacement Store #3132*, prepared by Kleinfelder.[1]

Physical Setting

Regional Geology

The San Francisco Bay Area lies within the Coast Range geomorphic province, a series of discontinuous northwest tending mountain ranges, ridges, and intervening valleys characterized by complex folding and faulting. Such features in the eastern portion of the San Francisco Bay Area include the Diablo Range, Berkeley Hills and the East Bay Plain. The Project site is situated slightly up-slope from the western base of the Berkeley Hills.

Geologic and geomorphic structures within the San Francisco Bay Area are dominated by the San Andreas Fault, a right-lateral strike-slip fault that extends from the Gulf of California to Cape Mendocino. It forms a portion of the boundary between two independent tectonic plates: to the west is the Pacific plate, which moves relative to the North American plate (located east of the fault). In the San Francisco Bay Area, movement across this plate boundary is concentrated on the San Andreas Fault. However, it is also distributed, to a lesser extent, across a number of other faults that include the Hayward, Calaveras and Concord, among others. Together, these faults are referred to as the San Andreas Fault system. Movement along the San Andreas Fault system has been ongoing for about the last 25,000,000 years. The northwest trend of these faults within this fault system is largely responsible for the string northwest structural orientation of geologic and geomorphic features in the San Francisco Bay Area.

Local Geology

The portion of the Berkeley Hills in which the Project site is located is transected by the Hayward fault zone and exposed bedrock units that vary from Cretaceous Franciscan rocks to various tertiary sedimentary formations. Localized studies indicate that the area consists of Quaternary alluvial deposits and rock outcrops. Based on mapping by the California Geological Survey, the site is underlain by Pleistocene-age alluvial fan deposits and Mesozoic bedrock.

Faulting and Seismicity

The Project site is situated within the San Francisco Bay Area, which is characterized by numerous active faults and moderate to high seismic activity. As indicated in the *Geotechnical Investigation*, the site is not

[1] This report is available for review at the City Planning Division offices

located within a state-designated Earthquake Fault Rupture Zone where site-specific studies addressing the potential for surface fault rupture are required, and no known active faults traverse the site.

The Hayward fault is the closest fault to the Project site, located approximately 2.2 kilometers to the northeast. The Hayward fault is a right-lateral strike-slip fault. Other significant faults located near the site include the Calaveras, Concord-Green Valley, San Andreas and Rodgers Creek faults. A major seismic event on these or other nearby faults may cause substantial ground shaking at the Project site. In addition, the Project site is located in proximity to two northeasterly-dipping thrust faults. The U.S. Geological Survey has reported that the overall probability of an earthquake of magnitude 6.7 or greater on the North Hayward segment of the Hayward-Rodgers Creek Fault system before 2030 is approximately 16 percent. A magnitude 7.1 earthquake on the Hayward fault would be expected to generate violent seismic ground shaking (Modified Mercalli Intensity IX) at the Project site.

The *Geotechnical Investigation* indicated that the soils encountered during testing contained sufficient clayey soils or were of sufficient density to reduce the potential for liquefaction, and that as a result, the potential for liquefaction or lateral spreading at the Project site is low.

Slopes and Potential Slope Failure

The existing shopping center at the Project site was constructed in the 1960's at the western portion of a previous quarry. The site is relatively level, and has been created by cuts in the northern and eastern portion and fills in the southwestern portion. An existing cut slope is visible at the north (rear) of the property, to a height of approximately 50 feet. The inclination of this cut slope varies, but originally appears to have been about 1:1 (horizontal to vertical). There are areas of erosion on the slope, as well as large (up to about 3-foot size) fractured rock located at the toe of the slope. The exposed rock is comprised of both grey claystone and brown sandstone. A cyclone fence has been placed at the toe of the cut to protect the existing asphalt loading area/driveway and buildings (about 40 to 75 feet away). There are also a number of short and low wooden walls at the toe to provide protection of the loading area/driveway. There is slope debris behind the fence and wooden wall, with at least one wall having collapsed. Exiting commercial and residential structures are located near the top of the slope.

Along the east side of the property is a pond that has been left after the quarry operations were stopped. The water in the pond is about 20 feet below the shopping center grade, and the top of the bank is about 30 feet from the existing buildings (asphalt parking and driveway are located between the buildings and the bank of the pond). The bank of the pond is in rock, and nearly vertical. On the opposite side of the pond is an extremely steep cut slope (nearly vertical) into rock that is about 80 to 100 feet high.

The grade near the intersection of Broadway and Pleasant Valley Road is 5 to 8 feet higher than street grade (both Broadway and Pleasant Valley Road), probably the result of the placement of fill in this area.

Soils Conditions

A field investigation of the Project site was performed on April 30 and May 1, 2007, and consisted of drilling eight borings (see **Figure 4.5-1**). Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. As indicated in the *Geotechnical Investigation*, the existing asphalt pavement at the project site varies substantially across the site, with the asphalt measured to be about 2 to 5 inches thick over about 4 to 12 inches of aggregate base material. Underlying the pavement, either highly weathered claystone or sandstone was encountered to the maximum depth drilled (about 50.5 feet). At the surface, the claystone and sandstone appear to be extremely weathered, and became less weathered with depth. Boring B-1 located near the old quarry pond encountered clayey soil with variable gravel content to the depth drilled. Bedrock was seen exposed between Boring B-1 and the edge of the quarry, indicating that this once was not quarried. Two samples of the near surface clayey soil had Plasticity Limits of 12, which is considered to be low expansive potential.

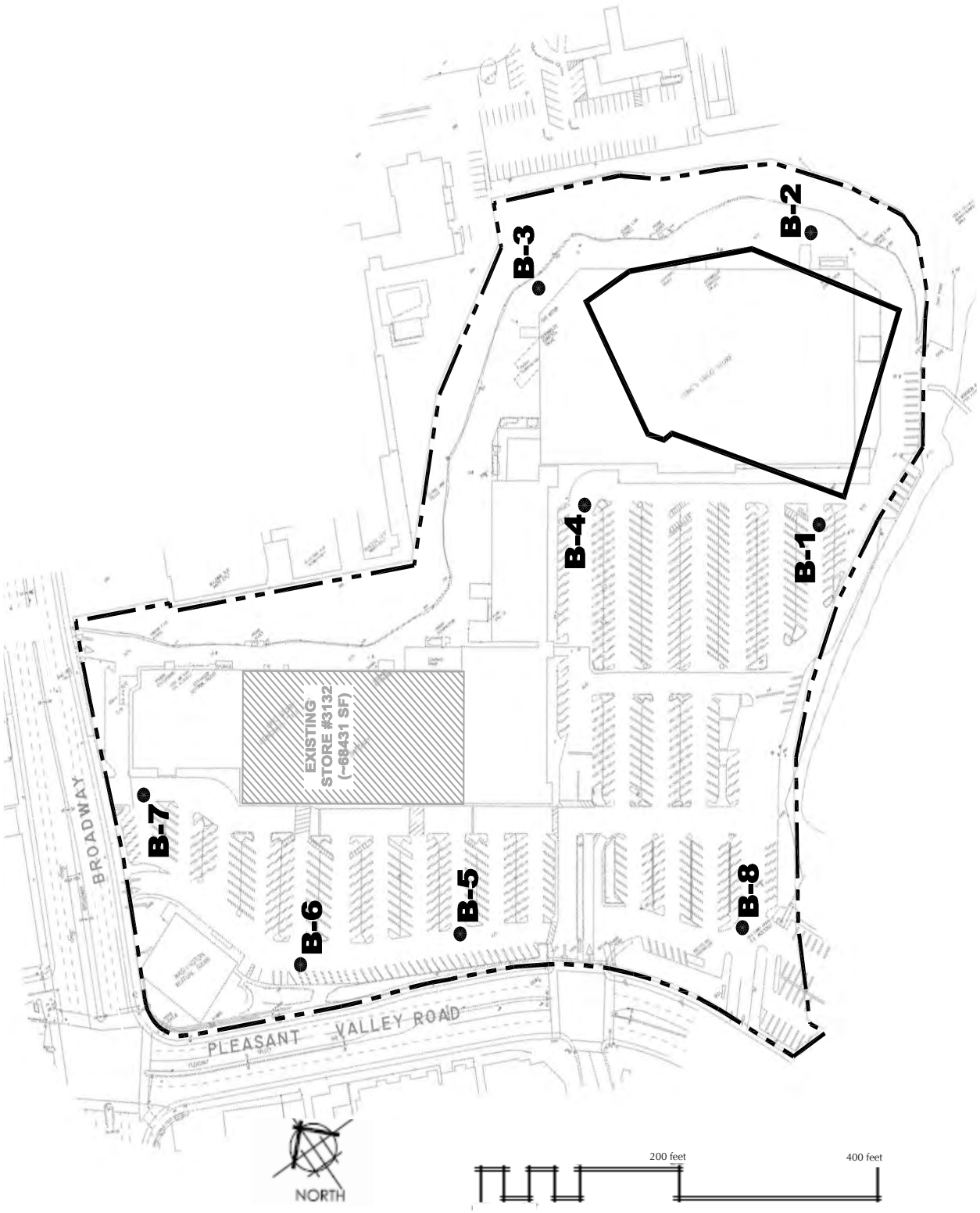

Figure 4.5-1
Soil Boring Locations

Source: Kleinfelder

A screening level *Phase II Environmental Assessment* conducted by GeoTrans in 2001. During this assessment, depth to bedrock was found to be variable across the Project site, from less than 3 feet near the rock slope along the north end of the shopping center (behind the stores) to 20 feet. Brick fragments indicative of fill material were present in samples collected from SB-2 (see **Figure 4.5-2**) to a depth of 20 feet below grade, The soil/fill material primarily consisted of silty clay and sandy clay, with thin layers of gravel and sand present at SB-2 at 10 and 15 feet below ground surface (bgs).

Regulatory Setting

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults in California. The Alquist-Priolo Act regulates development on or near active fault traces to reduce the hazard of fault rupture and to prohibit the location of most structures for human occupancy across these traces. Cities and counties must regulate certain development projects within the delineated zones, and regulations include withholding permits until geologic investigations demonstrate that development sites are not threatened by future surface displacement. Surface fault rupture, however, is not necessarily restricted to the area within an Alquist-Priolo Zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a Seismic Hazard Zone, a geotechnical investigation of the site must be conducted and appropriate mitigation measures incorporated into the project design. The Project site is not located within a Seismic Hazard Zone for liquefaction or landslides, as designated by the California Geological Survey (CGS, 2005).

California Building Code

Published by the International Conference of Building Officials (ICBO), the Uniform Building Code is a widely adopted model building code in the United States. The California Building Code incorporates by reference the 1997 Uniform Building Code (UBC) with necessary California amendments. These amendments include significant building design criteria that have been tailored for California earthquake conditions (CBSC, 2001).

The California Building Code is contained in Title 24 of the California Code of Regulations (CCR), Title 24, Part 2, which is a portion of the California Building Standards Code (CBSC, 2005). Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. The project site is located within Seismic Zone 4. Of the four seismic zones, Zone 4 is expected to experience the greatest effects from earthquake groundshaking and therefore has the most stringent requirements for seismic design.

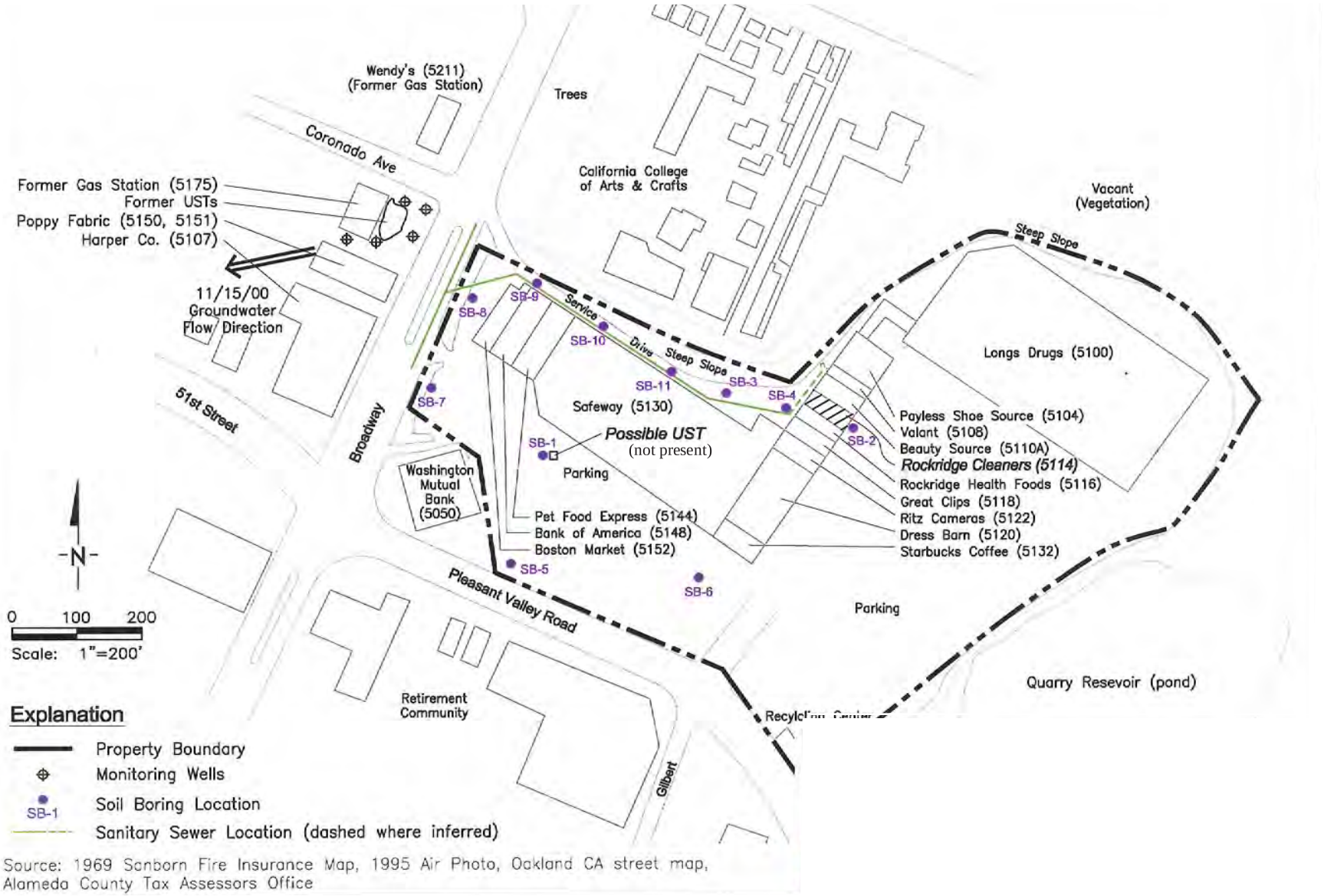

Figure 4.5-2
Environmental Site Assessment Soil Boring Locations

Source: GeoTrans

City of Oakland Regulations

Relevant policies and conditions from the City's General Plan, Municipal Code and Standard Conditions of Approval are described below:

City of Oakland General Plan

Safety Element: The November 2004 Safety Element of the Oakland General Plan contains the following policies and actions regarding geology and soils issues that apply to the Project.

> *Policy GE-1*: Develop and continue to enforce and carry out regulations and programs to reduce seismic hazards and hazards from seismically triggered phenomena.
>
> *Action GE-1.1*: Continue to enforce the geologic reports ordinance by requiring site-specific geologic reports for development proposals in the Hayward fault Special Studies Zone, and restricting the placement of structures for human occupancy within fifty feet of the trace.
>
> *Action GE-1.2*: Enact regulations requiring the preparation of site-specific geologic or geotechnical reports for development proposals in areas subject to earthquake-induced liquefaction, settlement or severe ground shaking, and conditioning project approval on the incorporation of necessary mitigation measures.
>
> *Policy GE-2*: Continue to enforce ordinances and implement programs that seek specifically to reduce the landslide and erosion hazards.
>
> *Action GE-2.1*: Continue to enforce provisions under the subdivision ordinance requiring that, under certain conditions, geotechnical reports be filed and soil hazards investigations be made to prevent grading from creating unstable slopes, and that any necessary corrective actions be taken.
>
> *Action GE-2.2*: Continue to enforce the grading, erosion and sedimentation ordinance by requiring, under certain conditions, grading permits and plans to control erosion and sedimentation.
>
> Action GE-2.3: Continue to enforce provisions under the creek protection, storm water management and discharge control ordinance designed to control erosion and sedimentation.

Ordinances and Oakland Municipal Code

The City of Oakland implements the following regulations and ordinances aimed at reducing soil erosion and protecting water quality and water resources:

Grading Ordinance (Ordinance No. 10312)

This ordinance is intended to reduce erosion during grading and construction activities. Chapter 13.16 of the Oakland Municipal Code requires that a project applicant obtain grading permits for earth moving activities under specified conditions of 1) volume of earth to be moved, 2) slope characteristics, 3) areas where "land disturbance" or 4) stability problems have been reported. To obtain a grading permit, the project applicant must prepare and submit to the Public Works Agency a soils report, a grading plan, and an erosion and sedimentation control plan for approval.

Sedimentation and Erosion Control Ordinance (Ordinance No. 10446)

This ordinance is also aimed at reducing erosion during construction and operations. Pursuant to this ordinance, Chapter 3304.2 of the Oakland Municipal Code requires any person who performs grading, clearing, and grubbing or other activities that disturb the existing soil to take appropriate preventative

measures to 1) control erosion; 2) prevent sedimentation of eroded materials onto adjacent lands, public streets, or rights-of-way; and 3) prevent of the flow of eroded materials to any water course, by any route.

Building Services Division

In addition to compliance with building standards set forth by the California Building Code, the project applicant will be required to submit to the Oakland Building Services Division an engineering analysis accompanied by detailed engineering drawings for review and approval prior to excavation, grading, or construction activities on the project site. Specifically, an engineering analysis report and drawings of relevant grading or construction activities on a project site would be required to address constraints and incorporate recommendations identified in geotechnical investigations. These required submittals and City reviews ensure that the buildings are designed and constructed in conformance with the seismic and other requirements of all applicable building code regulations, pursuant to standard City of Oakland procedures.

City of Oakland's Standard Conditions of Approval

The City's Standard Conditions of Approval relevant to geology and soils are listed below for reference. These Conditions of Approval will be adopted as requirements of the proposed Project if the Project is approved by the City to help ensure that no significant geologic impacts occur. As a result, they are not listed as mitigation measures.

SCA Geo-1: Erosion and Sedimentation Control Plan

a. The project applicant shall obtain a grading permit if required by the Oakland Grading Regulations pursuant to Section 15.04.780 of the Oakland Municipal Code. The grading permit application shall include an erosion and sedimentation control plan for review and approval by the Building Services Division. The erosion and sedimentation control plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading operations. The plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the Director of Development or designee. The plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment.

b. The project applicant shall implement the approved erosion and sedimentation plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Building Services Division.

SCA Geo-2: Soils Report. A preliminary soils report for each construction site within the project area shall be required as part of this project and submitted for review and approval by the Building Services Division. The soils reports shall be based, at least in part, on information obtained from on-site testing. Specifically, the minimum contents of the report should include:

a. Logs of borings and/or profiles of test pits and trenches:

    i. The minimum number of borings acceptable, when not used in combination with test pits or trenches, shall be two (2), when in the opinion of the Soils Engineer such

borings shall be sufficient to establish a soils profile suitable for the design of all the footings, foundations, and retaining structures.

ii. The depth of each boring shall be sufficient to provide adequate design criteria for all proposed structures.

iii. All boring logs shall be included in the soils report.

b. Test pits and trenches

i. Test pits and trenches shall be of sufficient length and depth to establish a suitable soils profile for the design of all proposed structures.

ii. Soils profiles of all test pits and trenches shall be included in the soils report.

c. A plat shall be included which shows the relationship of all the borings, test pits, and trenches to the exterior boundary of the site. The plat shall also show the location of all proposed site improvements. All proposed improvements shall be labeled.

d. Copies of all data generated by the field and/or laboratory testing to determine allowable soil bearing pressures, sheer strength, active and passive pressures, maximum allowable slopes where applicable and any other information which may be required for the proper design of foundations, retaining walls, and other structures to be erected subsequent to or concurrent with work done under the grading permit.

e. Soils Report. A written report shall be submitted which shall include, but is not limited to, the following:

f. Site description;

i. Local and site geology;

ii. Review of previous field and laboratory investigations for the site;

iii. Review of information on or in the vicinity of the site on file at the Information Counter, City of Oakland, Office of Planning and Building;

iv. Site stability shall be addressed with particular attention to existing conditions and proposed corrective attention to existing conditions and proposed corrective actions at locations where land stability problems exist;

v. Conclusions and recommendations for foundations and retaining structures, resistance to lateral loading, slopes, and specifications, for fills, and pavement design as required;

vi. Conclusions and recommendations for temporary and permanent erosion control and drainage. If not provided in a separate report they shall be appended to the required soils report;

vii. All other items which a Soils Engineer deems necessary;

viii. The signature and registration number of the Civil Engineer preparing the report.

g. The Director of Planning and Building may reject a report that she/he believes is not sufficient. The Director of Planning and Building may refuse to accept a soils report if the certification date of the responsible soils engineer on said document is more than three years old. In this instance, the Director may be require that the old soils report be recertified, that an addendum to the soils report be submitted, or that a new soils report be provided.

Impacts, Standard Conditions of Approval and Mitigation Measures

Criteria of Significance

The Project would result in a significant impact related to geology and soils if it would:

1. Expose people or structures to substantial risk of loss, injury, or death involving:
    a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publications 42 and 117 and PRC §2690 et. seq.);
    b. Strong seismic ground shaking;
    c. Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or
    d. Landslides;
2. Result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways;
3. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, 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 ; or
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.

Seismic Ground Shaking and Ground Failure

Impact Geo-1: The Project site is located in an area that would be subject to very strong ground shaking and potential liquefaction in a major seismic event. Implementation of City of Oakland standard conditions of approval and compliance with California Building Code standards will ensure that foundation designs for all new buildings minimize the effects of ground shaking and seismic-induced ground failure to a level of less than significant. (**LTS with SCA**)

The Project site is not located within an Alquist-Priolo Special Studies zone. However, according to the City of Oakland Safety Element (see **Figure 4.5-3**), the easterly portions of the Project site are located in a Potential Liquefaction Area and subject to seismic-induced ground failure.

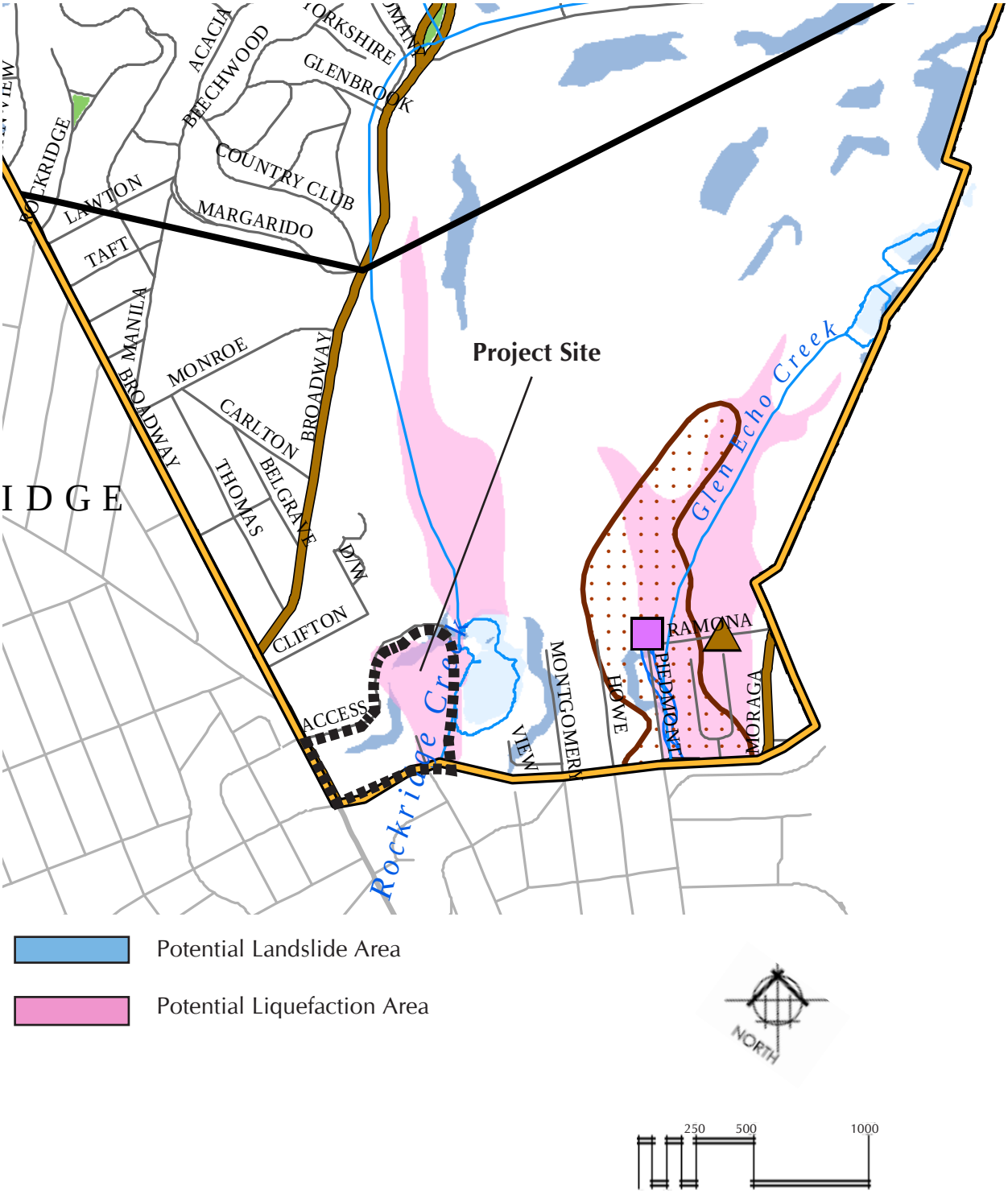

Figure 4.5-3
City of Oakland Safety Element

Source: City of Oakland

Standard Conditions of Approval

Pursuant to SCA Geo-2, the Project applicant shall be required to submit a detailed soils report along with detailed engineering drawings to the City of Oakland Building Services Division prior to excavation, grading or construction activities on the site. The required submittals will ensure that the buildings at the site are designed and constructed in conformance with the requirements of all applicable building code regulations.

With implementation of the requirements found in Standard Condition of Approval Geo-2, the risks of injury and structural damage from seismic ground shaking and seismic ground failure would be less than significant.

Mitigation Measures

None required

Landslides

Impact Geo-2: The cut slope at the Project site's northerly boundary shows evidence of erosion and fallen debris, and could potentially be susceptible to slides. Implementation of City of Oakland standard conditions of approval and compliance with all recommendations will ensure that any necessary corrective actions to address potential land instability will be implemented, minimizing the potential effects of land sliding to a level of less than significant. (**LTS with SCA**)

The Project site itself is relatively level, but an existing off-site cut slope extends along the site's northern boundary averaging approximately 50 feet in height. According to the City of Oakland Safety Element (see **Figure 4.5-3**), this large slope is identified as a Potential Landslide Area.

The inclination of the cut slope varies, but originally appears to be at about 1:1 (horizontal to vertical). As indicated in the *Geotechnical Investigation*, there are areas of erosion on this slope and there is evidence of fallen debris at the toe of the slope behind the cyclone fence and low wooden walls that have been constructed to protect the existing asphalt loading area/driveway and buildings.

The Project does not propose to conduct any grading, tree removal or alteration to this cut slope other than some additional minor landscape improvements (i.e., planting of additional trees). As such, the Project would not exacerbate or further increase slope instability.

Standard Conditions of Approval

Implementation of Standard Conditions of Approval Geo-2 requires preparation of a soils report, stipulating that "site stability be addressed and proposed corrective actions be prescribed at locations where land stability problems exist." The 2007 Geotechnical Investigation did not provide an assessment of the stability of this existing cut slope, although it does note that no signs of immediate instability were observed. To further implement SCA Geo-2, the following shall be implemented:

> **Catchment Structures:** Pursuant to recommendations from the 2007 Kleinfelder Geotechnical Investigation, the Project applicant shall reconstruct the on-site catchment structures at the toe of the cut slope along the northerly site boundary and implement measures as necessary to minimize erosion and ensure the continued stability of the cut slope. Detailed catchment structure designs shall be included in the required soils report, and implemented.

If approved, the Project would be required to comply with Standard Condition of Approval Geo-2, including the 2007 geotechnical investigation's recommendation for reconstructing catchment structures at the toe of the cut slope and any other measures determined necessary to minimize erosion and ensure

the continued stability of the cut slope. Implementation of SCA Geo-2 will ensure the continued stability of the cut slope such that the potential risk of injury and structural damage from slope failure would remain less than significant.

Mitigation Measures

None required

Geologic Fill

Impact Geo-3: Portions of the easterly side of the Project site near the quarry pond contain clayey soil with variable gravel content, potentially unsuitable as a sub-grade soil for building foundations. Implementation of City of Oakland Standard Condition of Approval and compliance with all recommendations will ensure that any necessary corrective actions to address site grading and foundation design will be implemented, minimizing the potential effects of unstable fill soils to a level of less than significant. (**LTS with SCA**)

The *Geotechnical Investigation* indicates that soils anticipated to be encountered at all proposed building locations will be able to support the proposed building loads on shallow footings, and that the floor slabs can be supported on grade over a prepared sub-grade. However, that report also identified one potential fill area located on the east side of the Project (at Boring B-1) where additional evaluation should be conducted during construction for the presence of unsuitable sub-grade soil.

Standard Conditions of Approval

The potential risk of structural damage from unstable soils would be reduced through implementation of the requirements found in SCA Geo-2. To further implement SCA Geo-2, the following shall be implemented:

> **Excavation of Unsuitable Soils:** Pursuant to recommendations from the 2007 Kleinfelder Geotechnical Investigation, in the event that unsuitable soil is encountered during the construction phase, such soils should be excavated to a firm bottom and the resulting hole should be backfilled with engineered fill or lean mix concrete.

If approved, the Project would be required to comply with Standard Condition of Approval Geo-2, including the 2007 geotechnical investigation's recommendation for unsuitable soils identified above. Implementation of SCA Geo-2 would ensure that the potential risk of structural damage from unstable soils would be less than significant.

Mitigation Measures

None required

Soil Erosion

Impact Geo-4: Site preparation and construction activity associated with the Project could result in soil erosion as the surface is disrupted. Implementation of City of Oakland Standard Conditions of Approval will ensure that all necessary measures are taken to prevent erosion during construction to a level of less than significant. (**LTS with SCA**)

The Project site has been fully developed and paved and there is little or no visible topsoil remaining. Site preparation and construction activity associated with the proposed redevelopment could result in soil erosion as the surface is disrupted.

Standard Conditions of Approval

Implementation of City of Oakland Standard Condition of Approval Geo-1, requiring preparation and implementation of an Erosion and Sediment Control Plan will ensure that all necessary measures are taken to prevent excessive erosion, including erosion resulting from stormwater runoff.

Mitigation Measures

None required

Expansive Soil

Impact Geo-5: Soils samples taken at the Project site indicate that near-surface soils are considered to have a low potential for expansion. With Standard Conditions of Approval, potential impacts related to expansive soils would be less than significant. (**LTS with SCA**)

Soils samples taken at the Project site indicate that near-surface soils are primarily clayey with a Plasticity Limit of 12, which is considered to be low expansion potential.

Standard Conditions of Approval

Compliance with Standard Condition of Approval Geo-2 includes consideration of soil expansion potential. Given the low expansion potential of soils in soil samples taken at the Project site, and with required implementation of SCA Geo-2, potential impacts related to expansive soils would be less than significant.

Mitigation Measures

None required

Wells/Pits/Swamps/Mounds/Tank Vaults/Unmarked Sewer Lines

Impact Geo-6: The Project site has been previously developed and there are no known wells, pits, swamps, mounds, tank vaults or unmarked sewer lines located below the surface of the site that would be disturbed as a result of the proposed redevelopment. (**No Impact**)

Mitigation Measures

None required

Landfills

Impact Geo-7: The Project site has been previously developed and there is no evidence to suggest that the site has been previously used as a landfill. Redevelopment of the Project site as proposed would not result in the placement of any structures above landfills. (**No Impact**)

Mitigation Measures

None required

Soils Unsuitable for Septic Tanks/Alternative Wastewater Disposal Systems

Impact Geo-8: The Project site is currently served by municipal sewage systems, and redevelopment as proposed would continue to be served by these systems. The use of septic systems is not anticipated. (**No Impact**)

Mitigation Measures

None required

Cumulative Geology/Soils Impacts

Cumulative Impact Geo-9: Portions of Oakland are underlain by unstable geology and soil conditions, and cumulative development under these conditions could expose people or structures to substantial adverse effects. However, with required implementation of City of Oakland Standard Conditions of Approval, as well as other applicable local and State laws and regulations, cumulative impacts related to unstable geology and soil conditions would remain less than significant. **(LTS)**

Cumulative development would continue to expose people and property to potential seismic hazards and adverse soil conditions. Many existing buildings (i.e., past projects) in the surrounding area have been built in accordance with older building code requirements for geotechnical and seismic safety that were in effect at the time of building construction. Present and future projects within the surrounding cumulative geographic area are now subject to enhanced building requirements that result in reduced geologic and seismic hazards. As present and future projects replace aging infrastructure and older structures with new, more rigorously regulated projects, the potential for cumulative seismic risks is incrementally reduced over time.

Review and permitting of specific development projects would involve characterization and consideration of site-specific geologic and soils conditions. All development projects in Oakland would be subject to the City's Standard Conditions of Approval, as well as other applicable local and State laws and regulations. Therefore, cumulative impacts related to geology and soils hazards would remain less than significant.

Mitigation Measures

None required

4.6

Greenhouse Gas Emissions

There has been significant recent advancement in scientific understanding of the relationship between certain air emissions and trend-line changes in climatic conditions that have national and even global ramifications. New information about greenhouse gas (GHG) emissions and their potential effects on global climate change, as well as new public environmental policy, has emerged and become more formalized. Guidance has been issued by the state regarding requirements for environmental review under CEQA for proposed projects related to GHG emissions and global climate change.

In recognition that climate change is an environmental issue now warranting review under CEQA, this EIR provides a thorough assessment of this Project's contribution to greenhouse gas and its effects on climate change. The analysis contained in this EIR relies upon the BAAQMD May 2012 updated CEQA Guidelines for assistance in calculating air pollution and greenhouse emissions.

Technical greenhouse gas emission modeling for this chapter of the EIR has been provided by ENVIRON International, Inc.

Physical Setting

There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of greenhouse gases (GHGs) that keep the Earth's surface warm by trapping heat in the Earth's atmosphere,[1] in much the same way as glass traps heat in a greenhouse. While many studies show evidence of warming over the last century and predict future global warming, the precise causes of such warming and its potential effects are far less certain.[2] While the greenhouse effect is responsible for maintaining a habitable climate on Earth, human activity has caused increased concentrations of these gases in the atmosphere, contributing to an increase in global temperatures and alteration of climatic conditions.

The U.S. EPA has recently concluded that scientists know *with virtual certainty* that:

- Human activities are changing the composition of Earth's atmosphere. Increasing levels of greenhouse gases like carbon dioxide (CO_2) in the atmosphere since pre-industrial times are well-documented and understood.
- The atmospheric buildup of CO_2 and other greenhouse gases is largely the result of human activities such as the burning of fossil fuels.

[1] U.S. Environmental Protection Agency (US EPA), Global Warming – Climate: Uncertainties (web page), January 2000, http://yosemite.epa.gov/oar/globalwarming.nsf/content/ClimateUncertainties.html#likely, accessed July 24, 2007.

[2] "Global climate change" is a broad term used to describe any worldwide, long-term change in the earth's climate. "Global warming" is more specific and refers to a general increase in temperatures across the earth, although it can cause other climatic changes, such as a shift in the frequency and intensity of weather events and even cooler temperatures in certain areas, even though the world, on average, is warmer.

- A warming trend of approximately 0.7° to 1.5° F occurred during the 20th century. Warming occurred in both the northern and southern hemispheres, and over the oceans.
- The major greenhouse gases emitted by human activities remain in the atmosphere for periods ranging from decades to centuries. It is therefore virtually certain that atmospheric concentrations of greenhouse gases will continue to rise over the next few decades. Increasing greenhouse gas concentrations tend to warm the planet."[3]

At the same time, there is much uncertainty concerning the magnitude and rate of the warming. Specifically, the US EPA notes that "important scientific questions remain about how much warming will occur; how fast it will occur; and how the warming will affect the rest of the climate system, including precipitation patterns and storms. Answering these questions will require advances in scientific knowledge in a number of areas:

- Improving understanding of natural climatic variations, changes in the sun's energy, land-use changes, the warming or cooling effects of pollutant aerosols, and the impacts of changing humidity and cloud cover.
- Determining the relative contribution to climate change of human activities and natural causes.
- Projecting future greenhouse emissions and how the climate system will respond within a narrow range.
- Improving understanding of the potential for rapid or abrupt climate change."[4]

Greenhouse Gases (GHGs)

Carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) are the principal GHGs, and when concentrations of these gases exceed the natural concentrations in the atmosphere, the greenhouse effect may be enhanced. CO_2, CH_4, and N_2O occur naturally, but are also generated through human activity. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Other human-generated GHGs, which have much higher heat-absorption potential than CO_2, include fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6), which are byproducts of certain industrial processes.[5]

Potential Effects of Human Activity on GHG Emissions

Fossil fuel combustion, especially for the generation of electricity and powering of motor vehicles, has led to substantial increases in CO_2 emissions (and thus substantial increases in atmospheric concentrations). In 1994, atmospheric CO_2 concentrations were found to have increased by nearly 30 percent above pre-industrial (c.1860) concentrations.

The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential (GWP),[6] and is expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalents (CO_2e).

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[3] US EPA, 2000, op. cit.

4 Ibid.

5 CalEPA, 2006b. *Final 2006 Climate Action Team Report to the Governor and Legislature.* Sacramento, CA. April 3.

6 The potential of a gas or aerosol to trap heat in the atmosphere.

Global Emissions

Worldwide emissions of GHGs in 2004 were 30 billion tons of CO_2e per year[7] (including both ongoing emissions from industrial and agricultural sources, but excluding emissions from land-use changes).

U.S. Emissions

In 2004, the United States emitted about 8 billion tons of CO_2e or about 25 tons/year/person. Of the four major sectors nationwide - residential, commercial, industrial and transportation - transportation accounts for the highest fraction of GHG emissions (approximately 35 to 40 percent); these emissions are entirely generated from direct fossil fuel combustion.[8]

State of California Emissions

In 2004, California emitted approximately 550 million tons of CO_2e, or about 6 percent of the U.S. emissions. This large number is due primarily to the sheer size of California compared to other states. By contrast, California has one of the fourth lowest per capita GHG emission rates in the country, due to the success of its energy-efficiency and renewable energy programs and commitments that have lowered the State's GHG emissions rate of growth by more than half of what it would have been otherwise.[9] Another factor that has reduced California's fuel use and GHG emissions is its mild climate compared to that of many other states.

The California 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_2 equivalence) were as follows:

- Carbon dioxide (CO_2) accounted for 83.3 percent;
- Methane (CH_4) accounted for 6.4 percent;
- Nitrous oxide (N_2O) accounted for 6.8 percent; and
- Fluorinated gases (HFCs, PFC, and SF_6) accounted for 3.5 percent.[10]

The California Energy Commission found that transportation is the source of approximately 41 percent of the State's GHG emissions, followed by electricity generation (both in-state and out-of-state) at 23 percent, and industrial sources at 20 percent. Agriculture and forestry is the source of approximately 8.3 percent, as is the source categorized as "other," which includes residential and commercial activities.[11]

7 United Nations Framework Convention on Climate Change (UNFCCC), *Sum of Annex I and Non-Annex I Countries Without Counting Land-Use, Land-Use Change and Forestry (LULUCF). Predefined Queries: GHG total without LULUCF* (Annex I Parties). Bonn, Germany, http://unfccc.int/ghg_emissions_data/predefined_queries/items/3814.php, accessed May 2, 2007.

8 US EPA, 2000, op. cit.

9 California Energy Commission (CEC), Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 - Final Staff Report, publication # CEC-600-2006-013-SF, Sacramento, CA, December 22, 2006; and January 23, 2007 update to that report.

10 Cal EPA, 2006b, op. cit.

11 California Energy Commission (CEC), 2007, op. cit.

Bay Area Emissions

BAAQMD most recently updated the GHG emission inventory in 2010 using a base year of 2007.[12] In the Bay Area, fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of the Bay Area's GHG emissions, accounting for 36.41% of the Bay Area's 95.8 million tons of GHG emissions in 2007. Industrial and commercial sources were the second largest contributors of GHG emissions with about 36.40% of total emissions. Domestic sources (e.g., home water heaters, furnaces, etc.) account for about 7% of the Bay Area's GHG emissions, and energy production accounted for 15.9% percent. Off-road equipment and agriculture make up the remainder with approximately 3% and 1.2% of the total Bay Area 2007 GHG emissions, respectively.

Oakland Emissions

The City of Oakland, in partnership with the Local Governments for Sustainability (ICLEI), has developed a greenhouse gas emissions inventory estimating citywide GHG emissions for the year 2005 at approximately 3 million metric tons of CO_2e.[13] This citywide GHG emissions inventory reflects all the energy used and waste produced within the Oakland city limits. When emissions from highway transportation are considered in this total, approximately 58% of Oakland's GHG emissions are associated with the transportation sector. Natural gas consumption represents approximately 22% of Oakland's GHG emissions, while electricity use and decomposition represent 16% and 4% of Oakland's GHG emissions, respectively.

Table 4.6-1: Oakland Estimated Community-wide GHG Emissions, 2005

GHG Emission Source	Metric Tons of Carbon Dioxide Equivalent (CO_2e)	Percent of Total
Non-Highway Transportation	759,883	22%
Highway Transportation	1,006,911	29%
Mobile Sources (Port of Oakland)	211,910	6%
Commercial/Industrial Electricity	320,212	9%
Commercial/Industrial Natural Gas	285,365	8%
Residential Electricity	150,105	4%
Residential Natural Gas	346,339	10%
Other Stationary Sources	226,900	7%
Landfill Methane from Solid Waste	126,361	4%
Total	3,433,986	100%

Source: City of Oakland, Garrett Fitzgerald, Sustainability Coordinator.
Note: Individual percentages do not sum to total due to rounding.

[12] BAAQMD. *Source Inventory of Bay Area Greenhouse Gas Emissions.* February 2010.

[13] City of Oakland Resolution Approving Preliminary Planning Targets for Development of the Draft Oakland Energy and Climate Action Plan. June 23, 2009.

Construction and Development Emissions

The construction and operation of developments, such as the proposed Project, cause GHG emissions. Operational phase GHG emissions result from energy use associated with heating, lighting and powering buildings (typically through natural gas and electricity consumption in Oakland), pumping and processing water, as well as fuel used for transportation and decomposition of waste associated with building occupants. New development can also create GHG emissions in its construction and demolition phases including the use of fuels in construction equipment, creation and decomposition of building materials, vegetation clearing, natural gas usage, electrical usage (since electricity generation by conventional means is a major contributor to GHG emissions, discussed below), and transportation.

However, it is important to acknowledge that new development does not necessarily create entirely new GHG emissions, since most of the persons who will visit or occupy new development will come from other locations where they were already causing such GHG emissions. Further, as discussed above, it has not been demonstrated that new GHG emissions caused by a local development project can affect global climate change, or that a project's net increase in GHG emissions, if any, when coupled with other activities in the region, would be cumulatively considerable.

Potential Effects of Human Activity on Global Climate Change

Globally, climate change has the potential to impact numerous environmental resources through anticipated, though uncertain, impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. A warming of about 0.2°C (0.36°F) per decade is projected, and there are identifiable signs that global warming is taking place, including substantial loss of ice in the Arctic.[14]

However, the understanding of GHG emissions, particulate matter, and aerosols on global climate trends remains uncertain. In addition to uncertainties about the extent to which human activity rather than solar or volcanic activity is responsible for increasing warming, there is also evidence that some human activity has cooling, rather than warming, effects, as discussed in detail in numerous publications by the International Panel on Climate Change (IPCC), namely "Climate Change 2001, The Scientific Basis"(2001).[15]

Acknowledging uncertainties regarding the rate at which anthropogenic greenhouse gas emissions would continue to increase (based upon various factors under human control, such as future population growth and the locations of that growth; the amount, type, and locations of economic development; the amount, type, and locations of technological advancement; adoption of alternative energy sources; legislative and public initiatives to curb emissions; and public awareness and acceptance of methods for reducing emissions), and the impact of such emissions on climate change, the IPCC devised a set of six "emission scenarios" which utilize various assumptions about the rates of economic development, population growth, and technological advancement over the course of the next century.[16] These emission scenarios are paired with various climate sensitivity models to attempt to account for the range of uncertainties that affect climate change projections. The wide range of temperature, precipitation, and similar projections

[14] International Panel on Climate Change (IPCC) Special Report on Emissions Scenarios, 2000, www.grida.no/climate/ipcc/emission/002.htm, accessed July 24, 2007.

[15] The IPCC was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme to assess scientific, technical and socio-economic information relevant for the understanding of climate change, its potential impacts and options for adaptation and mitigation.

[16] IPCC, 2000, op. cit.

yielded by these scenarios and models reveal the magnitude of uncertainty presently limiting climate scientists' ability to project long-range climate change (as previously discussed).

The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects, according to the IPCC[17]:

- Snow cover is projected to contract, with permafrost areas sustaining thawing;
- Sea ice is projected to shrink in both the Arctic and Antarctic;
- Hot extremes, heat waves, and heavy precipitation events are likely to increase in frequency;
- Future tropical cyclones (typhoons and hurricanes) will likely become more intense;
- Non-tropical storm tracks are projected to move poleward, with consequent changes in wind, precipitation, and temperature patterns. Increases in the amount of precipitation are very likely in high-latitudes, while decreases are likely in most subtropical regions; and
- Warming is expected to be greatest over land and at most high northern latitudes, and least over the Southern Ocean and parts of the North Atlantic Ocean.

Potential secondary effects from global warming include global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

Potential Effects of Climate Change on State of California

According to the California Air Resources Board (CARB), some of the potential impacts in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years.[18] Several recent studies have attempted to explore the possible negative consequences that climate change, left unchecked, could have in California. These reports acknowledge that climate scientists' understanding of the complex global climate system, and the interplay of the various internal and external factors that affect climate change, remains too limited to yield scientifically valid conclusions on such a localized scale. Substantial work has been done at the international and national level to evaluate climatic impacts, but far less information is available on regional and local impacts. In addition, projecting regional impacts of climate change and variability relies on large-scale scenarios of changing climate parameters, using information that is typically at too general a scale to make accurate regional assessments.[19]

Below is a summary of some of the potential effects reported in an array of studies that could be experienced in California as a result of global warming and climate change:

Air Quality

Higher temperatures, conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. For other pollutants, the effects of climate change and/or weather are less well studied, and even less well understood.[20] If higher temperatures are accompanied by

[17] Ibid.

[18] California Air Resources Board (CARB), 2006c. Public Workshop to Discuss Establishing the 1990 Emissions Level and the California 2020 Limit and Developing Regulations to Require Reporting of Greenhouse Gas Emissions, Sacramento, CA. December 1.

[19] Kiparsky, M. and P.H. Gleick, 2003. *Climate Change and California Water Resources: A Survey and Summary of the Literature*. Oakland, CA: Pacific Institute for Studies in Development. July 2003

[20] US EPA, 2007, op. cit.

drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the State.[21]

Water Supply

Uncertainty remains with respect to the overall impact of global climate change on future water supplies in California. For example, models that predict drier conditions (i.e., parallel climate model (PCM)) suggest decreased reservoir inflows and storage and decreased river flows relative to current conditions. By comparison, models that predict wetter conditions (i.e., HadCM2) project increased reservoir inflows and storage, and increased river flows.[22]

A July 2006 technical report prepared by the California Department of Water Resources (DWR) addresses the State Water Project (SWP), the Central Valley Project, and the Sacramento-San Joaquin Delta. Although the report projects that "[c]limate change will likely have a significant effect on California's future water resources . . . [and] future water demand," it also reports that "much uncertainty about future water demand [remains], especially [for] those aspects of future demand that will be directly affected by climate change and warming. While climate change is expected to continue through at least the end of this century, the magnitude and, in some cases, the nature of future changes is uncertain. This uncertainty serves to complicate the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood."[23] DWR adds that "[i]t is unlikely that this level of uncertainty will diminish significantly in the foreseeable future."[24] Still, changes in water supply are expected to occur, and many regional studies have shown that large changes in the reliability of water yields from reservoirs could result from only small changes in inflows.25 Water purveyors, such as the East Bay Municipal Utilities District (EBMUD), are required by state law to prepare Urban Water Management Plans (UWMPs) (discussed below, under Regulatory Context for Greenhouse Gas Emissions and Climate Change) that consider climatic variations and corresponding impacts on long-term water supplies.26 DWR has published a 2005 SWP Delivery Reliability Report, which presents information from computer simulations of the SWP operations based on historical data over a 73-year period (1922–1994). The DWR notes that the results of those model studies "represent the best available assessment of the delivery capability of the SWP." In addition, the DWR is continuing to update its studies and analysis of water supplies. EBMUD would incorporate this information from DWR in its update of its current UWMP 2005 (required every five years per the California Water Code), and information from the UWMP can be incorporated into Water Supply

[21] California Climate Change Center (CCCC), 2006. Our Changing Climate: Assessing the Risks to California, CEC-500-2006-077, Sacramento, CA. July.

[22] Brekke, L.D., et al, 2004. "Climate Change Impacts Uncertainty for Water Resources in the San Joaquin River Basin, California." Journal of the American Water Resources Association. 40(2): 149–164. Malden, MA, Blackwell Synergy for AWRA.

[23] California Department of Water Resources (DWR), 2006. Progress on Incorporating Climate Change into Management of California Water Resources, Sacramento, CA. July.

[24] Ibid.

[25] Kiparsky 2003, op. cit; DWR, 2005, op. cit.; Cayan, D., et al, 2006. Scenarios of Climate Change in California: An Overview (White Paper, CEC-500-2005-203-SF), Sacramento, CA. February.

[26] California Water Code, Section 10631(c).

Assessments (WSAs) and Water Verifications prepared for certain development projects in accordance with Cal. Water Code Section 10910, et. seq. and Cal. Government Code Section 66473.7, et. seq.

Hydrology

As discussed above, climate change could potentially affect the following: the amount of snowfall, rainfall and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea level rise can be a product of global warming through two main processes -- expansion of sea water as the oceans warm and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could also jeopardize California's water supply. In particular, saltwater intrusion would threaten the quality and reliability of the state's major fresh water supply that is pumped from the southern portion of the Sacramento/San Joaquin River Delta. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has a $30 billion agricultural industry that produces half the country's fruits and vegetables. The California Climate Change Center (CCCC) notes that higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase, crop-yield could be threatened by a less reliable water supply, and greater ozone pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year that certain crops, such as wine grapes, bloom or ripen, and thus affect their quality.[27]

Ecosystems and Wildlife

Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. In 2004, the Pew Center on Global Climate Change released a report examining the possible impacts of climate change on ecosystems and wildlife.[28] The report outlines four major ways in which it is thought that climate change could affect plants and animals: (1) timing of ecological events; (2) geographic range; (3) species' composition within communities; and (4) ecosystem processes such as carbon cycling and storage.

Regulatory Context

Global climate change is addressed through the efforts of various federal, state, regional and local government agencies as well as national and international scientific and governmental conventions and programs. These agencies work jointly, as well as individually to understand and regulate the effects of greenhouse gas emissions and resulting climate change through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies, conventions and programs focused on global climate change are discussed below.

[27] California Climate Change Center (CCCC), 2006, op. cit.

[28] Parmesan, C. and H. Galbraith, *Observed Impacts of Global Climate Change in the U.S.,* Arlington, VA: Pew Center on Global Climate Change, November 2004.

International and Federal

Kyoto Protocol

The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008–2012. It should be noted that although the United States is a signatory to the Kyoto Protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments.

Copenhagen Summit

The 2009 United Nations Climate Change Conference (Copenhagen Summit) was held in Denmark in December 2009. The conference included the 15 Conference of the Parties to the United Nations Framework Convention on Climate Change, and the fifth meeting of the Parties to the Kyoto Protocol. A framework for climate change mitigation beyond 2012 was to be agreed there. The Copenhagen Accord was drafted by the US, China, India, Brazil, and South Africa on December 18, 2009 and judged to be a "meaningful agreement" by the United Stated government. It was "taken note of" but not "adopted" in a debate of all the participating countries the next day. The document recognized that climate change is one of the greatest challenges of the present day and that actions should be taken to keep any temperature increases to below 2 degrees C. The document is not legally binding and does not contain any legally binding commitments for reducing CO2 emissions.

Climate Change Technology Program

The United States has opted for a voluntary and incentive-based approach toward emissions reductions in lieu of the Kyoto Protocol's mandatory framework. The Climate Change Technology Program (CCTP) is a multi-agency research and development coordination effort (which is led by the Secretaries of Energy and Commerce) that is charged with carrying out the President's National Climate Change Technology Initiative.[29]

U.S. Environmental Protection Agency (U.S. EPA)

To date, the U.S. EPA has not regulated GHGs under the Clean Air Act (discussed above) based on its assertion in *Massachusetts et. al. v. EPA et. al*[30] that the "Clean Air Act does not authorize it to issue mandatory regulations to address global climate change and that it would be unwise to regulate GHG emissions because a causal link between GHGs and the increase in global surface air temperatures has not been unequivocally established." However, in the same case from 2007 (*Massachusetts v. EPA*), the U.S. Supreme Court held that the U.S. EPA can, and should, consider regulating motor-vehicle GHG emissions.

In December of 2009, the EPA issued an "endangerment" finding about carbon dioxide and other greenhouse gases. The endangerment finding classified six greenhouse gases as pollutants that threaten health: carbon dioxide, methane, nitrous oxide, hydro-fluorocarbons, per-fluorocarbons and sulfur

[29] Climate Change Technology Program (CCTP), About the U.S. Climate Change Technology Program (web page), Washington, D.C., last updated April 2006, http://www.climatetechnology.gov/about/index.htm, accessed July 24, 2007.

[30] U.S. Supreme Court, Massachusetts et. al. v. EPA et. al (No. 05-1120, 415F 3d 50), April 2, 2007.

hexafluoride. These findings could potentially enable the EPA to make rules restricting greenhouse gas emissions under the Clean Air Act, but to date no such rules have been enacted.

State of California

Assembly Bill (AB) 1493

On July 1, 2002, the California Assembly passed Assembly Bill (AB) 1493 (signed into law on July 22, 2002), requiring the CARB to "adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." The regulations were to be adopted by January 1, 2005, and apply to 2009 and later model-year vehicles. In September 2004, CARB responded by adopting "CO_2-equivalent fleet average emission" standards. The standards will be phased in from 2009 to 2016, reducing emissions by 22 percent in the "near term" (2009–2012) and 30 percent in the "mid term" (2013–2016), as compared to 2002 fleets.

Executive Order (EO) S-3-05

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05, establishing statewide GHG emission reduction targets. This EO provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent below 1990 levels. The Secretary of the California Environmental Protection Agency (CalEPA) is charged with coordinating oversight of efforts to meet these targets and formed the Climate Action Team (CAT) to carry out the EO.

California Assembly Bill 32 (AB 32)

On August 31, 2006, the California Assembly passed Bill 32 (AB 32) (signed into law on September 27, 2006), the California Global Warming Solutions Act of 2006. AB 32 commits California to reduce GHG emissions to 1990 levels by 2020 and establishes a multi-year regulatory process under the jurisdiction of the CARB to establish regulations to achieve these goals. The regulations shall require monitoring and annual reporting of GHG emissions from selected sectors or categories of emitters of GHGs.

On December 11, 2008, CARB adopted its *Climate Change Scoping Plan* (Scoping Plan), which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce CO_2e emissions to meet AB 32 targets. The 2020 emissions baseline used in the 2008 Scoping Plan is 596 MMTCO2e. This estimate of statewide 2020 emissions was developed using pre-recession 2007 data and reflects GHG emissions expected to occur in the absence of any reduction measures in 2010. CARB re-evaluated the baseline in light of the economic downturn and updated the projected 2020 emissions to 545 MMTCO2e. Two reduction measures (Pavley I and the Renewables Portfolio Standard of 20% by 2020) not previously included in the 2008 Scoping Plan baseline were incorporated into the updated baseline, further reducing the 2020 statewide emissions projection to 507 MMTCO2e. The updated forecast of 507 MMTCO2e is referred to as the AB 32 2020 baseline.[31] Reduction of an estimated 80 MMTCO2e are necessary to reduce statewide emissions to the AB 32 target of 427 MMTCO2e by 2020.

The Scoping Plan also includes recommended measures that were developed to reduce greenhouse gas emissions from key sources and activities while improving public health, promoting a cleaner environment, preserving our natural resources, and ensuring that the impacts of the reductions are

[31] California EPA, Air Resources Board (CARB), Greenhouse Gas Inventory – 2020 Emissions Forecast, April 6, 2012, http://www.arb.ca.gov/cc/inventory/data/forecast.htm, accessed October 30, 2012

equitable and do not disproportionately impact low-income and minority communities. These measures, shown below in **Table 4.6-2** by sector, also put the state on a path to meet the long-term 2050 goal of reducing California's greenhouse gas emissions to 80 percent below 1990 levels.

Table 4.6-2: List of Recommended Actions by Sector

Measure No.	Measure Description	GHG Reductions (Annual Million Metric Tons CO_2e)
Transportation		
T-1	Pavley I and II – Light Duty Vehicle Greenhouse Gas Standards	31.7
T-2	Low Carbon Fuel Standard (Discrete Early Action)	15.0
T-3[1]	Regional Transportation-Related Greenhouse Gas Targets	5.0
T-4	Vehicle Efficiency Measures	4.5
T-5	Ship Electrification at Ports (Discrete Early Action)	0.2
T-6	Goods Movement Efficiency Measures. -Ship Electrification at Ports, System-Wide Efficiency Improvements	3.5
T-7	Heavy-Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	0.93
T-8	Medium- and Heavy-Duty Vehicle Hybridization	0.5
T-9	High Speed Rail	1.0
Electricity and Natural Gas		
E-1	Energy Efficiency (32,000 GWh of Reduced Demand) - Increased Utility Energy Efficiency Programs, More Stringent Building & Appliance Standards, Additional Efficiency and Conservation Programs	15.2
E-2	Increase Combined Heat and Power Use by 30,000 GWh (Net reductions include avoided transmission line loss)	6.7
E-3	Renewables Portfolio Standard (33% by 2020)	21.3
E-4	Million Solar Roofs (including California Solar Initiative, New Solar Homes Partnership and solar programs of publicly owned utilities)	2.1
	Target of 3000 MW Total Installation by 2020	
CR-1	Energy Efficiency (800 Million Therms Reduced Consumptions) - Utility Energy Efficiency Programs, Building and Appliance Standards, Additional Efficiency and Conservation Programs	4.3
CR-2	Solar Water Heating (AB 1470 goal)	0.1
Green Buildings		
GB-1	Green Buildings	26.0
Water		
W-1	Water Use Efficiency	1.4†
W-2	Water Recycling	0.3†
W-3	Water System Energy Efficiency	2.0†
W-4	Reuse Urban Runoff	0.2†

W-5	Increase Renewable Energy Production	0.9†
W-6	Public Goods Charge (Water)	TBD†
Industry		
I-1	Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	TBD
I-2	Oil and Gas Extraction GHG Emission Reduction	0.2
I-3	GHG Leak Reduction from Oil and Gas Transmission	0.9
I-4	Refinery Flare Recovery Process Improvements	0.3
I-5	Removal of Methane Exemption from Existing Refinery Regulations	0.01

†GHG emission reduction estimates are not included in calculating the total reductions needed to meet the 2020 target

While CARB has identified a GHG reduction target of 15 percent for local governments themselves, it has not yet determined what amount of GHG emissions reductions it recommends from local government land use decisions. However, the Scoping Plan does state that successful implementation of the plan relies on local governments land use planning and urban growth decisions because local governments have primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions. CARB further acknowledges that decisions on how land is used will have large effects on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors.

The Scoping Plan identified 5.0 $MMTCO_2e$ as a placeholder for what could be achieved by the Sustainable Communities and Climate Protection Act of 2008 (SB 375) through sustainable regional transportation and local land use planning. The SB 375 Staff Report identifies 3.0 $MMTCO_2e$, which is the aggregate from the regional passenger vehicle GHG reduction targets established for the 18 Metropolitan Planning Organizations approved in 2010.

California Senate Bill 97 (SB 97)

SB 97, signed by governor of California in August 2007 (Chapter 185, Statutes of 2007; Public Resources Code, Sections 21083.05 and 21097), acknowledges climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Resources Agency by July 1,2009 guidelines for mitigating GHG emissions or the effects of GHG emissions, as required by CEQA. The California Resources Agency was required to certify and adopt these guidelines by January 1, 2010. Amendments to the CEQA Guidelines pursuant to SB 97 were adopted in March 2010.

Amendments to the CEQA Guidelines

Amendments to the CEQA Guidelines pursuant to SB 97 became effective on March 18, 2010. Among the changes included in these recent CEQA Guidelines amendments are guidance for determining the significance of impacts from greenhouse gas emissions (CEQA Guidelines §15064.4). These guidelines indicate that "The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency . . . A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." A lead agency shall have discretion to determine, in the context of a particular project, whether to use a model or other methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use, or whether to rely on a qualitative analysis or performance based standard.

These Guidelines also indicate that a lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

- "The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions."

In determining thresholds of significance, § 15064.7 indicates that "Each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. Thresholds of significance to be adopted for general use as part of the lead agency's environmental review process must be adopted by ordinance, resolution, rule, or regulation, and developed through a public review process and be supported by substantial evidence. When adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

Finally, in considering mitigation measures related to greenhouse gas emissions, § 15126.4 indicates that "lead agencies shall consider feasible means, supported by substantial evidence and subject to monitoring or reporting, of mitigating the significant effects of greenhouse gas emissions. Measures to mitigate the significant effects of greenhouse gas emissions may include, among others:

- Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency's decision;
- Reductions in emissions resulting from a project through implementation of project features, project design, or other measures;
- Off-site measures, including offsets that are not otherwise required, to mitigate a project's emissions; and
- Measures that sequester greenhouse gases;
- In the case of the adoption of a plan, such as a general plan, long range development plan, or plans for the reduction of greenhouse gas emissions, mitigation may include the identification of specific measures that may be implemented on a project-by-project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions."

California Senate Bill 375 (SB 375)

Governor Schwarzenegger signed SB 375 into law in September 2008 (Chapter 728, Statutes of 2008). The legislation aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) that will prescribe land use allocation in the MPO's Regional Transportation Plan. The MTCs Sustainable Communities Strategy is projected to be ready for consideration of adoption in the spring of 2013. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction

strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

This bill also extends the minimum time period for the Regional Housing Needs Allocation (RNHA) cycle from 5 years to 8 years for local governments located in an MPO that meets certain requirements. City or County land use policies (e.g., General Plans) are not required to be consistent with the RTP including associated SCSs or APSs. Qualified projects consistent with an approved SCS or APS and categorized as "transit priority projects" would receive incentives under new provisions of CEQA.

California Green Building Standards Code (CALGreen).

The California Green Building Standards Code (CALGreen) supplements the California Building Standards Code (Title 24) and requires all new buildings in the state to incorporate energy saving features. New standards include the following:

- Water efficiency: New buildings must demonstrate at least a 20 percent reduction in water use over typical baseline conditions.
- Construction waste: At least 50 percent of construction waste must be recycled, reused, or otherwise diverted from landfilling.
- Interior finishes: Interior finishes such as paints, carpet, vinyl flooring, particle board, and other similar materials must be low-pollutant emitting.
- Landscape irrigation: In non-residential buildings, separate water meters must be provided for a building's indoor and outdoor water use. Large landscape projects must use moisture-sensing irrigation systems to limit unnecessary watering.
- Mandatory inspections of energy systems: In non-residential buildings over 10,000 square feet, mandatory inspections of energy systems (e.g., heat furnace, air conditioner and mechanical equipment) are required to ensure that such systems are working at their maximum capacity and according to their design efficiencies.

California Urban Water Management Planning Act

The California Urban Water Management Planning Act requires various water purveyors throughout the State of California (such as EBMUD) to prepare UWMPs, which assess the purveyor's water supplies and demands over a 20-year horizon (California Water Code, Section 10631 *et seq.*). As required by that statute, UWMPs are updated by the purveyors every five years. As discussed above, this is relevant to global climate change which may affect future water supplies in California, as conditions may become drier or wetter, affecting reservoir inflows and storage and increased river flows.[32]

Bay Area Air Quality Management District (BAAQMD)

The Project site falls within the San Francisco Bay Area Air Basin and therefore under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The BAAQMD adopted updated *Thresholds of Significance and California Environmental Quality Act Guidelines* to assist in the review of projects under the California Environmental Quality Act on June 2, 2010. On March 5, 2012 the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the BAAQMD Thresholds and the court issued a writ of mandate ordering the BAAQMD to set aside the BAAQMD Thresholds and cease dissemination of them until the BAAQMD had complied with

[32] Brekke, 2004, op. cit.

CEQA. The court did not determine whether the Thresholds were valid on the merits. The BAAQMD CEQA Guidelines (updated May 2012) provide guidance for consideration by lead agencies, consultants, and other parties evaluating air quality impacts in the San Francisco Bay Area Air Basin conducted pursuant to CEQA. The document includes guidance on evaluating and mitigating greenhouse gas emissions impacts.

City of Oakland

Oakland Energy and Climate Action Plan

In 2009, the City Council directed staff to develop an Energy and Climate Action Plan (ECAP) using a preliminary planning GHG reduction target equivalent to 36% below 2005 GHG emissions by 2020, with annual benchmarks for meeting the target. Based on Oakland's baseline 2005 GHG inventory, totaling approximately 3 million metric tons of CO_2e emissions and current forecasts of business-as-usual emissions growth, reducing GHG emissions by the equivalent of 36% below 2005 levels by 2020 will require taking actions that cumulatively add up to approximately 1.1 million metric tons of CO_2e reductions. On December 4, 2012, the City Council adopted the ECAP which evaluates and prioritizes opportunities to reduce energy consumption and GHG emissions in its own government operations and throughout the community.

The ECAP also includes a set of actions aimed at increasing local resilience and helping Oakland adapt to the projected impacts of climate change. In addition, Oakland is participating in the regional Adapting to Rising Tides (ART) project, led by the San Francisco Bay Conservation Development Commission (BCDC) and the National Oceanic and Atmospheric Administration (NOAA). The ART project, which began in late 2010, was created to advance regional understanding of how sea level rise and other climate change impacts will affect the Bay Area and to begin to explore adaptation strategies that may benefit Oakland and the region.

City of Oakland General Plan

Land Use and Transportation Element (LUTE)

The LUTE (which includes the Pedestrian Master Plan and Bicycle Master Plan) of the Oakland General Plan contains the following policies that address issues related to GHG emissions and climate change:

> *Policy T.2.1:* Transit-oriented development should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city or commuter rail.
>
> *Policy T.2.2:* Transit-oriented developments should be pedestrian-oriented, encourage night and day time use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods.
>
> *Policy T3.5:* The City should include bikeways and pedestrian ways in the planning of new, reconstructed, or realigned streets, wherever possible.
>
> *Policy T3.6:* The City should encourage and promote use of public transit in Oakland by expediting the movement of and access to transit vehicles on designated "transit streets" as shown on the Transportation Plan.
>
> *Policy T4.2:* Through cooperation with other agencies, the City should create incentives to encourage travelers to use alternative transportation options.
>
> *Policy N3.2:* In order to facilitate the construction of needed housing units, infill development that is consistent with the General Plan should take place throughout the City of Oakland.

> *Policy T4.5:* The City should prepare, adopt, and implement a Bicycle and Pedestrian Master Plan as a part of the Transportation Element of [the] General Plan.

Open Space, Conservation and Recreation Element (OSCAR)

The OSCAR Element includes policies that address GHG reduction and global climate change. Listed below are the following types of OSCAR policies: policies that encourage the provision of open space, which increases vegetation area (trees, grass, landscaping, etc.) to effect cooler climate, reduce excessive solar gain, and absorb CO2; policies that encourage stormwater management, which relates to the maintenance of floodplains and infrastructure to accommodate potential increased storms and flooding; and policies that encourage energy efficiency and use of alternative energy sources, which directly address reducing GHG emissions.

> *Policy OS-1.1:* Conserve existing City and Regional Parks characterized by steep slopes, large groundwater recharge areas, native plant and animal communities, extreme fire hazards, or similar conditions.
>
> *Policy OS-2.1*: Manage Oakland's urban parks to protect and enhance their open space character while accommodating a wide range of outdoor recreational activities.
>
> *Policy CO-5.3*: Employ a broad range of strategies, compatible with the Alameda Countywide Clean Water Program. See Policy CO-12.1 under OSCAR policies that address general air quality.
>
> *Policy CO-12.3*: Expand existing transportation systems management and transportation demand management strategies which reduce congestion, vehicle idling, and travel in single passenger autos. See Policy CO-12.4 under OSCAR policies that address general air quality.
>
> *Policy CO-12.5*: Require new industry to use best available control technology to remove pollutants, including filtering, washing, or electrostatic treatment of emissions.
>
> *Policy CO-13.2*: Support public information campaigns, energy audits, the use of energy-saving appliances and vehicles, and other efforts which help Oakland residents, businesses, and City operations become more energy efficient.
>
> *Policy CO-13.3*: Encourage the use of energy-efficient construction and building materials. Encourage site plans for new development which maximize energy efficiency.
>
> *Policy CO-13.4:* Accommodate the development and use of alternative energy resources, including solar energy and technologies which convert waste or industrial byproducts to energy, provided that such activities are compatible with surrounding land uses and regional air and water quality requirements.

Historic Preservation Element (HPE)

A key HPE policy relevant to climate change encourages the reuse of existing building (and building materials) resources, which could reduce landfill material (a source of methane, a GHG), avoid the incineration of materials (which produces CO2 as a by-product), avoid the need to transport materials to disposal sites (which produces GHG emissions), and eliminate the need for materials to be replaced by new product (which often requires the use of fossil fuels to obtain raw and manufacture new material).[33]

[33] US EPA, 2006a. General Information on the Link Between Solid Waste and Greenhouse Gas Emissions (web page), October, http://www.epa.gov/climatechange/wycd/waste/generalinfo.html, accessed August 10, 2007.

Safety Element

Safety Element policies that address wildfire hazards are related to climate change in that increased temperatures could increase fire risk in areas that become drier due to climate change.[34] Also, wildfire results in the loss of vegetation; carbon is stored in vegetation, and when the vegetation burns, the carbon returns to the atmosphere.[35] The occurrence of wildfire also emits particulate matters into the atmosphere. Safety Element policies also address storm-induced flooding hazards related to the potential to accommodate potential increase in storms and flooding as a result of climate change. Pertinent safety Element policies including the following:

> *Policy FI-3:* Prioritize the reduction of the wildfire hazard, with an emphasis on prevention.
>
> *Policy FL-1:* Enforce and update local ordinances and comply with regional orders that would reduce the risk of storm-induced flooding.
>
> *Policy FL-2:* Continue or strengthen city programs that seek to minimize the storm-induced flooding hazard.

Other City of Oakland Programs and Policies

The City of Oakland has supported and adopted a number of programs and policies designed to reduce GHG emissions and continue Oakland's progress toward becoming a model sustainable city. Programs and policies of relevance to new residential development include:

Sustainable Oakland Program

Oakland's sustainability efforts are coordinated through the Sustainable Oakland program, a product of the Oakland Sustainability Community Development Initiative created in 1998 (ordinance 74678 C.M.S.)

Green Building

The City of Oakland has implemented Green Building principles through Green Building Guidelines (Resolution No. 79871, 2006) for construction and remodeling, and Green Building Education Incentives for developers. A Green Building Ordinance for private development was approved by City Council on October 19, 2010. Starting January 1, 2011 and ongoing, the ordinance requirements will be mandatory. However, because the application for the Project was deemed complete in 2010, the Green Building Ordinance is not applicable to the proposed Project.

Downtown Housing

The 10K Downtown Housing Initiative has a goal of attracting 10,000 new residents to downtown Oakland by encouraging the development of 6,000 market-rate housing units. This effort is consistent with Smart Growth principles.

Waste Reduction and Recycling

The City of Oakland has implemented a residential recycling program increasing the collection of yard trimmings and food waste. This program has increased total yard trimming collections by 46 percent

[34] US EPA, Climate Change – Health and Environmental Effects: Health (web page), October 2006b, www.epa.gov/climatechange/effects/health.html, accessed July 24, 2007.

[35] National Aeronautics and Space Administration (NASA), El Nino-Related Fires Increase Greenhouse Gas Emissions, January 5, 2005, http://www.nasa.gov/centers/goddard/news/topstory/2004/0102firenino.html, accessed August 10, 2007.

compared to 2004, and recycling tonnage by 37 percent. Chapter 15.34, Construction and Demolition Debris Waste Reduction and Recycling Requirements, of the Oakland Municipal Code requires non-residential and apartment house demolition and new construction projects, and alterations with a valuation of $50,000 or more, to recycle 100 percent of all asphalt and concrete materials and 65 percent of all other materials.

Polystyrene Foam Ban Ordinance

In June 2006, the Oakland City Council passed the Green Food Service Ware Ordinance (Ordinance 14727, effective as of January 1, 2007), which prohibits the use of polystyrene foam disposable food service ware and requires, when cost neutral, the use of biodegradable or compostable disposable food service ware by food vendors and City facilities.

Zero Waste Resolution

In March 2006, the Oakland City Council adopted a Zero Waste Goal by 2020 Resolution (Resolution 79774 C.M.S.), and commissioned the creation of a Zero Waste Strategic Plan to achieve the goal.

Community Gardens and Farmer's Markets

Community Garden locations include Arroyo Viejo, Bella Vista, Bushrod, Golden Gate, Lakeside Horticultural Center, Marston Campbell, Temescal, and Verdese Carter. Weekly Farmer's Market locations include the Jack London Square, Old Oakland, Grand Lake, Mandela, and Temescal districts. Both efforts promote and facilitate the principal of growing and purchasing locally, which reduces truck and vehicle use, and GHG emissions.

Uniformly Applied Development Standards Imposed as Standard Conditions of Approval[36]

The City's Standard Conditions of Approval relevant to greenhouse gas emissions are listed below for reference. These Conditions of Approval will be adopted as requirements of the proposed Project if the Project is approved by the City to help ensure that no significant greenhouse gas impacts occur. As a result, they are not listed as mitigation measures.

> **SCA Trans-1: Parking and Transportation Demand Management**: *Prior to issuance of a final inspection of the building permit.* The applicant shall pay for and submit for review and approval by the City a Transportation Demand Management (TDM) plan containing strategies to:
>
> - Reduce the amount of traffic generated by new development and the expansion of existing development, pursuant to the City's police power and necessary in order to protect the public health, safety and welfare.
> - Ensure that expected increases in traffic resulting from growth in employment and housing opportunities in the City of Oakland will be adequately mitigated.
> - Reduce drive-alone commute trips during peak traffic periods by using a combination of services, incentives, and facilities.
> - Promote more efficient use of existing transportation facilities and ensure that new developments are designed in ways to maximize the potential for alternative transportation usage.

[36] The City of Oakland has a Standard Condition of Approval that is applicable to projects that generate significant levels of GHG emissions. As indicated in the following analysis, the Project does not meet the criteria for applicability of this SCA because the Project does not cause a significant net increase in GHG emissions exceeding threshold levels.

- Establish an ongoing monitoring and enforcement program to ensure that the desired alternative mode use percentages are achieved.

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

a. Inclusion of additional long term and short term bicycle parking that meets the design standards set forth in chapter five of the Bicycle Master Plan, and Bicycle Parking Ordinance, shower, and locker facilities in commercial developments that exceed the requirement.

b. Construction of and/or access to bikeways per the *Bicycle Master Plan*; construction of priority Bikeway Projects, on-site signage and bike lane striping.

c. Installation of safety elements per the *Pedestrian Master Plan* (such as cross walk striping, curb ramps, count-down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials.

d. Installation of amenities such as lighting, street trees, trash receptacles per the *Pedestrian Master Plan* and any applicable streetscape plan.

e. Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements.

f. Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency).

g. Employees or residents can be provided with a subsidy, determined by the applicant and subject to review by the City, if the employees or residents use transit or commute by other alternative modes.

h. Provision of shuttle service between the development and nearest mass transit station, or ongoing contribution to existing shuttle or public transit services.

i. Guaranteed ride home program for employees, either through 511.org or through separate program.

j. Pre-tax commuter benefits (commuter checks) for employees.

k. Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants.

l. Onsite carpooling and/or vanpooling program that includes preferential (discounted or free) parking for carpools and vanpools.

m. Distribution of information concerning alternative transportation options

n. Parking spaces sold/leased separately for residential units. Charge employees for parking, or provide a cash incentive or transit pass alternative to a free parking space in commercial properties.

o. Parking management strategies; including attendant/valet parking and shared parking spaces.

p. Requiring tenants to provide opportunities and the ability to work off-site.

q. Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite.

r. Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours.

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

SCA Air-1: Construction-Related Air Pollution Controls: *Ongoing throughout demolition, grading, and/or construction*. During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the 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 is 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 BAAQMD shall also be visible. This information may be posted on other required on-site signage.

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

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

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

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

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

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

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

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

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

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

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

u. The project applicant shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate matter (PM) reduction compared to the most recent California Air Resources Board (CARB) fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as they become available.

v. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings).

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

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

SCA Util-1: Waste Reduction and Recycling. The project applicant will submit a Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP) for review and approval by the Public Works Agency.

a. Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3), and all demolition (including soft demo).The WRRP must specify the methods by which the development will divert C&D debris waste generated by the proposed project from landfill disposal in accordance with current City requirements. Current standards, FAQs, and forms are available at www.oaklandpw.com/Page39.aspx or in the Green Building Resource Center. After approval of the plan, the project applicant shall implement the plan.

b. 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 Aesth-2: 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 Aesth-3: 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:

   For Sequoia sempervirens, three hundred fifteen square feet per tree;

   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 Aesth-4: 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.

Impacts, Standard Conditions of Approval and Mitigation Measures

Criteria of Significance

As identified in Section 15064(a) of the CEQA Guidelines, "determining whether a project may have a significant effect plays a critical role in the CEQA process." In addition, as outlined in Sections 15064(h) and 15130 of the CEQA Guidelines, an environmental impact report (EIR) is required to evaluate cumulative impacts when they can be determined to be "cumulatively considerable." Global climate change effects are by their nature cumulative effects, and thus the criteria of significance used to determine potential impacts are used to measure the extent to which a project's contribution to global climate change is cumulatively significant. The current CEQA Guidelines and the CEQA Initial Study Checklist now contain provisions that specifically set forth requirements for analysis of global climate change impacts in an EIR. As stated in Section 15064(b) of the State CEQA Guidelines, "The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data."

The City of Oakland has developed thresholds of significance for GHG emissions impacts which are identified below. The City's thresholds are based on the thresholds of significance previously published and disseminated by the BAAQMD in its May 2010 Thresholds of Significance and the evidence developed by BAAQMD to support those Thresholds, and on the California Environmental Quality Act Guidelines Update. This is consistent with and authorized by CEQA Guidelines Section 15064. Oakland's thresholds of significance remain in effect, and have not been challenged. Additionally, since the

BAAQMD thresholds were originally developed for project operation impacts only, the City's methodology of combining both the construction emissions and operation emissions for comparison to the threshold, as used in this analysis, represents a conservative analysis of greenhouse gas emissions impacts.

The Project would result in a significant impact related to greenhouse gas emissions if it would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, specifically:
    a. For a project involving a stationary source[37], produce total emissions of more than 10,000 metric tons of CO_2e annually.
    b. For a project involving a land use development[38], produce total emissions of more than 1,100 metric tons of CO_2e annually **AND** more than 4.6 metric tons of CO_2e per service population[39] annually.[40]
    c. For projects that involve both a stationary source and a land use development, calculate each component separately and compare to the applicable threshold.
2. Conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions.

Methodology

This section describes the methodology that was used to develop the GHG emissions inventories associated with the Baseline and Project. These inventories consider five categories of GHG emissions: energy use associated with non-residential buildings, mobile sources, solid waste, water and wastewater, and refrigeration leaks. Electrical power will be supplied to the Project Site by Pacific Gas & Electric Company (PG&E). Accordingly, indirect GHG emissions from electricity usage are calculated using the PG&E's carbon-intensity factors in CalEEMod based on the 2008 Power/Utility Reporting Protocol. Legislation and rules regarding climate change, as well as the scientific understanding of the extent to which different activities emit GHGs, continue to evolve; as such, the inventories in this report are a reflection of the guidance and knowledge currently available.

The analysis presented in this EIR primarily utilizes the CalEEMod version 2011.1.1[41] to assist in quantifying the GHG emissions in the inventories presented for the Baseline and the Project. CalEEMod is a statewide program designed to calculate both criteria and GHG emissions from development projects in California. This model was developed under the auspices of the SCAQMD and received input from other California air districts including BAAQMD, and is currently supported by several lead agencies for use in quantifying the emissions associated with development projects undergoing environmental review. CalEEMod utilizes widely accepted models for emission estimates combined with appropriate default data that can be used if site-specific information is not available. These models and default estimates use sources such as the United States Environmental Protection Agency (USEPA) AP-42 emission factors,[42]

[37] Stationary sources are projects that require a BAAQMD permit to operate.

[38] Land use developments are projects that do not require a BAAQMD permit to operate.

[39] The service population includes both the residents and the employees of a proposed project.

[40] A project's impact would be considered significant if the emissions exceed **BOTH** the 1,100 metric tons threshold and the 4.6 metric tons threshold. Accordingly, the impact would be considered less than significant if a project's emissions are below **EITHER** of these thresholds.

[41] Available at: http://www.caleemod.com/. Accessed August 22, 2012

[42] The USEPA maintains a compilation of Air Pollutant Emission Factors and process information for several air

CARB's on-road and off-road equipment emission models such as the Emission FACtor model (EMFAC) and the Offroad Emissions Inventory Program model (OFFROAD), and studies commissioned by California agencies such as the California Energy Commission (CEC) and CalRecycle. This EIR uses Alameda County CalEEMod defaults in the model runs unless otherwise noted in the methodology descriptions below. Details regarding the specific methodologies used by CalEEMod can be found in the CalEEMod User's Guide and associated appendices.[43] The CalEEMod output files are provided for reference in **Appendix 4.2A**.

Approach and Conclusion to CEQA Analysis of GHG Emissions and Climate Change Impacts in this EIR

This EIR discusses estimated GHG emissions of the Project, Project-related activities that could contribute to the generation of increased GHG emissions, the Project design features that would avoid or minimize those emissions.

The approach employed in this EIR is both quantitative and qualitative. The quantitative approach is used to address the numeric significance thresholds identified above (i.e., would the Project generate GHG emissions, either directly or indirectly, that exceed adopted numeric thresholds which would result in the Project having a significant impact on the environment). The quantifiable numeric thresholds discussed above are used to determine if this threshold is met.

The qualitative approach is used to address the second threshold (i.e., would the project conflict with any applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gas emissions). Theoretically, if a project implements reduction strategies identified in AB 32, the Governor's Executive Order S-3-05, or other strategies to help toward reducing GHGs to the level proposed by the governor and targeted by the City of Oakland, it could reasonably follow that the project would not conflict with any applicable plan, policy or regulation of an appropriate regulatory agency adopted for the purpose of reducing greenhouse gas emissions. Alternatively, a project could reduce a potential cumulative contribution to GHG emissions through energy efficiency features, density and locale (e.g., compact development near transit and activity nodes of work or shopping) and by contributing to available mitigation programs such as reforestation, tree planting, or carbon trading.

However, the analysis in this EIR considers that because the City's numeric significance thresholds were formulated based on AB 32 reduction strategies, a project cannot exceed the numeric threshold without also conflicting with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHG. Therefore, if the proposed project does not meet the first threshold and therefore results in a significant cumulative impact because it exceeds the numeric threshold, the project would also result in a significant cumulative impact under the second threshold, even though the project may incorporate measures and have features that would reduce its contribution to cumulative GHG emissions.

Further, the methodology applied here assumes that all emission sources associated with the Project would be new sources that would combine with existing conditions. For this assessment, it is not possible to predict whether emissions sources (businesses) associated with the Project would move from outside the air basin (and thus generate "new" emissions within the air basin), or whether they are sources that already exist and are merely relocated within the air basin. Because the effects of GHGs are global, if the Project merely shifts the location of the GHG-emitting activities (locations of residences and businesses and where people drive), there would not be a net increase of emissions. It also cannot be determined until

pollution source categories. The data is based on source test data, material balance studies, and engineering estimates. More information is available at http://www.epa.gov/ttnchie1/ap42/

[43] Available at: http://www.caleemod.com. Accessed August 22, 2012

Project construction is completed whether employees and shoppers would walk, bike, or use public transit more often, instead of driving, or use overall less energy by virtue of the Project's characteristics.

GHG Emissions

Impact GHG-1: Construction and operation of the Project would not result in GHG emissions that exceed City thresholds of significance. Therefore, the Project would result in a less-than-considerable contribution to cumulative global climate change, and thus a less-than-significant impact. (**LTS**)

The following analysis includes total energy used during construction, direct emissions from a project's vehicle trip generation and area sources, as well as indirect emissions from off-site electrical and natural gas usage, water and wastewater and energy consumed through solid waste disposal. The majority of energy consumption and associated generation of GHG emissions occur during operation. Typically more than 80 percent of the total energy consumption takes place during the use of buildings and less than 20 percent is consumed during construction.[44] The City's thresholds of significance do not account for construction emissions. Therefore, including construction emissions when comparing project emissions to the threshold, as is done in this analysis, represents a conservative analysis.

General Types of GHG Emissions

Overall, the following activities associated with a typical development could contribute to the generation of GHG emissions:

Removal of Vegetation

The net removal of vegetation for construction results in a loss of the carbon sequestration in plants. However, planting of additional vegetation would result in additional carbon sequestration and lower the carbon footprint of the project.

Construction Activities

Construction equipment typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide, methane and nitrous oxide. Furthermore, methane is emitted during the fueling of heavy equipment.

Gas, Electric and Water Use

Natural gas use results in the emissions of two GHGs: methane (the major component of natural gas) and carbon dioxide from the combustion of natural gas. Methane is released prior to initiation of combustion of the natural gas (as before a flame on a stove is sparked), and from the small amount of methane that is un-combusted in a natural gas flame. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. California's water conveyance system is energy intensive. Preliminary estimates indicate that total energy used to pump and treat this water exceeds 15,000 GWh per year, or at least 6.5 percent of the total electricity used in the State per year.[45]

[44] United Nations Environment Programme (UNEP), 2007. Buildings and Climate Change: Status, Challenges and Opportunities, Paris, France.

[45] California Energy Commission (CEC), 2004. Water Energy Use in California (online information sheet) Sacramento, CA, August 24, http://energy.ca.gov/pier/iaw/industry/water.html, accessed July 24, 2007.

Motor Vehicle Use

Transportation associated with the proposed Project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips. These trips are factored into the model, but not all emissions would be "new", since some vehicle trips are likely relocated from another area. Also, as discussed previously, the Project is designed to limit auto trips.

Baseline Emissions

While the proposed Project and all developments of similar land uses would generate GHG emissions as described above, the City of Oakland's ongoing implementation of its Sustainability Community Development Initiative (which includes an array of programs and measures, discussed previously under *Regulatory Setting*), will collectively reduce the levels of GHG emissions and contributions to global climate change attributable to activities throughout Oakland.

The Project site is currently an actively used shopping center generating GHG emissions from stationary and indirect sources such as electricity, gas and water use. It also generates GHG emissions from mobile sources including those associated with employee trips, shopping trips and deliveries. These current activities produce a baseline amount of GHG emissions against which to measure the incremental change associated with the Project. In calculating these baseline GHG emissions, a number of factors were considered and entered into the calculations.

Site-Specific Energy Consumption Data

The Project Applicant provided utility consumption data for electricity, natural gas, and water usage and also refrigerant leakage rates at the existing Safeway store. Safeway also predicted electricity and natural gas data for the new Safeway store based on the utility consumption of newer Safeway stores that were built with similar project design features as the Project. Safeway also provided Safeway Club Card data used to estimate the average trip length for existing store customers. The CalEEMod default utility consumption data were used for other commercial buildings in the shopping center.

Emission factors were used to convert the consumption data in kilowatt-hours (kWh) and therms, for electricity and natural gas, respectively, to GHG emissions in MT CO2e. Carbon intensity emission factors were used for electricity collected from the Pacific Gas and Electric (PG&E) Power/Utility Reporting Protocol.[46] [47] Natural gas emission factors used were from the California Climate Action Registry's General Reporting Protocol.[48]

Water and Wastewater

Emission factors were also used to convert from consumption data in millions of gallons (MG) water use, to equivalent electricity use, and then to GHG emissions in MT CO2e. Water use was converted to equivalent electricity consumption using the default CalEEMod energy intensity values for Northern California water use which includes the supply, conveyance, treatment, and distribution. The electricity associated with transportation, treatment and disposal of wastewater was evaluated based on CEC's 2006 report. Electricity consumption was converted to CO2e using the method described earlier. Consistent

[46] CO2 Emission factor for electricity provided by PG&E for the year 2008. California Climate Action Registry Database. 2009. Pacific Gas and Electric 2008 PUP Report. Available at: http://www.climateregistry.org/tools/carrot/carrot-public-reports.html. Accessed August 22, 2012.

[47] CH4 and N2O emission factors for electricity from Table G.6 California Grid Average Electricity Emission Factors (1990-2004) of CARB 2008 Local Government Operations Protocol Version 1.0.

[48] Emission factors for natural gas obtained from California Climate Action Registry. 2009. General Reporting Protocol 3.1, Tables C7 and C9.

with BAAQMD guidance, GHG emissions were only calculated from electricity associated with wastewater treatment, and do not include direct biogenic GHG process emissions associated with wastewater treatment. Water usage for the existing store was provided by Safeway and that for the proposed store was estimated using the water use intensity of the newer Safeway stores that were built with similar project design features as the Project. Water usage for non-Safeway commercial buildings in the existing and new shopping center was estimated using CalEEMod default parameters.

Mobile Sources

Greenhouse gas emissions from mobile sources were calculated using the number of vehicle trips and trip lengths that are associated with baseline operations. Consistent with the transportation study, the number of existing vehicle trips was estimated using Institute of Transportation Engineers (ITE) regression equations.[49] The same pass-by trip rate used in the transportation study was applied in the CalEEMod model. The baseline trip rate for the existing CVS Pharmacy was also estimated using the ITE regression equations, but scaled by the ratio of peak trip counts from a Fehr & Peers study at the site to the peak trip counts derived from the ITE regression equations. The total vehicle miles travels (VMT) associated with Safeway store customers was calculated using the trip length provided by Safeway from Club Card data. VMT associated with all other trips was derived from CalEEMod default trip lengths.

Solid Waste Disposal

Greenhouse gas emissions from solid waste disposal were calculated using the predicted amount of waste disposed and sent to a landfill with landfill gas capture flaring. Defaults from CalEEMod were used in all instances, which is based on data from CalRecycle, the California Air Resources Board (ARB) Local Government Operations Protocol for degradation of solid waste material. The equations used have been modified from the Local Government Operations Protocol to capture all of the future GHG emissions resulting from the waste degradation in the landfill and attributing it to the year it was placed into the landfill.

Refrigerant Leakage

The use of refrigerated systems results in leakage of some of the charged refrigerant. Refrigerants are usually classified as high global warming potential gases. Safeway provided records indicating the typical leakage rates of refrigerant from the refrigerated systems at the existing store. These data along with the amount and type of refrigerant used at the store was used to estimate the total amount of refrigerant leaks from the existing store.

Table 4.6-3 presents an estimate of the baseline CO_2e emissions from the current shopping center resulting from motor vehicle trips, area sources, natural gas combustion, electricity usage (including electricity for conveyance and treatment of water and wastewater) as well and the energy demands associated with landfill needs of the existing shopping center.

[49] ITE. 2008. Trip Generation. 8th Edition. An ITE Informational Report

Table 4.6-3: Estimated Baseline CO_2e Emissions from the Existing Center
(Metric Tons/Year of Co_2e)

Operation (Vehicle) Emissions	7,472
Area Source	1
Electricity	1,187
Natural Gas (space and water heating)	160
Water and Wastewater	37
Solid Waste	266
Refrigerants	2,325
Total Baseline CO_2e Emissions	11,447

Sources:
California Air Resources Board (ARB). 2008. Local Government Operations Protocol, For the quantification and reporting of greenhouse gas emissions inventories, Version 1.0. September 25.
California Climate Action Registry. 2009. General Reporting Protocol, Version 3.1. January. Available at: http://www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf
California Energy Commission. 2006. California Commercial End-Use Survey. Prepared by Itron Inc. Available at: Available at: http://www.energy.ca.gov/ceus/
EBMUD. Energy: Generating Renewable Power. Available at: http://www.ebmud.com/sites/default/files/pdfs/2010_EBMUD_Energy.pdf
Gleick, P.H.; Haasz, D.; Henges-Jeck, C.; Srinivasan, V.; Cushing, K.K.; Mann, A. 2003. Waste Not, Want Not: The Potential for Urban Water Conservation in California. Published by the Pacific Institute

Notes:
1. Electricity and natural gas use provided by Safeway.
2. Water and wastewater consumption for the existing store is provided by Safeway, and for the proposed store is estimated using the water use intensity (gal/sqft) of a newer Safeway store with similar features.
3. The average trip length for the Safeway customers is estimated based on the Safeway Club Card data, and for the store employees and people other than customers and workers are the CalEEMod defaults. The trip rates are the CalEEMod default.
4. Electricity emission factors are based on the CalEEMod default values for PG&E.
5. Natural gas emission factors obtained from California Climate Action Registry Reporting Protocol, Table C6 and C9.
6. Energy intensity value for Northern California, the default in CalEEMod, was used which includes the supply, conveyance, treatment, and distribution. Emission factor for electricity provided by Pacific Gas and Electric (PG&E). Wastewater was assumed to be an aerobic process.
7. Used 2014 vehicle emission factors for Alameda County.
8. Refrigeration leaks is provided by Safeway. This has then been converted to CO 2e based on global warming potentials for the different refrigerants.

Project Emissions

GHG emissions from construction, plus the additional vehicles and additional area sources associated the proposed Project were also calculated using CalEEMod version 2011.1.1 and using trip generation data from the Project's traffic analysis (see **Appendix 4.2A**).

The BAAQMD *CEQA Guidelines* indicates that, "when calculating project GHG emissions to compare to the thresholds, the lead agency should ensure that project design features, attributes, or local development requirements are taken into consideration as part of the project as proposed, and not viewed as mitigation measures. For example, projects that are mixed-use, infill, and/or proximate to transit service and local services would have substantially lower vehicle trip rates and associated GHG emissions than what would be reflected in standard, basin-wide average default trip rates and emission estimates."

The following design features, existing plans and policies compliance, and applicable Standard Conditions of Approval are included in the Project, effectively reducing the amount of gross GHG emissions generated during operation.

Vehicle Trips

Because the new Safeway store is larger in terms of store size and grocery service, the current store customers are expected to continue shopping at the same location. The total VMT for these customers were calculated using the ITE regression equations, the size of the existing store, and average trip length estimated based on the current store Club Card data. Net VMT have been calculated using the same methodology as for existing customers. The VMT for the employees and visitors other than customers were also calculated using the same methodology as that used for the existing store.

VMT associated with all other trips was derived from CalEEMod default trip lengths.

Water Usage

Water usage for the proposed Project was estimated using the water use intensity of newer Safeway stores built with similar design features as the Project. Water usage for non-Safeway commercial buildings in the new shopping center was estimated using CalEEMod default parameters.

Solid Waste

Greenhouse gas emissions from solid waste disposal were calculated using the predicted amount of waste disposed and sent to a landfill with landfill gas capture flaring. Defaults from CalEEMod were used in all instances, using the same methodology as was used to calculate baseline emission.

Refrigerant Leaks

The reduction in refrigerant emissions associated with Safeway's sustainability programs can be used as a source of offsetting emissions. The use of refrigerated systems results in leakage of some of the charged refrigerant. Refrigerants are usually classified as high global warming potential gases. Safeway provided records indicating the leakage rates of refrigerant from the refrigerated systems at the existing store. These data along with the amount and type of refrigerant used at the store was used to estimate the total amount of refrigerant leaks from the existing store. The amount and leak rate for the new store was estimated based on information from similar newer stores. For each refrigerant type, the global warming potential (GWP) was calculated based on the values utilized in BAAQMD Guidelines and associated recommended models for specific refrigerants identified. The global warming potential indicates, on a pound for pound basis, the potency of the chemical compared to carbon dioxide. Multiplying the pounds of refrigerant by the GWP results in the GHG emissions from refrigeration leaks in terms of carbon dioxide equivalents. For non-Safeway commercial buildings in the shopping center, it is speculative as to whether there would be refrigeration; therefore, the GHG emissions for these buildings were not calculated.

Project Setting and Design Measures

The Project site is located in an urban location within a broad mix of surrounding land uses, in an area with high pedestrian and bicycle activity, well-served by transit, and conveniently located to provide local-serving retail needs of the surrounding mixed-use neighborhood. These factors result in a reduction in vehicle trips and corresponding transportation-related GHG emissions as compared to the same type of development that may occur elsewhere in the outer Bay Area. The Project design is intended to facilitate and increase alternative modes of transportation, with improved pedestrian and bicycle access over current conditions. The Project would expand the number of convenient local-serving retail

establishments over current conditions and is expected to attract a larger share of local shopping and retail entertainment users from the nearby residential neighborhoods.

Regulatory Compliance

The Project would be required to comply with applicable local, state and federal regulations associated with the generation of GHG emissions and energy conservation. In particular, construction of the Project would be required to meet California Energy Efficiency Standards for Residential and Nonresidential Buildings and the requirements of pertinent City policies as identified in the City of Oakland General Plan, helping to reduce future energy demand as well as reduce the Project's contribution to regional GHG emissions.

The Project would be required to comply with the City of Oakland's Construction and Waste Reduction Ordinance and submit a Construction and Demolition Waste Reduction Plan for review and approval. As a result, the number of trips by construction-related trucks, which primarily have diesel fueled engines, would be reduced since demolition debris hauled off site would be reused on the site. In addition, reuse of concrete, asphalt, and other debris would reduce the amount of material introduced to area landfills.

The Project would be subject to the regulatory requirements, mitigation measures and Standard Conditions of Approval indicated in this EIR that would reduce GHG emissions. These include, but are not limited to

- SCA Trans-1: Parking and Transportation Demand Management
- SCA Air-1 and SCA Air-2: Construction-Related Air Pollution Controls
- SCA Util-1: Waste Reduction and Recycling
- SCA Bio-2 through -4: Tree Removal and Replanting

Safeway Sustainability Measures

Although only one component of the Project and representing less than 25 percent of the total Project building area, the new Safeway store would be a major tenant of the Project. Safeway's subsidiary business, Property Development Centers, Inc., is the Project applicant. According to Safeway's web site, "In 2006, Safeway was the first retailer to join the Chicago Climate Exchange, making a legally binding commitment to reduce our greenhouse gas emissions (GHG) by 6% below our year 2000 baseline by the end of 2010. We recently completed the verification process for our 2008 emissions, and successfully reduced our greenhouse gas emissions by 9%, far surpassing our legally binding agreement. Safeway remains the only retailer to have made a legally binding commitment to reduce its carbon footprint."[50] As a corporation, Safeway promotes the following sustainability practices:

- Safeway buys enough wind energy to power all of its fuel stations and all of its stores in San Francisco, Boulder, Colorado and its Pleasanton corporate offices.
- In 2009, Safeway recycled more than 500,000 tons of cardboard, plastics and compostable material. 85% of the solid waste from all California stores is recycled.
- All of Safeway's fleet of 900 delivery trucks runs on biodiesel fuel.
- Safeway buildings are constructed of sustainable masonry, concrete, and steel products. They contain recycled material, often locally produced and reusable as demolition recycled material when the buildings are either remodeled or replaced.

[50] http://csrsite.safeway.com/planet/sustainability-initiatives/

- During construction, almost all waste materials are managed and diverted from landfills to recycling centers or in some cases re-used.
- Light colored, "cool roofing" materials are used at all new Safeway stores to reflect heat from the building and reduce the heat island effect.
- Internal finish materials used in new Safeway stores have low volatile organic compounds (i.e., low-VOC paints).
- Safeway stores monitor, control and adjust indoor air, energy use, lighting level and refrigeration efficiency using sophisticated electronic management systems.
- Heat reclaimed from refrigeration systems is used to condition the air in the store.
- Low flow plumbing fixtures and faucets are used throughout the building to reduce water usage.
- Exterior Safeway signs use energy efficient LED lights.
- Safeway's parking areas include shade trees to reduce heat build-up during the day.
- Safeway's landscaping is designed to be drought tolerant. Irrigation for some sites utilizes condensate water produced from the store instead of city water.
- Urban designs focus on pedestrian and bicycle access as well as connectivity to public transportation
- Bicycle parking spaces are provided at Safeway stores for customer and employee use.
- Parking lots include special parking for carpools and hybrid cars.
- Roughly 30% of the produce sold by Safeway annually is locally supplied. Buying locally grown fruits and vegetables reduces greenhouse gas emissions by limiting transportation miles.
- One of the newer Safeway brands, *O Organics*, consists only of products that are USDA-certified organic, grown without the use of synthetic pesticides, genetic modification, growth hormones or antibiotics. Another of the Safeway product lines, *Bright Green* home care products, features cleaning and laundry products made with naturally derived and biodegradable ingredients, paper products made from 100% recycled content, trash bags made from recycled plastic, high-efficiency light bulbs and reusable stainless steel water bottles.

Construction GHG Emissions

Greenhouse gas emissions from construction of the Project were calculated using default assumptions regarding the number of off-road construction equipment, worker commute trips, and vendor trips. Emissions were calculated from construction equipment using the CalEEMod defaults based on the 15 acre Project site and the amount of building demolition, at a total of 185,500 square feet.

CalEEMod is based upon ARB-approved Off-Road and On-Road Mobile-Source Emission Factor models (OFFROAD and EMFAC, respectively), and is designed to estimate construction emissions for land use development projects and allows for the input of project specific information. OFFROAD is an emissions factor model used to calculate emission rates from off-road mobile sources (e.g., construction equipment, agricultural equipment). EMFAC is an emissions factor model used to calculate emissions rates from on-road vehicles (e.g., passenger vehicles, haul trucks). Where project-specific data were not available (e.g. equipment horsepower and load factors), default assumptions from CalEEMod were used to estimate construction emissions.[51] The off-road diesel emission factors used by CalEEMod are based on the Air Resources Board (ARB) OFFROAD2007 program. As such, an adjustment to the load factors was used based on a 33% reduction from the final mass emissions reported by CalEEMod. The total one-time GHG

[51] CalEEMod model output files are provided as Appendix 4.2A

emissions for construction, including off-road equipment, worker commuting, vendor trips, and hauling for the Project are calculated to be 1,754 MT CO2e. The annualized construction emissions over a 40-year period are 43.8 MT.

Summary

In light of these Project design features, site attributes and local development requirements, the GHG emissions associated the Project were calculated, including adjustments to account for the reduction in emissions that would likely be achieved based on the unique features and attributes of the Project and its location. When calculating the adjusted emission levels, no reductions associated with implementation of applicable regulations were accounted for unless such were above and beyond those already considered by BAAQMD. These Project-related GHG emissions are presented below in **Table 4.6-4**.

Comparison of Project vs. Baseline GHG Emissions

Several adjustments were made by the model to these emissions:

- CO_2 emissions are converted to metric tons and then converted to CO_2e by multiplying by 100/95 (to account for the contribution of other GHGs such as CH4, N_2O, and HFCs from leaking air conditioners). CO_2 emissions represent more than 90 percent of the Project's contribution of GHG emissions.
- CO_2e transportation emissions are adjusted to account for the low carbon fuels rule (i.e., the "Pavley" regulations).
- The Projects total construction emissions (annual emissions projected over each year of the construction period) were annualized over a period of 40 years and added to the expected emissions during operation. The 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. Since the significance thresholds were developed for project operation impacts only, including construction-period emissions represents a conservative analysis.

Table 4.6-4: Estimated CO_2e Emissions from the Proposed Project
(Metric Tons/Year of Co_2e)

	Baseline Emissions	Projected Future Emissions	Net Change in Emissions (Project)
Vehicle Emissions	7,472	9,123	1,650
Electricity	1,187	1,413	225
Natural Gas (space and water heating)	160	200	40
Water and Wastewater	37	59	22
Solid Waste	266	276	9
Refrigerants	2,325	228	-2,096
Subtotal GHG Emissions, Operation	11,447	11,298	-149
Annualized Construction Emissions		45	45
Total CO_2e Emissions	11,447	11,343	-104
Percent Change Compared to Baseline			-1%

Source: Lamphier-Gregory, 2010.

As indicated in **Table 4.6-4**, the Project is anticipated to result in an overall decrease of approximately 150 metric tons per year of CO2e emissions as compared to current, or Baseline conditions. This approximately1% decrease in total GHG emissions associated with the Project is primarily attributed to the large reductions in refrigerant leakage that would occur with the new Safeway store. As a net decrease in comparison to the Baseline, the Project would not exceed the 1,100 metric tons per year threshold, and no impact would occur.

Conflict with an Applicable Plan, Policy or Regulation Adopted for the Purpose of Reducing GHG Emissions

Impact GHG-2: Because the estimated GHG emissions of the Project would not exceed the City's numeric significance threshold as analyzed under Impact GHG-1, development and implementation of the Project would comply with applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions. **(LTS)**

The City's significance thresholds were formulated based on AB 32 reduction strategies. The numeric GHG significance thresholds are intended to serve as interim levels during the implementation of AB 32 and SB 375. Until AB 32 has been fully implemented in terms of adopted regulations, incentives, and programs, and until the Sustainable Communities Strategy or Alternative Planning Strategy required by SB 375 have been adopted or the California Air Resources Board adopts a recommended threshold, the City's significance thresholds represent substantial compliance with applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions. Therefore, if the Project were to exceed the numeric thresholds it would not comply with applicable plans, policies and regulations adopted for the purpose of reducing the GHG emissions. However, as described under Impact GHG-1 above, the Project's emissions would not exceed this numeric threshold, and the Project would thus comply with applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions.

The Project's GHG emissions generated during construction and operation would be minimized by virtue of the building characteristics and site design features that the Project proposes. The Project is well served with transit facilities, is consistent with Smart Growth principles of developing neighborhood serving retail in areas containing residential neighborhoods, and would be required to meet California and Oakland energy efficiency standards and regulations to reduce future energy demand as well as to reduce the project's contribution to regional GHG emissions. In addition, the Project is subject to all the regulatory requirements including City's Standard Conditions of Approval which would reduce GHG emissions of the Project. These include but are not limited to SCA Trans-1: Parking and Transportation Demand Management, SCA Air-1: Construction-Related Air Pollution Controls, SCA Util-1: Waste Reduction and Recycling, SCA Bio-2 through -4: Tree Removal and Replanting, and SCA Hydro-1: Minimizing post construction stormwater runoff that could affect the ability to accommodate potentially increased storms and flooding within existing floodplains and infrastructure systems.

The Oakland Energy and Climate Action Plan (ECAP) was developed to identify, evaluate and recommend prioritized actions to reduce energy consumption and GHG emissions in Oakland. The ECAP identifies energy and climate goals, clarifies policy direction, and identifies priority actions for reducing energy use and GHG emissions. On July 7, 2009, the Oakland City Council directed staff to develop the draft Oakland ECAP using a GHG reduction target equivalent to 36 percent below 2005 GHG emissions by 2020 (City of Oakland, Resolution No. 82129 C.M.S., 2009). The City adopted ECAP on December 4, 2012. The obligation of a lead agency for conducting a policy consistency analysis under CEQA is limited to "…an examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls" (Section 15063(d)(5) of the CEQA Guidelines). The ECAP is not a land use plan per se, and none of its policies and actions pertains specifically to the Project site. The Project would not be in obvious direct conflict with the policies and actions contained in the ECAP, and because the Project results in a reduction of GHG emissions as compared to the baseline, the Project is consistent with the ECAP actions to reduce energy consumption and GHG emissions in Oakland.

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4.7

Hazards and Hazardous Materials

This chapter evaluates the proposed Project's potential impacts related to hazards and hazardous materials. This section describes existing hazards and the use of hazardous materials in the vicinity of the site, and evaluates the extent to which hazards and hazardous materials may affect development of the Project site. The discussion and analysis in this section of the EIR draws from the following sources:[1]

- *Phase I Environmental Assessment,* GeoTrans Inc., April 2001
- *Phase II Environmental Assessment Report*, GeoTrans Inc., June 2001
- *Addendum to Screening Level Phase II Environmental Assessment*, GeoTrans Inc., August 2001
- *Environmental Hazards Survey Inspection for Asbestos Containing Materials*, Monte Deignan & Associates, September 2001, and
- *Investigation of Possible Underground Storage Tank*, GeoTrans Inc., October 2001
- *Addendum to Preliminary Results of Site Characterization*, Pangea, November 2006

Setting

Hazards and Hazardous Materials at the Project Site

Phase I ESA [2]

A Phase I Environmental Site Assessment (ESA) was prepared by GeoTrans, Inc. in April 2001. As part of the Phase I ESA GeoTrans reviewed historical records for the Project site. No portion of the Project site is included on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Several hazardous material release sites (primarily underground storage tanks) were listed in the database search in the area around the Project site. Based on distance from the property and the groundwater flow direction, these identified sites are not expected to impact soil or groundwater conditions at the Project site.

Between 1965 and 1983, a dry cleaning business operated at 5114 Broadway (at the Project site), and conducted on-site dry cleaning operations. No information was found to indicate that a release of dry cleaning solvents had occurred during that time, but the Phase I ESA indicated that it was possible that undetected or unreported releases of dry cleaning solvents could have occurred.

The Phase I ESA also found that several retail establishments within the shopping center (Longs Drugs, Ritz Camera and Fox Photo) either used and/or stored photo-processing chemicals at the Project site. Records indicate that spent photo-processing solutions are treated through self-contained silver recovery

[1] These reports are available for review at the City's Planning Division offices.

[2] *Phase I Environmental Assessment*, GeoTrans Inc., April 2001

systems at each of these locations. The wastewater and recovered silver are subsequently sent off-site for recycling, with no impact to soils, groundwater of the wastewater system.

No evidence of underground storage tanks (UST), above ground storage tanks (AST), groundwater supply wells or groundwater monitoring wells were identified on the site.

Aside from the potential that undetected or unreported releases of dry cleaning solvents could have occurred between 1965 and 1983, the Phase I ESA found no evidence or indication of the presence of Recognized Environmental Conditions at the property. A Phase II site assessment was recommended to determine whether on-site soil or groundwater had been impacted by the former dry cleaning business, but no further assessment activities were recommended.

Phase II Environmental Assessment[3]

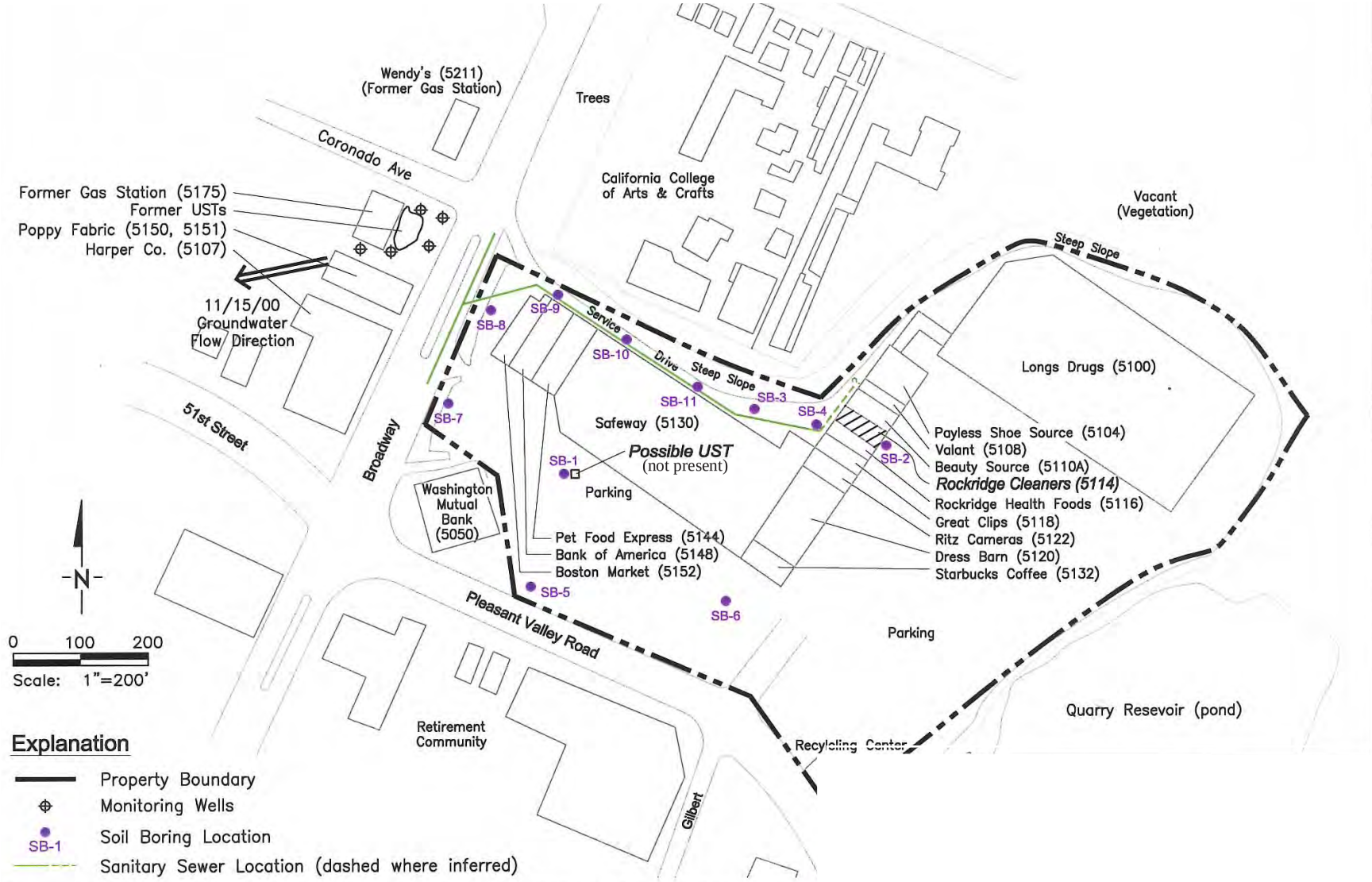
The Phase II ESA conducted in June of 2001 was conducted primarily to follow-up on the Phase I ESA to further assess possible soil or groundwater conditions in the vicinity of the former dry cleaning business. Five borings (SB-1 through SB-5) were conducted to collect soil samples, and a groundwater sample was collected at the one location (SB-2) where groundwater was encountered. Low concentrations of the dry cleaning solvent tetrachloroethene (PCE) was detected in soil samples collected from SB-3 and SB-4, located near the sanitary sewer line that serviced the dry cleaning space (see **Figure 4.7-1**). This indicates that a release of PCE has occurred. The detected concentrations are very low and well below corresponding health-based action levels (U.S. EPA PRG Values). Since the soil samples were collected above the sanitary sewer, it is possible that higher concentrations of PCE occur below the depth of the pipe.

PCE was not detected in the one groundwater sample collected during the Phase II ESA. That sample was taken in an up-gradient location with respect to the dry cleaning space. Groundwater conditions down-gradient from the dry cleaning space could not be evaluated at that time due to the presence of bedrock and the lack of groundwater.

The Phase II ESA also detected low concentrations of benzene and dichlorofluoromethane (Freon 12) in the groundwater sample collected from SB-2. The benzene concentration of 1.7 ppb slightly exceeds the California Maximum Contaminant Level (MCL) and Drinking Water Standard of 1 ppb benzene. The source of benzene in groundwater at this location was not known. The detection of Freon 12 is not considered environmentally significant at the reported concentration (14 ppb), and may be the result of laboratory or field contamination.

During underground utility clearance activities performed for the Phase II ESA a magnetic anomaly consistent with an underground storage tank (UST) was detected with a metal detector adjacent to boring location SB-1. A magnetometer identified a shape consistent with an underground storage tank (UST). However, there is no surface indication of a UST and no record of a past UST or septic system on the Project site. Aside from a very low detection of gasoline range hydrocarbons (1.6 ppm), no compounds were detected in the 10-foot soil sample collected at SB-1 adjacent to the possible UST site, and there was no field indication of soil impacts at SB-1.

[3] *Phase II Environmental Assessment Report*, GeoTrans Inc., June 2001



Source: 1969 Sanborn Fire Insurance Map, 1995 Air Photo, Oakland CA street map, Alameda County Tax Assessors Office

Figure 4.7-1
Environmental Site Assessment Map

Source: GeoTrans

Addendum to Screening Level Phase II Environmental Assessment [4]

An Addendum to Screening Level Phase II ESA was conducted by GeoTrans Inc. in July 2001 to gather additional soil and groundwater samples to further assess soil and groundwater conditions in the vicinity of the former dry cleaning business. Five additional soil borings (SB-6 through SB-9 and SB-11, see Figure 4.9-1) were conducted at the Project site.

A low concentration of PCE was detected in one soil sample (SB-11) at a depth of 5 feet below ground surface. PCE was not detected in any other soil samples or in samples from SB-11 at greater depth. PCE was not detected in groundwater samples. PCE is present in low concentrations in soil near the sanitary sewer line, but concentrations are below the U.S. EPA health-based Preliminary Remediation Goal value of 190 ppm for commercial uses. PCE was not found in any groundwater samples. Based on the findings from the Phase II ESA and the Addendum, significant impacts to soil or groundwater from PCE was not found, but low concentrations of PCE may have been discharged into the sanitary sewer in the past.

The groundwater sample from Boring SB-9 also had a concentration of Methyl-butyl ether (MTBE) of 48 ppb, which exceeds the California Maximum Contaminant Level (MCL) and Drinking Water Standard of 13 ppb MTBE. The source of the MTBE in the groundwater is not known.

Underground Storage Tank Investigation [5]

In October 2001 further investigation of the unidentified underground object discovered during the Phase I ESA was conducted using ground penetrating radar (GPR). Some metal objects were detected in the area; however, the pattern of detected objects did not match the typical rectangular shape of an UST. Subsequent GPR investigations were conducted over an area of approximately 400 square feet. Two known utility lines in the area were detected but not an UST. It is possible that the objects detected during the Phase I ESA using a metal detector are scrap metal or unused buried pipes. No evidence of the presence of an UST was found.

Asbestos Survey [6]

An asbestos survey was conducted at the Project site in August of 2001. A total of 58 samples were collected from representative building materials. During the inspection process, additional materials (e.g., exterior and interior paints, ceramic tile materials, older copper pipe that may contain lead solder at joints and fittings, etc.) were noted that might contain lead, which were not a specific part of this survey. The survey revealed the following likely asbestos containing materials:

- Floor tile samples (older black floor mastic found below other more recent flooring materials) were found to contain asbestos. Other yellow colored floor mastics were non-detect for asbestos content.
- Vinyl sheet flooring in older areas of the cleaners produced a positive result for asbestos. All of the other vinyl sheet flooring samples were newer and yielded no positive results for asbestos.
- Drywall compound samples from older areas of construction produced positive results. All of the original older gypsum board wallboard materials should be considered as positive for greater than 1% asbestos. In newer areas the drywall sampling yielded negative results for asbestos. It should be assumed that any older walls at the perimeter of tenant's spaces could contain asbestos.

[4] *Addendum to Screening Level Phase II Environmental Assessment*, GeoTrans Inc., August 2001

[5] *Investigation of Possible Underground Storage Tank*, GeoTrans Inc., October 2001

[6] *Environmental Hazards Survey Inspection for Asbestos Containing Materials*, Monte Deignan & Associates, September 2001

- The built-up roof's silver roof emulsion and the #90 mineral surface roofing above the building at the main roof areas were negative for asbestos content.
- The plastic roof cements at roof locations was positive for asbestos. The sealant on parts of the HVAC ducting appears to be roof cement, which contains asbestos.

Hazardous Materials in the Vicinity of the Project Site [7]

A former Exxon gas station was located at 5175 Broadway, immediately west of Broadway from the Project site (see Figure 4.7-1). That former gas station has been identified as a source of groundwater contamination. The primary contaminants at that former Exxon site are total petroleum hydrocarbons as gasoline (TPHg) and benzene. In 1990, three 8,000 gallon UST's, one 500 gallon UST and associated piping were removed from this site, and approximately 700 tons of gasoline-contaminated soil was excavated, treated on-site and used to backfill the excavation.

The residual soil contamination following treatment and backfill was measured from 20 soil samples collected from 10 drilled soil borings at that site. Based on the results of the soil boring program at that site, residual contaminant concentrations at most locations were less than the California Regional Water Quality Control Board's (RWQCB) Environmental Screening Levels (ESLs) for residential use and for groundwater that is a potential source of drinking water. However, samples collected at a depth of 9 feet at borings B-3, B-4 and B-9 showed TPHg concentrations that exceeded the ESL standard of 100 mg/kg. Benzene concentrations that exceeded the ESL of 0.044 mg/kg were also detected at boring location B-3. Based on the results of this investigation, residual vadose zone soil contamination does not appear to be a concern at that site, although the presence of residual hydrocarbons in several soil boring samples taken close to the water table elevation suggests that a zone of capillary fringe soil contamination at concentrations slightly exceeding the ESLs is probably present.

Groundwater monitoring wells at that site also indicate that residual TPHg and benzene concentrations substantially exceed RWQCB Tier 1 Final ESLs for groundwater that is a potential source of drinking water. Secondary contaminants that also exceed ESLs are toluene, ethylbenzene, xylenes, and 1,2-dichloroethane (EDC). These observations indicate that groundwater velocities at that site are very low and that natural attenuation mechanisms have not been effective in reducing contaminant concentrations in the groundwater.

No off-site groundwater monitoring wells are present, so the downgradient extent of contamination in not currently known. The groundwater flow from that site is consistently westwards to southwestwards, away from the Project site.

Regulatory Setting

The following section provides the federal, State, and local regulatory framework for hazardous materials and waste, building materials (e.g., lead, asbestos), and worker health and safety.

The use, storage and disposal of hazardous materials, including management of contaminated soils and groundwater, is regulated by numerous local, State, and federal laws and regulations. The U.S. Environmental Protection Agency (U.S. EPA) is the federal agency that administers hazardous materials and hazardous waste regulations. State agencies include the California EPA (Cal/EPA), which include the California Department of Toxic Substances Control (DTSC), the State Water Resources Control Board (State Water Board), the California Air Resources Board (CARB) and other agencies. The San Francisco Bay Regional Water Quality Control Board (RWQCB), the Bay Area Air Quality Management District

[7] *Addendum to Preliminary Results of Site Characterization*, Pangea, November 2006

(BAAQMD), Alameda County Department of Environmental Health (ACDEH) and Oakland Fire Services Agency (OFSA) have jurisdiction on a regional or local level.

A description of each agency jurisdiction and involvement in the management of hazardous materials and wastes is provided below.

Federal Regulations

Occupational Safety and Health Administration (OSHA)

Worker health and safety is regulated at the federal level by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). The Federal Occupational Safety and Health Act of 1970 authorizes states (including California) to establish their own safety and health programs with OSHA approval; implementation of worker health and safety in California is regulated by the California Department of Industrial Relations (DIR). The DIR includes the Division of Occupational Safety and Health (DOSH), which acts to protect workers from safety hazards through its California OSHA (Cal/OSHA) program and provides consultative assistance to employers. California standards for workers dealing with hazardous materials are contained in CCR Title 8 and include practices for all industries (General Industrial Safety Orders), specific practices for construction, and other industries.

Environmental Protection Agency (EPA)

The U.S. EPA is the federal agency responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials and hazardous waste. The federal regulations are primarily codified in Title 40 of the Code of Federal Regulations (40 CFR). The legislation includes the Resource Conservation and Recovery Act of 1976 (RCRA), the Superfund Amendments and Reauthorization Acts of 1986 (SARA), and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The U.S. EPA provides oversight for site investigation and remediation projects, and has developed land disposal restrictions and treatment standards for the disposal of certain hazardous wastes.

State

Three State agencies, described below, regulate hazardous materials and waste applicable to the proposed Project.

Department of Toxic Substances Control

In California, DTSC is authorized by U.S. EPA to enforce and implement federal hazardous materials laws and regulations. California regulations pertaining to hazardous materials are equal to or exceed the federal regulation requirements. Most State hazardous materials regulations are contained in Title 22 of the California Code of Regulations (CCR). DTSC generally acts as the lead agency for soil and groundwater cleanup projects that affect public health, and establishes cleanup levels for subsurface contamination that are equal to, or more restrictive than, federal levels. DTSC has also developed land disposal restrictions and treatment standards for hazardous waste disposal in California.

State Water Resources Control Board

The State Water Board enforces regulations on how to implement underground storage tank (UST) programs. It also allocates monies to eligible parties who request reimbursement of funds to clean up soil and groundwater pollution from UST leaks. The State Water Board also enforces the Porter-Cologne Water Quality Act through its nine regional boards, including the San Francisco Bay Regional Water Quality Control Board, described below.

California Air Resources Board

This agency is responsible for coordinating and oversight of State and local air pollution control programs in California, including implementation of the California Clean Air Act of 1988. CARB has developed State air quality standards, and is responsible for monitoring air quality in conjunction with the local air districts.

Regional Agencies

The following regional and local agencies have regulatory authority over the proposed Project's management of hazardous materials and waste on the site.

San Francisco Bay Regional Water Quality Control Board

The Project site is located within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board. The RWQCB provides for protection of State waters in accordance with the Porter-Cologne Water Quality Act of 1969. The RWQCB can act as lead agency to provide oversight for sites where the quality of groundwater or surface waters is threatened, and has authority to require investigations and remedial actions.

Bay Area Air Quality Management District

The BAAQMD has primary responsibility for control of air pollution from sources other than motor vehicles and consumer products (which is the responsibility of U.S. EPA and CARB). BAAQMD is responsible for preparing attainment plans for non-attainment criteria pollutants, control of stationary sources, and the issuing of permits for activities including asbestos demolition/renovation activities (District Regulation 11, Rule 2).

Alameda County Department of Environmental Health and Oakland Fire Services Agency

ACDEH and OFSA are the primary agencies responsible for local enforcement of State and federal laws pertaining to hazardous materials management and oversight of hazardous materials investigations and remediation in Alameda County.

In Oakland, OFSA has been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) Program (California Health and Safety Code Chapter 6.11). The CUPA programs include coordination of the local hazardous waste generator programs, underground and aboveground storage tank management, and investigations of leaking underground storage tank sites. OFSA also implements the City of Oakland Hazardous Materials Assessment and Reporting Program, pursuant to City Ordinance No. 12323, which requires notification of hazardous materials storage, use and handling, and an assessment as to whether this storage, use and handling would cause a public health hazard to nearby sensitive receptors including schools, hospitals or other sensitive receptors.

The Oakland Office of Emergency Services (part of OFSA) provides emergency response to fire emergencies and hazardous materials incidents within the City of Oakland, and conducts vegetation management inspections for wildfire reduction. Oakland has entered into agreements with adjoining jurisdictions for cooperative response to fires.[8]

[8] City of Oakland, General Plan Safety Element, Fire Hazards (Chapter 4), November 2004.

Urban Land Redevelopment (ULR) Program

The ULR Program is a collaborative effort by the City of Oakland and the principal agencies charged with enforcing environmental regulations (DTSC, Water Board and ACDEH) to facilitate the cleanup and redevelopment of contaminated properties in Oakland. The program is coordinated by the City and is specific to Oakland sites. The ULR Program clarifies environmental investigation requirements and established Oakland-specific, risk-based corrective action (RBCA) standards for qualifying sites. RBCA standards are criteria that, when met, adequately address risk posed by contamination to human health. The RBCA standards were first submitted in 1999.

City of Oakland

Relevant policies and conditions from the City's General Plan, Municipal Code and Standard Conditions of Approval are described below:

City of Oakland General Plan

Safety Element. The November 2004 Safety Element of the Oakland General Plan contains the following policies and actions regarding hazards and hazardous materials and emergency response that may apply to the Project. Relevant policies from other General Plan elements are also described.

> *Policy HM-1*: Minimize the potential risks to human and environmental health and safety associated with past and present use, handling, storage and disposal of hazardous materials.
>
> *Policy HM-2*: Reduce the public's exposure to toxic air contaminants through appropriate land use and transportation strategies.
>
> *Policy HM-3*: Seek to prevent industrial and transportation accidents involving hazardous materials and enhance the city's capabilities to respond to such incidents.
>
> *Policy PS-1*: Maintain and enhance the city's capacity to prepare for, mitigate, respond to, and recover from disasters and emergencies.

OSCAR Element. The following policy statements from the Open Space, Conservation and Recreation (OSCAR) Element of the General Plan regarding hazards and hazardous materials may apply to the proposed Project:

> *Policy CO-1.2*: Soil contamination and hazards. Minimize hazards associated with soil contamination through the appropriate storage and disposal of toxic substances, monitoring of dredging activities, and clean up of contaminated sites. In this regard, require soil testing for development of any site (or dedication of any parkland or community garden) where contamination is suspected due to prior activities on the site.
>
> *Policy REC-4.2*: Encourage maintenance practices which conserve energy and water, promote recycling and minimize harmful side effects on the environment. Ensure that any application of chemical pesticides and herbicides is managed to avoid pollution of ground and surface waters.

City of Oakland Municipal Code

The City of Oakland Municipal code includes regulations for the handling of hazardous materials in the City. Title 8, Chapter 8.12 of the Oakland Municipal Code adopts the California Health and Safety Code laws (Health and Safety Code Section 25500 et seq.) related to hazardous materials. City Ordinance No. 12323 regarding hazardous materials storage, use and handling reporting requires notification of hazardous materials storage, use and handling, and an assessment as to whether this storage, use and handling would cause a public health hazard to nearby sensitive receptors including schools, hospitals or other sensitive receptors.

City of Oakland Hazardous Materials Release Response Plan Program

The City of Oakland Fire Department Fire Prevention Bureau Hazardous Materials Release Response Plan Program requires any business that handles more than a threshold quantity of a hazardous material to develop and submit to the Fire Department a Hazardous Materials Business Plan. The threshold is 30 gallons, 500 pounds or 220 cubic feet of gas. For Extremely Hazardous Substances as listed in 40 CFR, Part 355, Appendix A, the reporting quantity is the California threshold or the Federal Threshold Planning Quantity (TPQ) depending on whichever is lower. The Hazardous Materials Business Plan must include and address facility information, inventory of hazardous materials, facility map, emergency response plans and procedures, training, release reporting, underground storage tanks, and hazardous waste treatment/tiered permitting.

City of Oakland Standard Conditions of Approval

The City's Standard Conditions of Approval relevant to potential hazardous materials impacts are listed below for reference. These Standard Conditions of Approval will be adopted as requirements of the proposed Project if the Project is approved by the City to help ensure that no significant impacts occur. As a result, they are not listed as mitigation measures.

SCA Haz-1: Phase I and/or Phase II Reports. *Prior to issuance of a demolition, grading, or building permit.* Prior to issuance of demolition, grading, or building permits the project applicant shall submit to the Fire Prevention Bureau, Hazardous Materials Unit, a Phase I environmental site assessment report, and a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer.

SCA Haz-2: Environmental Site Assessment Reports/Remediation. *Prior to issuance of a demolition, grading, or building permit.* If the environmental site assessment reports recommend remedial action, the project applicant shall:

a. Consult with the appropriate local, State, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps.

b. Obtain and submit written evidence of approval for any remedial action if required by a local, State, or federal environmental regulatory agency.

c. Submit a copy of all applicable documentation required by local, State, and federal environmental regulatory agencies, including but not limited to: permit applications, Phase I and II environmental site assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans.

SCA Haz-3: Radon or Vapor Intrusion from Soil or Groundwater Sources. *Ongoing.* The project applicant shall submit documentation to determine whether radon or vapor intrusion from the groundwater and soil is located on-site as part of the Phase I documents. The Phase I analysis shall be submitted to the Fire Prevention Bureau, Hazardous Materials Unit, for review and approval, along with a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. Applicant shall implement the approved recommendations.

SCA Haz-4: Lead-Based Paint/Coatings, Asbestos, or PCB Occurrence Assessment. *Prior to issuance of any demolition, grading or building permit.* The project applicant shall submit a comprehensive assessment report to the Fire Prevention Bureau, Hazardous Materials Unit, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing

materials (ACM), lead-based paint, and any other building materials or stored materials classified as hazardous waste by State or federal law.

SCA Haz-5: Site Review by the Fire Services Division. *Prior to the issuance of demolition, grading or building permit*. The project applicant shall submit plans for site review and approval to the Fire Prevention Bureau Hazardous Materials Unit. Property owner may be required to obtain or perform a Phase II hazard assessment.

SCA Haz-6: Hazards Best Management Practices. *Prior to commencement of demolition, grading, or construction*. The project applicant and construction contractor shall ensure that 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;

d. Properly dispose of discarded containers of fuels and other chemicals.

e. Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would potentially affect a particular development or building.

f. If soil, groundwater or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notification of regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.

SCA Haz-7: **Other Materials Classified as Hazardous Waste**. *Prior to issuance of any demolition, grading or building permit*. If other materials classified as hazardous waste by State or federal law are present, the project applicant shall submit written confirmation to Fire Prevention Bureau, Hazardous Materials Unit that all State and federal laws and regulations shall be followed when profiling, handling, treating, transporting and/or disposing of such materials.

SCA Haz-8: 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.

SCA Haz-10: Lead-Based Paint Remediation. *Prior to issuance of any demolition, grading or building permit.* If lead-based paint is present, the project applicant shall submit specifications to the Fire Prevention Bureau, Hazardous Materials Unit signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: Cal/OSHA's Construction Lead Standard, 8 CCR1532.1 and DHS regulation 17 CCR Sections 35001 through 36100, as may be amended.

SCA Haz-11: Health and Safety Plan per Assessment. *Prior to issuance of any demolition, grading or building permit.* If the required lead-based paint/coatings, asbestos, or PCB assessment finds presence of such materials, the project applicant shall create and implement a health and safety plan to protect workers from risks associated with hazardous materials during demolition, renovation of affected structures, and transport and disposal.

The following Standard Conditions of Approval identified in Chapter 4.1 (Air Quality) would also ensure no significant hazards and hazardous materials impacts occur:

SCA Air-1: Construction-Related Air Pollution Controls (Dust and Equipment Emissions). *Ongoing throughout demolition, grading, and/or construction.* During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the 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 is 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 BAAQMD shall also be visible. This information may be posted on other required on-site signage.

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

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

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

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

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

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

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

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

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

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

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

u. The project applicant shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate matter (PM) reduction compared to the most recent California Air Resources Board (CARB) fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as they become available.

v. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings).

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

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

SCA Air-3: Asbestos Removal in Structures. *Prior to issuance of a demolition permit.* If asbestos-containing materials (ACM) are found to be present in building materials to be removed, demolition and disposal, the project applicant shall submit specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations, including but not necessarily limited to: California Code of Regulations, Title 8; Business and Professions Code; Division 3; California Health & Safety Code 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended.

The following Standard Condition of Approval is identified in Chapter 4.11 (Transportation, Circulation and Parking):

SCA Trans-2: 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.

Major Project Cases:

f. Provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces.

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

h. Any heavy equipment brought to the construction site shall be transported by truck, where feasible.

i. No materials or equipment shall be stored on the traveled roadway at any time.

j. Prior to construction, a portable toilet facility and a debris box shall be installed on the site, and properly maintained through project completion.

k. All equipment shall be equipped with mufflers.

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

Impacts, Standard Conditions of Approval and Mitigation Measures

Criteria of Significance

The Project would result in a significant impact related to hazards and hazardous materials if it would:

1. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
2. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
3. 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;
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 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 safety hazard for people residing or working in the project area;
6. Be located within the vicinity of a private airstrip, and would result in a safety hazard for people residing or working in the project area;
7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
8. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Cortese List / Presence of Hazardous Materials Contamination

Impact Haz-1: No portion of the Project site is included on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Environmental Site Assessments prepared for the Project site do not indicate the presence of on-site soil or groundwater contamination at significant levels, and do not indicate that off-site contamination of soil or groundwater presents a concern to construction or operation of the Project. On-site building assessments do indicate that asbestos-containing materials are present in older portions of the shopping center. Implementation of City of Oakland Standard Conditions of Approval and compliance with all applicable state and federal laws will ensure that

any potential exposure to existing hazardous material contamination will be less than significant. (**LTS with SCA**)

Soil and Groundwater Contamination

Phase I and Phase II Environmental Site Assessments (ESA) and an Addendum have been prepared. The results of these studies indicate that dry cleaning solvents (PCE) are present in low concentrations in soil near the sanitary sewer line, but concentrations are below the U.S. EPA health-based Preliminary Remediation Goal value of 190 ppm for commercial uses. PCE was not found in any groundwater samples. Based on these findings, significant impacts to soil or groundwater from PCE was not found.

Groundwater samples also indicate a concentration of Methyl-butly ether (MTBE) of 48 ppb, which exceeds the California Maximum Contaminant Level (MCL) and Drinking Water Standard of 13 ppb MTBE. The source of the MTBE in the groundwater is not known.

Standard Conditions of Approval

City of Oakland SCA Haz-2 requires that any remedial actions as may be recommended in the Phase I or Phase II ESA be implemented after consultation and approval by appropriate local, state and federal agencies. Although no further actions were specifically recommended in the Phase II ESA and Addendum, these reports do have suggestions for possible further investigation.

To implement SCA Haz-2, the following recommendations from the Phase II Environmental Site Assessment and its Addendum would be required:

Soil Sampling.

a. Soil and grab-groundwater samples shall be sought from along the sanitary sewer line further west, behind the existing Safeway store and toward Broadway. Based on the presence of groundwater within approximately 15 feet in depth at the former gas station at 5175 Broadway, it appears that field conditions may be more favorable for encountering groundwater closer to Broadway. Also, additional attempts to collect grab-groundwater samples could be made west of Boring SB-1. If grab-groundwater samples are successfully collected, then the laboratory results will also aid in evaluating the significance of the benzene detection at SB-2.

b. Additional sampling activities for evidence of PCE impacts could be focused on the interior of the dry cleaning lease space. Further sampling across the site was not recommended because of the lack of laterally continuous groundwater, the lack of PCE in groundwater at SB-2 and SB-9, and the limited access along the sanitary sewer line behind the lessee spaces.

c. If these investigations disclose any hazards for which remediation is warranted, the Project shall implement such remediation as recommended by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer.

Further, SCA Haz-3 requires sufficient documentation to determine whether radon or vapor intrusion from the groundwater or soil occurs, and whether remediation may be required. If remediation is required, Best Management Practices (BMPs) shall be implemented during such remediation to ensure environmental and health issues are resolved and no residual environmental effects would occur.

Underground Storage Tank

Ground penetrating radar (GPR) was used to search for a possible previously undiscovered UST, but no such tank was discovered and no evidence of the presence of an UST was found. No further investigations or mitigation measures are required.

Asbestos and Lead Based Paint

An Environmental Hazards Survey performed in 2001 (consistent with the requirements of SCA Haz-4) does indicate the presence of asbestos-containing materials and lead based paint within portions of the shopping center. All of the floor tiles are considered as asbestos containing material (ACM), due to the difficulty of separating and/or removing the asbestos containing mastic component. All of the original or older gypsum board assemblies are considered asbestos containing construction material (ACCM), and all of the roof cements are considered as asbestos containing material (ACM) due to the difficulty of separating and/or removing the asbestos containing mastic component.

Standard Conditions of Approval

City of Oakland SCA Air-2 and Haz-10 requires that any remedial actions as may be recommended from such a survey be implemented after consultation and approval by appropriate local, state and federal agencies. With demolition and removal of all existing structures, all asbestos-containing materials and lead based paint would be removed (see discussion below regarding asbestos removal practices).

Mitigation Measures

None needed

Creation of Hazards through Disposal, Transport, Upset or Use of Hazardous Materials

Impact Haz-2: Construction workers, future commercial tenants and shoppers at the Project site may be exposed to hazardous materials during site demolition and construction phases. Implementation of City of Oakland Standard Condition of Approval and compliance with all state and federal laws regarding hazardous materials will reduce such potential exposure to a level of less than significant. (**LTS with SCA**)

Asbestos Removal

During the demolition phases of the Project, portions of the existing shopping center with asbestos-containing materials will be handled and removed. The handling and disposal of such material could potentially result in release of asbestos fibers into the air, potentially exposing those nearby to increased risk.

Standard Conditions of Approval

SCA Haz-7 requires that all state and federal laws must be followed when profiling, handling, treating, testing, transporting and/or disposing of any hazardous materials. SCA Air-2 and Haz-10 specifically require adherence to all applicable laws and regulations particular to asbestos removal and lead-based paint remediation.

To implement SCA Air-2, the following recommendations from the Phase II Environmental Site Assessment and its Addendum would be required:

Asbestos Removal.

a. The floor tile and mastic materials that were positive must be removed using floor abatement practices for asbestos in areas scheduled for renovation. All of the original and older floor tiles are considered asbestos containing material (ACM) due to the difficulty of separating and/or removing the asbestos containing mastic component. Any removal shall be performed using Wet methods, following all applicable regulatory guidelines. During the removal of any carpet floorings, areas of black mastic should be treated as asbestos containing.

b. The drywall materials that were positive must be removed using abatement practices for > 1% asbestos, in areas scheduled for renovation. All of the original or older gypsum board assemblies are considered asbestos containing construction material (ACCM), requiring the use of contractors, registered for asbestos-related work. Any removal shall be performed using Wet methods, following all applicable regulatory guidelines.

c. The roofing materials that were positive must be removed using roofing abatement practices for asbestos, in areas scheduled for renovation. All of the roof cements are considered as asbestos containing material (ACM), due to the difficulty of separating and/or removing the asbestos containing mastic component. Any removal shall be performed using Wet methods, following all applicable regulatory guidelines.

d. Renovation or demolition work in areas that are not specifically covered by this report shall be re-inspected prior to any disturbance of suspect materials.

Removal/Remediation of Other Hazardous Materials

Other than asbestos and lead-based paint, no other hazardous materials have been identified that would require removal/remediation that could substantially affect the demolition and construction process for the Project. Nonetheless, should the additional sampling activities required to further implement SCA Haz-2 and implementation of SCA Haz-3 as described under Impact Haz-1 above indicate the need for treatment, remediation and/or disposal of identified hazardous materials, compliance with all Standard Conditions of Approval and compliance with all state and federal regulations would be required. Compliance actions would include:

- A Remedial Action Plan, Soil Management Plan and Groundwater Management Plan are required to address issues such as dust suppression, protection of surface waters and storm drainage outfalls, noise attenuation, etc. The BAAQMD may also impose specific requirements to protect ambient air quality from dust, lead, hydrocarbon vapors or other airborne contaminants during site remediation activities.
- A Risk Management Plan and a Site Health and Safety Plan in conformance with federal and California Occupational Safety and Health Administration (Cal/OSHA) regulations will also be required. These plans would include identification of chemicals of concern, potential hazards, personal protection clothing and devices, and emergency response procedures as well as required fencing, dust control or other site control measures needed during excavation to protect health and safety of workers and the public. OSHA requirements also mandate an initial training course and subsequent annual training. Site-specific training may also be required for some workers.
- With regards to transportation impacts, the remediation contractor would be required to follow state and federal regulations for manifesting the wastes, using licensed waste haulers, and disposing of the materials at a permitted disposal or recycling facility.

These requirements fully address the potential health impacts associated with any necessary remediation activities, including potential transportation impacts from such removal and/or remedial activities.

Use of Hazardous Materials during Construction

During the construction phase of the Project small quantities of hazardous materials will likely be used. These materials include gasoline, solvents, diesel fuel, oil and grease, hydraulic fluid, ethylene glycol, welding gases, and paint. These materials are routinely used in construction or commercial operations. However, improper management of such hazardous materials or an accidental release could pose a substantial hazard to human health and the environment.

Standard Conditions of Approval

SCA Haz-7 requires that all state and federal laws must be followed when profiling, handling, treating, testing, transporting and/or disposing of any hazardous materials. Additionally, SCA Haz-6 requires Best Management Practices be implemented during construction to minimize the potential negative effects to groundwater and soils. The risks of exposure to construction workers and, commercial tenants and visitors from the routine use of hazardous materials during construction would be reduced through implementation of these conditions. Furthermore, SCA Haz-11 requires preparation of a Health and Safety Plan to protect workers from the risks of exposure during demolition and construction activities. Implementation of these standard conditions of approval would ensure that risk of exposure to hazardous materials remains at a level of less than significant.

Mitigation Measures

None needed

Emission/Handling of Hazardous Materials Near Schools

Impact Haz-3: The Project site is located within one-quarter mile of Oakland Technical High School and Emerson Elementary School. As described under Impacts Haz-1 and Haz-2 above, with implementation of Standard Conditions of Approval, potential hazardous materials impacts during the demolition and construction phases of the Project would be less than significant. (**LTS**)

Operation of the Project would not reasonably be anticipated to emit hazardous emissions or to result in the need to handle hazardous or acutely hazardous materials, substances or waste that may impose a health or safety hazard to persons who would attend or would be employed at these schools. The Project would be occupied by retail uses and new office uses similar to those that currently exist on the site and in the surrounding area. Any business that handles more than a threshold quantity of a hazardous material must develop and submit to the Fire Department a Hazardous Materials Business Plan in compliance with the City of Oakland Hazardous Materials Release Response Plan Program and Standard Conditions of Approval, and comply with all other applicable federal, State and local regulations. The City has carried out consultation with the school districts regarding the potential impact of the Project on these schools as required by CEQA Guidelines Section 15186(b)(1) and (2). The impacts of the Project related to emission and handling of hazardous materials near schools would be less than significant.

Mitigation Measures

None needed

Hazards near Airport/Airstrip

Impact Haz-4: The project site is not located near any public airport, within an airport plan area or near a private airstrip (**No Impact**).

Mitigation Measures

None needed

Interference with Emergency Response Plan or Emergency Evacuation Plan

Impact Haz-5: With implementation of SCA Trans-2, the requirement to obtain an encroachment permit for work within street rights-of-way, and standard construction period notification requirements to first responders, potential Project impacts related to interference with an emergency response plan or emergency evacuation plan would be less than significant. (**LTS with SCA**)

According to Figure 2.1 of the Oakland Safety Element, Broadway is classified as an emergency evacuation route. The Project would not interfere with use of this main City thoroughfare and would not impair use of this route during an emergency. The Project would be required to obtain an encroachment permit for all changes to existing pedestrian and vehicular intersections with Broadway, which would include review by the Fire Department. The Oakland Fire Department is the first responder 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 construction. In addition, SCA Trans-2 would require development of a construction management plan, which addresses construction period traffic and parking. Therefore, Project construction would not significantly interfere with emergency response plans (e.g., the City of Oakland's Multi-Hazard Functional Plan).

Mitigation Measures

None needed

Wildland Fires

Impact Haz-6: The Project site is located within a heavily urbanized portion of Oakland. There are no wildlands at the Project site and adjacent areas have been developed (e.g., as a college campus, a golf course and cemeteries) and would not pose a risk of wildland fires. (**No Impact**)

The Project site is located in an urbanized area of Oakland and, according to Figure 4.1 of the Oakland Safety Element, the site is more than ½ mile outside of the Fire Prevention and Assessment District boundary, which indicates that it is not subject to significant wildfire hazard.

Mitigation Measures

None needed

Cumulative Hazards/Hazardous Materials Impacts

Cumulative Impact Haz-7: Hazards and hazardous materials impacts are generally site-specific and/or have limited mobility. Thus, the Project would not be expected to have cumulatively considerable effects. (**LTS**)

The geographic area considered for potential cumulative public health or hazards impacts consists of an area within ¼-mile of the Project site, and the area along transportation routes used during demolition and construction activities associated with the Project.

Development activities in this area could increase the exposure of persons to hazardous materials, including contaminated soil, groundwater, hazardous construction materials, and lead and asbestos. However, the use, storage and disposal of hazardous materials has been increasingly regulated by local,

State and federal laws and regulations. The historical trend within the regulatory community has been to strengthen the standards regarding the use, handling and transport of hazardous materials, therefore minimizing the risk to public health, safety and welfare. Many past projects have been, all present projects are, and all future projects including the proposed Project will be subject to these more rigorous controls for site remediation and development. The current and future handling of hazardous materials within the City of Oakland (including the Project) will be subject to these escalating regulations and the City's Standard Conditions of Approval and, as a result, cumulative hazardous materials risks will not be significant. Moreover, it is unlikely that any potential hazardous materials exposure from the Project's construction activities would combine with other surrounding activities that may involve hazardous material exposure because there is no evidence that other construction activities will be occurring in the immediate area surrounding the Project site at the same time. Additionally, compliance with the strict regulatory requirements associated with handling of hazardous materials would reduce the potential for any cumulatively considerable contribution from the Project to any potential cumulative impact.

Therefore, implementation of the proposed Project together with the impact of other past, present, existing, current and reasonably foreseeable future development would not result in any significant cumulative public health or hazards impacts.

Mitigation Measures

None needed

4.8

Hydrology and Water Quality

This section evaluates the proposed Project's potential impacts related to hydrology and water quality. This section describes the existing hydrology and water quality conditions in the vicinity of the site and evaluates the extent to which development of the Project as proposed may affect hydrology and water quality. Information in this section is drawn from the Project's geotechnical analysis and hazardous materials assessments and other sources, referenced fully in their respective sections of this EIR.

Physical Setting

Regional Hydrology

Regional Drainage Patterns

The Project site lies in the South Bay Hydrologic Basin within the San Francisco Bay hydrologic region. San Francisco Bay provides a topographic separation between the northern and southern coastal mountain ranges. The San Francisco Bay estuarine system conveys the waters of the San Joaquin and Sacramento rivers into the Pacific Ocean. These rivers enter the San Francisco Bay at the eastern end of Suisun Bay. The Project area is part of the Oakland Super-Planning Watershed in Alameda County, within the San Francisco Bay hydrologic region.[1]

Regional Groundwater

The California Department of Water Resources (DWR) delineates state groundwater basins based on geologic and hydro-geologic conditions. According to the DWR, the Project site is located within the East Bay Plain Subbasin of the Greater Santa Clara Valley Groundwater Basin. The East Bay Subbasin has a surface area of approximately 122 square miles and trends northwest from Hayward to San Pablo Bay. The primary groundwater-bearing formation in the sub-basin is comprised of unconsolidated sediments of Quaternary age. Some portions of the sub-basin have been identified as areas of major groundwater contamination associated with fuels and solvents. However, contamination in these areas is considered to be restricted to the upper 50 feet of the subsurface.[2] The regional direction of groundwater flow is generally southwestward toward San Francisco Bay.

Flooding

The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Mapping (FIRM) program designates areas where flooding could occur during a 1% annual chance (100-year floodplain) or a 0.2% annual chance flood events (500-year floodplain). The Project site is not located in an area determined to be within either of these potential flood zones. The nearest flood zone is located along Line B of the Glen

[1] California Department of Fish and Game, 2004

[2] DWR, 2003

Echo Creek (approximately 1,000 feet to the southeast of the Project site), in which the 1% annual chance flood discharge is contained within the creek channel (see **Figure 4.8-1**).[3]

Oakland does not have large rivers or open coastline that can result in devastating storm-induced flooding. Flooding from tsunamis (waves caused by an underwater earthquake, landslide, or volcanic eruption) could affect low-lying areas along the Oakland Estuary and San Francisco Bay, but would not affect property at higher elevations in Oakland, such as at the Project site. Flooding from seiches (waves in a lake, reservoir or harbor) in Oakland is unlikely.[4]

The California Department of Water Resources, Division of Safety of Dams (DSOD) oversees the construction of dams that are over 25 feet high and which impound over 15 acre-feet of water, or those that are over 6 feet high and impound over 50 acre-feet of water. The DSOD requires dam owners to develop maps designating potential dam failure. According to maps compiled by ABAG,[5] the Project site is not at risk for dam failure inundation.

Local Hydrology

Surface Water

There are no surface water features (creeks, ponds or watercourses) on the Project site.

To the northeast of the Project site is the Rockridge branch of Glen Echo Creek, part of the ACFCWCD flood control facilities also known as Line B-1. Line B-1 is approximately 2.5 miles in length and originates in the vicinity of Broadway Terrace and Romany Road, beginning as a natural creek meandering through the Claremont Golf Course, and then flowing into a large multi-purpose quarry pond located along the southern tip of the Claremont Country Club immediately adjacent to the Project site (see **Figure 4.8-2**). An inverted-bell spillway carries overflow into a closed culvert that exits the property across Pleasant Valley Avenue at the southern boundary. The Rockridge branch joins the Broadway branch near 42nd Street and Broadway, and then joins the main stem at 30th Street and Richmond Boulevard, which flows into Lake Merritt at the northwest inlet, which flows into San Antonio Creek and ultimately into San Francisco Bay.

The quarry pond, also known as Claremont Pond or Old Quarry Pond, is a remnant from previous quarry operations at that site and is owned by the Claremont Country Club. It currently serves mainly as a water storage facility to supply the irrigation needs for the golf course. Within the pond is an existing concrete inlet structure that regulates and controls the amount of water allowed to flow from the pond into the downstream culverts. The inlet structure is maintained by the District and was recently improved to increase the pond's storage capacity, to improve the efficiency of the inlet structure to control and regulate the flow downstream to reduce flooding potential, and to improve maintenance access to the inlet structure. [6]

None of these hydrology and flood control features are on the Project site.

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[3] Federal Emergency Management Agency, *Flood Insurance Rate Map Number 06001C0080G*, August 2009.

[4] City of Oakland, *Oakland General Plan Safety Element*, November 2004.

[5] Association of Bay Area Governments, *Dam Failure Inundation Hazard Map for North Oakland/Piedmont/Emeryville* http://www.abag.ca.gov/cgi-bin/pickdamx.pl

[6] Alameda County Flood Control and Water Conservation District, *2008 Capital Improvement Program*, 2008.

Figure 4.8-1
FEMA Flood Map

Source: FEMA Flood Insurance Rate Map
06001C0080G

Figure 4.8-2
Old Quarry Pond

Source: AECOM

On Site Drainage Patterns

The Project site lies in a highly urbanized area of Oakland that is served by the City's storm drainage system. The Project site is generally flat and almost entirely covered by impervious surfaces consisting of commercial buildings, paved areas and parking lots. The current site is graded such that all storm flows drain either inward to the center of the site, or southwest toward Pleasant Valley Road and Broadway. Storm water runoff from the Project site originates as overland sheet flow across the parking lots and collected in drop inlets within the parking lot or in the surrounding curb and gutter system along Broadway and Pleasant Valley Road. From there, it is delivered through drop inlets to the City's below ground storm drain and culvert system, which includes an existing 54-inch storm drain line in Pleasant Valley Avenue. The City's storm drain lines eventually discharge to the Oakland Estuary.

The Alameda County Flood Control and Water Conservation District (ACFCWCD) is responsible for the construction, operation and maintenance of major storm drain trunk lines and flood control facilities in Oakland. The Oakland Public Works Agency (PWA) is responsible for maintenance of the local storm drainage system within Oakland's public areas and roads.

Groundwater

Phase II Environmental Assessments conducted in June[7] and August of 2001[8] assessed soil and groundwater conditions at the site. A total of ten borings were drilled at various locations within the Project site (see prior Figure 4.8-2). These borings provided data regarding the presence of groundwater beneath the site. The results from these borings include the following:

- A laterally continuous source of groundwater throughout the site was not encountered, based on borings drilled to a maximum depth of approximately 20 feet below ground surface (bgs).
- Groundwater was encountered in two of the ten borings (B-2 at approximately 17 feet bgs, and B-9 at approximately 9 feet bgs), but was not encountered in the other eight borings. The two locations where groundwater was encountered were toward the center of the site.
- Perched water was encountered in Boring B-3 (in the northerly portion of the site) at about 15 feet, and in Boring B-6 (in the southerly portion of the site) at about 5 feet. Boring B-6 was located adjacent to an existing planter, and the water was likely originating from the planter.

Based on the lithography and general lack of groundwater encountered during the majority of the 2001 borings, the local groundwater flow beneath the Project site may be governed by preferential pathways or more permeable material (course textured fill/soil or fractured bedrock), as opposed to flowing within homogeneous sediments.

Based on data from other surrounding sites (5157 Broadway) and assumptions based on surface topography, the direction of groundwater flow that does exist on site is expected to be to the west or southwest at a depth of 20 feet or more. It is unlikely that groundwater would be encountered in any planned excavations for the Project, except for possible isolated zones of perched water that might require localized dewatering during excavation.

Local Water Quality

There are no surface water features on the Project site. The current storm drain system at the Project site consists of drop inlets which catch surface runoff from the parking lot and conveys flow directly into the City storm drainage system. There are no known storm water filters or treatment facilities on the site.

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[7] GeoTrans, *Phase II Environmental Assessment Report*, June 29, 2001

[8] GeoTrans, *Addendum to Screening Level Phase II Environmental Assessment*, August 10, 2001

The presence of groundwater contaminants is fully addressed in Chapter 4.9 of this EIR, Hazards and Hazardous Materials.

Regulatory Setting

Federal, state, and local agencies regulate activities that could affect hydrological and water quality features in the Project area. This section describes the regulatory framework that would apply to the Proposed Project.

Federal

Clean Water Act

The CWA established the basic structure for regulating discharges of pollutants into the waters of the U.S. and gave the USEPA the authority to implement pollution control programs such as setting wastewater standards for industry. The CWA sets water quality standards for all contaminants in surface waters. The statute employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The Corps has jurisdiction over all waters of the U.S. including, but not limited to, perennial and intermittent streams, lakes, and ponds, as well as wetlands in marshes, wet meadows, and side hill seeps. Under Section 401 of the CWA every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain State Water Quality Certification that the proposed activity will comply with state water quality standards.

The National Pollutant Discharge Elimination System (NPDES) permit program under the CWA controls water pollution by regulating point and non-point sources that discharge pollutants into "waters of the U.S." California has an approved state NPDES program. The USEPA has delegated authority for NPDES permitting to the California State Water Resources Control Board (SWRCB), which has nine regional boards. The San Francisco Bay Regional Water Quality Control Board (RWQCB) regulates water quality in the Project area.

Section 303(d) of the CWA requires that each state identify water bodies or segments of water bodies that are "impaired" (i.e., not meeting one or more of the water quality standards established by the state). These waters are identified in the Section 303(d) list as waters that are polluted and need further attention to support their beneficial uses. Once the water body or segment is listed, the state is required to establish Total Maximum Daily Load (TMDL) for the pollutant causing the conditions of impairment. TMDL is the maximum amount of a pollutant that a water body can receive and still meet water quality standards. Generally, TMDL is the sum of the allowable loads of a single pollutant from all contributing point and non-point sources. The intent of the Section 303(d) list is to identify water bodies that require future development of a TMDL to maintain water quality.

In accordance with Section 303(d), the San Francisco Bay RWQCB has identified impaired water bodies within its jurisdiction, along with the pollutant or stressor responsible for impairing the water quality.[9] In the San Francisco Bay region, the RWQCB has designated the South Basin of San Francisco Bay as an impaired water body. Pollutants that contribute to this impairment are chlordane, DDT, diazinon, dieldrin, dioxin compounds, exotic species, furan compounds, mercury, polychlorinated biphenyls, and selenium.[10] Lake Merritt is listed as an impaired water body for organic enrichment/low dissolved oxygen, bacteria, and trash.

[9] RWQCB, 2007b

[10] RWQCB, 2007a

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act, Division 7 of the California Water Code, allows the SWRCB to adopt statewide water quality control plans. The purpose of the plans is to establish water quality objectives for specific water bodies. The act also authorizes the NPDES program under the CWA, which establishes water quality requirements for discharges to waters of the state. Most of the implementation of SWRCB's responsibilities is delegated to nine regional boards. The San Francisco Bay RWQCB has established permit requirements for stormwater runoff for the Project area (see *Regional Regulatory Setting* below).

State Water Resources Control Board

Stormwater discharges from construction activities on one acre or more are regulated by the State Water Resources Control Board (SWRCB) and are subject to the permitting requirements of the NPDES General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit). The SWRCB established the General Construction Permit program to reduce surface water impacts from construction activities. The proposed Project would be required to comply with the current NPDES permit requirements to control stormwater discharges from the construction site (see *Alameda County Regulations* below).

The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for construction activities. The SWPPP must be prepared before the construction begins, and in certain cases before demolition begins. The SWPPP must include specifications for best management practices (BMPs) that would be implemented during construction to control degradation of surface water by preventing soil erosion or the discharge of pollutants from the construction area. The SWPPP must also describe measures to prevent or control runoff after construction is complete, and identify procedures for inspecting and maintaining facilities or other elements. Required elements of a SWPPP include:

- Site description addressing the elements and characteristics specific to the site
- Descriptions of BMPs for erosion and sediment controls;
- BMPs for construction waste handling and disposal;
- Implementation of approved local plans;
- Proposed post-construction controls; and
- Non-stormwater management.

Examples of typical construction BMPs include scheduling or limiting activities to certain times of year, installing sediment barriers such as silt fence and fiber rolls, maintaining equipment and vehicles used for construction, tracking controls such as stabilizing entrances to the construction site, and developing and implementing a spill prevention and cleanup plan. Non-stormwater management measures include installing specific discharge controls during certain activities such as paving operations, vehicle and equipment washing and fueling.[11]

[11] California Stormwater Quality Association (CASQA), *California Storm Water Best Management Practice Handbook*, 2003.

California Toxics Rule

Under the California Toxic Rule, the USEPA has proposed water quality criteria for priority toxic pollutants for inland surface waters, enclosed bays, and estuaries. These federally promulgated criteria create water quality standards for California waters. The California Toxic Rule satisfies CWA requirements and protects public health and the environment. The USEPA and the SWRCB have the authority to enforce these standards. However, the Proposed Project would not discharge toxic pollutants directly into the inland surface waters, such as Lake Merritt, or San Francisco Bay, therefore the California Toxic Rule would not apply.

Regional

Regional Water Quality Control Board

The San Francisco Bay RWQCB is responsible for the protection of beneficial uses and the water quality of water resources within the San Francisco Bay region. The San Francisco Bay RWQCB prepared the *San Francisco Bay Basin Water Quality Control Plan* (Basin Plan) for San Francisco Bay. The Basin Plan contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the region and describes beneficial uses of major surface waters and their tributaries. The Basin Plan lists a number of beneficial uses for both the South Basin of San Francisco Bay and for Lake Merritt. The RWQCB is responsible for regulating construction activities to ensure the protection of these beneficial uses.

The San Francisco Bay RWQCB also administers the NPDES stormwater permitting program and regulates stormwater in the San Francisco Bay region. The City of Oakland is a permittee under the NPDES Municipal Stormwater Permit for the Alameda Countywide Clean Water Program (see below for detailed discussion). Project Applicants are required to apply for a NPDES General Permit for discharges associated with project construction activities of greater than one acre.

General Permit

Stormwater discharges from construction activities on one acre or more are regulated by the RWQCB and are subject to the permitting requirements of the NPDES General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit). The RWQCB established the General Construction Permit program to reduce surface water impacts from construction activities. The proposed Project would be required to comply with the current NPDES permit requirements to control stormwater discharges from the construction site (see *Alameda County Regulations* below).

The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for construction activities. The SWPPP must be prepared before the construction begins, and in certain cases before demolition begins. The SWPPP must include specifications for best management practices (BMPs) that would be implemented during construction to control degradation of surface water by preventing soil erosion or the discharge of pollutants from the construction area. The SWPPP must also describe measures to prevent or control runoff after construction is complete, and identify procedures for inspecting and maintaining facilities or other elements. Required elements of a SWPPP include:

- Site description addressing the elements and characteristics specific to the site
- Descriptions of BMPs for erosion and sediment controls;
- BMPs for construction waste handling and disposal;
- Implementation of approved local plans;

- Proposed post-construction controls; and
- Non-stormwater management.

Examples of typical construction BMPs include scheduling or limiting activities to certain times of year, installing sediment barriers such as silt fence and fiber rolls, maintaining equipment and vehicles used for construction, tracking controls such as stabilizing entrances to the construction site, and developing and implementing a spill prevention and cleanup plan. Non-stormwater management measures include installing specific discharge controls during certain activities such as paving operations, vehicle and equipment washing and fueling.[12]

Dewatering Permit

Excavation and trenching activities in areas with shallow groundwater often requires dewatering (the removal of groundwater by pumping), which is subject to the RWQCB construction dewatering permit requirements and regulated under state requirements for stormwater pollution prevention and control. Discharge of non-stormwater from a trench or excavation that contains sediments or other pollutants to sanitary sewer, storm drain systems, creek beds (even if dry), or receiving waters is prohibited. Discharge of uncontaminated groundwater from dewatering is a conditionally exempted discharge by the RWQCB. However, the removed water could potentially be contaminated with chemicals released from construction equipment or sediments from excavation. Therefore, disposal of dewatering discharge would require permits either from the RWQCB for discharge to surface creeks and groundwater or from local agencies for discharge to storm or sanitary sewers. The discharge of water resulting from dewatering operations would require an NPDES Permit, or a waiver (exemption) from the RWQCB, which would establish discharge limitations for any specific chemicals known to exist in the dewatering flows.

Alameda County Regulations

The Alameda County Flood Control & Water Conservation District (ACFCWCD) and the City of Oakland Public Works Agency share responsibility for maintaining drainage facilities in Oakland. The Project site lies within the jurisdiction of Zone 12 of the ACFCWCD, covering the areas of Oakland and Emeryville.

Alameda Countywide Clean Water Program

The Alameda Countywide Clean Water Program (ACCWP) includes 17 member agencies that work together to protect creeks, wetlands and San Francisco Bay. The City of Oakland and ACFCWCD are two of the agencies that participate in the ACCWP. The member agencies have developed performance standards to clarify the requirements of the stormwater pollution prevention program, adopted stormwater management ordinances, conducted extensive education and training programs, and reduced stormwater pollutants from industrial areas and construction sites.[13] In the Project area, the ACCWP administers the stormwater program to meet CWA requirements by controlling pollution in the local storm drain sewer systems.

NPDES Permit

On October 14, 2009, the San Francisco Bay Regional Water Quality Control Board adopted a Municipal Regional Stormwater Permit (MRP) pursuant to the National Pollutant Discharge Elimination System

[13] Alameda County Clean Water Program, 2009

(NPDES).[14] This permit includes ACCWP members (including the City of Oakland) as well as 59 other municipal stormwater permittees in the Bay Area. The permit incorporates updated state and federal requirements related to the quantity and quality of post-construction stormwater discharges from new development and redevelopment projects, and serves as a framework for identification and implementation of water quality control measures or BMPs.

The MRP includes Provision C.3 that governs storm drain systems and regulates post construction stormwater runoff. The provision requires new development and redevelopment projects to incorporate post-construction treatment measures and other appropriate source control and site design features to reduce the pollutant load in stormwater discharges and to manage runoff flows. "Redevelopment" is defined as a project on a previously developed site that results in the addition or replacement of impervious surface. For projects that create and/or replace 10,000 square feet or more of impervious surface and would result in an increase of, or replacement of, more than 50 percent of the impervious surface of a previously existing development, and the existing development was not subject to stormwater treatment measures, the entire project must be included in a treatment system design. For projects that meet this definition, site design must incorporate low impact development (LID) source control measures, and stormwater treatment onsite or at a joint stormwater treatment facility. Site design must minimize impervious surfaces, and incorporate means for infiltration, evapotranspiration, or bio-treatment of stormwater. MRP provision C.3 also requires that certain projects which would create and/or replace one acre or more of impervious surface, and would increase impervious surface area over the pre-project condition must meet the Hydro-modification Management Standard. In compliance with this standard, the increases in runoff flow and volume associated with a project must be managed so that post-project runoff will not exceed estimated pre-project rates and durations if the increased runoff is likely to increase erosion of creeks, increase the generation of silt, or cause other adverse impacts.

The Project will be required to demonstrate compliance with the applicable provisions of the MRP. Specifically construction and post-construction activities associated with the proposed Project would be subject to the MRP requirements for stormwater management and discharges.

Local – City of Oakland

Oakland has jurisdiction over and/or maintenance responsibility for its municipal separate storm drain systems and/or watercourses in the city.

Municipal Code

The City of Oakland Municipal Code implements the following regulations to protect water quality and water resources:

Creek Protection, Stormwater Management, and Discharge Control Ordinance (part of Title 13 of the Oakland Municipal Code)

The ordinance establishes comprehensive guidelines for the regulation of discharges to the city's storm drain system and the protection of surface water quality, prohibiting activities that would result in the discharge of pollutants to Oakland's waterways or would result in damage to creeks, creek functions or habitat. The ordinance identifies BMPs and other protective measures for development projects. Under the ordinance, the City of Oakland Public Works Agency issues permits for storm drainage facilities that would be connected to existing city drainage facilities.

[14] NPDES Permit No. CAS612008, Order No. R2-2009- 0074

In 1997, the ordinance was amended to include the requirement for a creek protection permit for any construction or related activity on creek-side property. The ordinance includes enforcement provisions to provide more effective methods to deter and reduce the discharge of pollutants to the storm drain system, local creeks, and San Francisco Bay. The provisions also list clear guidelines for creek-side residents to protect creeks and habitat.

Applicability of the Creek Protection Ordinance:

Development and site work in areas containing or immediately adjacent to creeks within the City of Oakland is specifically regulated by Chapter 13.16 of the Oakland Municipal Code, known as the "*City of Oakland Creek Protection, Storm Water Management and Discharge Control Ordinance*." As indicated in Section 13.16.020, the purpose of this ordinance is to ensure the future health, safety, and general welfare of City of Oakland citizens by:

- eliminating non-storm water discharges to the municipal separate storm sewer;
- controlling the discharge to municipal separate storm sewers from spills, dumping or disposal of materials other than storm water;
- reducing pollutants in storm water discharges to the maximum extent practicable;
- safeguarding and preserving creeks and riparian corridors in a natural state;
- preserving and enhancing creekside vegetation and wildlife;
- preventing activities that would contribute significantly to flooding, erosion or sedimentation, or that would destroy riparian areas or would inhibit their restoration;
- enhancing recreational and beneficial uses of creeks;
- controlling erosion and sedimentation;
- protecting drainage facilities; and
- protecting the public health and safety, and public and private property.

According to the definitions contained within this ordinance, a "creek" is defined as follows:

> *"Creek: a Watercourse that is a naturally occurring swale or depression, or engineered channel which carries fresh or Estuarine water either seasonally or year round within the City boundaries, as identified on the "Watershed Map of Oakland and Berkeley Area" and the "Creek and Watershed Map of Hayward and San Leandro," published by the Oakland Museum of California and as modified by the City and/or any area identified through field investigation by the Environmental Services Manager as meeting the above criteria."*

A "watercourse" is further defined as follows:

> *Watercourse: any conduit or natural or man-made channel through which water flows continuously or intermittently in a definite direction and course or alternating directions and course under the influence of tides or any appurtenant structure thereof which is used for the holding, delay or storage of water, except enclosed public water delivery and storm sewer system conduits.*

According to Section 13.16.120, "*No person shall commit or cause development or work within the boundaries of a creekside property, or within the public right of way fronting a creekside property, unless a Creek Protection Permit has first been obtained from the Chief of Building Services.*" Depending on the type and location of development or work, a Creek Protection Permit may fall into the following categories.

- Category I: Any indoor development or work. Although development or work indoors should not affect the quality of the creek environment, this is an opportunity for the City to distribute brochures regarding creek protection and overall quality of water that drains to the bay. Best Management Practices recommended in those brochures to protect water quality must be followed.
- Category II: Any exterior development or work that does not include earthwork, and is more than 100 feet from the center line of the Creek to the location of the development or work. Category II provides the City with an opportunity to educate residents about Creek protection and overall quality of water that drains to the Bay. Best Management Practices recommended in those brochures to protect water quality must be followed.
- Category III: Any exterior development or work that may adversely impact the creek, beyond the 20 foot setback from the top of bank of the creek, and is within 100 feet of the centerline of the creek, that may or may not require any other development related permit including without limitation; landscape walls, fences, patios, decks, private drainage improvements, irrigation systems, or trenching work. Additionally, any work or development that includes earthwork beyond the 20 foot setback from the top of the bank of the creek.
- Category IV: Any exterior development or work that is conducted from the centerline of the creek to the 20 foot setback from the top of bank of the creek that may or may not require any other development related permits including without limitation; earthwork, landscape walls, fences, patios, decks, private drainage improvements, irrigation systems, or trenching work.

As the Project site is located immediately adjacent to a City-defined creek (Rockridge branch of Glen Echo Creek, part of the ACFCWCD flood control facilities also known as Line B-1), the Project would be subject to the provisions of the Creek Protection ordinance and a permit would be required.

Grading Ordinance (part of Title 15 of the Oakland Municipal Code)

The Grading Ordinance requires a permit for grading activities on private or public property for projects in which the volume of excavated material would exceed 50 cubic yards, resulting grade would have a 20 percent slope or greater, or the depth of excavation would exceed five feet at any location. During Project construction, the grading operation could exceed any or all of these criteria, such that the Project sponsor will be required to apply for a grading permit and to prepare a grading plan, erosion and sedimentation control plan, and drainage plan pursuant to the provisions and requirements of this ordinance.

General Plan

The following objectives, policies, and actions from City of Oakland's General Plan are applicable to the Proposed Project:

Open Space, Conservation and Recreation (OSCAR), Chapter 3-Conservation, Water Resources

> *Objective CO-5: Water Quality*: To minimize the adverse effects of urbanization on Oakland's groundwater, creeks, lakes, and near-shore waters.
>
> *Policy CO-5.1*: Encourage groundwater recharge by protecting large open space areas, maintaining setbacks along creeks and other recharge features, limiting impervious surfaces where appropriate, and retaining natural drainage patterns within newly developing areas
>
> *Policy CO5-2: Improvements to Groundwater Quality*. Support efforts to improve groundwater quality, including the use of non-toxic herbicides and fertilizers, the enforcement of anti-litter laws, the clean-up of sites contaminated by toxics, and on-going monitoring by the Alameda County Flood Control and Water Conservation District

Safety Element, Chapter 6-Flooding Hazards

Policy FL-1: Enforce and update local ordinance, and comply with regional orders that would reduce the risk of storm-induced flooding

Action FL-1.4: Continue to enforce the grading, erosion, and sedimentation ordinance by prohibiting the discharge of concentrated stormwater flows by other than approved methods.

Policy FL-2: Continue or strengthen city programs that seek to minimize the storm-induced flooding hazard.

Policy FL-3: Seek the cooperation and assistance of other government agencies in managing the risk of storm-induced flooding.

Policy FL-4: Minimize further the relatively low risks from non-storm-related forms of flooding.

Storm Drainage Design Guidelines[15]

The City of Oakland's Public Works Agency has prepared a design manual which provides computational techniques and criteria for the design of storm water runoff and drainage facilities and procedures to determine the required storage volume for detention and retention basins. Procedures in this manual apply to the design of typical facilities. The City of Oakland's Storm Drainage Design Guidelines have been prepared using the *Hydrology and Hydraulics Manual* published by the Alameda County Flood Control and Water Conservation District as the primary source of information.

According to these Guidelines, detention basins shall be designed to store urban runoff from sites such that post-project discharge rate is maintained less than or equal to the pre-project peak discharges. In certain cases, a maximum allowable outflow rate may be specified by the City. Otherwise, follow the procedures stated below for the design of detention basis.

- To the extent possible, for commercial and multi-unit development projects less than 50 acres, the City recommends the Modified Triangular Hydrograph Method with the goal of reducing the peak runoff into the City's storm drains by 25%.[16]

Standard Conditions of Approval (SCA) and Uniformly Applied Development Standards

The City of Oakland's SCAs relevant to reducing hydrology and water quality impacts due to the proposed Project are listed below. If the Project is approved by the City, then all applicable SCA would be adopted as conditions of approval and required of the proposed Project to ensure no significant impacts related to hydrology and water quality occur. The SCA are incorporated and required as part of the Project, so they are not listed as mitigation measures.

SCA Hydro-1: Stormwater Pollution Prevention Plan (*Prior to and ongoing throughout demolition, grading, and/or construction activities):* The project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project applicant must file a notice of intent (NOI) with the SWRCB. The project applicant will be required to prepare a stormwater pollution prevention plan (SWPPP) and submit the plan for review and approval by the Planning and Zoning Division and 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

[15] City Of Oakland Public Works Agency, Public Works Agency Standards, *Storm Drainage Design Guidelines*, July 2006

[16] Ibid, pg. 28

eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project applicant shall submit a copy of the SWPPP and evidence of approval of the SWPPP by the SWRCB to the Building Services Division. Implementation of the SWPPP shall start with the commencement of construction and continue though the completion of the project. After construction is completed, the project applicant shall submit a notice of termination to the SWRCB.

SCA Hydro-2: Post-construction Stormwater Pollution 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 Stormwater Supplemental Form for the Building Services Division. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater pollution management plan, for review and approval by the City, to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable.

a. The post-construction stormwater pollution 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; and

    v. Stormwater treatment measures to remove pollutants from stormwater runoff.

b. The following additional information shall be submitted with the post-construction stormwater pollution management plan:

c. Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and

    i. 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. 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 pollution 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.

d. *Prior to final permit inspection.* The applicant shall implement the approved stormwater pollution management plan.

SCA Hydro-3: 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.

The following additional Standard Conditions of Approval were previously identified in Chapter 4.3: Biological Resources, and also pertain to hydrology and water quality issues:

SCA Bio-2: 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 Bio-3: 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 Walter 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 Bio-4: 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 Bio-5: 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.

The following additional Standard Condition of Approval was previously identified in Chapter 4.5: Geology and Soils, and also pertains to hydrology issues:

SCA Geo-1: Erosion and Sedimentation Control Plan

a. *Prior to any grading activities.* The project applicant shall obtain a grading permit if required by the Oakland Grading Regulations pursuant to Section 15.04.780 of the Oakland Municipal Code. The grading permit application shall include an erosion and sedimentation control plan for review and approval by the Building Services Division. The erosion and sedimentation control plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading operations. The plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the Director of Development or designee. The plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment.

b. *Ongoing throughout grading and construction activities.* The project applicant shall implement the approved erosion and sedimentation plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Building Services Division.

Impacts, Standard Conditions of Approval and Mitigation Measures

Significance Criteria

The Project would result in a significant impact related to hydrology if it would:

Groundwater

1. 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 proposed uses for which permits have been granted);

Flooding:

2. Result in substantial flooding on- or off-site;
3. 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;
4. Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
5. Expose people or structures to a substantial risk of loss, injury or death involving flooding;
6. Result in inundation by seiche, tsunami, or mudflow;

Storm Drainage/Runoff:

7. Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems;
8. 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;

Erosion:

9. Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters;

Water Quality

10. Violate any water quality standards or waste discharge requirements;
11. Create or contribute substantial runoff which would be an additional source of polluted runoff;
12. Otherwise substantially degrade water quality;

Creek Protection Ordinance:

13. Fundamentally conflict with elements of the City of Oakland Creek Protection (OMC Chapter 13.16) ordinance intended to protect hydrologic resources. 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.

Depletion of or Interference with Groundwater Supplies

Impact Hydro-1: The Project site is already fully developed and/or paved, and is served with water from the East Bay Municipal Utility District. Redevelopment of the Project site as

proposed would not result in any change in existing groundwater recharge, and would not deplete groundwater resources. (**LTS**)

Groundwater was measured at a depth of about 20 feet in the central and northerly portion of the site. However, based on the geotechnical investigations conducted for the site, it is unlikely that a laterally continuous source of groundwater would be encountered during any planned excavation with the exception of possible isolated zones of perched water that might require localized dewatering during excavation. Should dewatering become necessary, such activity would be subject to the RWQCB construction dewatering permit requirements and the discharge of water resulting from dewatering operations would require an NPDES Permit (or a waiver/exemption) from the RWQCB to establish discharge limitations for any specific chemicals known to existing in the dewatering flows.

The groundwater at the Project site is not considered potable, and is not used as a public drinking water supply.

Mitigation Measures

None needed

Flooding

Impact Hydro-2: The Project site is not subject to potential flooding, and redevelopment of the Project site as proposed would not subject off-site areas to increased flood potential. (**No Impact**)

No portion of the site is within the 100-year or 500-year flood hazard area as mapped on Federal Flood Hazard Boundary or Flood Insurance Rate Maps or other flood hazard delineation maps. The Project would not place any structures within a 100-year flood hazard area that might impede or redirect flood flows, or expose people or structures to a substantial risk of loss, injury or death involving flooding, seiche, tsunami, or mudflow.

The Rockridge branch of Glen Echo Creek is part of the ACFCWCD flood control facilities. It originates in the vicinity of Broadway Terrace and Romany Road as a natural creek meandering through the Claremont Golf Course, and then flows into the quarry pond, and then through a spillway which carries flow into a closed culvert that exits across Pleasant Valley Avenue at the Project site's southern boundary. These is no mapped floodplain for this creek or the pond, but these facilities are located at a substantially lower elevation than the Project site and no on-site flooding of the site from flows in the Rockridge branch of the Glen Echo Creek could occur. Line B of the Glen Echo Creek, which flows through the adjacent cemetery, is shown (see **Figure 4.8-1**) as having a narrow 500-year flood plain, but this creek is substantially removed from the Project site.

Mitigation Measures

None needed

Increased Runoff Exceeding Stormwater Drainage System Capacity

Impact Hydro-3: The Project site currently has very little pervious surface and is almost entirely covered by buildings and paved areas. Redevelopment of the site as proposed would not substantially increase impervious surface area and thus would not increase stormwater runoff. (**LTS**)

The Project site is currently almost entirely covered with impervious surfaces (buildings and paved areas), with only minor landscaping along Pleasant Valley Road and small isolated landscape areas. Thus, virtually all stormwater falling on the Project site results in surface runoff, with no retention or detention prior to entering into the City's storm drain system.

The Project proposes to construct a number of bio-retention storm water treatment areas on-site to capture and treat storm water runoff from all building rooftops. The total area of bio-retention as proposed is approximately 8,890 square feet. As stormwater is captured in these bio-retention areas, the water will be filtered through natural medium (grasses and dirt) and a portion of this runoff will be retained and percolate into the ground. The reduction in impervious surfaces associated with these bio-retention storm water treatment areas, coupled with the time for the flows to work their way through the various BMP's will serve to reduce overall site runoff. As such, the amount of surface runoff leaving the site post Project construction will be less than current runoff volumes, and no increase in stormwater flows entering the City's storm drainage system will occur.

The Project would not increase stormwater runoff beyond current runoff volumes and therefore would not lead to an exceedance of the capacity of existing stormwater drainage systems. This impact would be less than significant.

Mitigation Measures

None needed.

Erosion and Sedimentation During the Construction Period

Impact Hydro-4: Site preparation and construction activity associated with the proposed Project could result in soil erosion, which could have adverse effects on water quality. During site preparation and construction activity at the site, potentially significant soil erosion impacts would be reduced to a level of less than significant through the effective implementation of City of Oakland Standard Conditions of Approval. (**LTS with SCA**)

The Project site has been previously developed and paved, and there is little or no visible topsoil remaining. However, site grading and construction activity would expose underlying soils. If left unprotected during construction, such exposed soils could be carried via stormwater runoff into the storm drain system and/or into adjacent surface water, resulting in increased sedimentation.

Standard Conditions of Approval

Pursuant to SCA Geo- 1, the Project applicant will be required to obtain a grading permit, including an approved Erosion and Sedimentation Control Plan, from the Building Services Division. The Erosion and Sediment Control Plan must 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. Such measures will include but will not be limited to 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.

Effective implementation of SCA Geo-1 during site preparation and construction activity at the site would ensure that potentially significant soil erosion and sedimentation impacts remain at a level of less than significant.

Mitigation Measures

None needed

Degradation of Water Quality During Construction

Impact Hydro-5: Site preparation and construction activity associated with the proposed Project site could result in degradation of stormwater quality. This potential impact would be reduced to a level of less than significant through the effective implementation of City of Oakland Standard Conditions of Approval. (**LTS with SCA**)

Potential pollutants associated with construction activities are likely to include minor quantities of paint, solvents, oil and grease, and petroleum hydrocarbons. If such pollutants were allowed to enter into the storm water runoff from the site, they would contribute to the potential degradation of downstream receiving waters.

Standard Conditions of Approval

Pursuant to SCA Hydro-1, the Project applicant will be required to obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). Coverage under this permit requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) for review and approval by the Planning and Zoning Division and the Building Services Division of the City of Oakland, and evidence of approval of the SWPPP by the SWRCB. At a minimum, the SWPPP will include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program.

Effective implementation of SCA Hydro-1 during site preparation and construction activity would ensure that potentially significant water quality impacts during construction remain at a level of less than significant.

Mitigation Measures

None needed

Degradation of Water Quality During Project Operations

Impact Hydro-6: Operational activities such as vehicular use, landscaping maintenance and other operational activities could potentially introduce pollutants into stormwater runoff, resulting in degradation of downstream water quality. This potential impact would be reduced to a level of less than significant through the effective implementation of City of Oakland Standard Conditions of Approval. (**LTS with SCA**)

Operational activities at the Project site that may generate and or result in the pollution of stormwater runoff include motor oil and other automotive fluids from spills and leaks, and metals from brake pad dust gathered in the parking lots; pesticides, fertilizers and herbicides used in on-site landscaping; air pollutants deposited on roof tops and decomposition of roofing and roof gutter materials and other

building materials; trash and excess irrigation water. If allowed to be captured during storm events, these pollutants enter the storm drainage system and eventually contribute to surface water quality degradation.

Standard Conditions of Approval

Pursuant to SCA Hydro-2, the Project applicant will be required to demonstrate compliance with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES). These provisions require preparation and approval of a Stormwater Pollution Management Plan (SMP) to limit the discharge of pollutants in stormwater after construction of the Project to the maximum extent practicable. The SMP shall identify all proposed impervious surface on the site and anticipated directional flows of on-site stormwater runoff; design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; and source control measures to limit the potential for stormwater pollution and stormwater treatment measures to remove pollutants from stormwater runoff. Treatment BMPs whose primary mode of action depends on flow capacity (such as swales and sand filters, see below) should be sized to treat 10% of the 50-year peak flow rate, or the flow runoff produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area, or the flow of runoff resulting from a rain event equal to at least 0.2 inches per hour intensity.

As part of the Project application, the applicants have submitted a preliminary post-construction SMP (see **Figure 4.8-3**). This preliminary SMP includes the following components:

- All roof down spouts and at-grade areas such as parking, sidewalks, plazas, patios, etc. are discharged to a landscaped area containing bio-retention media. These bio-retention areas are dispersed throughout the site so as to be proximate to the numerous proposed building sites. The bio-retention areas are sized to treat a total of 4 percent of the entire Project drainage area, and to meet the required treatment levels of 0.2 inches per hour using a standard treatment soil with 5-inch per hour percolation rates.
- All on-site storm drain inlets would be marked with “No Dumping! Flows to the Bay”

Additionally, SCA Hydro-3 requires the Project applicant to enter into a maintenance agreement accepting responsibility for the adequate installation/construction, operation, maintenance, inspection and reporting of all stormwater treatment measures being incorporated into the Project. Effective implementation of SCA Hydro-3 and Hydro-4 would ensure that potentially significant water quality impacts during Project operations remain less than significant.

Mitigation Measures

None needed

ON-SITE STORMWATER TREATMENT DATA

DRAINAGE AREA TO BE TREATED			BMP EFFECTIVE TREATMENT AREA				
Drainage Area Designation	Description	Total Area (sf)	Required (sf)	Provided (sf)	Excess (sf)	BMP Designation	BMP Treatment Method
I	Bldgs 'A' & 'B' Roof/Upper Deck & Drive Aisle	125,000	5,000	5,765	765	**A1**	Bioretention Area
II	Bldg 'C' & 'D' Roof/Upper Deck	35,100	1,404	1,410	6	**A6**	Bioretention Area
III	Bldg 'E' Roof	2,900	116	585	469	**A5**	Bioretention Area
IV	Bldgs 'F' & 'H' Roof/Upper Deck	23,400	936	1,188	252	**A4**	Bioretention Area
V	Bldg 'J' Roof/Upper Deck Parking	26,300	1,052	1,081	29	**A3**	Bioretention Area
VI	Bldgs 'L', 'N', & 'G' Roof/Upper Deck	71,650	2,866	4,784	1,918	**A8,A9,A10,A11**	Bioretention Area
VII	Parking Lot	29,990	1,200	1,240	40	**Planter Islands**	Bioretention Area
VIII	Parking Lot	16,100	644	723	79	**Planter Islands**	Bioretention Area
IX	Parking Lot	27,270	1,091	1,340	249	**A2**	Bioretention Area
X	Parking Lot	130,100	5,204	5,260	56	**Planter Islands**	Bioretention Area
XI	Parking Lot	28,620	1,145	1,195	50	**A7**	Bioretention Area
	TOTAL		**20,657**	**24,571**			

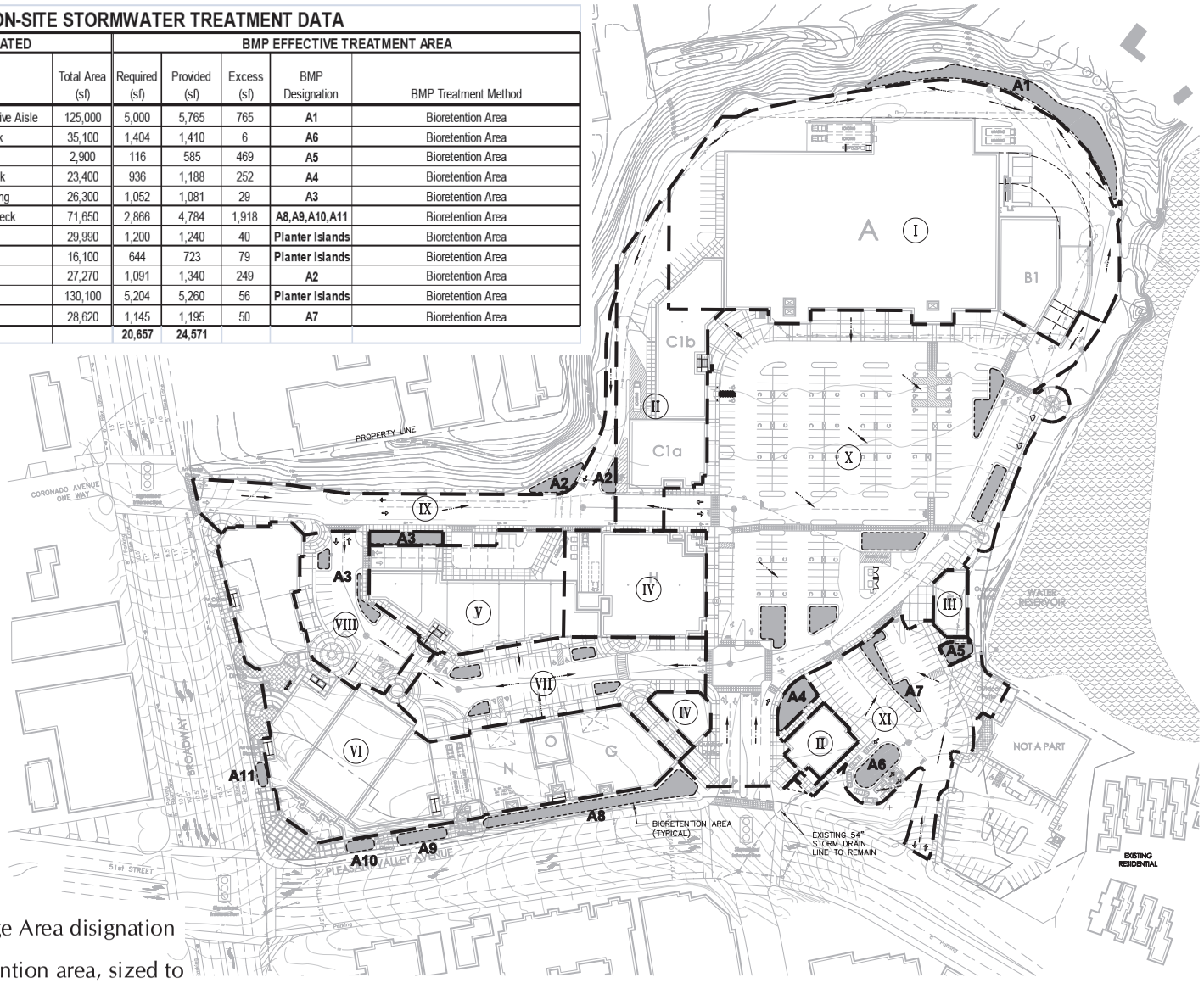

Figure 4.8-3
Project Post-Construction Stormwater Management Plan

Source: BKF Engineers

Conflict with Oakland Creek Protection Ordinance

Impact Hydro-7: Although the proposed Project would be subject to the provisions of the City of Oakland Creek Protection Ordinance, there is nothing about the Project that would fundamentally conflict with elements of the ordinance intended to protect hydrologic resources. The Project would not discharge a substantial amount of pollutants into the creek or watercourse, it would not significantly modify the natural flow of water, it would not deposit substantial amounts of new material into a creek or cause substantial bank erosion or instability, nor would it substantially endanger public or private property or threaten public health or safety. (**LTS with SCA**)

The Rockridge branch of Glen Echo Creek begins as a natural creek meandering through the Claremont Golf Course and clearly meets this definition of a "creek". The creek then flows into a large multi-purpose quarry pond located immediately adjacent to the Project site, which serves mainly as a water storage facility to supply the irrigation needs for the golf course. The pond itself meets the definition of a "watercourse" as it is an appurtenant structure to the creek used for the holding, delay and storage of water. Based on these definitions, the Claremont Pond is a feature specifically regulated under the City of Oakland's Creek Protection, Storm Water Management and Discharge Control Ordinance.

Currently, the Project site's boundaries adjacent to the Claremont Pond are marked with a chain link fence which separates the shopping center parking lot from the quarry pond. This fence sits at approximately the top of a steep bank which slopes directly into the pond. The steep bank is vegetated with disturbed grasses and shrubs adjacent to the shopping center.

Based on review of the proposed Project's site plan, no development or work is proposed within the daylighted section of the Rockridge branch of Glen Echo creek or on the downside slope of the quarry pond. However, the area adjacent to the pond is proposed for amenity improvements including new landscaping and a public access trail (see **Figure 4. 8-4**). Portions of this landscaping and trail are within 20 feet of the top of bank and would thus qualify for a Category IV permit.

Potential Conflicts with the Ordinance

The detailed elements of the appropriate Creek Protection Permit will be required pursuant to subsequent submittals for the Project, as required by SCA Bio-2, -3, -4 and -5. For purposes of this CEQA analysis, the question is whether the proposed Project would fundamentally conflict with elements of the ordinance intended to protect hydrologic resources. These relevant elements of the ordinance are addressed below.

Would the Project discharge a substantial amount of pollutants into the creek or watercourse?

> The hardscape portions of the trail and small gazebo sites are pitched such they drain westerly back toward the parking lot rather than eastward toward the pond. Thus, stormwater runoff potentially carrying pollutants from the trail will not discharge toward the pond or the creek.

Would the Project significantly modify the natural flow of water?

> Since no development or work is proposed within the daylighted section of the Rockridge branch of Glen Echo creek or on the downside slope of the quarry pond, the Project would not significantly modify the natural flow of water within the creek or the pond.

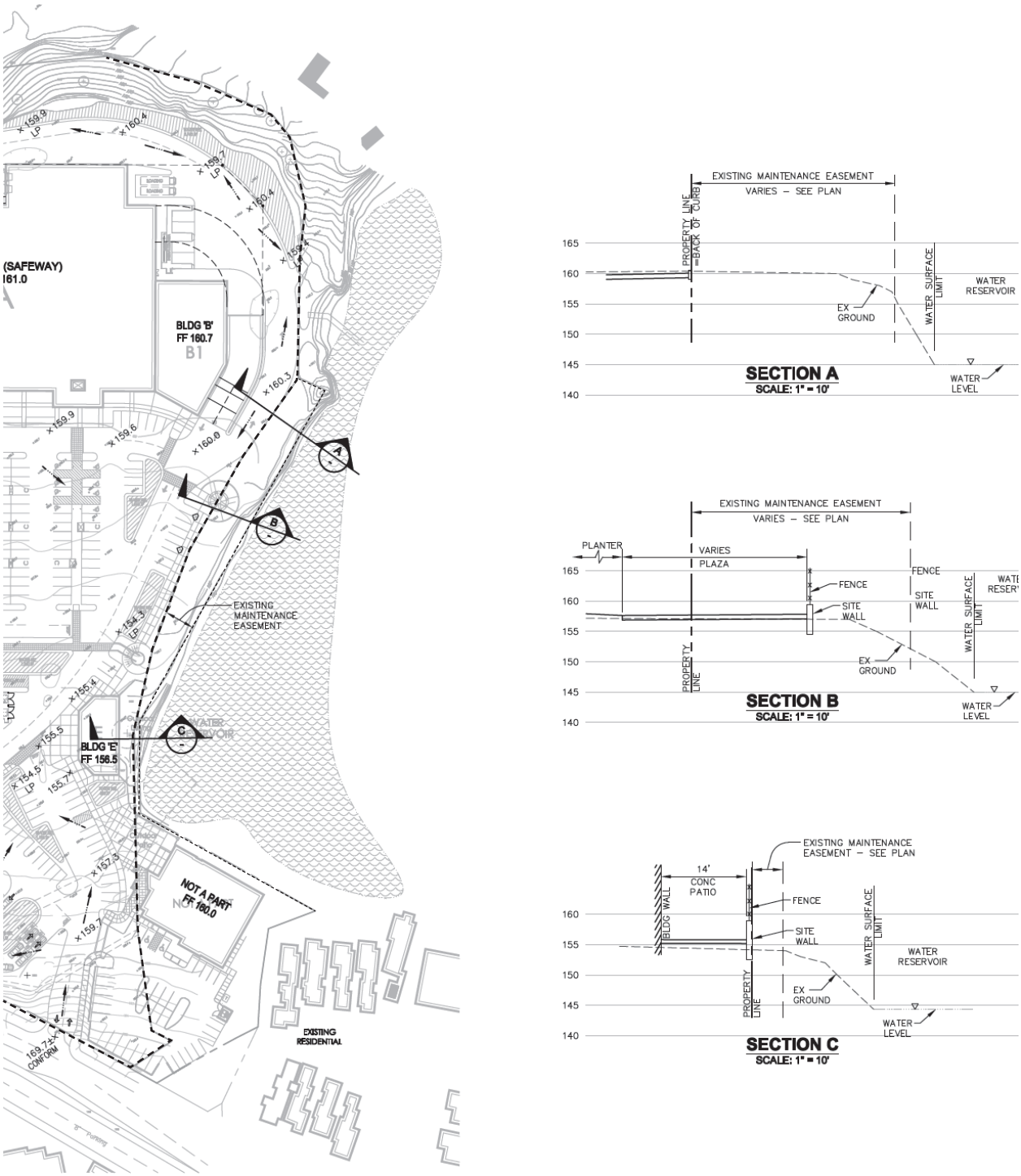

Figure 4.8-4
Construction Near Old Quarry Pond

Source: BKF Engineers

Would the Project deposit substantial amounts of new material into the creek or cause substantial bank erosion or instability?

> Pursuant to SCA Geo-1 and Bio-2 through -5, the Project applicant will be required to submit an Erosion and Sedimentation Control Plan, a Creek Protection Plan and a detailed Landscape Plan, obtain all regulatory permits and authorizations, and provide for an on-site monitor during construction to ensure compliance with all applicable Best Management Practices (BMPs) to avoid and reduce the potential for dust, erosion and sedimentation. Compliance with these plans would ensure that the Project would not deposit a substantial amount of new material into the pond or cause substantial bank erosion.

Would the Project substantially endanger public or private property or threaten public health or safety?

> The proposed pedestrian trail is located on land which is currently paved and used as a parking lot, and it is reasonable to assume that this property provides a suitable and stable base for the trail to be located. The trail will be separated from the steep banks of the pond by a tall wrought-iron fence. All improvements would be made within the existing maintenance easement adjacent to the pond and thus would not involve significant construction or maintenance safety hazards. Thus, the trail will not substantially endanger public or private property or threaten public health or safety.

With implementation of Standard Conditions of Approval Geo-1 and Bio-2 through -5, the Project will comply with the requirements of the City's Creek Protection Permit and will not fundamentally conflict with those elements of the Creek Protection Ordinance intended to protect hydrological resources and water quality.

Mitigation Measures

None needed

Cumulative Hydrology and Water Quality Impacts

Cumulative Impact Hydro-8: Implementation of the Project, combined with other past, present, existing, pending and reasonably foreseeable projects would not result in significant adverse changes to hydrology and/or water quality. (**LTS with SCA**)

Geographic Context

The geographic area considered for the hydrology and water quality cumulative analysis consists of the area within the City of Oakland whose storm sewers discharge to the San Francisco Bay.

Stormwater and Water Quality

Stormwater runoff entering the storm sewers within the Project's cumulative geographic area discharges to the San Francisco Bay. The stormwater contains urban-type pollutants from past, present and existing projects which have contributed to impairment of the quality of the San Francisco Bay. Applicable stormwater regulations have become progressively more rigorous since the adoption of the Federal Clean Water Act in 1977, with requirements imposed and enforced by the State Water Resources Control Board and Regional Water Boards through the NPDES permitting process. Stormwater runoff is treated in accordance with NPDES requirements. These requirements have resulted in polices and regulations which mandate greater levels of protection to water quality. Recently approved, currently pending and future projects, including the proposed Project, would continue to discharge stormwater during construction and operation. However, these future projects will be subject to current and any subsequent NPDES permitting requirements to reduce pollutant loading in the stormwater runoff. Therefore, no significant

adverse cumulative impacts are expected, and stormwater runoff quality would be expected to cumulatively improve.

Hydrology and Creeks

City of Oakland Creek Protection ordinance is intended to protect the City's hydrologic resources including creeks and watercourses. The ordinance establishes comprehensive guidelines for the regulation of discharges to the city's storm drain system and for the protection of surface water quality that could otherwise result in damage to creeks, creek functions or habitat. In 1997, the ordinance was amended to include the requirement for a creek protection permit for any construction or related activity on creek-side property. This permit is applicable to all cumulative development within the City of Oakland that has the potential to adversely affect creeks and surface waters. The provisions of the permit list clear guidelines for all creek-side residents to protect creeks and habitat. Effective implementation of the City's Creek protection permit program (including at the Project site) addresses potentially adverse cumulative effects on creeks and City hydrologic resources

Mitigation Measures

None needed

4.9

Land Use, Plans and Policies

This chapter describes the existing land uses, adopted General Plan land use classifications, and zoning designations on and around the Project site. This chapter also describes the applicable plans and policies that guide development in the Project area and evaluates the Project's consistency with these plans and policies and other existing land use regulations.

This chapter also identifies any potentially significant land use impacts and, if necessary, appropriate mitigation measures and/or applicable Standard Conditions of Approval to avoid or reduce such impacts. Pursuant to the City of Oakland General Plan as well as Section 15358(b) of the CEQA Guidelines, mitigation measures are proposed only to address physical impacts that may result from the Project.

Setting

The Project site is located in the northerly portion of the City of Oakland, on the northeast corner of the intersection of Pleasant Valley Avenue and Broadway, less than one mile west of the City of Piedmont boundary.

General Plan Land Use Classifications and Zoning

The applicable General Plan land use classification and zoning for the Project site and surrounding area as shown on the City of Oakland General Plan and Zoning Map are presented in **Figure 4.9-1**.

General Plan

The Project site is currently designated on the General Plan Land Use and Transportation Element (LUTE) Diagram as Community Commercial. The Community Commercial classification is intended to "identify, create, maintain and enhance areas suitable for a wide variety of commercial and institutional operations along the City's major corridors and in shopping districts or centers." Community commercial uses may include neighborhood center uses and larger scale retail and commercial uses, and can be complimented by the addition of urban residential development and compatible mixed-use development. The maximum floor -to-area ratio (FAR) for this land use classification is 5.0.

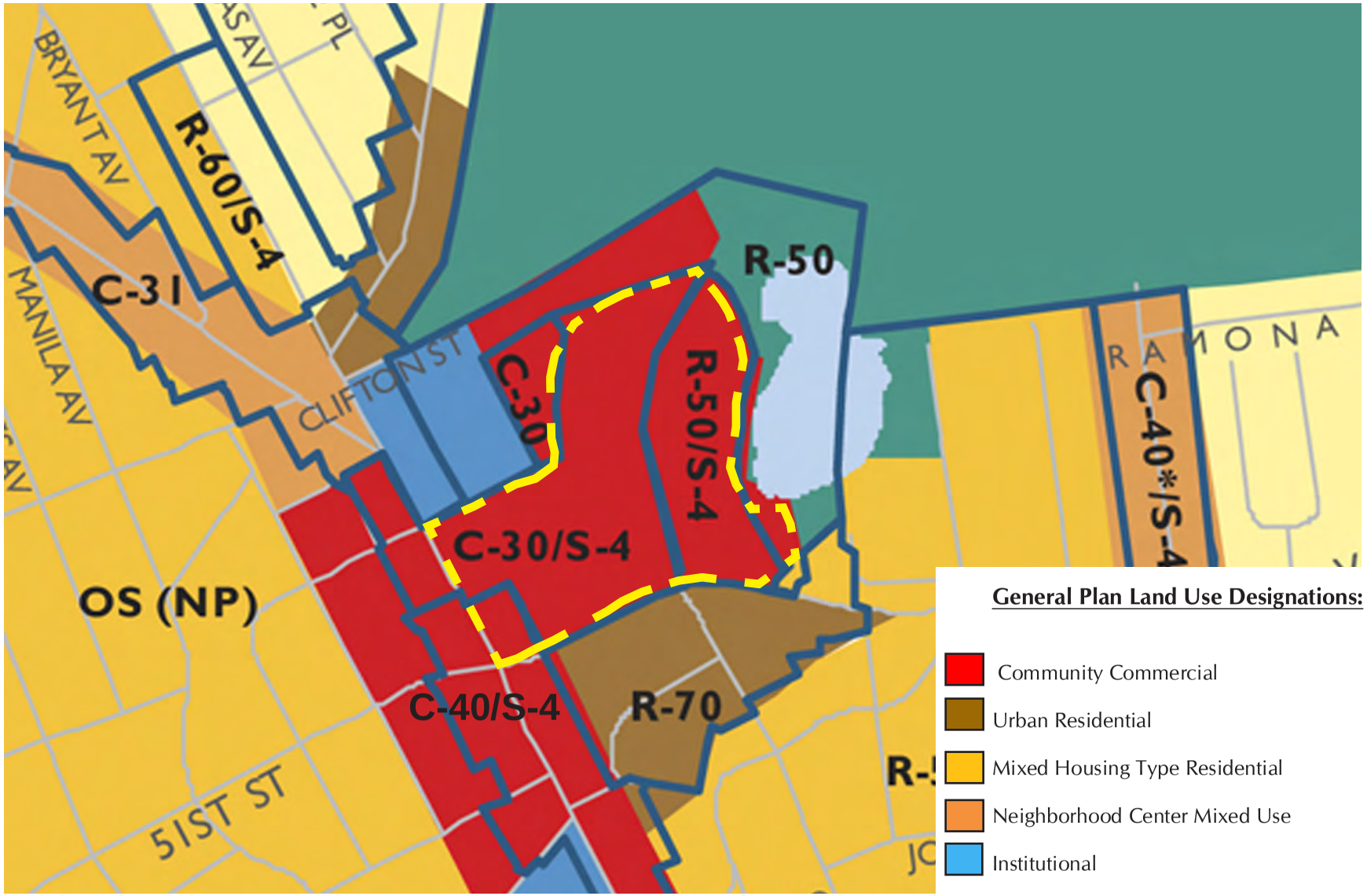

Figure 4.9-1
Applicable General Plan Designation and Zoning

Source: City of Oakland

Zoning

The zoning applicable to the Project site at the time the Project application was deemed complete in 2010 determines the zoning regulations applied to the Project. At that time, the site was split into three different zoning districts:

- The southwestern comer of the site, roughly equal to the location of the Chase bank building, was located in the C-40 Community Thoroughfare Commercial Zone
- The central portion of the site was located in the C-30 District Thoroughfare Commercial Zone.
- The eastern portion of the site was located in the R-50 Medium Density Residential Zone.
- The entire site is located in the S-4 Design Review Combining Zone.

The portion of the site located in the R-50 Zone would not normally allow the proposed commercial uses at the site. However, the R-50 Zone is not consistent with the underlying General Plan's Community Commercial land use designation. Pursuant to the City's Guidelines for Determining Project Conformity with the General Plan and Zoning Regulations, an interim conditional use permit is required in order to apply the policies of the General Plan to the portion of the site in the R-50 residential zone. In May 2009 the City made a similar determination in conjunction with the review of a proposal to remodel the adjacent Emil Villa's restaurant building. When reviewing the conditional use permit at that site, the City applied the standards of the C-30/S-4 Zone as the "best-fit" zone, meaning the C-30/S-4 Zone contained the most appropriate zoning standards to use when reviewing that proposal because the standards best implemented the policies of the General Plan's Community Commercial land use designation. A similar "best fit" determination for the Project site is required.

A new zoning map and accompanying new zoning regulations for the City's residential and commercial areas became effective as of April 14, 2011. Under the new zoning map, the entire Project site is zoned CC-2: Community Commercial-2 (see **Figure 4.9-2**). The new zoning is not applicable to the Project because the Project application was deemed complete prior to the new zoning becoming effective.

Design Review

The S-4 Zone is an overlay zone that requires design review for the construction and alteration of buildings. The Project site is located in the S-4 Design Review Combining Zone. All new construction in the S-4 zone is subject to the City's Design Review procedures.

Surrounding Land Uses

The Project site and its surrounding land uses are shown on **Figure 4.9-3**. The Project site is immediately adjacent to the major transportation corridor of Broadway which connects downtown Oakland to Highway 24, and Pleasant Valley Avenue which connects between Broadway and Grand Avenue in Piedmont. Broadway connects to Highway 24 approximately 1 mile to the north of the Project site. When Pleasant Valley Avenue crosses Broadway it becomes 51st Street, which also connects to Highway 24 approximately 2/3 of a mile to the east. These major corridors also provide access to a variety of commercial activities and urban mixed-use/mixed-density residential neighborhoods.

Northwest of the Project site is the eastern terminus of College Avenue, a popular business district extending between the cities of Oakland and Berkeley characterized by cafes, boutiques, antique stores, bookstores and professional offices.

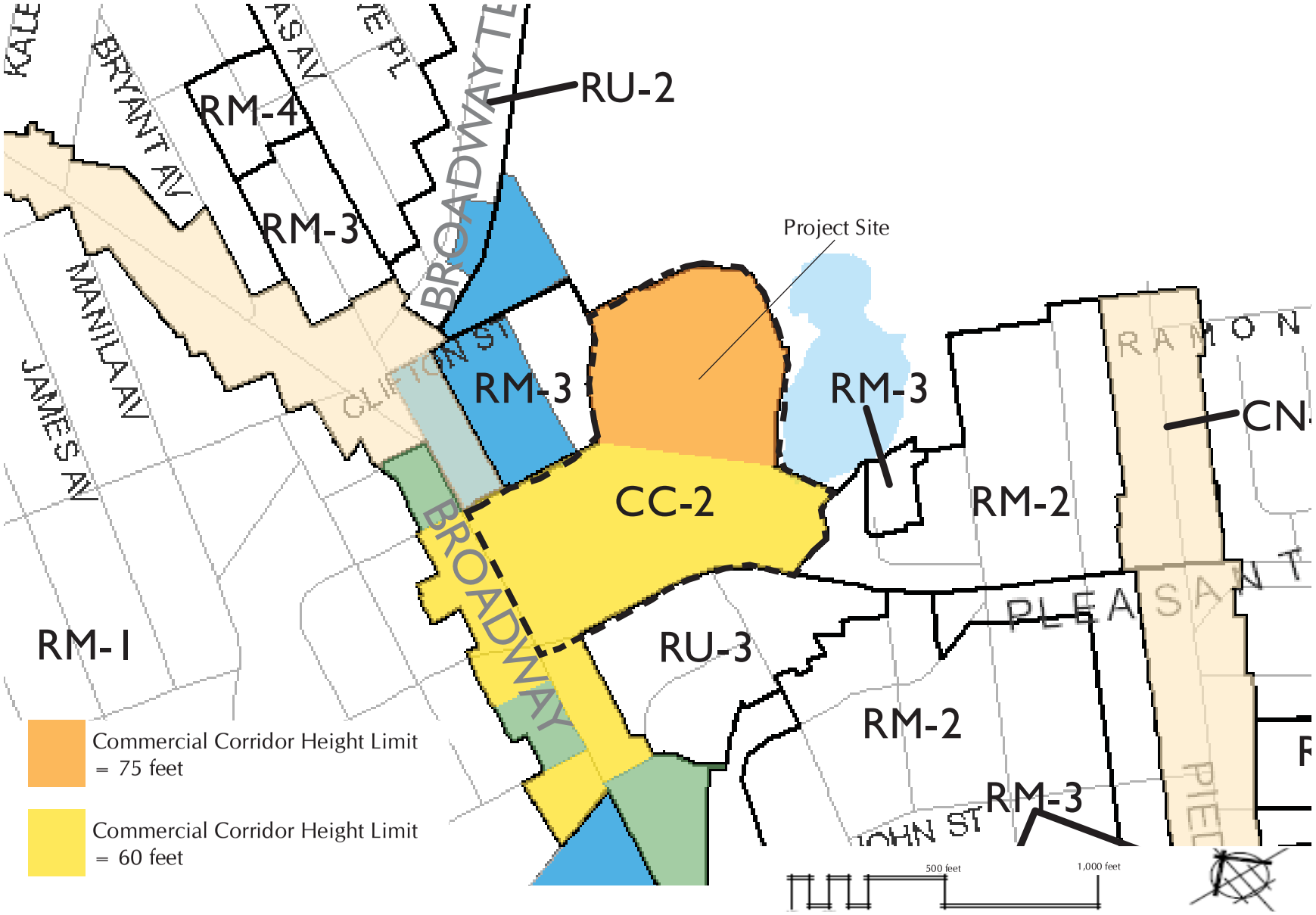

Figure 4.9-2
Currently Effective Zoning Map (as of April 2011)

Source: City of Oakland

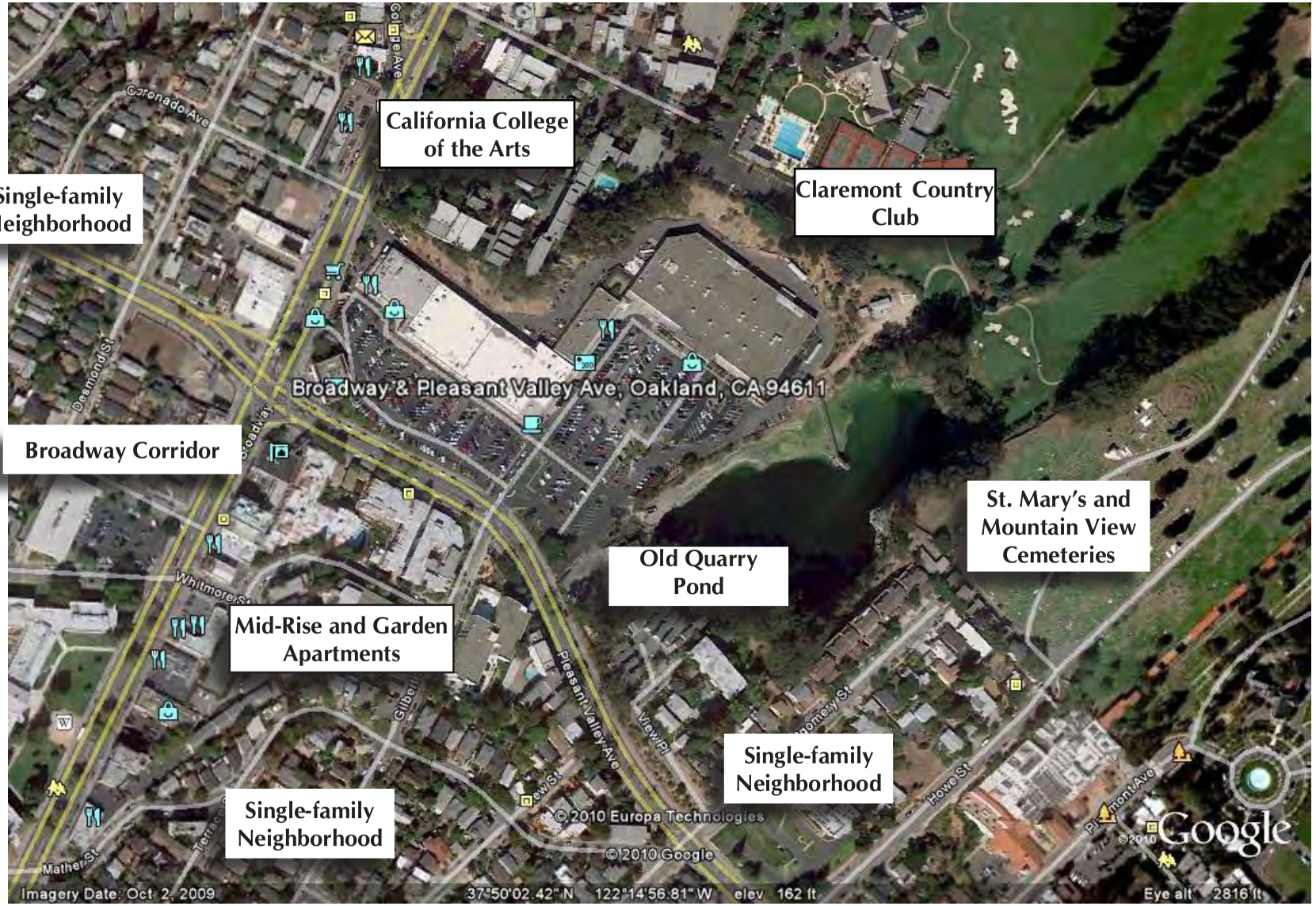

Figure 4.9-3
Surrounding Land Uses

Source: Google Earth

West of the Project Site

Broadway forms the westerly boundary of the Project site and is a major business corridor with local retail, restaurants and commercial office buildings and apartments. In the Project site vicinity most buildings are one, two and three stories in height. Specific uses along Broadway immediately west of the site include the Wendy's drive-through restaurant, several currently unoccupied commercial buildings and several vacant commercial lots. Further to the west and behind the Broadway commercial corridor is primarily single family residential neighborhoods.

South of the Project Site

Land uses directly south of the Project site (across Pleasant Valley Avenue) consist primarily of mid-rise and garden apartments, including the 7-story Monarch Place senior assisted living apartment building. The neighborhood further to the south is a mix of older single family homes, townhomes and garden apartments. South of the Pleasant Valley Avenue/51st Street intersection at Broadway is a Kaiser medical office building and the Oakland Technical High School. Along Broadway and further south of the Project site (from 42nd Street to Grand Avenue) is Oakland's Broadway Auto Row, a two mile stretch of used and new car dealer facilities. The City of Oakland is currently engaged in a planning process to develop a Specific Plan for redevelopment of this area as a corridor-based, higher density mixed-use area.

East of the Project Site

Directly east of the Project Site is property owned by the Claremont Country Club. The immediately adjacent property to the east contains a large pond known as Claremont Pond or Old Quarry Pond, which is a remnant from previous quarry operations currently serving as a water storage facility to supply the irrigation needs for the adjacent golf course. The golf course continues northeast of the Project site along Broadway Terrace. The AAA office is located immediately east of the Project site fronting on Pleasant Valley Avenue, at the southern edge of Old Quarry Pond.

Farther to the east, beyond the Old Quarry Pond is a primarily single-family residential neighborhood located off of Montgomery Street. View Place is a cul-de-sac branching off of Montgomery with a mix of single family homes, townhomes and garden apartments. There is no physical connection (roadway or pedestrian path) which connects these neighborhoods to the Project site.

East of Montgomery Street is the St. Mary's Cemetery and the Mountain View Cemetery.

North of the Project Site

Uses north of the Project site include the California College of the Arts fronting along Broadway, and the Claremont Country Club behind and along Broadway Terrace. Both of these adjacent uses are located atop a large, steeply inclined hill which separates them from the Project site. The California College of the Arts (CCA) is an inter-disciplinary college offering studies in undergraduate and graduate programs in fine arts, architecture, design, and writing. The historic four-acre campus includes the college's undergraduate programs in art, first-year studios, residence halls, and the Center for Art and Public Life which hosts a community arts gallery. The Claremont Country Club is a private club with golf, tennis and club house facilities. The tennis courts are located immediately north of the Project site, as is the club house and swimming pool. The 18-hole golf course extends northeast from the Old Quarry Pond and then opens up between Mountain View Cemetery and Broadway Terrace. Also adjacent to the Project site to the north are multi-family residential apartments.

Project Site Land Use

The Project site is an existing shopping center constructed in the mid-1960s, primarily fronting along Pleasant Valley Avenue (see **Figure 4.9-4**). The site contains six separate buildings, five of which are set back from Pleasant Valley Avenue, forming an "L" shape in the northerly portion of the site, and one building which is a free-standing bank building located directly on the northeast corner of Pleasant Valley Avenue and Broadway. The current tenants at the shopping center include Chase Bank, Boston Market restaurant, Bank of America, Pet Food Express, Safeway, Starbucks, Dress Barn, Ritz Camera PayLess Shoes, Jamba Juice, Game Stop, 1st Title Credit Union, Rockridge Cleaners, a health food store, Great Clips hair salon and CVS Pharmacy.

In total, the Project site contains approximately 185,465 square feet of commercial building space. With the exception of the Chase Bank building, all existing structures are 1-sory in height, although their high ceilings make them stand approximately 20 to 25 feet tall. The Chase Bank building is a 2-sory structure.

City Plans, Policies and Regulations

Applicable planning policies and zoning regulations that pertain to the Project site are presented below, followed by a discussion of the Project's consistency or inconsistency with each.

Potential conflicts with planning policies contained in the General Plan do not inherently result in a significant effect on the environment. Instead, "*effects analyzed under CEQA must be related to a physical change in the environment*" (CEQA Guidelines Section 15358(b)). CEQA Guidelines Section 15125(d) further provides that an EIR shall discuss any inconsistencies between a proposed project and the applicable general plan in the setting section of the document rather than as an impact. Further, the City of Oakland's thresholds of significance (modeled after Appendix G of the CEQA Guidelines) indicates that a project would result in a significant impact related to land use and plans if it would "*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 resulting in a physical change in the environment*" (emphasis added). Therefore, while this section of the EIR provides an analysis of the Project's consistency with applicable plans, policies and regulations, any physical impacts that may result from such conflicts are analyzed elsewhere in this EIR.

The Oakland General Plan establishes comprehensive, long-term land use policies for the City. The Oakland General Plan includes the following Elements:

- Land Use and Transportation Element
- Historic Preservation Element
- Open Space, Conservation, and Recreation (OSCAR) Element
- Safety Element
- Housing Element
- Noise Element
- Bicycle Master Plan
- Pedestrian Master Plan
- Scenic Highways Element
- Estuary Policy Plan

Figure 4.9-4
Current Project Site

Source: PD Centers

Each of these General Plan Elements and the Project's consistency with their key policy direction is discussed below. The Housing Element and Estuary Policy Plan are not addressed since the Project does not include nor would it remove any housing units, and since the Project is not located in proximity to the Oakland waterfront/Estuary.

Land Use and Transportation Element

The City adopted the Land Use and Transportation Element (LUTE) of the General Plan and certified its associated EIR in 1998. The LUTE identifies policies for utilizing Oakland's land as change takes place and sets forth an action program to implement the land use policy through development controls and other strategies. The LUTE Land Use Diagram shows the Project site within the Community Commercial classification (see previous Figure 4.9-1).

Community Commercial Land Use

The desired character and uses within Community Commercial areas may include neighborhood center uses and larger scale retail and commercial uses such as auto related businesses, business and personal services, health services and medical uses, educational facilities, and entertainment uses. Community Commercial areas can be complemented by the addition of urban residential development and compatible mixed use development. The maximum FAR for this classification is 5.0 and the maximum residential density is 125 units per gross acre.[1]

Community Commercial areas have historically served Oakland's major shopping, service and employment needs, and should continue to do so in the future. Pedestrian-oriented design is encouraged, but these areas may also accommodate larger-scale, auto-oriented developments which require sizable off-street parking areas, such as Rockridge Shopping Center *(the Project site)*, Acorn Shopping Center, and Foothill Square. The higher end of the allowable density/intensity range is most appropriate on arterials.

Project Consistency Assessment

The proposed Project is specifically designed to provide new space for neighborhood center uses and larger-scale retail and commercial uses. The re-design of the shopping center would improve pedestrian access and includes many pedestrian-oriented design features, but would also continue to be an auto-oriented development with sizable off-street parking requirements. Much of this parking demand has been designed to be accommodated on roof-top parking spaces and in areas that would be less visible than the current surface parking lot along Pleasant Valley Avenue. The floor-area-ratio (FAR) for the Project is approximately 0.42 (279,000 square feet on approximately 15 acres), far less than the maximum FAR of 5.0. No residential units are proposed.

Neighborhood Objectives and Policies

Objective N-1: Provide for healthy, vital and accessible commercial areas that meet local consumer needs in the neighborhoods.

> *Policy N1.1: Concentrating Commercial Development*. Commercial development in the neighborhoods should be concentrated in areas that are economically viable and provide opportunities for smaller scale, neighborhood-oriented retail.
>
> *Policy N1.2: Placing Public Transit Stops*. The majority of commercial development should be accessible by public transit. Public transit stops should be placed at strategic locations in

[1] City of Oakland, *Land Use and Transportation Element* (LUTE), March 1998, pg 150

Neighborhood Activity Centers and Transit-Oriented Districts to promote browsing and shopping by transit users.

Policy N1.4: Locating Large-Scale Commercial Activities. Commercial uses which serve long term retail needs or regional consumers and which primarily offer high volume goods should be located in areas visible or amenable to high volumes of traffic. Traffic generated by large scale commercial developments should be directed to arterial streets and freeways and not adversely affect nearby residential streets.

Policy N1.5: Designing Commercial Development. Commercial development should be designed in a manner that is sensitive to surrounding residential uses.

Policy N1.8: Making Compatible Development. The height and bulk of commercial development in Neighborhood Mixed-Use Centers and Community Commercial areas should be compatible with that allowed for residential development.

Objective N-10: Support and create social, informational, cultural, and active economic centers in neighborhoods. Some of the most vital areas of the City of Oakland are the neighborhood activity centers where local residents shop, meet, and have a cup of coffee or an ice cream cone. The pedestrian activity, unique shops and services, and older buildings provide the City with a character that stands apart from the homogeneity of much suburban development found today. These activity centers need to be supported through pedestrian amenities such as trees and benches, and recognition of the areas' history.

Policy N10.1: Identifying Neighborhood "Activity Centers". Neighborhood Activity Centers should become identifiable commercial, activity and communication centers for the surrounding neighborhood. The physical design of neighborhood activity centers should support social interaction and attract persons to the area. Some of the attributes that may facilitate this interaction include plazas, pocket parks, outdoor seating on public and private property, ample sidewalk width, and street amenities such as trash cans and benches, and attractive landscaping.

Project Consistency Assessment

The proposed Project is both a neighborhood-based and larger-scale retail center specifically intended to improve the economic viability of the current shopping center and to provide opportunities for smaller scale, neighborhood-oriented retail tenants. The Project site is located along the main commercial corridor of Broadway at the intersection of 51st Street, both of which have direct connections within 1 mile of the site to Highway 24. Primary traffic flow would occur on Broadway, Pleasant Valley Avenue and 51st Street, all of which are arterial streets. The height and bulk of the proposed Project is larger than the existing shopping center, but is generally compatible with the nearby two and three-story garden apartment complexes and other surrounding commercial structures.

The design of the proposed Project is intended to create a neighborhood activity center that better supports social interaction and attracts more people to the area than does the current shopping center. Some of the Project attributes that may facilitate this interaction include plazas, pedestrian ways and small pocket parks designed internal to the site and along the site edge near the Old Quarry Pond, and street amenities including benches and attractive landscaping.

Industry and Commerce Objectives and Policies

Objective I/C-1: Expand and retain Oakland's job base and economic strength. A series of measures for improving Oakland's economic strength is outlined in the Mayor's 1997 Economic Development Strategy for Oakland and is also reflected in this policy framework. Capturing emerging industries such as biotechnology, telecommunications, and computer and multi-media industries is important to Oakland, as are continued efforts to retain jobs for Oakland residents working in employment sectors such as service, retail trade, and manufacturing. In general, the City is striving to attract more jobs in a diverse range of

businesses that can capitalize on Oakland's prime location, superior communications infrastructure, multi-modal transportation system and distinctive and attractive neighborhoods.

Policy I/C-1.1: Attracting New Business. The City will strive to attract new businesses to Oakland which have potential economic benefits in terms of jobs and/or revenue generation. This effort will be coordinated through a citywide economic development strategy/marketing plan which identifies the City's existing economic base, the assets and constraints for future growth, target industries or activities for future attraction, and geographic areas appropriate for future use and development.

Policy I/C-1.2: Retaining Existing Business. Existing businesses and jobs within Oakland which are consistent with the long-range objectives of this Plan should, whenever possible, be retained.

Policy I/C-1.3: Supporting Economic Development Expansion through Public Investment. The public investment strategy of the City should support economic development expansion efforts through such means as identifying target "catalyst projects" for investment which will support the employment or revenue base of the city and providing infrastructure improvements to serve key development locations or projects which are consistent with the goals and objectives of this Plan.

Objective I/C-3: Ensure that Oakland is adequately served by a wide variety of commercial uses, appropriately sited to provide for competitive retail merchandising and diversified office uses, as well as personal and professional services. Oakland has a rich and diverse range of neighborhood commercial centers, which serve the local needs of residents, business, and visitors. Some commercial centers are in need of assistance, and some neighborhoods have no viable commercial activity at all. Community- and region-serving retail businesses have been under-represented in Oakland. The Element envisions an increase in shopping opportunities so that Oakland can capture an appropriate share of spending dollars and provide convenient, quality shopping for residents and workers.

Policy I/C-3.1: Locating Commercial Business. Commercial uses, which serve long term retail needs of regional consumers and which primarily offer durable goods, should be located in areas adjacent to the 1-880 freeway or at locations visible or amenable to high volumes of vehicular traffic, and accessible by multiple modes of transportation.

Policy I/C-3.2: Enhancing Business Districts. Retain and enhance clusters of similar types of commercial enterprises as the nucleus of distinctive business districts, such as the existing new and used automobile sales and related uses through urban design and business retention efforts.

Policy I/C-3.3: Clustering Activity in "Nodes". Retail uses should be focused in "nodes" of activity characterized by geographic clusters of concentrated commercial activity, along corridors that can be accessed through many modes of transportation.

Policy 1/C-3.4: Strengthening Vitality. The vitality of existing neighborhood mixed use and community commercial areas should be strengthened and preserved.

Project Consistency Assessment

According to the *Oakland Retail Enhancement Strategy*,[2] "Oakland retail stores only capture $1 out of every $3 of the City resident's expenditure potential for comparison goods, before taking into account the sales potential to its visitors and employees for goods purchased at department, specialty, home furnishings, and apparel stores. Comparison goods sales lost as leakage amount to $1 billion annually. In 2006 dollars ($2006), grocery store sales were $232 million less than the grocery store expenditure potential of City residents, thus imposing an inconvenience to residents who travel to other cities for their

[2] Conley Consulting Group, *Oakland Retail Enhancement Strategy Implementation Plan*, June 2008, pg. 12

weekly food supplies. Less mobile residents may suffer serious health consequences, including diabetes and obesity, from inadequate access to affordable and healthy foods. The estimated grocery store leakage would support five new, full-sized supermarkets in Oakland."

The proposed Project includes the retention of existing businesses and jobs from the current shopping center tenants and the addition of new jobs. Currently, approximately 325 people are employed at the shopping center. Employment projections indicate the total employment at buildout of the Project to be approximately 555 people, an increase of approximately 230 employees over existing conditions. The Project also provides the opportunity to expand retail choices with space available for new "major anchors" and retails shops within a distinctive "node" of commercial development. Redevelopment and revitalization of the existing shopping center provides an opportunity to capture a greater share of retail expenditures within the City. The proposed Project is fully privately funded with no reliance on public investment or economic support.

Historic Preservation Element (HPE)

The Historic Preservation Element (HPE) was originally adopted by the City in 1994 and amended in 1998. The HPE provides a broad, multi-faceted historic preservation strategy that for addresses a wide variety of properties and is intended to help revitalize Oakland's districts and neighborhoods and secure other preservation benefits. The HPE sets forth goals, objectives, policies and actions that encourage preservation and enhancement of Oakland's older buildings, districts, and other physical environmental features having special historic, cultural, educational, architectural or aesthetic interest or value.

Project Consistency Assessment

Although there are numerous examples of historic, cultural, educational, architectural or aesthetically interesting or valuable buildings and areas in the vicinity of the Project site (e.g., the California College of Arts and the Oakland Technical High School), the Project site itself does not contain any such resources. Originally constructed in the mid-1960's, the current buildings on the site are neither old enough to be considered historic resources (not 50 years old), nor do they represent notable examples of post-World War II architecture. The Project's potential effects on historic resources are fully addressed in Chapter 4.11 of this EIR (Effects Found to be Less than Significant). Based on this analysis, the Project would not adversely affect historic resources, and no conflicts with the HPE would occur.

Open Space, Conservation and Recreation Element (OSCAR)

The City adopted the Open Space, Conservation and Recreation Element (OSCAR) and certified its associated EIR in 1996. The OSCAR Element addresses the management of open land, natural resources and parks. Many of the policies directly relate to significance criteria, and where applicable, the Project's consistency with those policies are summarized here and referenced to the appropriate impact analysis section in this EIR.

Open Space and Conservation Policies

Open Space policies from the OSCAR Element that apply to the Project include those listed and discussed below:

> *Policy OS-10.2*: New development should minimize adverse visual impacts and take advantage of opportunities for new vistas and scenic enhancement.
>
> *Policy CO-7.4: Tree Removal*. Discourage the removal of large trees on already developed sites unless removal is required for biological, public safety, or public works reasons.

Policy CO-1.1: Soil Loss in New Development. Regulate new development in a manner that protects soil from degradation and misuse or other activities, which significantly reduce its ability to support plant and animal life. Design all construction activities to ensure that soil is well secured so that unnecessary erosion, siltation of streams, and sedimentation of water bodies does not occur.

Policy CO-1.2: Soil Contamination Hazards. Minimize hazards associated with soil contamination through the appropriate storage and disposal of toxic substances, monitoring of dredging activities, and clean up of contaminated soils. In this regard, require soil testing for development of any site (or dedication of any parkland or community garden) where contamination is suspected due to prior activities on the site.

Policy CO-4.1: Water Conservation. Emphasize water conservation and recycling strategies in efforts to meet future demand.

Policy CO-4.2: Drought-Tolerant Landscaping. Require use of drought-tolerant plants to the greatest extent possible and encourage the use of irrigation systems, which minimize water consumption.

Policy CO-5.1: Protection of Groundwater Recharge. Encourage groundwater recharge by protecting large open space areas, maintaining setbacks along creeks and other recharge features, limiting impervious surface where appropriate, and retaining natural drainage patterns within newly developing areas.

Policy CO-5.3: Control of Urban Runoff. Employ a broad range of strategies, compatible with the ACCWP, to: (a) reduce water pollution associated with stormwater runoff; (b) reduce water pollution associated with hazardous spills, runoff from hazardous material areas, improper disposal of household hazardous wastes, illicit dumping, and marina "live-aboards"; and (c) improve water quality in Lake Merritt to enhance the lake's aesthetic, recreational, and ecological functions. Actions are pretreatment of runoff, storm drain maintenance, litter and debris removal, street sweeping improvements, mitigation of road construction and dredging impacts, hazardous spills prevention, cleanup of estuary hot spots, litter law enforcement, public education of urban runoff hazards, Lake Merritt catch basins and trash receptacles, improved sewage collection and treatment, and intergovernmental coordination.

Policy CO-12.1: Land Use Patterns which Promote Air Quality. Promote land use patterns and densities which help improve regional air quality conditions by: a) minimizing dependence on single passenger autos; (b) promoting projects which minimize quick auto starts and stops, such as live-work development, and office development with ground-floor retail space; (c) separating land uses which are sensitive to pollution from the sources of air pollution; and (d) supporting telecommuting, flexible work hours, and behavioral changes which reduce the percentage of people in Oakland who must drive to work on a daily basis.

Policy CO-12.4: Design of Development to Minimize Air Quality Impacts. Require that development projects be designed in a manner that reduces potential adverse air quality impacts. This may include: a) the use of vegetation and landscaping to absorb carbon monoxide and to buffer sensitive receptors; b) the use of low –polluting energy sources and energy conservation measures; c) designs which encourage transit use and facilitate bicycle and pedestrian travel.

Policy CO-13.3: Construction Methods and Materials. Encourage the use of energy-efficient construction and building materials. Encourage site plans for new development that maximize energy efficiency.

Project Consistency Assessment

As indicated above, this chapter of the EIR provides an analysis of the Project's consistency with applicable plans, policies and regulations, whereas any physical impacts that may result from such conflicts are analyzed elsewhere in this EIR.

- As indicated in the Aesthetics chapter of this EIR (Chapter 4.2), implementation of the proposed Project would change the visual character of the site, making it more urban in character than its current suburban style, with denser development, taller buildings, newer architecture and an internal street pattern, as well as landscaping improvements adjacent to and enhanced views of the quarry pond. These changes would improve rather than degrade the existing visual character and quality of the site. The proposed landscaping plan would enhance the scenic quality of the site.
- As indicated in the Biology chapter of this EIR, the Project proposes removal of four (4) "protected trees" to accommodate new buildings, six (6) protected trees within roadway medians, and two (2) non-protected Monterey pines for improved access to the adjacent quarry pond. Compliance with the provisions of the Oakland Tree Protection Ordinance and related City Standard Conditions of Approval would ensure consistency with Policy CO-7.4.
- As indicated in the Geology and Soils chapter of this EIR, site preparation and construction activity associated with the proposed Project could result in soil erosion. Compliance with the City Standard Conditions of Approval requiring preparation and implementation of a Sediment and Erosion Control Plan would ensure consistency with Policy CO-1.1.
- As indicated in the Hazards and Hazardous Materials chapter of this EIR, Environmental Site Assessments prepared for the Project site do not indicate the presence of on-site soil or groundwater contamination at significant levels, and do not indicate that off-site contamination of soil or groundwater presents a concern to construction or operation of the Project. Implementation of City Standard Conditions of Approval regarding hazardous materials investigation, remediation, handling and disposal (where warranted) and compliance with all applicable state and federal laws regarding the same will minimize potential exposure to hazardous material contamination, consistent with Policy CO-1.2.
- As indicated in the Utilities chapter of this EIR, the Project would not result in a new significant increase in water usage and would not, by itself, require new or expanded water entitlements. However, a condition of Project approval is recommended in this EIR to incorporate water conservation measures into the Project plans to ensure that the Project's water demands are reduced to the extent reasonable as a means of addressing drought-year water shortages. Compliance with these water conservation recommendations would ensure consistency with Policy CO-4.1 and -4.2.
- As indicated in the Hydrology chapter of this EIR, City Standard Conditions of Approval will require the Project applicant to obtain a General Construction Permit from the SWRCB that includes a Stormwater Pollution Prevention Plan itemizing those measures capable of eliminating or reduce discharge of materials to stormwater during construction. Additional standard conditions of approval require preparation, approval and implementation of a Stormwater Pollution Management Plan (pursuant to provisions C.3 of the NPDES permit) to limit the discharge of pollutants in stormwater after construction of the Project to the maximum extent practicable. The Project will also be subject to the provisions of the City's Creek Protection Ordinance to protect hydrologic resources. Compliance with these standard conditions of approval would ensure consistency with Policy CO-5.1 and -5.3.
- As indicated in the Air Quality chapter of this EIR, the Project's net increase in emissions would not exceed the applicable thresholds. The Project's emissions would be even further reduced with implementation of the required Parking and Traffic Management Plan capable of further reducing

single-occupant vehicle use at the site through a variety of strategies including enhancement and promotion of transit and other alternative modes of travel.

- As indicated in the Greenhouse Gas Emissions chapter of this EIR, the Project site is located in an urban location with a broad mix of surrounding land uses, in a city with a very high walking rate because the neighborhoods are densely populated and well-served by transit, and the Project itself is a local-serving retail development with a sizable nearby residential population base. Because of these factors, the Project would benefit from pedestrian, bicycle and transit trips from the local and surrounding neighborhoods, resulting in a reduction in vehicle trips and corresponding energy use as compared to the same type of development that may occur elsewhere in the outer Bay Area. Furthermore, the Project would be required to comply with all applicable local, state and federal regulations associated with the generation of GHG emissions and energy conservation. In particular, construction of the proposed Project would be required to meet California Energy Efficiency Standards for Residential and Nonresidential Buildings and the requirements of pertinent City policies, helping to reduce future energy demand.

Planning Area Strategies

The OSCAR Element indicates that, "North Oakland is one of the most heavily urbanized parts of Oakland and, with a few exceptions, lacks undeveloped natural areas. Like West Oakland and the dense neighborhoods east of Lake Merritt, it is landlocked. However, because North Oakland is physically closer to the hillside open spaces, it is perceived as having greater access to open space than some of the other flat land districts. The hills are clearly visible from most of North Oakland and several of the regional parks (Lake Temescal, Claremont Canyon, etc.) are close by and accessible by bus or bicycle."

The OSCAR Element includes a summary of major recommendations for the North Oakland area, and the only recommendation pertinent to the Project site is the following:

- Consider the recreational potential of the old quarry pond adjacent to the Rockridge Shopping Center on Pleasant Valley Avenue. [3]

Project Consistency Assessment

The Old Quarry Pond is located on private property owned by the Claremont Country Club, and not under the control of the Project sponsor. The Project includes a landscaped parkway along the edge of the site adjacent to the Old Quarry Pond which will include a pedestrian path and two smaller plazas which will serve as scenic outlooks over the Pond and small shelters away from the large parking lot. The Project thus maximizes the potential recreational and aesthetic value of this resource, consistent with the OSCAR element strategy.

Oakland Safety Element

The November 2004 Safety Element of the Oakland General Plan contains the following policies and actions regarding geology and soils issues that apply to the Project.

> *Policy GE-1*: Develop and continue to enforce and carry out regulations and programs to reduce seismic hazards and hazards from seismically triggered phenomena.
>
> *Action GE-1.1*: Continue to enforce the geologic reports ordinance by requiring site-specific geologic reports for development proposals in the Hayward fault Special Studies Zone, and restricting the placement of structures for human occupancy within fifty feet of the trace.

[3] City of Oakland, *Open Space, Conservation and Recreation (OSCAR) Element* of the General Plan, 1996, pg 5-2

Action GE-1.2: Enact regulations requiring the preparation of site-specific geologic or geotechnical reports for development proposals in areas subject to earthquake-induced liquefaction, settlement or severe ground shaking, and conditioning project approval on the incorporation of necessary mitigation measures.

Policy GE-2: Continue to enforce ordinances and implement programs that seek specifically to reduce landslide and erosion hazards.

Action GE-2.1: Continue to enforce provisions under the subdivision ordinance requiring that, under certain conditions, geotechnical reports be filed and soil hazards investigations be made to prevent grading from creating unstable slopes, and that any necessary corrective actions be taken.

Action GE-2.2: Continue to enforce the grading, erosion and sedimentation ordinance by requiring, under certain conditions, grading permits and plans to control erosion and sedimentation.

Action GE-2.3: Continue to enforce provisions under the creek protection, storm water management and discharge control ordinance designed to control erosion and sedimentation.

Project Consistency Assessment

The Project would not conflict with any of the above Safety Element policies. As indicated in the Geology and Soils chapter of this EIR, City Standard Conditions of Approval require the Project applicant to submit a detailed soils report along with detailed engineering drawings to ensure that the buildings are designed and constructed in conformance with the requirements of all applicable building code regulations to minimize the risks of injury and structural damage from seismic ground shaking and seismic ground failure, and requires preparation of a soils report to ensure that site stability (landslide potential) is adequately addressed and any necessary corrective actions are prescribed at locations where land stability problems exist. Compliance with these standard conditions of approval would ensure consistency with the Safety Element.

Noise Element

The City's 2005 Noise Element analyzes and quantifies current and projected noise levels from various sources that contribute to the community noise environment. The Noise Element contains policies and actions that direct efforts to implement noise policies. The following policies regarding noise apply to the Project.

Policy 1: Ensure the compatibility of existing and, especially, of proposed development projects, not only with neighboring land uses, but also with their surrounding noise environment.

Project Consistency Assessment

The Project Site is generally located in a noise environment along major transportation corridors, including Interstate 580 (I-580), Interstate 880 (I-880), Interstate 980 (I-980) and State Route 24 (SR 24). The noise analysis provided in Chapter 4.7: Noise of this EIR finds that increased noise resulting from the Project (traffic related and operational) would result in a less-than-significant impact. Consistent with the City's Noise Ordinance and the Oakland Noise Element, Standard Conditions of Approval would be implemented to the extent feasible that would reduce temporary construction impacts to less than significant levels.

Bicycle Master Plan and Pedestrian Master Plan

The 2007 Oakland Bicycle Master Plan (BMP) and the 2002 Pedestrian Master Plan are separate parts of the Land Use and Transportation Element. The Bicycle Master Plan indicates that the only existing bicycle facility in the Project vicinity is a Class 3 Bike Route on Broadway Terrace leading to Mountain Boulevard north of Highway 13. The Bicycle Master Plan calls for the implementation of the following bikeway network improvements in the vicinity of the Project site (see Figure 4.11-4):

- Class 2 Bike Lane for the full length of Broadway, including along the Project site frontage. Class 2 Bicycle Lanes are striped lanes on streets, designated with specific signage and stencils for the use of bicyclists.
- Class 3A Arterial Bike route on Pleasant Valley Avenue, including along the Project site frontage Class 3A Bicycle Routes are used on arterial streets where bicycle lanes are not feasible. They promote shared use with lower posted speed limits, shared lane bicycle stencils, wide curb lanes and signage.
- Class 3A Arterial Bike Route on the lower portion of Broadway Terrace, leading into a Class 2 Bike Lane
- Class 3A Arterial Bike route on College Avenue

The Pedestrian Master Plan identifies policies and implementation measures for achieving LUTE policies to promote a walk-able city. The Pedestrian Master Plan designates a pedestrian network throughout Oakland, and identifies Broadway (including along the Project site frontage) as a City Route and Pleasant Valley Avenue (including along the Project site frontage) as a District route. City Routes designate streets that are destinations in themselves – places to live, work, shop, socialize, and travel. They provide the most direct connections between walking and transit and connect multiple districts in the City. District Routes have a more local function as the location of schools, community centers and smaller scale shopping. They are often located within a single district and help to define the character of that district.

Project Consistency Assessment

The proposed Project includes the following bike and pedestrian features which provide consistency with the Bicycle Master Plan and Pedestrian Master Plan:

- The Project includes a re-design of the public right-of-way in Broadway along the Project site frontage to provide Class 2 bicycle lanes on both sides of Broadway between College Avenue and just south of 51st Street/Pleasant Valley Avenue. The *Broadway Corridor Bikeway Feasibility Study* (March 2007) proposed to accommodate the Class 2 bicycle lanes on Broadway by reducing the number of automobile lanes from three to two in each direction. To the extent feasible, the roadway modifications proposed for the Project are consistent with the *Broadway Corridor Bikeway Feasibility Study.* It is anticipated that City of Oakland will install Class 2 bicycle lanes on Broadway in conjunction with a resurfacing project expected in 2013. Several bike and pedestrian routes connecting Broadway and Pleasant Valley Avenue internally to the shopping center are provided. Additionally, the Project would provide for all the short-term and long-term bicycle parking facilities that would be required.

Scenic Highways Element

The 1974 Scenic Highways Element establishes designated and potential scenic highways and routes throughout the City, and provides policies preserving the scenic quality of these routes.

Project Consistency Assessment

The Project site is not located within a scenic corridor, nor would it obstruct panoramic vistas or view sheds through the site. The nearest designated scenic highway is State Highway 24, located approximately one mile to the north and west of the Project site. Therefore, the Project would be consistent with the City's Scenic Highways Element.

Oakland Public Transit and Alternative Modes of Travel Policy

The 1996 Public Transit and Alternative Modes ("Transit First") resolution recognizes the importance of striking a balance between economic development opportunities and the mobility needs of those who travel by means other than the private automobile. The policy favors modes of travel that have the potential to provide the greatest mobility for people, rather than vehicles.

Project Consistency Assessment

New employees and shoppers at the Project would increase the demand for transit service in the area. As discussed in Chapter 4.11: Transportation, Circulation and Parking, the Project will enhance existing pedestrian and bicycle facilities and improve access to public transit, consistent with the City's policy.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards

The City of Oakland has no Standard Conditions of Approval specific to land use.

Impacts, Standard Conditions of Approval and Mitigation Measures

Significance Criteria

The Project would result in a significant impact related to land use and plans 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 result in a physical change in the environment; or
4. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan

Physically Divide an Established Community

Impact Land Use-1: The proposed Project would redevelop the existing shopping center located at 51st Street/Broadway with a new shopping center, and would not result in the physical division of an existing community. (**No Impact**)

The Project site is near several existing residential neighborhoods. These neighborhoods are located to the south across Pleasant Valley Road, to the east on the other side of the Old Quarry Pond and east of two private cemeteries, and to the west across Broadway. However, the current shopping center provides

very limited physical connections (either via vehicle, bicycle or pedestrian paths) that link the site to these surrounding neighborhoods. The only existing vehicular connections to the surrounding community are the several driveways off of Pleasant Valley Road and Broadway. There are no established vehicular or pedestrian connections through the site that would link the surrounding community.

The Project would redevelop the site with new buildings, generally taller and with greater overall square footage than the current shopping center. Construction of the new retail buildings would require demolition of the existing buildings and re-design of the internal circulation system. The Project's design would not further divide or limit connections to the surrounding community, either to or through the site, but would instead create improved connections from the site with the surrounding community. A continuous, meandering sidewalk merging into public plaza space would ring the entire site; separated pedestrian and vehicle access into the site would be provided at each of the main entry point; a new pedestrian connection would be established at the Pleasant Valley Avenue/Broadway intersection; and a new internal roadway would function much like an urban street, providing improved connections for vehicles, pedestrians and bicycles through the site. Further, the Project proposes to develop publicly accessible gathering spaces including smaller plazas, wide sidewalks for outdoor cafes and public seating, and scenic outlooks over the Pond offering shelter away from the large parking lot. No aspect of the proposed Project would result in any further division, physically or perceptually, of the established community.

Mitigation Measures

None required

Land Use Compatibility / Change in Environment

Impact Land Use-2: The Project would not be incompatible with surrounding land uses and would not conflict with applicable land use plans and policies adopted for the purpose of avoiding or mitigating an environmental effect. (**LTS**)

Conflicts between a Project and applicable policies do not constitute significant physical environmental impacts in and of themselves. A policy inconsistency is considered a significant adverse environmental impact only when it is related to a policy adopted for the purpose of avoiding or mitigating an environmental effect and it is anticipated that the inconsistency would result in a significant adverse physical impact based on the established significance criteria. Furthermore, the Project need not be consistent with every General Plan policy to be considered consistent under CEQA, as explained by the General Plan:

> The General Plan contains many policies which may in some cases address different goals, policies and objectives and thus some policies may compete with each other. The Planning Commission and City Council, in deciding whether to approve a proposed project, must decide whether, on balance, the project is consistent (i.e., in harmony) with the General Plan. The fact that a specific project does not meet all General Plan goals, policies, and objectives does not inherently result in a significant effect on the environment within the context of CEQA.[4]

The land uses proposed by the Project are consistent with the General Plan designations and applicable zoning on the Project site. The Project would not exceed the maximum development intensity allowed under the General Plan or zoning. Although portions of the Project are taller than existing buildings, the increased height would not result in significant adverse physical impacts such as shadowing off-site

[4] City of Oakland, City Council Resolution No. 79312 C.M.S.; adopted June 2005

locations or substantially blocking important view sheds or vistas, as more fully discussed in Chapter 4.2: Aesthetics.

The Project would not conflict with any land use policies adopted for the purpose of avoiding or mitigating an environmental effect, as explained in the Project's consistency statements earlier in this chapter. As a result, no significant land use impacts related to the Project's consistency with land use policies would occur.

Mitigation Measures

None required

Habitat and Natural Community Conservation Plans

Impact Land Use-3: The proposed Project would not result in a fundamental conflict with any applicable habitat conservation plan or natural community conservation plan. (**No Impact**)

The Project site is not located within or near an area guided by a Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, the Project would not conflict with conservation land uses addressed by any plans for the surrounding vicinity.

Mitigation Measures

None required

Cumulative Impact

Cumulative Impact Land Use-4: The proposed Project, in combination with other past, present, pending and reasonably foreseeable development would not result in a significant cumulative land use impact related to the physical division of an established community, cumulative conflicts with adjacent or nearby land uses, or cumulative conflicts with applicable land use plans, policies or regulations adopted for the purpose of avoiding or mitigating environmental effect. (**LTS**)

Geographic Context

The geographic area considered for the cumulative analysis of land use issues includes the area in close proximity to the Project site including the upper Broadway corridor, the "lower" College Avenue corridor and the surrounding north Oakland neighborhoods. This area was defined because it includes the Project site, the immediately surrounding neighborhoods, and a larger context for the Project. This area does not include any other major projects identified on the City's Major Projects List as of July 2012.[5]

Impacts

As analyzed throughout this section, the Project would not result in a significant land use impact by potentially physically dividing an established community; or conflicting with adjacent or nearby land uses; or conflicting with applicable land use plans, policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect. The Project is not located in or near an area guided by a habitat conservation plan or natural community conservation plan. The Project is consistent with the City's General Plan Land Use designation for the site. Thus, the Project would not combine with, or add to any potential adverse land use impacts that may be associated with other cumulative development. A

[5] http://www2.oaklandnet.com/oakca/groups/ceda/documents/report/oak025453.pdf

review of cumulative development in the defined geographic area, including past, present, existing, pending and reasonably foreseeable future development does not reveal any significant adverse cumulative impacts in the area. Cumulative development in the area consists of residential, commercial and other typical urban uses.

Cumulative development, in combination with the Project, has and would continue to result in the development and redevelopment of infill or vacant sites throughout the area, particularly along the Broadway corridor. However, much of the focus of redevelopment along the Broadway corridor is centered on portions of Broadway that are ten to twelve blocks further south (nearer to Downtown) than the Project site. Redevelopment of smaller vacant lots and underutilized properties in closer proximity to the Project site along Broadway can be anticipated in the future. Such infill projects would allow for capitalization of existing infrastructure and would minimize impacts to sensitive resources that would likely be degraded if developed on a greenfield site in farther outlying portions of the city.

The proposed Project would contribute to higher density of development in the area, as anticipated in the City General Plan. The Project is generally consistent with adopted plans and the overall vision for the area. Based on the information in this land use section and for the reasons summarized above, the Project would not contribute to any significant adverse cumulative land use impacts when considered together with past, present, pending and reasonably foreseeable development.

Mitigation Measures

None required

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4.10

Noise and Vibration

This chapter evaluates potential noise impacts that would result from the Rockridge Shopping Center Redevelopment Project proposed on the northeast corner of the intersection of Pleasant Valley Avenue and Broadway in Oakland, California. This chapter is based on technical work prepared by Illingworth & Rodkin, Inc. as incorporated herein, and includes a Setting section outlining the fundamentals of environmental acoustics, a description of the existing baseline conditions at receivers bordering the Project site, and applicable noise regulations and guidelines. The Impacts and Mitigation Measures section identifies the potential noise impacts resulting from the construction and operation of the Project and includes mitigation measures and/or Standard Conditions of Approval that would reduce identified noise impacts to less-than-significant levels.

Setting

Fundamentals of Environmental noise

Noise is defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. Decibels and other technical terms are defined in **Table 4.10-1**.

Most of the sounds that we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all of the frequencies of a sound in accordance with a weighting that reflects the facts that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency mid-range. This is called "A" weighting, and the decibel level so measured is called the A-weighted sound level (dBA). In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve. Typical A-weighted levels measured in the environment and in industry are shown in **Table 4.10-2** for different types of noise.

Table 4.10-1: Definitions of Acoustical Terms Used in this Report

Term	Definitions
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, Leq	The average A-weighted noise level during the measurement period. The hourly Leq used for this report is denoted as dBA Leq (h).
Lmax, Lmin	The maximum and minimum A-weighted noise level during the measurement period.
L01, L10, L50, L90	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, Ldn or DNL	The equivalent noise level for a continuous 24-hour period with a 10-decibel penalty imposed during nighttime and morning hours. (10:00 pm to 7:00 am).
Community Noise Equivalent Level, CNEL	CNEL is the equivalent noise level for a continuous 24-hour period with a 5-decibel penalty imposed in the evening (7:00 pm to 10:00 pm) and a 10-decibel penalty imposed during nighttime and morning hours (10:00 pm to 7:00 am).
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, Harris, 1998.

Table 4.10-2 Typical Noise Levels in the Environment

Common Outdoor Noise Source	Noise Level (dBA)	Common Indoor Noise Source
	110 dBA	
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet		
	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80 dBA	Garbage disposal at 3 feet
Noisy urban area, daytime		Vacuum cleaner
Gas lawn mower, 100 feet	70 dBA	
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Suburban daytime		Active office environment
Quiet urban nighttime	40 dBA	Theater, large conference room
Quiet suburban nighttime		
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20 dBA	
Wilderness area	20 dBA	
		Broadcast/recording studio
	0 dBA	

Source: Technical Noise Supplement (TeNS), Caltrans, November 2009.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources which create a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors, L_{01}, L_{10}, L_{50}, and L_{90}, are commonly used. They are the A-weighted noise levels equaled or exceeded during 1%, 10%, 50%, and 90% of a stated time period. A single number descriptor called the L_{eq} is also widely used. The L_{eq} is the average A-weighted noise level during a stated period of time.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. However, most household noise also decreases at night and exterior noise becomes very noticeable. Further, most people sleep at night and are very sensitive to noise intrusion. To account for human sensitivity to nighttime noise levels, a descriptor, DNL (day/night

average sound level), was developed. The DNL divides the 24-hour day into the daytime of 7:00 AM to 10:00 PM and the nighttime of 10:00 PM to 7:00 AM. The nighttime noise level is weighted 10 dB higher than the daytime noise level. The Community Noise Equivalent Level (CNEL) is another 24-hour average that includes both an evening and nighttime weighting.

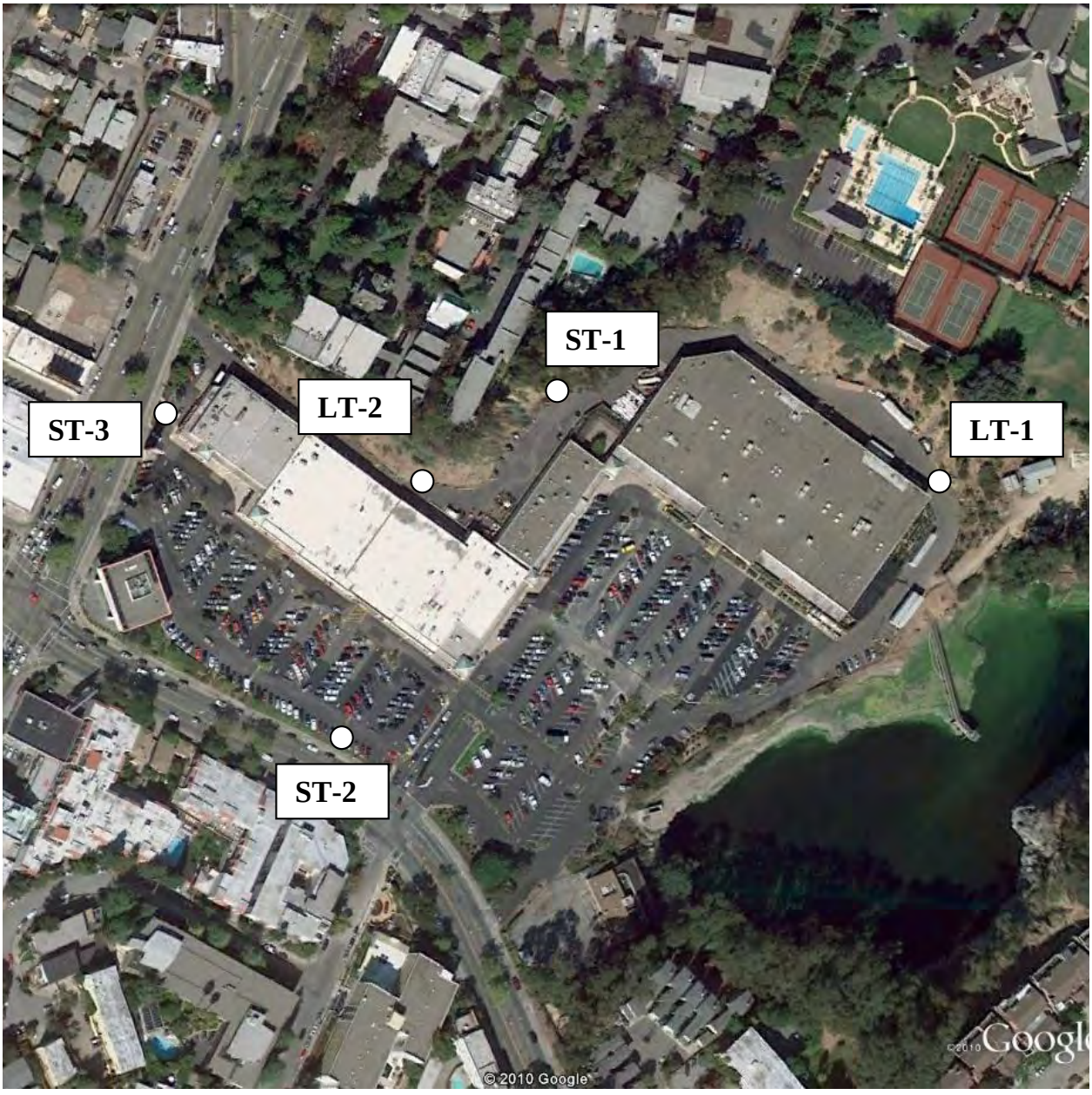
Existing Noise Environment

The Project site is located at the northeast corner of the intersection of Pleasant Valley Avenue and Broadway in Oakland, Ca. The Project site currently contains a CVS, Safeway grocery store, and various other small commercial uses. Land uses in the vicinity of the Project site include commercial, residential, cemetery, and recreational/golf course uses.

A noise monitoring survey was conducted from October 12, 2010 to October 15, 2010 to quantify the existing noise environment at the site and in the Project vicinity. The noise monitoring survey included two long-term noise measurements (LT-1 and LT-2), and 3 short-term measurements (ST-1 through ST-3) as indicated on **Figure 4.10-1**. The long-term noise measurements provide an indication of how noise levels vary throughout the day and night. The short-term measurements that are attended by a technician provide an indication of the instantaneous noise levels caused by noise sources in the area. The average A-weighted noise levels at short-term monitoring sites can be approximated by correlating to corresponding periods at long-term sites, thus providing useful comparative noise data for this analysis. The noise environment at the site results primarily from local traffic noise generated along arterial streets serving the Project site and operational noise associated with the existing shopping center including parking lot noise, truck deliveries, and trash compactors. **Appendix 4.10** shows the daily trend in noise levels for the long-term noise measurements.

Noise measurement location LT-1 was approximately 40 feet from the eastern portion of the existing CVS store. This noise measurement location represented the noise environment from occasional truck deliveries and distant parking lot noise. Hourly average noise levels typically ranged from 50 to 64 dBA L_{eq} during the day, and from 47 to 60 dBA L_{eq} at night. The day-night average noise level at this measurement location ranged from 61 to 64 dBA L_{dn}. Noise measurement location LT-2 was approximately 90 feet from the existing Safeway loading docks located at the rear of the building. This noise measurement location represented the noise environment from truck deliveries and unloading of goods. Hourly average noise levels typically ranged from 50 to 67 dBA L_{eq} during the day, and from 43 to 58 dBA L_{eq} at night. The day-night average noise level at this measurement location ranged from 61 to 62 dBA L_{dn}.

Short-term (ten-minute) noise measurements were made at three additional locations around the Project site to complete the noise monitoring survey. Short-term noise measurement ST-1 was made behind the existing Safeway and CVS stores, near additional loading/unloading areas. The ten-minute average noise level was 66 dBA L_{eq}. Short-term noise measurement ST-2 was approximately 45 feet from the center of Pleasant Valley Avenue. The ten minute average noise level was 67 dBA L_{eq}. Short-term noise measurement ST-3 was approximately 60 feet from the center of Broadway. The ten-minute average noise level was 76 dBA L_{eq}. **Table 4.10-3** summarizes the results of these measurements.



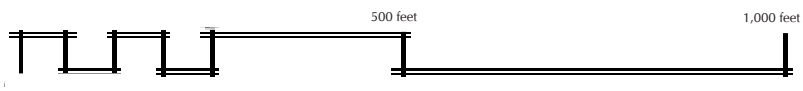


Figure 4.10-1
Noise Measurement Locations

Source: Illingworth & Rodkin, Inc.

Table 4.10-3 Summary of Short-Term Noise Measurement Data

Noise Measurement Location	L_{max}	$L_{(2)}$	$L_{(8)}$	$L_{(17)}$	$L_{(33)}$	L_{eq}	L_{dn}
ST-1: Between Safeway and CVS. (10/15/2010, 9:40-9:50 a.m.)	85	77	66	61	56	66	66
ST-2: ~ 45 feet from the center of Pleasant Valley Avenue. (10/15/2010, 10:10-10:20 a.m.)	79	75	71	69	67	67	69
ST-3: ~ 60 feet from the center of Broadway. (10/15/2010, 10:30-10:40 a.m.)	99	76	73	71	69	76	72

Note: L_{dn} approximated by correlating to corresponding period at long-term site.

Regulatory Setting

The State of California and the City of Oakland establish guidelines, plans, and policies designed to limit noise exposure at noise sensitive land uses. The State CEQA Guidelines, Appendix G and the policies contained in the City of Oakland General Plan and Municipal Code are used as significance criteria in the impact assessment. Applicable criteria are as follows:

City of Oakland

General Plan

The Noise Element of the City of Oakland General Plan identifies noise and land use compatibility standards for various land uses, as shown in **Figure 4.10-2**.[1] These land use compatibility standards were derived from the California Department of Health Services' receiver-based noise-compatibility guidelines matrix. The matrix illustrates the degree of acceptability of exposing specified land uses to a range of ambient-noise levels. The matrix is used by the City when considering proposed development projects in order to gauge the acceptability of a proposed project (that is, its compatibility with noise levels at the proposed site).

The following are the maximum interior noise levels generally considered acceptable for various common land uses:

- 45 dB: residential, hotels, motels, transient lodging, institutional (churches, hospitals, classrooms, libraries), movie theaters
- 50 dB: professional offices, research and development, auditoria, meeting halls
- 55 dB: retail, banks, restaurants, sports clubs
- 65 dB: manufacturing, warehousing

[1] City of Oakland, Noise Element City of Oakland General Plan, June 2005, p. 21.

Land Use Compatibility Guidelines

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE (L_{DN} OR CNEL, dB)						
	55	60	65	70	75	80	
Residential	NA	CA		NU	CU		
Transient lodging – motels, hotels	NA		CA		NU	CU	
Schools, libraries, churches, hospitals, nursing homes	NA	CA		NU		CU	
Auditoriums, concert halls, amphitheaters	CA			CU			
Sports arenas, outdoor spectator sports	CA				CU		
Playgrounds, neighborhood parks	NA		NU		CU		
Golf courses, riding stables, water recreation, cemeteries	NA			NU		CU	
Office buildings, business commercial and professional	NA		CA		NU		
Industrial, manufacturing, utilities, agriculture	NA			CA		NU	

NA	NORMALLY ACCEPTABLE: Development may occur without an analysis of potential noise impacts *to the proposed development* (though it might still be necessary to analyze noise impacts that the project might have *on its surroundings*).
CA	CONDITIONALLY ACCEPTABLE: Development should be undertaken only after an analysis of noise-reduction requirements is conducted and if necessary noise-mitigating features are included.
NU	NORMALLY UNACCEPTABLE: Development should generally be discouraged; it may be undertaken only if a detailed analysis of the noise-reduction requirements is conducted, and if highly effective noise mitigation features are included.
CU	CLEARLY UNACCEPTABLE: Development should not be undertaken.

Figure 4.10-2
General Plan Noise and Land Use Compatibility Standards

Source: City of Oakland, CEQA Thresholds of Significance, August 2011

Taking residential uses as an example, the matrix indicates that an ambient noise level of 60 dB is the threshold of a "normally acceptable" environment for residences. This assumes a maximum interior noise level of 45 dB, plus an average noise mitigation of 15 dB for use of conventional contemporary construction methods and materials. Higher ambient noise levels would require detailed noise analyses, sound-rated construction methods or materials, mechanical ventilation systems (so that windows may be kept closed), or noise shielding features such as sound walls, street setbacks and thoughtful site planning and building orientation. Within "conditionally acceptable areas", development should be undertaken only after an analysis of noise-reduction requirements is conducted, and if necessary noise mitigating features are included in the design. Conventional construction will usually suffice as long as it incorporates air conditioning or forced fresh-air supply systems, though it will likely require that project occupants maintain their windows closed.

The City's goal is to, "...protect Oakland's quality of life and the physical and mental well-being of residents and others in the City by reducing the community's exposure to noise; and to safeguard Oakland's economic welfare by mitigating noise incompatibilities among commercial, industrial and residential land uses".

> *Policy 1*: Ensure the compatibility of existing and, especially, of proposed development projects not only with neighboring land uses but also with their surrounding noise environment.
>
> *Policy 2*: Protect the noise environment by controlling the generation of noise by both stationary and mobile noise sources.
>
> *Policy 3*: Reduce the community's exposure to noise by minimizing the noise levels that area received by Oakland residents and others in the City.[2]

Oakland Noise Ordinance

The City of Oakland regulates noise levels through enforcement of its Noise Ordinance (Chapters 8.18 and 17.120 of the Oakland Municipal Code). Section 8.18.020 of the OMC states the following:

"The persistent maintenance or emission of any noise or sound produced by human, animal or mechanical means, between the hours of 9:00 p.m. and 7:00 a.m., which shall disturb the peace or comfort or be injurious to the health of any person, shall constitute a nuisance. Failure to comply with the following provisions shall constitute a nuisance.

a. All construction equipment powered by internal combustion engines shall be properly muffled and maintained.

b. Unnecessary idling of internal combustion engines is prohibited.

c. All stationery noise-generating construction equipment such as tree grinders and air compressors are to be located as far as is practical from existing residences.

d. Quiet construction equipment, particularly air compressors, are to be selected whenever possible.

e. 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."

Section 17.120.050 of the Oakland Planning Code regulates operational noise from stationary sources. **Table 4.10-4** presents the maximum allowable receiving noise standards applicable to long-term exposure

[2] City of Oakland, Noise Element City of Oakland General Plan, June 2005, pp. 23-25.

for residential and civic land uses, for noise from stationary noise sources (not transportation noise). During construction, noise from a stationary source would be limited by the standards in **Table 4.10-5**.

Table 4.10-4: City of Oakland Operational Noise Standards at Receiving Property Line (dBA) [1]

Receiving Land Use	Cumulative No. of Minutes in a 1-Hr Period2	Maximum Allowable Noise Level (dBA) Daytime 7 a.m.-10 p.m.	Maximum Allowable Noise Level (dBA) Nighttime 10 p.m.-7 a.m.
Residential and Civic[3]	20 (L_{33})	60	45
	10 ($L_{16.7}$)	65	50
	5 ($L_{8.3}$)	70	55
	1 ($L_{1.7}$)	75	60
	0 (L_{max})	80	65
			Anytime
Commercial	20 (L_{33})		65
	10 ($L_{16.7}$)		70
	5 ($L_{8.3}$)		75
	1 ($L_{1.7}$)		80
	0 (L_{max})		85
Manufacturing, Mining, and Quarrying	20 (L_{33})		70
	10 ($L_{16.7}$)		75
	5 ($L_{8.3}$)		80
	1 ($L_{1.7}$)		85
	0 (L_{max})		90

Notes:

1. These standards are reduced 5 dBA for simple tone noise, noise consisting primarily of speech or music, or recurring impact noise. If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.
2. L_x represents the noise level that is exceeded X percent of a given period. L_{max} is the maximum instantaneous noise level.
3. Legal residences, schools and childcare facilities, health care or nursing home, public open space, or similarly sensitive land uses.

Source: OMC Section 17.120.050.

Table 4.10-5: City of Oakland Construction Noise Standards at Receiving Property Line, dBA[1]

	Maximum Allowable Noise Level (dBA)	
	Weekdays	**Weekends**
Receiving Land Use	**7 a.m.-7 p.m.**	**9 a.m.-8 p.m.**
	Less than 10 days	
Residential	80	65
Commercial, Industrial	85	70
	More than 10 Days	
Residential	65	55
Commercial, Industrial	70	60

Notes:
1. If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.

Source: OMC Section 17.120.050.

Section 17.120.060 of the Oakland Planning Code regulates vibration, "All activities, except those located within the IG or the M-40 zone, or in the IG or M-30 zone more than four hundred (400) feet from any residential zone boundary, shall be so operated as not to create a vibration which is perceptible without instruments by the average person at or beyond any lot line of the lot containing such activities. Ground vibration caused by motor vehicles, trains, and temporary construction or demolition work is exempted from this standard."

Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City of Oakland's Standard Conditions of Approval relevant to reducing noise and vibration impacts due to the proposed Project are listed below. If the Project is approved by the City, then all applicable SCA would be adopted as conditions of approval and required of the Project to help ensure no significant impacts related to noise and vibration occur. The SCA are incorporated and required as part of the Project, so they are not listed as mitigation measures.

SCA Noise-1: Days/Hours of Construction Operation (*Ongoing throughout demolition, grading, and/or construction*). The project applicant shall require construction contractors to limit standard construction activities as follows:

a. Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday, except that pile driving and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday.

b. Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.

c. Construction activity shall not occur on Saturdays, with the following possible exceptions:

i. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.

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 Noise-2: Noise Control (*Ongoing throughout demolition, grading, and/or construction*). To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to the Planning and Zoning Division and the Building Services Division review and approval, which includes the following measures:

a. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).

b. Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible.

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 other measures to the extent feasible.

d. If feasible, the noisiest phases of construction shall be limited to less than 10 days at a time.

SCA Noise-3: Noise Complaint Procedures (*Ongoing throughout demolition, grading, and/or construction*). Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the Building Services Division a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include:

a. A procedure and phone numbers for notifying the Building Services Division staff and Oakland Police Department; (during regular construction hours and off-hours);

b. A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of

both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);

c. The designation of an on-site construction complaint and enforcement manager for the project;

d. Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and

e. A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

SCA Noise-4: Interior Noise (*Prior to issuance of a building permit*). If necessary to comply with the interior noise requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable interior noise level, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls) shall be incorporated into project building design, based upon recommendations of a qualified acoustical engineer and submitted to the Building Services Division for review and approval. Final recommendations for sound-rated assemblies will depend on the specific building designs and layout of buildings on the site and shall be determined during the design phase.

SCA Noise-5: Pile Driving and Other Extreme Noise Generators (*Ongoing throughout demolition, grading, and/or construction*). To further reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90dBA, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted for review and approval by the Planning and Zoning Division and the Building Services Division to ensure that maximum feasible noise attenuation will be achieved. This plan shall be based on the final design of the project. A third-party peer review, paid for by the project applicant, may be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the project applicant. A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of the deposit shall be determined by the Building Official, and the deposit shall be submitted by the project applicant concurrent with submittal of the noise reduction plan. The noise reduction plan shall include, but not be limited to, an evaluation of the following measures. These attenuation measures shall include as many of the following control strategies as feasible:

a. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;

b. Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;

c. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;

d. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example; and

e. Monitor the effectiveness of noise attenuation measures by taking noise measurements.

Impacts, Standard Conditions of Approval and Mitigation Measures

Significance Criteria

The Project would result in a significant impact related to 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;[3]
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 (i.e., the cumulative condition including the project compared to existing conditions), and a 3dBA permanent increase is attributable to the project;
5. Expose persons to interior Ldn or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24);
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; or
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.

The Project does not include development of new noise sensitive uses described in criterion 5 above. The Project site is not located within the vicinity of a private airstrip nor is it located within the land use plan area for Oakland Airport or any other airport. Therefore, impacts associated with criteria 5, 9 and 10 are not discussed further in this EIR.

[3] The acoustical analysis must identify, at a minimum, (a) the types of construction equipment expected to be used and the noise levels typically associated with the construction equipment and (b) the surrounding land uses including any sensitive land uses (e.g., schools and childcare facilities, health care and nursing homes, public open space). If sensitive land uses are present, the acoustical analysis must recommend measures to reduce potential impacts.

Construction Noise and Vibration

Impact Noise-1: Noise generated by construction activities at the site would not be expected to violate the City of Oakland Noise Ordinance or violate the City of Oakland Noise Ordinance regarding nuisance of persistent construction-related noise, provided that standard construction noise controls are implemented at the site. (**LTS with SCA)**

Project construction activities would occur in two phases.

- Phase I would include the demolition of the existing CVS store and adjacent retail buildings and construction of a new Safeway store and adjacent smaller retail stores, the redesign and construction of a portion of the surface parking lot, and landscaping improvements. Phase I construction is anticipated to have an approximately 10 month duration, from July 2013 to April 2014.
- Phase II would occur after the Safeway store is relocated. During this phase, all remaining buildings on the site would be demolished, and construction of the new retail/restaurant space, internal access improvements, and additional parking throughout the site would occur. Phase II would last approximately 10 months, from May of 2014 to March of 2015.

Construction-related noise levels are normally highest during the demolition phase and during construction of project infrastructure. These phases of construction require heavy equipment that normally generates the highest noise levels over extended periods of time. Typical hourly average noise levels generated by commercial construction activities are about 77 to 89 dBA L_{eq} measured at a distance of 50 feet from the center of the activity during busy construction periods (e.g., earth moving equipment, impact tools, etc.). Construction-related noise levels are normally less during building framing, finishing, and landscaping phases when less heavy equipment is present on site. Less intense construction periods would yield hourly average noise levels ranging from about 71 to 83 dBA L_{eq} at a distance of 50 feet. Noise generated by interior work would be much lower outdoors and would not affect community noise levels.

There would be variations in construction noise levels on a day-to-day basis depending on the actual activities occurring at the site. Noise emission levels and potential annoyance also depends upon the condition of the equipment, the type of operation, its duration and the time of day.

Table 4.10-6 presents the typical range of hourly average noise levels generated by different phases of construction measured at a distance of 50 feet.

Table 4.10-6 Typical Noise Level Range at 50 Feet from Construction Sites (dBA L_{eq})

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I - All pertinent equipment present at site.

II - Minimum required equipment present at site.
Source: U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

Construction generated noise levels drop off at a rate of about 6 to 7.5 dBA per doubling of distance between the noise source and receptor. Thus, at the conservative scale of 6 dBA reduction per doubling of distance, a sensitive noise receiver would be subject to maximum noise levels of about 89 dBA Leq at 50 feet from the construction site, noise levels of about 83 dBA Leq at 100 feet from the construction site, noise levels of about 77 dBA Leq at 200 feet from the construction site, and 71 dBA Leq at 400 feet from the construction site. Without noise control measures, the buffer distance from noisy construction necessary to meet the City of Oakland's day-time noise limit for long-term construction activities is typically around 800 feet.

Noise Levels at Nearest Sensitive Receptors

The nearest noise-sensitive land uses are the apartments and the Monarch Place assisted living facility for seniors south of Pleasant Valley Avenue located approximately 130 feet south of the Project site, the California College of the Arts (CCA) (considered a noise sensitive use as a school, even though the school is for adults rather than children) and an apartment building located approximately 120 feet north of the site; and single family residences located along View Place approximately 150 feet east of the Project site.

Phase I

During Phase I construction, which generally occurs at the location of the existing CVS Pharmacy toward the rear of the site, noise levels from diesel-powered demolition, excavation and construction equipment operating under maximum load would be as follows, at the nearest sensitive receptors:

- The single family residences along Montgomery Street and homes and apartments on View Place would be approximately 500 feet from the Phase I construction site, and Phase I construction noise levels would be approximately 71 dBA Leq.

- The apartment building north of the site would be approximately 200 feet from the Phase I construction site. Assuming no noise attenuation from the intervening hillside between the apartment and the Project site, noise levels would be approximately 77 dBA Leq.
- The California College of the Arts located northwest of the site would be approximately 300 feet from the Phase I construction site. Similarly assuming no noise attenuation from the intervening hillside between the College and the Project site, noise levels would be approximately 74 dBA Leq.
- The nearest apartment buildings and senior assisted living facility across (south of) Pleasant Valley Avenue would be approximately 700 feet from the Phase I construction site, and construction noise levels would not be noticeably greater than existing ambient conditions (approximately 67 dBA Leq) along Pleasant Valley Avenue.

At those sensitive noise receptor locations in the vicinity of the site identified above, Phase I construction noise levels would exceed Oakland's 65 dBA daytime noise limit for long-term construction activities, assuming no noise attenuation from the intervening hillside or noise control measures.

Phase II

During Phase II construction, which generally occurs along the edges of Pleasant Valley Road and Broadway, noise levels from diesel-powered demolition, excavation and construction equipment operating under maximum load would be as follows at the nearest sensitive receptors:

- The single family residences along Montgomery Street and homes and apartments on View Place would be between 500 and 800 feet from the construction site, and Phase II construction noise levels would, at times, exceed the City's day-time noise limit for long-term construction activities, ranging from 65 to 69 dBA Leq.
- The apartment building north of the site would be approximately 125 feet from the nearest edge of the Phase II construction site and a minimum distance of 380 feet from the centerline of the construction site. The apartment buildings are also located atop a high sloped hill to the rear of the site, which acts to attenuate noise for portions of the apartment building. Assuming no noise attenuation from the intervening hillside between the apartment and the Project site, noise levels would be approximately 81 dBA Leq.
- The California College of the Arts, located northwest of the site, would be only approximately 75 feet from the Phase II construction site. Similarly assuming no noise attenuation from the intervening hillside between the CCA and the Project site, noise levels would be approximately 86 dBA Leq.
- The nearest apartment buildings and senior assisted living facility across (south of) Pleasant Valley Avenue would be approximately 100 feet from the nearest edge of the Phase II construction site but about 400 feet from the center of the construction site, and noise levels at the nearest units would be approximately 83 dBA Leq.

At the single residences along Montgomery Street, and at the apartment buildings and senior assisted living facility located across (south of) Pleasant Valley Avenue, and at the apartments and the CCA north of the site, Phase II construction noise levels would exceed Oakland's 65 dBA day-time noise limits for long-term construction activities assuming no noise attenuation from noise control measures. Other noise sensitive receptors in the vicinity would not be subject to noise levels exceeding the day-time limit during Phase II.

Standard Conditions of Approval

Significant noise impacts do not normally result when standard construction noise control measures are enforced and when the duration of the noise generating construction period (when community noise levels would be elevated) is limited to one construction season, typically one year or less.

Construction noise associated with the Project would not occur for a period greater than one year under each phase of construction, but overall, construction activities would occur over a 20-month period. There would be several months of less intensive construction work, and work within the buildings that would not generate noise levels exceeding 65 dBA L_{eq} at nearby residential land uses, but construction-period noise levels would exceed Oakland's 65 dBA day-time noise limits for long-term construction activities at the CCA and the apartment building for a substantial portion of the 20-month full construction period, and at the apartment buildings and senior assisted living facility located south of Pleasant Valley Avenue during Phase II construction.

Construction noises associated with projects of this type are disturbances that are necessary for the construction or repair of buildings and structures in urban areas. SCA Noise-1 provides reasonable regulation of the hours of construction. SCA Noise-2 requires preparation of a Noise Reduction Program for the Project that addresses the design, use, location and shielding of construction vehicles and equipment that would ensure that maximum feasible noise attenuation would be achieved. To implement SCA Noise-2, the Project applicant would be required to have a qualified acoustical consultant prepare a noise reduction implementation plan for City review and approval. The purpose of the plan will be to reduce noise impacts during construction to below City standards. The project applicant would be required to implement the approved plan, which may include, but would not be limited to such elements or strategies as identified in SCA Noise-2 (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible). With implementation of SCA Noise-2, a noise reduction program would be developed and implemented, reducing temporary construction noise levels below 65 dBA for nearby sensitive uses to the extent reasonable and feasible.

SCA Noise-3 requires measures to respond to and track complaints. SCA Noise-5 requires further measures to reduce noise from construction activities, if any, generating extreme noise exceeding 90 dBA. With implementation of the City of Oakland's Standard Conditions of Approval, the noise impact resulting from Project construction would be less than significant.

Mitigation Measures

No additional measures are required.

Permanent Increase in Ambient Traffic Noise

Impact Noise-2: The Project would not result in a substantial increase in the permanent outdoor ambient noise levels in the Project vicinity above levels existing without the Project. (**LTS**)

Based on the noise measurements taken at the Project site, the ambient noise environment results primarily from local traffic noise generated along arterial streets, and the operational noise associated with the existing shopping center including parking lot noise, truck deliveries, and trash compactors. Operational noise is addressed in greater detail below.

Project traffic data was reviewed to calculate the relative change in ambient traffic noise levels expected with the operation of the Project. Project traffic volumes under the "Existing", "Near-Term", and "Near-Term plus Project" traffic scenarios were compared and the relative increase in traffic noise attributable to

the proposed Project calculated. The Project's contribution of traffic to Pleasant Valley Avenue and Broadway in the immediate vicinity of the Project site is shown below in Table 4.10-7.

Table 4.10-7: Project Contribution of Traffic at Immediate Roadway Segments

	Existing plus Project Traffic	Project Traffic	Project, % Increase
Pleasant Valley, east of Gilbert	1,765	121	6%
Pleasant Valley, between Broadway and Gilbert	2,057	227	10%
Broadway, between Pleasant Valley and Coronado	1,699	142	8%

Source: Chapter 4.11, Transportation of this EIR

According to the information presented in this table, the Project's contribution of traffic to roadways in the immediate vicinity of the site would be approximately a 10% increase or less. The energy average noise levels (Leq, Ldn) resulting from vehicular traffic are a logarithmic function of the average numbers of vehicles on the roadway. The analysis of increased traffic noise assumes the distribution of vehicle types (cars, trucks, buses, motorcycles) and the hour by hour variance in traffic volumes throughout the day and night would be unchanged in the future. Only the total volume of traffic would increase. Given these assumptions, a traffic increase of 10% is calculated to cause a noise increase of less than 1 dBA Ldn. The Project's increased traffic, at 10% or less, would result in an increased noise level of less than 1 dBA Ldn. Vehicular traffic generated by the Project would not increase noise levels substantially because the Project traffic makes up a small percentage of the total traffic along area roadways. Vehicular traffic noise levels are not expected to increase measurably above existing levels or future baseline levels as a result of the Project. Based on the standard of significance which indicates that a permanent increase in ambient noise levels in the Project vicinity of 5 dBA above levels existing without the Project would be considered significant, the Project's generation of less than a 1 dBA increase in traffic noise would be less than significant.

Mitigation Measures

None required.

Conflict with Land Use Compatibility Guidelines

Impact Noise-3: The Project would not result in a conflict with land use compatibility guidelines used to determine the acceptability of noise for a commercial land use. (**LTS**)

Commercial uses such as those proposed under the Project are considered to be "normally acceptable in environments with ambient noise levels of up to 65 dB L_{dn} and "conditionally acceptable environments with ambient noise levels of up to 75 dB L_{dn}. The existing noise environment along Pleasant Valley Avenue is approximately 69 dB L_{dn}, and along Broadway approximately 72 dB L_{dn}. Thus, existing ambient noise levels at the Project site are within the "conditionally acceptable" range for the Project's proposed uses, where conventional construction methods will usually provide adequate noise attenuation provided that air conditioning or forced fresh-air supply systems are incorporated and that windows facing the street remain closed. Like most all businesses along Broadway, the Project would include these features.

Mitigation Measures

None required.

Operational Noise in Excess of Oakland Noise Ordinance Standards

Impact Noise-4: The Project's operation will not result in new or exacerbated operational noise levels that would exceed the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding operational noise. (**LTS**)

Many of the noise sources that will be part of the Project are currently in place at the existing shopping center (e.g., parking lots, delivery bays, roof-top mechanical equipment, commercial/retail space, etc.). The overall square footage of commercial/retail use will increase as a result of the Project and the Project would result in a new configuration of uses on the site. The effects of these changes on operational noise levels in the vicinity of the site are discussed below.

Mechanical Equipment Noise

Roof-top mechanical equipment typically includes heating, ventilating, air conditioning, and refrigeration equipment. Noise typically generated by rooftop mounted mechanical equipment varies significantly depending upon the equipment type and size. Based on equipment specifications provided for roof-top fluid coolers anticipated to be located on the Safeway store, the worst case noise level produced by the equipment is 82 dBA at 5 feet from the top of the unit. The nearest noise-sensitive land uses (the apartments located north of the site, at the top of the hillside) are located approximately 200 feet from the rear of the Safeway store. Without noise attenuation, noise levels at this receptor would be approximately 50 dBA (assuming no noise reduction for the intervening hillside). This noise level is well below the daytime noise standard set forth in the City of Oakland Noise Ordinance, but could exceed the night-time standard of 45 dBA for periods of 20 or more minutes per hour.

Project mechanical equipment specifics have not been determined for the remainder of retail/commercial buildings located on the Project site. The precise noise impacts of Project mechanical equipment cannot be determined without detailed system design specifications regarding location, type, size, capacity, enclosure design, etc. These details are typically provided during later phases of a project's design and development review along with other more detailed project engineering specifications. When specific project information is not available during environmental review, an acceptable evaluation methodology is to use data from similar facilities. Noise measurements and analyses for other similar commercial centers indicate that noise levels of 60 to 70 dBA at 15 feet can be expected from external mechanical systems, and similar noise levels can be anticipated from the Project. Some of the residential land uses located to the south of the proposed commercial buildings would not have line-of-sight to any roof-top mechanical equipment placed adjacent to Pleasant Valley Avenue, thus reducing mechanical equipment noise by approximately 10 dBA. Based on these generic data and accounting for the effects of acoustical shielding and distance, noise generated by Project mechanical equipment is calculated to range from 31 to 41 dBA at the nearest residential properties to the south, and would not exceed the daytime and nighttime hourly standards set forth in the City of Oakland Municipal Code.

Although noise from unshielded roof-top mechanical equipment may be loud enough to exceed City thresholds without further attenuation, the operation of all roof-top or other mechanical equipment is subject to the City's Noise Ordinance standards. Noise levels from such equipment must comply with the performance standards of Chapter 17.120 and Chapter 8.18 of the Oakland Municipal Code. The applicable design standard is 45 dBA at adjacent residences, taking into account all operational noise. As indicated in the Project Description (Chapter 3 of this EIR), the Project applicant has proposed that all mechanical equipment used during operation of the Project will be designed and used, with shielding or

other noise attenuation as necessary, in a manner that complies with these standards. The types of shielding that may be required will be dependent upon the specific mechanical equipment used, and will be determined prior to City approval of mechanical building permits. Therefore, the noise impacts associated with roof-top and other mechanical equipment on adjacent sensitive receptors would be less than significant.

Trash Compactor Noise

Trash compactors are located at the rear of the proposed Safeway building and internal to the commercial building along Pleasant Valley Avenue. Trash compactors typically generate maximum noise levels of 50 to 55 dBA at 100 feet, depending on the power rating and enclosure characteristics. Noise generated by the operation of trash compactors at the rear of the Safeway store would be expected to be well below ambient noise levels at the nearest residential land uses to the north, south and east. Trash compactors contained within the commercial structure along Pleasant Valley Avenue would not be audible due to the enclosures. The operation of the trash compactor would not be audible or measurably increase day-night average noise levels at nearby sensitive land uses.

Loading Dock Noise

The primary noise sources associated with grocery store loading docks are the trucks entering and leaving the docks and traveling along neighborhood streets, the unloading of smaller vendor trucks utilizing pallet jacks or rolling vendor carts, and people's voices. Based on data gathered at similar sized grocery stores, it is assumed that the proposed Safeway store would require deliveries from two to four large trucks, and six to ten vendor trucks per day. The large trucks would most likely access loading bays for the Safeway store from Broadway and travel along the rear of the shopping center. Other loading bays will be located throughout the Project site to serve the other commercial/retail buildings, but none of them will have line-of-sight to adjacent residential uses.

The Safeway loading dock is proposed at the northeast corner of the Safeway building, approximately 450 feet from the apartment building to the north, and approximately 600 feet from the nearest residential land uses along Montgomery Street to the east. The four loading bays (two on either side of the loading dock) would accommodate heavy-duty trucks (53' trailer). These loading bays will be enclosed and deliveries would occur directly out of the truck into the market. The roll-down shutter doors would be closed when the loading dock is not in use. Very little loading noise escapes into the community when activities are contained in this manner. The highest noise levels would be generated when heavy trucks pull into or out of the loading area. Based on measurements taken at other Safeway stores and the current truck noise limits in California (80 dBA at 50 feet distance), maximum noise levels of approximately 60 dBA could be expected at the apartment building to the north, and maximum noise levels of up to 59 dBA could be expected at the nearest residences along Montgomery Street to the east. These noise levels would comply with the 75 to 80 dBA daytime limit of the Oakland Noise Ordinance for sporadic noise events (0 to 1 minute per hour) and would also comply with corresponding noise standards of 60 to 65 dBA for night-time activities. The loading docks would be located underneath the upper floor parking deck, and the parking deck will partially enclose the loading bays. Since the residential uses to the north and east of the site are located high above the site at the top of the hill, the parking deck will further reduce loading dock noise below the daytime and nighttime limits.

It can be expected that vendor deliveries will occur throughout the Project site at various time throughout the day. Vendor trucks would typically park at the rear of commercial buildings and loading and unloading activities would occur directly out of the truck. Wheeled carts, fork lifts, hand-trucks or pallet-jacks would be used to transfer products into the store interior. Noise in such a loading area arrangement is generated as truck doors are opened and closed as products are loaded onto carts and transported into

the store. Noise levels generated by these activities are not anticipated to be audible at nearby residential land uses because of the shielding provided by the commercial/retail buildings.

Operational Noise Sources Combined

The potential impact all of the Project's operational noise sources (i.e., on-site traffic, deliveries, mechanical equipment, trash compactors, garbage collection, parking lot sweepers, shopping cart noise, generators, etc.) was also considered. All of these noise sources are currently operational at the existing shopping center. While the overall square footage of commercial uses would increase as a result of the Project, operational noise levels have been calculated to increase by up to 1 dBA Ldn. Noise levels generated by the collective noise sources associated with the Project would not be measurably greater than existing noise levels, and would not exceed the City's 5 dBA L_{dn} threshold for increased noise.

Mitigation Measures

None required.

Vibration

Impact Noise-5: Temporary project construction activities would not expose adjacent residences to groundborne vibration at levels that could cause cosmetic or structural damage to structures or improvements, and Project occupancy and operation would not generate groundborne vibration at levels that would be perceptible beyond the property boundaries. (**LTS**)

Vibration Caused by Construction

Groundborne vibration levels rarely affect human health. Instead, most people consider groundborne vibration to be an annoyance that may affect concentration or disturb sleep.

High levels of groundborne vibration can damage fragile buildings. The current Federal Transit Administration (FTA) transit noise and vibration impact assessment has established ground-borne vibration levels of 0.2 inches per second (94 VdB) as the construction vibration damage criterion for non-engineered timber and masonry buildings.. Equipment anticipated to be used during construction includes flatbed delivery trucks, drill rigs, excavators, dump trucks, front-end loaders, bobcats, jackhammers, concrete trucks, and portable generators. The operation of heavy-duty construction equipment (e.g., a large bulldozer) generates vibration levels of 0.089 inches per second (87 VdB) at a distance of 25 feet. Construction activity involving heavy-duty construction equipment would occur at distances of much greater than 25 feet from adjacent structures. The vibration exposure level at these distances would be far less than the 0.2 inches per second (94 VdB) FTA limit for non-engineered timber and masonry buildings, and would be less than significant.

Standard Conditions of Approval

Implementation of the City of Oakland's Standard Conditions of Approval related to construction period noise would also address construction period vibration. SCA Noise-1 provides reasonable regulation of the hours of construction. SCA Noise-3 requires measures to respond to and track construction period noise complaints.

Vibration Caused by Operation

Section 17.120.060 of the Oakland Planning Code regulates vibration, requiring that activities shall be so operated as not to create a vibration which is perceptible without instruments by the average person at or

beyond any lot line of the lot containing such activities. Ground vibration caused by motor vehicles and temporary construction or demolition work is exempted from this standard. The Project would not include significant sources of operational groundborne vibration. Operational groundborne vibration would be generated by additional vehicular travel on local roadways. The FTA has stated that rubber-tired vehicles do not typically generate perceptible groundborne vibration. Therefore, the Project would result in a less-than-significant impact related to operational vibration.

Mitigation Measures

None required.

Cumulative Noise Impacts

Cumulative Impact Noise-6: Cumulative increases in noise within the vicinity of the Project area would not result in a 5 dBA L_{dn} permanent increase in ambient noise levels above noise levels without the Project, and the Project's contribution to the cumulative increase in noise would not result in a 3 dBA L_{dn} permanent increase attributable to the Project. Cumulative noise impacts would be less than significant. **(LTS)**

The geographic area considered for cumulative noise analysis includes areas close to the Project site and roadways examined in the transportation impact analysis. Longer-term noise from cumulative development would primarily come from motor vehicle traffic. Cumulative traffic noise level increases were calculated by comparing "Cumulative (2035) Plus Project" peak hour traffic volumes to existing peak hour traffic volumes as presented in Chapter 4.11: Transportation, Circulation and Parking of this EIR. The combination of Project and cumulative traffic would increase traffic levels on Pleasant Valley Avenue near the Gilbert Street intersection from approximately 2,600 vehicles during the peak hour today, to approximately 3,600 vehicles during the peak hour by 2035 cumulative conditions. This represents an approximately 37 percent increase in traffic volumes, corresponding to a less than 2 dBA noise increase. Similarly, the combination of Project and cumulative traffic would increase traffic on Broadway across the Project frontage from approximately 2,400 vehicles during the peak hour to approximately 3,650 vehicles during the peak hour. This represents an approximately 56 percent increase in traffic volumes, corresponding to approximately a 2 dBA increase in traffic noise. This increase in noise would not exceed the 5dBA threshold, nor would the Project's contribution exceed the significance criteria or a 3 dBA contribution, and would not be considered substantial.

There are no other identified projects under construction or planned within 1,000 feet of the Project, and it is not anticipated that there would be cumulative construction noise impacts in the Project area. Thus, cumulative construction noise impacts would be less than significant.

Mitigation Measures

None required.

4.11

Transportation, Circulation and Parking

This section describes the transportation, circulation, and parking conditions, including transit services and pedestrian and bicycle facilities on the Project site and its vicinity, and provides an analysis of the proposed Project's potential impacts. **Figure 4.11-1** illustrates the location of the proposed Project and the local and regional street system. The analysis evaluates the traffic-related impacts of the proposed Project during the weekday evening and Saturday midday and evening peak hours. The analysis was conducted in compliance with City of Oakland and Alameda County Transportation Commission (ACTC), formerly known as Alameda County Congestion Management Agency (ACCMA), guidelines.

Traffic conditions are assessed at 27 critical intersections in the study area under the following six scenarios:

- Existing: Represents existing conditions with volumes obtained from recent traffic counts and the existing roadway system.
- Existing Plus Project Buildout: Represents existing conditions plus Project-related traffic.
- Near-Term (2015) No Project: Future conditions with planned population and employment growth and planned transportation system improvements for the year 2015. This scenario assumes no traffic growth at the existing Project site. Traffic projections were developed using the Alameda Countywide Travel Demand Model provided by the ACTC (ACTC Model).
- Near-Term (2015) Plus Project Buildout: Future forecasted conditions for the year 2015, as determined in the 2015 No Project scenario, plus Project-related traffic.
- Cumulative (2035) No Project: Future conditions with planned population and employment growth and planned transportation system improvements for the year 2035. This scenario assumes no traffic growth at the existing Project site. Traffic projections were developed using the ACTC Model.
- Cumulative (2035) Plus Project Buildout: Future forecasted conditions for the year 2035, as determined in the 2035 Without Project scenario, plus Project-related traffic.

Existing Setting

The existing transportation-related context in which the proposed Project would be constructed is described below, beginning with a description of the study area and the street network that serves the Project site. Existing transit service, bicycle and pedestrian facilities, and on- and off-street parking in the vicinity of the Project site are also described. Intersection and roadway levels of service are defined and current conditions for roadways and intersections in the Project vicinity are summarized.

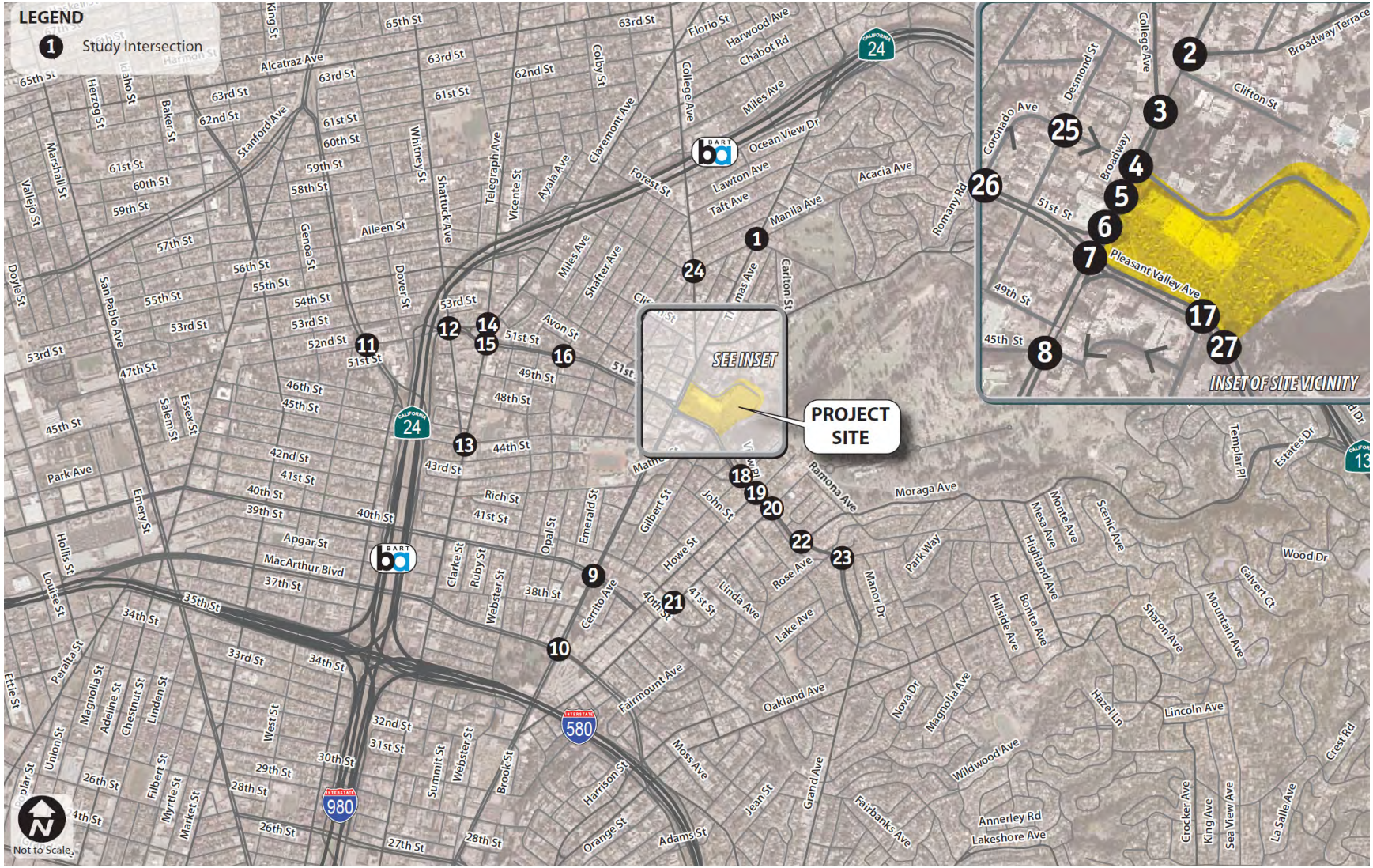


Figure 4.11-1
Project Study Area

Source: Fehr & Peers

Study Intersections

Intersection operations at 27 intersections in the vicinity of the Project site (listed below) were evaluated during the weekday evening (4:00 to 6:00 PM), Saturday midday (11:00 AM to 3:00 PM), and Saturday evening (4:00 to 7:00 PM) peak periods for Existing, 2015 and 2035 conditions.

1. Broadway/Manila Avenue/Monroe Avenue
2. Broadway/Broadway Terrace
3. Broadway/College Avenue
4. Broadway/Coronado Avenue/ Project Driveway
5. Broadway/Center Project Driveway
6. Broadway/South Project Driveway
7. Broadway/51st Street/Pleasant Valley Avenue
8. Broadway/45th Street
9. Broadway/40th Street/40th Street Way
10. Broadway/West MacArthur Boulevard
11. Martin Luther King Jr. Way/52nd Street
12. Shattuck Avenue/52nd Street
13. Telegraph Avenue/Shattuck Avenue
14. Telegraph Avenue/52nd Street/Claremont Avenue
15. Telegraph Avenue/51st Street
16. Shafter Avenue/51st Street
17. Gilbert Street/Project Driveway/Pleasant Valley Avenue
18. Montgomery Street/Pleasant Valley Avenue
19. Howe Street/Pleasant Valley Avenue
20. Piedmont Avenue/Pleasant Valley Avenue
21. Piedmont Avenue/41st Street
22. Moraga Avenue/Pleasant Valley Avenue
23. Grand Avenue/Arroyo Avenue/Pleasant Valley Avenue
24. Hudson Street/Manila Avenue/College Avenue
25. Desmond Street/Coronado Avenue
26. Coronado Avenue/51st Street
27. Project Driveway/Pleasant Valley Avenue

These intersections were selected in consultation with City of Oakland staff. In general, study intersections were selected where the proposed Project would increase volumes by 30 or more peak hour vehicle trips, or by 10 or more peak hour vehicle trips at intersections already operating at unacceptable conditions during the peak hours. Figure 4.11-1 shows the location of the 27 study intersections.

Existing Roadway Network

Regional access to the site is provided by State Route 24 (SR 24). Direct access to the Project site is provided from 51st Street/Pleasant Valley Avenue, Broadway and Gilbert Street. Other major roadways providing access to the site from the surrounding neighborhoods include Broadway Terrace, and College, Shattuck, Telegraph, Claremont, and Piedmont Avenues. These and other major roadways in the study area are described below.

State Route 24 (SR 24)

State Route 24 (SR 24) is an east-west regional freeway located about one mile north of the Project site, extending between Walnut Creek in the east and downtown Oakland in the west. SR 24 becomes Interstate 980 (I-980) west of the I-580 interchange. This freeway generally provides four lanes in each direction near the Project site. Average daily traffic on SR 24 between Broadway and Claremont Avenue

ramps is about 142,000 vehicles per day.[1] Access between the Project site and SR 24 is provided via ramps on Broadway.

51st Street/Pleasant Valley Avenue

51st Street/Pleasant Valley Avenue is a major east-west arterial bordering the Project site to the south. The street is called 51st Street west of Broadway and Pleasant Valley Avenue east of Broadway. 51st Street/Pleasant Valley Avenue generally provides four travel lanes and extends from Shattuck Avenue to Oakland Avenue.

Broadway

Broadway is a major north-south arterial between Jack London Square in the south and State Route 24 in the north. Broadway borders the Project site to the west. In the Project study area, Broadway provides six travel lanes south of Broadway Terrace, and four lanes to the north.

Broadway Terrace

Broadway Terrace is an east-west two-lane collector connecting Broadway in the east and SR 13 in the west.

College Avenue

College Avenue is a north-south arterial that extends between Broadway in Oakland and the University of California campus in Berkeley. College Avenue provides one lane of traffic in each direction.

40th Street

40th Street is an east-west arterial that extends between Shellmound Avenue in Emeryville and Piedmont Avenue in Oakland. Within the study area, it provides four travel lanes.

West MacArthur Boulevard

West MacArthur Boulevard is a major east-west road that extends from Hollis Street in West Oakland/ Emeryville generally paralleling I-580 to San Leandro in the south and beyond (as MacArthur Boulevard). It provides six travel lanes in the vicinity of the Project site.

Martin Luther King Jr. Way

Martin Luther King Jr. Way is a north-south arterial that extends between West Grand Avenue in Downtown Oakland and Hopkins Street in Berkeley. Martin Luther King Jr. Way generally provides four travel lanes.

Shattuck Avenue

Shattuck Avenue is a north-south street between Telegraph Avenue at 45th Street in Oakland and Indian Rock Avenue in North Berkeley. In the vicinity of the Project, it provides two travel lanes.

[1] Caltrans Traffic Volumes on the State Highway System, 2009.

Telegraph Avenue

Telegraph Avenue is a north-south arterial that extends from the University of California campus in Berkeley to Broadway in downtown Oakland. Telegraph Avenue provides two lanes of traffic in each direction.

Claremont Avenue

Claremont Avenue is a northeast-southwest arterial that extends from Telegraph Avenue in Oakland to Grizzly Peak Boulevard in Berkeley Hills. Claremont Avenue provides two lanes of traffic in each direction in the vicinity of the Project site.

Piedmont Avenue

Piedmont Avenue is a north-south two-lane minor arterial between Broadway and Pleasant Valley Avenue.

Moraga Avenue

Moraga Avenue is an east-west two-lane collector between Pleasant Valley Avenue and SR 13.

Existing Transit Service

Transit service providers in the Project vicinity include Alameda-Contra Costa Transit District (AC Transit) which provides local and Transbay bus service with connections to the Transbay Terminal in San Francisco and Bay Area Rapid Transit (BART) which provides regional rail service. **Figure 4.11-2** shows the existing transit services provided near the Project site. Each service is described below.

AC Transit

The Alameda-Contra Costa Transit District (AC Transit) is the primary bus service provider in 13 cities and adjacent unincorporated areas in Alameda County and Contra Costa County, with Transbay service to destinations in San Francisco, San Mateo and Santa Clara Counties. Five AC Transit bus routes currently operate within a quarter mile of the Project site. **Table 4.11-1** summarizes the characteristics of the AC Transit routes operating in the Project area. The nearest bus stops to the Project site are on eastbound and westbound Pleasant Valley Avenue west of Gilbert Street and on northbound Broadway north of 51st Street and on southbound Broadway south of Pleasant Valley Avenue. Some of the bus stops in the Project vicinity provide a bench but none provide a shelter.

Figure 4.11-2
Existing Transit Routes Near Project Site

Source: Fehr & Peers

Table 4.11-1
Ac Transit Service Summary

Line	Route	Nearest Stop	Weekday Hours	Weekday Frequency	Weekend Hours	Weekend Frequency
Local Routes						
12	Berkeley BART to Downtown Oakland	Pleasant Valley Ave at Gilbert St	6:00 AM to 11;00 PM	20 to 30 minutes	6:00 AM to 11:00 PM	30 minutes
51A	Rockridge BART to Fruitvale BART	Broadway at 51st Street	5:00 AM to 1:00 AM	10 to 30 minutes	5:20 AM to 12:30 AM	15 to 20 minutes
Night Routes						
851	Downtown Berkeley to Broadway	Broadway at Whitmore St.	12:15 AM to 5:00 AM	60 minutes	12:15 AM to 5:00 AM	60 minutes
Transbay Routes						
CB	Broadway Terr. to San Francisco	Broadway at 51st Street	6:30 AM to 9:00 AM and 5:00 PM to 7:00 PM	20-30 minutes	Weekend Service Not Provided	
V	Broadway and Broadway Terr. via Broadway Terr., Moraga Ave., Park Blvd. and I-580	College Avenue at Broadway	5:40 AM to 9:00 AM and 4:10 PM to 8:30 PM	15 to 30 minutes	Weekend Service Not Provided	

Source: AC Transit, August, 2012

Table 4.11-2 shows the capacity and loads (passengers) of AC Transit routes at stops nearest to the Project site; average and maximum load factors are also shown. Load factor is defined as the ratio of occupied seats to the number of seats on the bus. A load factor of 100 percent or more indicates that the bus operates at or above its seated capacity. In general, AC Transit considers a load factor of 125 percent (i.e., 25 percent of the passengers would be standing) to be acceptable.

As shown in Table 4.11-2, the two local bus routes serving the Project site have an average load factor of 31 percent or less. Line 12 has a maximum daily load factor of 50 percent or less; however, the maximum load factor on Line 51A exceeded 100 percent in both directions at the stops near the Project site.

Table 4.11-2
AC Transit Load Factors

Bus Line	Stop Location	Direction	Average Capacity (Seats)	Avg. Load[1]	Avg. Load Factor[2]	Maximum Load[3]	Max. Load Factor[4]	Boardings (On's)[5]	Alightings (Off's)[6]
12	Pleasant Valley at Gilbert Street	EB	40	5.9	15%	20	50%	40	13
		WB		5.8	15%	13	33%	25	55
	51st Street at Broadway	EB	40	5.3	13%	15	38%	19	49
	51st Street at Desmond Street	WB	40	6.2	16%	14	35%	24	5
51A	Broadway at Pleasant Valley Avenue/51st Street	NB	32	10.0	31%	33	**103%**	56	131
		SB	32	7.6	24%	33	**103%**	119	53

Bold indicates maximum load factor above seating capacity.
1. Number of passengers on the bus averaged on a typical weekday.
2. Average load divided by average seated capacity.
3. Maximum number of passengers on the bus observed on a typical weekday.
4. Maximum load divided by average seated capacity.
5. Total number of passengers boarding the bus at this location on a typical weekday.
6. Total number of passengers alighting the bus at this location on a typical weekday.

Source: Spring 2010 data provided by Howard Der, AC Transit, June 2010.

Bay Area Rapid Transit (BART)

BART provides regional rail transit service to Alameda, San Francisco, Contra Costa, and San Mateo Counties. Weekday service is provided from 4:00 AM to 1:00 AM, while Saturday and Sunday service is provided from 6:00 AM to 1:00 AM, and 8:00 AM to 1:00 AM, respectively. Trains have a typical headway of 15 minutes on weekdays and 20 minutes on Saturday and Sundays. The nearest BART station to the Project site is the Rockridge station, which is about 0.7 miles north of the Project site.

Existing Pedestrian Network

The City of Oakland's *Pedestrian Master Plan,* November 2002 (PMP) designates Broadway and 51st Street/Pleasant Valley Avenue as City Routes, Broadway Terrace and Piedmont Avenue as District Routes, and Clifton Street, 45th Street and Shafter Avenue as Neighborhood Routes. The *PMP* (page 48) provides the following descriptions about these types of routes:

> *"City routes designate streets that are destinations in themselves – places to live, work, shop, socialize and travel. They provide the most direct connections between walking and transit and connect multiple districts in the City."*
>
> *"District routes have a more local function as the location of schools, community centers, and smaller scale shopping. They are often located within a single district and help to define the character of that district."*
>
> *"Neighborhood routes are local streets that connect schools, parks, recreational centers, and libraries. They are places for people to meet and they provide the basis for neighborhood life. They are used for walking to school, walking for exercise, and safe walking at night."*

Pedestrian facilities include sidewalks, crosswalks, pedestrian signals and pedestrian paths. **Figure 4.11-3** shows pedestrian facilities in the Project vicinity. Sidewalks are provided on all of the existing streets in the study area. Signalized intersections in the vicinity of the Project provide striped crosswalks and pedestrian signal heads on at least one approach. As shown on Figure 4.11-3, some signalized intersections also provide pedestrian push-buttons and audible signals.

Just west of the Project site, a pedestrian path provides access between Broadway and Hemphil Place.

Existing Bicycle Network

The City of Oakland's 2007 *Bicycle Master Plan Update (BMP)* identifies the following bicycle facilities:

Class 1 Paths

These facilities are located off-street and can serve both bicyclists and pedestrians. Recreational trails can be considered Class I facilities. Class I paths are typically 8 to 10 feet wide excluding shoulders and are generally paved.

Class 2 Bicycle Lanes

These facilities provide a dedicated area for bicyclists within the paved street width through the use of striping and appropriate signage. These facilities are typically 5 to 6 feet wide.

Class 3 Bicycle Routes

These facilities are found along streets that do not provide sufficient width for dedicated bicycle lanes. The street is then designated as a bicycle route through the use of signage informing drivers to expect bicyclists.

Class 3A Arterial Bicycle Routes

These facilities are found along some arterial streets where bicycle lanes are not feasible and parallel streets do not provide adequate connectivity. Speed limits as low as 25 mph, shared lane bicycle stencils, wide curb lanes and signage are used to encourage shared use.

Class 3B Bicycle Boulevard

These facilities are found along residential streets with low traffic volumes. Assignment of right-of-way to the route, traffic calming measures and bicycle traffic signal actuation are used to prioritize through-trips for bicycles.

Based on the BMP, **Figure 4.11-4** shows existing and planned bicycle facilities in the Project vicinity. Currently, Broadway Terrace and Shafter Avenue-48th Street-Webster Street are designated Class 3 Bicycle Routes.

Figure 4.11-3
Existing Pedestrian Facilities Near Project SIte

Source: Fehr & Peers

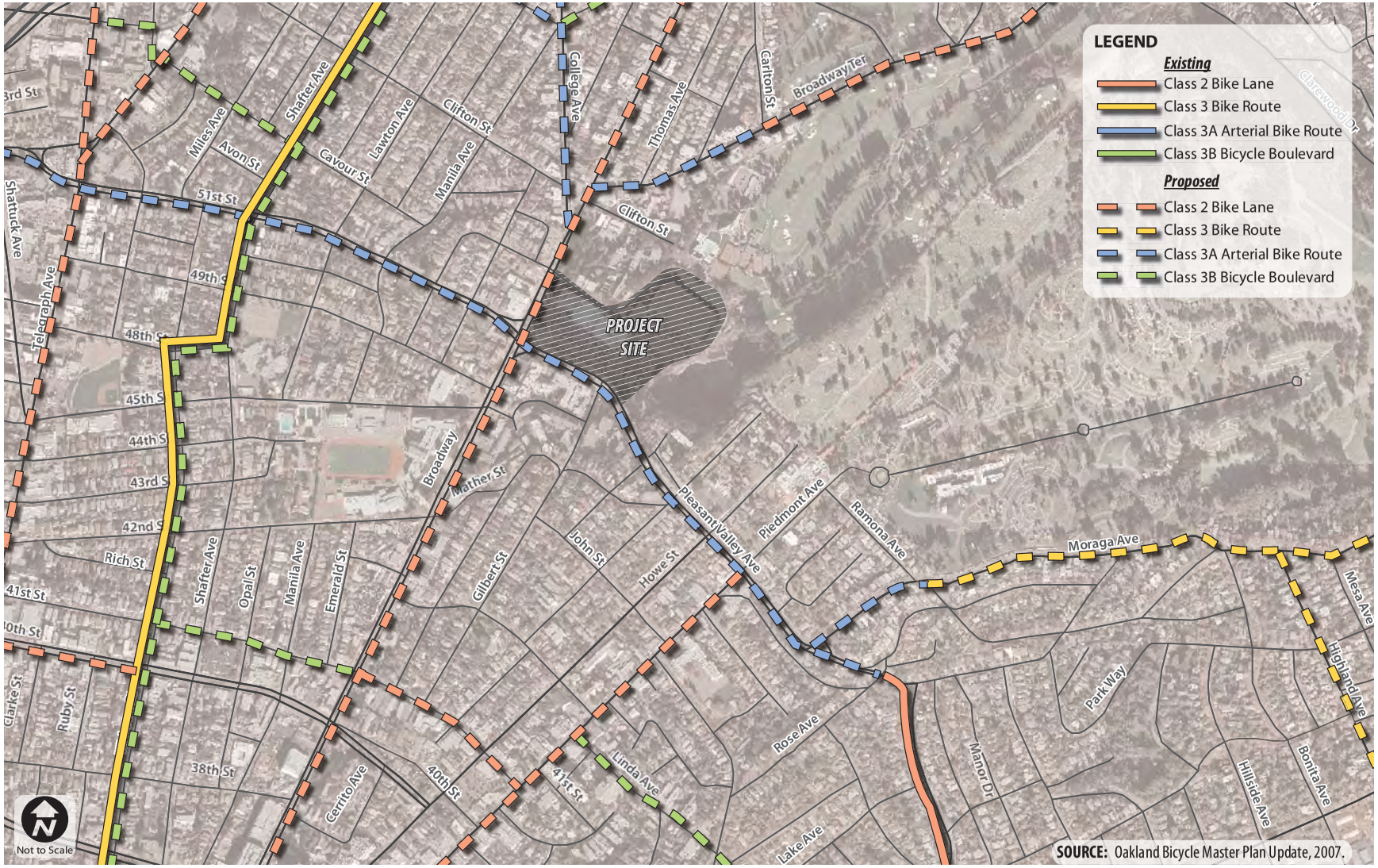


Figure 4.11-4
Existing and Proposed Bicycle Facilities

Source: Oakland Bicycle Master Plan Update, 2007,
Fehr & Peers

Existing Parking Characteristics

Data was collected to assess current parking conditions in the off-street parking lot on the Project site and on-street parking spaces in the vicinity. Both on-site and on-street parking are discussed in detail below.

Off-Street Parking

Fehr & Peers surveyed the existing surface lot at the Safeway store to determine the parking supply and peak parking demand. The Project site was surveyed during the peak periods on Friday, June 6, 2008 and on Saturday, June 7, 2008. Both days were sunny with local schools in normal session. **Table 4.11-3** shows the parking supply and the weekday and Saturday demand during the survey periods. The existing surface lot was surveyed again in October 2011. As shown in Table 4.3-3, parking occupancies in October 2011 were lower than in June 2008; therefore the June 2008 results are used to present a more conservative analysis.

Table 4.11-3
Peak Period On-Site Parking Supply and Demand

Time	Parking Supply	Parking Demand[1]	Vacant Spaces	Percent Occupied
2008, Weekday[1]				
5:00 PM	615	186	429	30%
5:30 PM	615	261	354	42%
6:00 PM	615	283	332	46%
6:30 PM	615	328	287	53%
7:00 PM	615	365	250	59%
7:30 PM	615	287	328	47%
2008, Saturday[2]				
4:00 PM	615	261	354	42%
4:30 PM	615	275	340	45%
5:00 PM	615	268	347	44%
5:30 PM	615	307	308	50%
6:00 PM	615	331	284	54%
6:30 PM	615	381	234	62%
7:00 PM	615	334	281	54%
2011[3]				
Weekday, 7:00 PM	615	308	307	50%
Saturday, 6:30 PM	615	269	346	44%

1. Parking survey conducted on Friday, June 6, 2008.
2. Parking survey conducted on Saturday, June 7, 2008.
3. Parking surveys conducted in October 2011.

Source: Fehr & Peers, 2012.

The site currently provides 615 parking spaces, including 23 spaces designated for use by persons with disabilities. The peak demand on weekdays was at 7:00 PM when about 59 percent of parking spaces

were occupied. The peak demand on Saturday was at 6:30 PM when about 62 percent of parking spaces were occupied. The parking lot was about 40 percent vacant during both weekday and Saturday periods. Most of the available parking spaces were near the south end of the parking lot, away from the existing shops. Considering that the parking lot currently has about 40 percent vacancy during the peak demand periods and the distance, restrictions, and occupancy of on-street parking, it is unlikely that shopping center customers or employees currently park on-street. In addition, the shopping center parking lot may also be used by others because the parking lot usage is currently not controlled.

On-Street Parking

Fehr & Peers also surveyed on-street parking occupancy within two-blocks of the Project site. **Figure 4.11-5** summarizes parking supply around the Project site. On-street parking along the Project frontage on Broadway and Pleasant Valley Avenue is generally prohibited. Parking along other segments of Broadway is generally metered or restricted to two-hours, and parking along other segments of 51st Avenue/Pleasant Valley Avenue is free with no restrictions. On-street parking in the surrounding residential neighborhoods is generally free with no restrictions, except near the College Avenue commercial district where on-street parking on some residential streets is controlled by Residential Parking Permits (RPP), which limit parking by non-residents to two hours or less during business hours on weekdays and Saturdays. Overall, about 680 on-street parking spaces are provided in the study area, including 33 metered spaces along Broadway.

Fehr & Peers conducted peak hour parking occupancy counts on Thursday, May 13, 2010 between 5:15 PM and 6:15 PM, and Saturday, May 15, 2010 between 5:15 PM and 6:15 PM. **Figure 4.11-6** and **Figure 4.11-7** present the peak parking occupancies on Thursday and Saturday, respectively. The overall on-street parking occupancy in the study area was generally about 60 percent on both days.

The effective capacity of on-street parking is around 90 percent, above which drivers search, circulate and wait for vacant spaces. This is not only an inconvenience, but also can cause congestion and potential blockage of vehicles on the public street system while waiting for an available space. In general, parking occupancy for the metered spaces along Broadway is about 50 percent or less on both weekdays and Saturdays. Parking occupancy along most blocks along 51st Street/Pleasant Valley Avenue is also less than 50 percent on both days. Parking occupancy along the residential streets varies from less than half to near capacity. The streets near the College Avenue commercial district have higher parking occupancies.

Figure 4.11-5
Existing On-Street Parking Supply

Source: Fehr & Peers

Figure 4.11-6
Existing Weekday PM Peak On-Street Parking Occupancy

Source: Fehr & Peers

Figure 4.11-7
Existing Saturday Peak On-Street Parking Occupancy

Source: Fehr & Peers

Existing Traffic Conditions

Intersection automobile and bicycle turning movement counts, as well as pedestrian counts, were collected at most of the study intersections between Tuesday, May 11 and Thursday, May 13, 2010, and on Saturday May 8, and Saturday May 15, 2010. Additional data was collected in November 2010. All study intersections were counted on Saturday October 27 2012, for the Saturday midday period.[2] The count data were collected on clear days, while area schools were in normal session. The traffic data collection was conducted from 4:00 PM to 6:00 PM on weekdays, from 11:00 AM to 3:00 PM on Saturdays, and from 4:00 PM to 7:00 PM on Saturdays. These time periods were selected because trips generated by the proposed Project, in combination with background traffic, are expected to represent typical worst traffic conditions. Within the peak periods, the peak hours (i.e., the hour with the highest traffic volumes observed in the study area) are from 5:00 to 6:00 PM on weekdays (Weekday PM peak hour), from 12:45 to 1:45 PM on Saturdays (Saturday midday peak hour) and from 4:00 to 5:00 PM on Saturdays (Saturday PM peak hour).[3]

Field reconnaissance was also performed in which intersection lane configurations and signal operations data were collected. Intersection operations were also observed at the study intersections. In addition, the City of Oakland provided signal timing data for the signalized study intersections. **Figure 4.11-8** shows the intersection vehicle turning movements, **Figure 4.11-9** shows the intersection lane configurations and traffic controls, and **Figure 4.11-10** shows the pedestrian and bicycle volumes at the study intersections. **Appendix 4.11B** provides the detailed traffic count data sheets.

Analysis Methodologies and Level of Service Standards

Intersection operations are described using the term "Level of Service" (LOS). Level of Service is a qualitative description of traffic operations from the vehicle driver perspective and consists of the delay experienced by the driver at the intersection. It ranges from LOS A, with no congestion and little delay, to LOS F, with excessive congestion and delays. Different methods are used to assess signalized and unsignalized (stop-controlled) intersections.

Signalized Intersections

Signalized intersection operations are evaluated using methods provided in the 2000 *Highway Capacity Manual* (HCM) and the Synchro traffic analysis software program. These methods evaluate average control delays and then assign an LOS. Control delay is defined as the delay associated with deceleration, stopping, moving up in the queue, and acceleration experienced by drivers at an intersection. **Table 4.11-4** provides descriptions of various LOS and the corresponding ranges of delays for signalized intersections.

[2] During the Saturday midday data collection period, segments of Piedmont Avenue were closed due to a Halloween event. The street closure affected traffic patterns at study intersection along Piedmont Avenue and at the intersections of Pleasant Valley Avenue with Montgomery Street and Howe Street. The Saturday midday peak hour traffic volumes at these intersections were adjusted, based on comparative relationships to traffic counts at other nearby intersections, to account for the special event and the temporary street closure.

[3] See **Appendix 4.11A** for additional explanation of why the DEIR analyzes traffic impacts during these peak periods and why other time periods such as weekday AM was not selected for analysis.

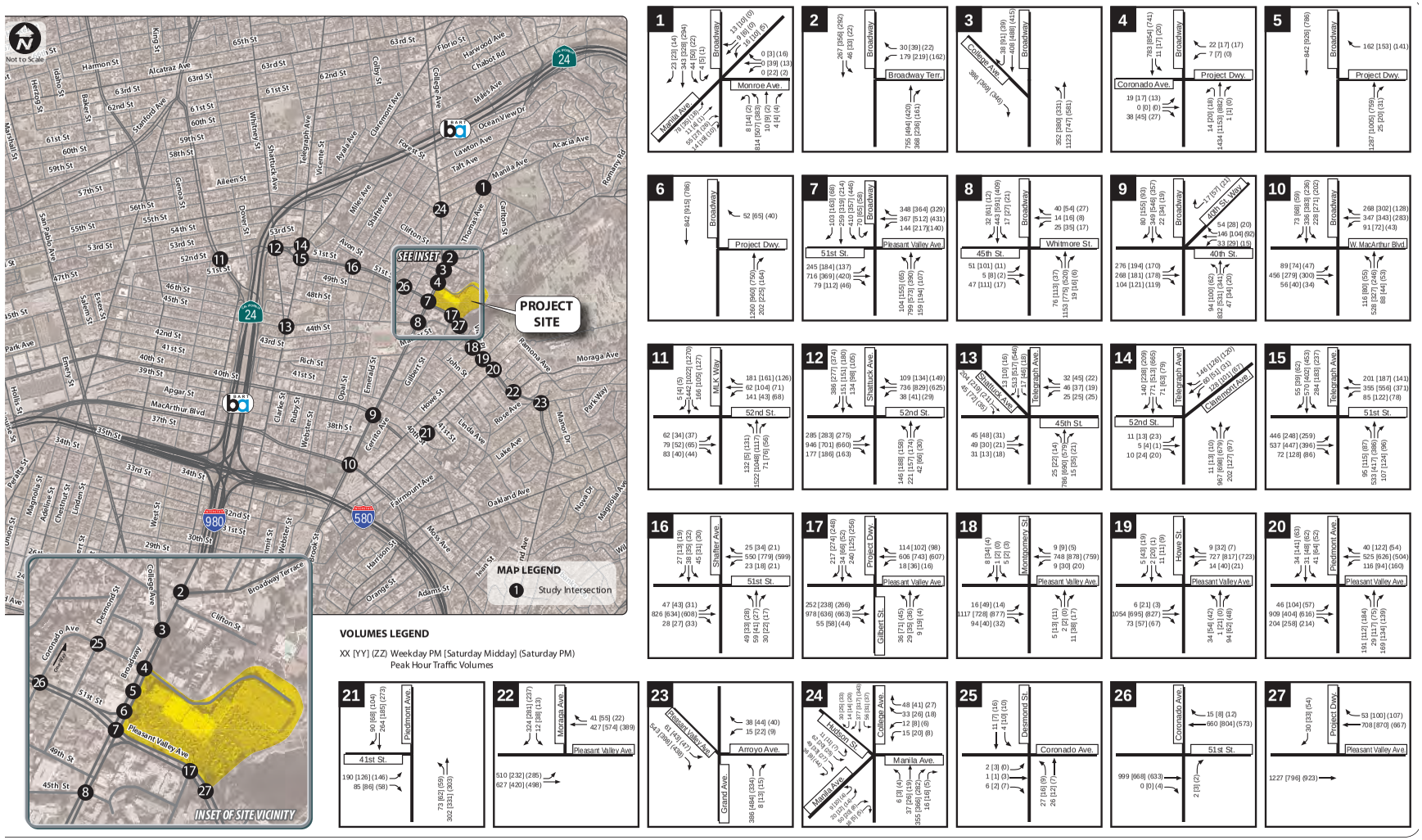


Figure 4.11-8
Existing Peak Hour Traffic Volumes

Source: Fehr & Peers

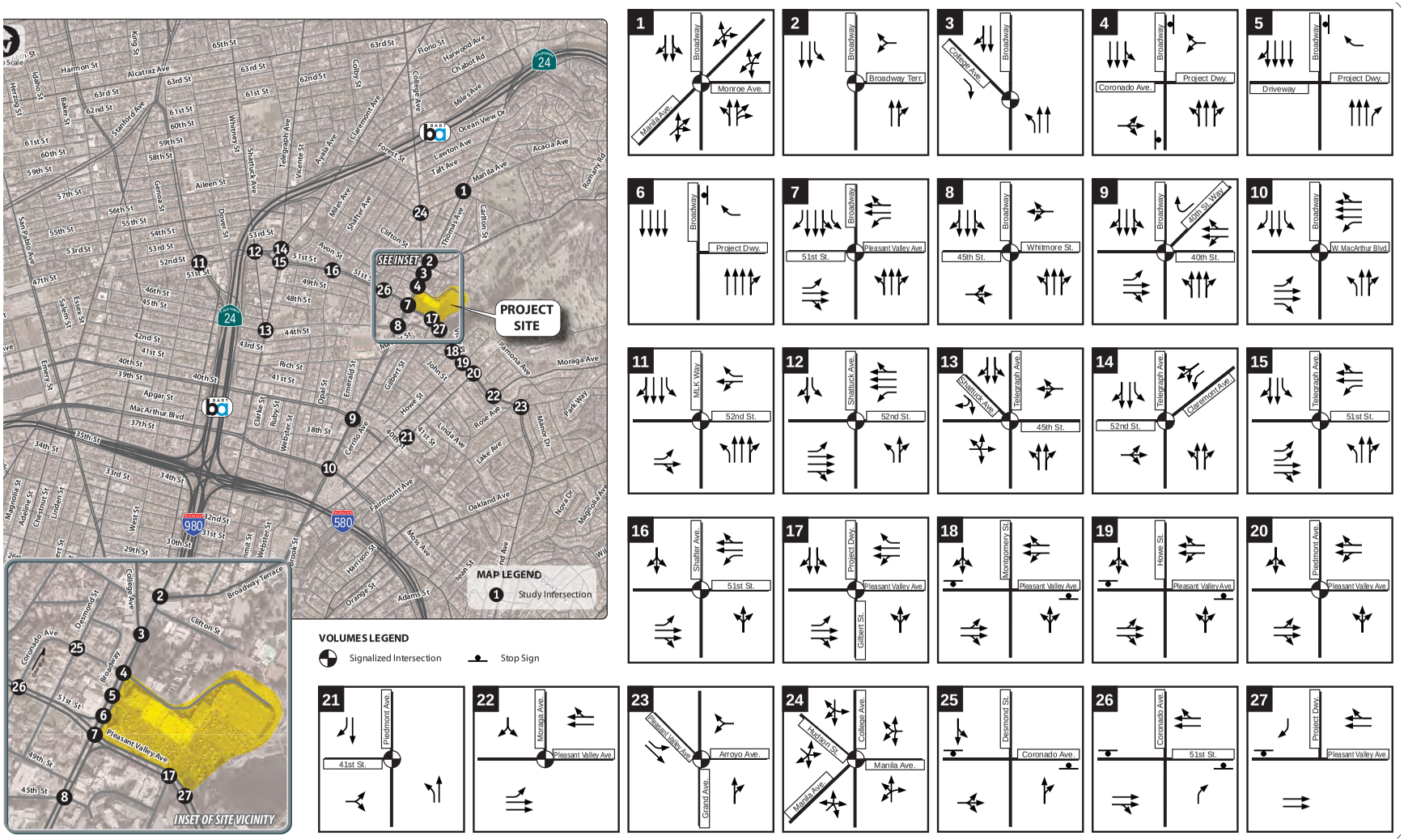


Figure 4.11-9
Existing Intersection Lane Configurations and Traffic Controls

Source: Fehr & Peers

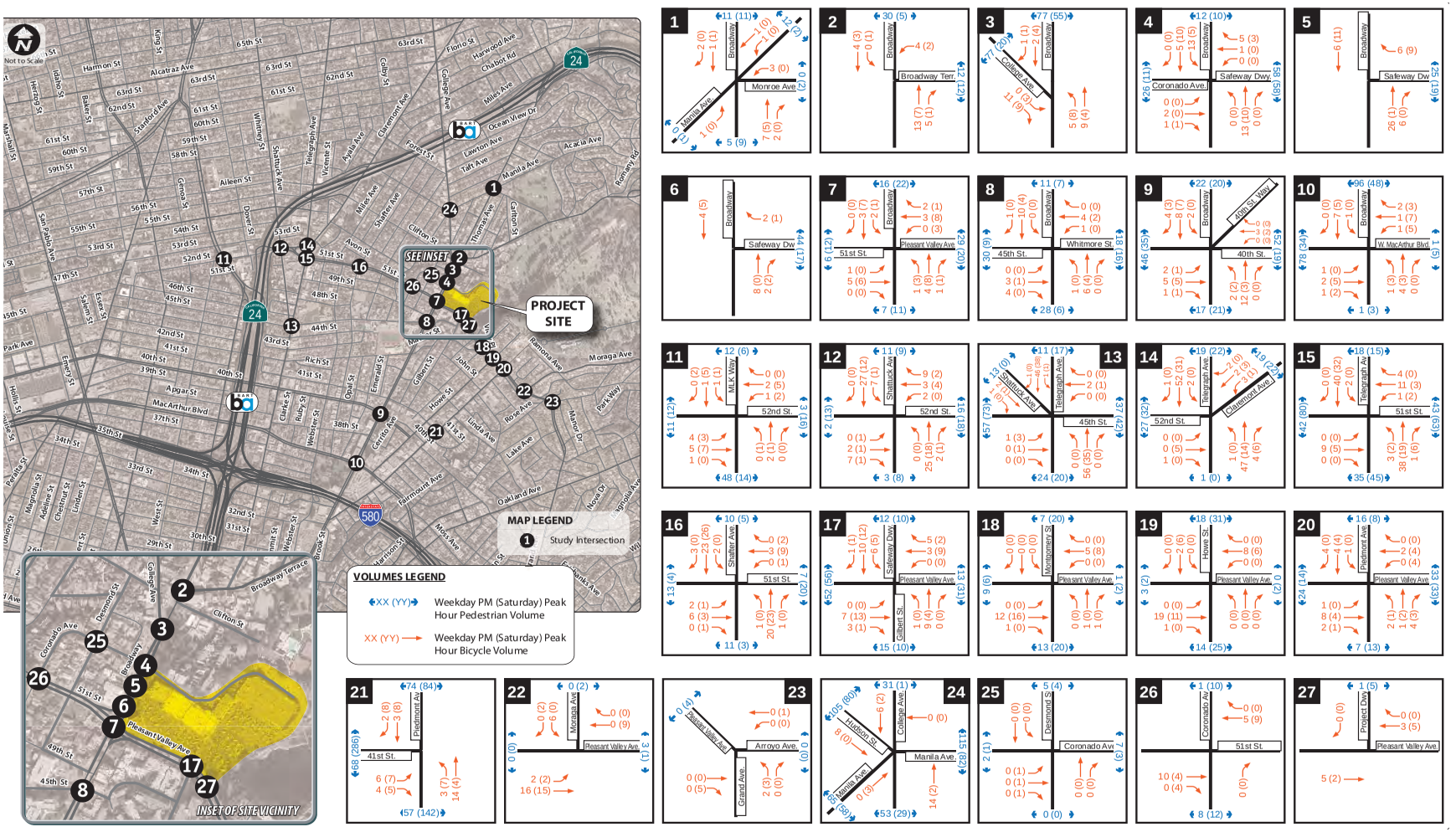


Figure 4.11-10
Existing Peak Hour Bicycle and Pedestrian Volumes

Source: Fehr & Peers

Unsignalized Intersections

Unsignalized intersection LOS is also analyzed using the 2000 HCM and Synchro software. Delay is calculated for movements that are controlled by a stop sign or that must yield the right-of-way. The movement or approach with the highest delay is reported. The LOS ranges for unsignalized intersections are shown in **Table 4.11-4**. They are lower than the delay ranges for signalized intersections because drivers will generally tolerate more delay at signals.

Existing Intersection Operations

Existing operations were evaluated for the weekday PM and Saturday mid-day and evening peak hours at the study intersections. The existing vehicle and pedestrian volumes were used with the existing lane configurations and signal timing parameters as inputs into the LOS calculations to evaluate current operations. **Table 4.11-5** summarizes the intersection analysis results. The following six intersections currently operate at an unacceptable LOS (i.e., LOS E or LOS F):

- #4 The side-street stop controlled westbound approach at the unsignalized Broadway/Coronado Avenue/Safeway Driveway intersection currently operates at LOS E in the westbound approach during the weekday PM and Saturday midday peak hours.
- #7 The signalized Broadway/51st Street/Pleasant Valley Avenue intersection currently operates at LOS E during the Saturday midday peak hour.
- #12 The signalized Shattuck Avenue/52nd Street intersection currently operates at LOS E during the Saturday PM peak hour.
- #15 The signalized Telegraph Avenue/51st Street intersection currently operates at LOS E during the weekday PM peak hour.
- #18 The side-street stop controlled northbound approach at the unsignalized Montgomery Avenue/ Pleasant Valley Avenue intersection currently operates at LOS E during the weekday PM peak hour.
- #19 The side-street stop controlled northbound approach at the unsignalized Howe Street/ Pleasant Valley Avenue intersection currently operates at LOS F during the weekday PM and Saturday midday peak hours and at LOS E during the Saturday PM peak hour.
- #20 The signalized Piedmont Avenue/Pleasant Valley Avenue intersection currently operates at LOS E during the weekday PM peak hour.

Appendix 4.11C presents detailed intersection LOS calculation worksheets.

Table 4.11-4
Intersection Level of Service Definitions

Unsignalized Intersections			Signalized Intersections	
Description	**Average Total Vehicle Delay (Seconds)**	**Level of Service Grade**	**Average Control Vehicle Delay (Seconds)**	**Description**
No delay for stop-controlled approaches.	≤10.0	A	≤10.0	Free Flow or Insignificant Delays: Operations with very low delay, when signal progression is extremely favorable and most vehicles arrive during the green light phase. Most vehicles do not stop at all.
Operations with minor delay.	>10.0 and ≤15.0	B	>10.0 and ≤20.0	Stable Operation or Minimal Delays: Generally occurs with good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average delay. An occasional approach phase is fully utilized.
Operations with moderate delays.	>15.0 and ≤25.0	C	>20.0 and ≤35.0	Stable Operation or Acceptable Delays: Higher delays resulting from fair signal progression and/or longer cycle lengths. Drivers begin having to wait through more than one red light. Most drivers feel somewhat restricted.
Operations with increasingly unacceptable delays.	>25.0 and ≤35.0	D	>35.0 and ≤55.0	Approaching Unstable or Tolerable Delays: Influence of congestion becomes more noticeable. Longer delays result from unfavorable signal progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop. Drivers may have to wait through more than one red light. Queues may develop, but dissipate rapidly, without excessive delays.
Operations with high delays, and long queues.	>35.0 and ≤50.0	E	>55.0 and ≤80.0	Unstable Operation or Significant Delays: Considered to be the limit of acceptable delay. High delays indicate poor signal progression, long cycle lengths and high volume to capacity ratios. Individual cycle failures are frequent occurrences. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
Operations with extreme congestion, and with very high delays and long queues unacceptable to most drivers.	>50.0	F	>80.0	Forced Flow or Excessive Delays: Occurs with oversaturation when flows exceed the intersection capacity. Represents jammed conditions. Many cycle failures. Queues may block upstream intersections.

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

Table 4.11-5
Intersection Level of Service, Summary Existing Conditions

#	Study Intersection	Traffic Control1	Peak Hour	Delay (seconds) 2	Level of Service
1.	Broadway/Manila Avenue/Monroe Avenue	Signal	Weekday PM	6.8	A
			Saturday MD	23.5	C
			Saturday PM	19.6	B
2.	Broadway/Broadway Terrace	Signal	Weekday PM	10.6	B
			Saturday MD	9.5	A
			Saturday PM	7.6	A
3.	Broadway/College Avenue	Signal	Weekday PM	9.8	A
			Saturday MD	12.9	B
			Saturday PM	12.5	B
4.	Broadway/Coronado Avenue/ Safeway Driveway	SSSC	Weekday PM	1.4 **(47.4)**	A **(E)**
			Saturday MD	1.5 **(40.6)**	A **(E)**
			Saturday PM	0.7 (19.6)	A (C)
5.	Broadway/Center Safeway Driveway	SSSC	Weekday PM	1.2 (16.5)	A (C)
			Saturday MD	1.0 (13.1)	A (B)
			Saturday PM	0.9 (11.4)	A (B)
6.	Broadway/South Safeway Driveway	SSSC	Weekday PM	0.3 (14.1)	A (B)
			Saturday MD	0.4 (12.2)	A (B)
			Saturday PM	0.2 (10.7)	A (B)
7.	Broadway/51st Street/Pleasant Valley Avenue	Signal	Weekday PM	49.3	D
			Saturday MD	**55.7**	**E**
			Saturday PM	47.1	D
8.	Broadway/45th Street	Signal	Weekday PM	9.7	A
			Saturday MD	11.1	B
			Saturday PM	7.5	A
9.	Broadway/40th Street/40th Street Way	Signal	Weekday PM	18.3	B
			Saturday MD	18.7	B
			Saturday PM	18.5	B
10.	Broadway/West MacArthur Boulevard	Signal	Weekday PM	34.6	C
			Saturday MD	36.7	D
			Saturday PM	31.9	C
11.	Martin Luther King Jr. Way/52nd Street	Signal	Weekday PM	26.3	C
			Saturday MD	13.7	B
			Saturday PM	16.9	B

Table 4.11-5
Intersection Level of Service, Summary Existing Conditions

#	Study Intersection	Traffic Control1	Peak Hour	Delay (seconds) 2	Level of Service
12.	Shattuck Avenue/52nd Street	Signal	Weekday PM	40.9	D
			Saturday MD	41.7	D
			Saturday PM	54.6	D
13.	Telegraph Avenue/Shattuck Avenue	Signal	Weekday PM	7.3	A
			Saturday MD	6.5	A
			Saturday PM	5.1	A
14.	Telegraph Avenue/52nd Street/ Claremont Avenue	Signal	Weekday PM	17.3	B
			Saturday MD	15.8	B
			Saturday PM	12.5	B
15.	Telegraph Avenue/51st Street	Signal	Weekday PM	**63.3**	**E**
			Saturday MD	50.1	D
			Saturday PM	47.2	D
16.	Shafter Avenue/51st Street	Signal	Weekday PM	11.9	B
			Saturday MD	11.4	B
			Saturday PM	10.8	B
17.	Gilbert Street/ Safeway Driveway/ Pleasant Valley Avenue	Signal	Weekday PM	12.8	B
			Saturday MD	14.8	B
			Saturday PM	15.2	B
18.	Montgomery Street/Pleasant Valley Avenue	SSSC	Weekday PM	0.8 **(40.8)**	A **(E)**
			Saturday MD	2.1 (32.1)	A (D)
			Saturday PM	0.9 (28.6)	A (D)
19.	Howe Street/Pleasant Valley Avenue	SSSC	Weekday PM	4.5 **(59.7)**	A **(F)**
			Saturday MD	12.4 (137.8)	B **(F)**
			Saturday PM	2.8 **(43.1)**	A **(E)**
20.	Piedmont Avenue/Pleasant Valley Avenue	Signal	Weekday PM	**55.7**	**E**
			Saturday MD	33.5	C
			Saturday PM	39.4	D
21.	Piedmont Avenue/41st Street	Signal	Weekday PM	10.3	B
			Saturday MD	10.3	B
			Saturday PM	9.6	A
22.	Moraga Avenue/Pleasant Valley Avenue	Signal	Weekday PM	24.2	C
			Saturday MD	20.4	C
			Saturday PM	16.3	B

Table 4.11-5
Intersection Level of Service, Summary Existing Conditions

#	Study Intersection	Traffic Control1	Peak Hour	Delay (seconds) 2	Level of Service
23.	Grand Avenue/ Arroyo Avenue/ Pleasant Valley Avenue	Signal	Weekday PM	7.6	A
			Saturday MD	7.3	A
			Saturday PM	5.8	A
24.	Hudson Street/Manila Avenue/ College Avenue	Signal	Weekday PM	31.0	C
			Saturday MD	20.2	C
			Saturday PM	18.5	B
25.	Desmond Street/Coronado Avenue	SSSC	Weekday PM	8.2 (9.3)	A (A)
			Saturday MD	8.3 (9.2)	A (A)
			Saturday PM	7.3 (9.2)	A (A)
26.	Coronado Avenue/51st Street	SSSC	Weekday PM	0.0 (11.2)	A (B)
			Saturday MD	0.0 (10.9)	A (B)
			Saturday PM	0.0 (10.8)	A (B)
27	Project Driveway/Pleasant Valley Avenue	SSSC	Weekday PM	0.2 (11.5)	A (B)
			Saturday MD	0.2 (13.4)	A (B)
			Saturday PM	0.4 (11.9)	A (B)

Bold indicates intersection operating at LOS E or LOS F.

1. Signal = signalized intersection; SSSC = side-street stop controlled intersection
2. For side-street stop controlled intersections, delay is reported as: intersection average (worst minor street approach); for signalized intersection, the average intersection delay is reported; for signalized intersections operating with high delay, volume-to-capacity (v/c) ratio is also reported. LOS for both unsignalized and signalized intersections based on 2000 HCM.

Source: Fehr & Peers, 2012.

Existing Signal Warrant Analysis

To assess consideration for signalization of stop-controlled intersections, the California *Manual of Uniform Traffic Control Devices* (CA MUTCD) (California Department of Transportation, 2010), presents eight signal warrants.

Generally, meeting one of the signal warrants could justify signalization of an intersection. However, meeting one or more of the signal warrants does not mean that the intersection must be signalized. Therefore, an evaluation of all applicable warrants should be conducted and additional factors (e.g., congestion, approach conditions, collision record) should be considered before the decision to install a signal is made. This EIR evaluates the peak hour vehicular volume warrant (Warrant 3) for urban conditions using the existing traffic count data because this warrant is one of the criteria of significance used by City of Oakland to determine if a project causes a significant impact. **Table 4.11-6** shows the results of the traffic signal warrant analysis. **Appendix 4.11D** provides detailed signal warrant assessments.

As shown in Table 4.11-6, the urban peak hour volume traffic signal warrant is currently satisfied at only the Howe Street/Pleasant Valley Avenue (#19) intersection, which meets the peak hour signal warrant

during the weekday PM and Saturday midday peak hours. The northbound approach of the intersection also operates at LOS F during both weekday PM and Saturday midday peak hours.

Table 4.11-6
Existing Peak Hour Signal Warrant Analysis

Intersection		Current Control[1]	Peak Hour Warrant Met?
4.	Broadway/Coronado Avenue	SSSC	No
5.	Broadway/Center Safeway Driveway	SSSC	No
6.	Broadway/South Safeway Driveway	SSSC	No
18.	Montgomery Street/Pleasant Valley Avenue	SSSC	No
19.	Howe Street/Pleasant Valley Avenue	SSSC	Yes
25.	Desmond Street/Coronado Avenue	SSSC	No
26.	Coronado Avenue/51st Street	SSSC	No
27.	Project Driveway/Pleasant Valley Avenue	SSSC	No

1. SSSC = side-street stop-controlled intersection
Source: Fehr & Peers, 2012.

ACTC Analysis of Existing Conditions

The ACTC conducts periodic monitoring of the freeways and major roadways in Alameda County. The most recent *Level of Service Monitoring on the Congestion Management Program Roadway Network* was released in September 2010. The ACTC monitoring report assesses existing freeway operations through "floating car" travel time surveys, which are conducted on all freeway segments during the PM peak hours (4:00 PM to 6:00 PM), and on selected freeway segments during the AM peak hours (7:00 AM to 9:00 AM). Based on the results of these surveys, ACTC assigns a LOS grade to each segment according to the method described in the 1985 HCM. Any segment with an average speed less than 30 miles per hour is assigned LOS F. Freeway interchanges with speeds below 50 percent of free flow speed are assigned LOS F. The travel time surveys concluded that 24 freeway segments, nine arterial segments and two freeway-to-freeway connectors within Alameda County operate at LOS F during the PM peak hours, including the following eight freeway and freeway-to-freeway connector segments in the Project vicinity:

- I-580 eastbound: I-80 to I-980 (grandfathered segment)
- I-580 eastbound: Harrison Street to Lakeshore Drive
- I-980 eastbound: I-880 to I-580/SR 24 junction (grandfathered segment)
- SR 13 southbound: Hiller Drive to Moraga Avenue
- SR 13 southbound: Redwood Road to I-580 eastbound merge
- SR 24 eastbound: I-580 to Broadway/SR 13 (grandfathered segment)
- SR 24 eastbound: Broadway/SR 13 to Caldecott Tunnel (grandfathered segment)
- SR 13/SR 24 Interchange: SR 13 northbound to SR 24 eastbound (grandfathered segment)

Five of these segments operated at LOS F during the initial ACTC data collection effort in 1991, and are therefore "grandfathered," meaning that they are exempt from LOS standards. The other three segments are not exempt meaning that they operate at unacceptable conditions based on ACTC standards. .

Collision Characteristics

Five years (2005-2009) of collision data was collected from the California Highway Patrol (CHP) for Broadway between 40th Street and Manila Avenue and 51st Street/Pleasant Valley Avenue between Telegraph and Piedmont Avenues. **Table 4.11-7** summarizes the collision history for both corridors.

Table 4.11-7
Study Area Collision Data Summary[1]

	Broadway [2]		Pleasant Valley Avenue/ 51st Street[3]	
Metric	**Number**	**Percent**	**Number**	**Percent**
Total Collisions	128	--	107	--
Collisions Involving Only Vehicles	108	84%	97	91%
Collisions Involving Pedestrians and Vehicles	7	5%	4	4%
Collisions Involving Bicyclists and Vehicles	13	10%	6	6%
Collisions that Resulted in Injury	30	23%	22	21%
Vehicle Only Collisions Resulting in Injury[4]	15	14%	14	14%
Pedestrian/Vehicle Collisions Resulting in Injury[5]	5	71%	2	50%
Bicycle/Vehicle Collisions Resulting in Injury[6]	10	77%	6	100%
Collisions that Resulted in Fatality	1	< 1%	0	0%

1. Collision history data summarized for the five year period between 2005 and 2010
2. Broadway between 40th Street and Manila Avenue
3. Pleasant Valley Avenue/ 51st between Telegraph and Piedmont Avenues
4. Percentage reflects the number of vehicle/vehicle collisions resulting in injury divided by the total number of vehicle/vehicle collisions
5. Percentage reflects the number of pedestrian/vehicle collisions resulting in injury divided by the total number of pedestrian/vehicle collisions
6. Percentage reflects the number of bicycle/vehicle collisions resulting in injury divided by the total number of bicycle/vehicle collisions

Source: California Highway Patrol SWITRS data between 2005 and 2009.

As shown in Table 4.11-7, 128 collisions were reported along Broadway and 107 collisions were reported along Pleasant Valley Avenue/51st Street. Out of the 128 reported collisions along Broadway, seven (about five percent) involved pedestrians and thirteen (ten percent) involved bicyclists.

About 23 percent of all collisions along Broadway resulted in injury, including 71 percent of collisions involving pedestrians and 77 percent of collisions involving bicyclists. In contrast, about 14 percent of vehicle-vehicle collisions resulted in injury. One fatal collision was reported along this segment of Broadway during the five-year period. The fatal collision occurred on a Saturday in November 2008 at Broadway/Ridgeway Avenue intersection when a vehicle collided with a pedestrian in the crosswalk across Broadway in rainy conditions during daytime.

Out of the 107 collisions reported along 51st Street/Pleasant Valley Avenue, four (about four percent) involved pedestrians and six (six percent) involved bicyclists. About 21 percent of all collisions along

51st Street/Pleasant Valley Avenue resulted in injury, including 50 percent of collisions involving pedestrians and 100 percent of collision involving bicyclists. In contrast, about 14 percent of vehicle-vehicle collisions resulted in injury. No fatalities were reported along 51st Street/Pleasant Valley Avenue for the five-year period.

Table 4.11-8 summarizes collisions by location along Broadway and 51st Street/Pleasant Valley Avenue for years 2005 through 2009. As shown in Table 4.3-8, the highest number of collisions was reported at the 51st Street/Telegraph Avenue intersection, with a total of 25 collisions over the five-year period, with four resulting in injuries. Although fewer overall collisions were reported at the 40th Street/Broadway intersection, more collisions (seven) resulted in injury than other intersections.

Vehicle collisions with pedestrians and bicycles accounted for about 13 percent of reported collisions in the study area. The Broadway/ Ridgeway Avenue intersection had the highest number of collisions involving pedestrians and bicyclists over the five year period.

Table 4.11-8 also summarizes collision rates per million vehicles at locations where existing traffic volumes are available. This analysis assumes that the average daily traffic volumes are ten times the PM peak hour volume. The average collision rate in the study area is about 0.20 collisions per million vehicles. The highest collision rates occurred at the 40th Street/Broadway and 51st Street/Telegraph Avenue intersections, where the collision rates were 0.45 and 0.41 collisions per million vehicles, respectively.

Table 4.11-8
Study Area Collision Location Summary[1]

Location	Total Collisions	Collisions Involving Pedestrians	Collisions Involving Bicyclists	Collisions Resulting in Injury	Collisions Resulting in Fatality	Collision Rate[2]
Broadway/Manila Avenue/Monroe Avenue intersection	6	0	0	1	0	0.23
Broadway between Manila Avenue and Ada Street	1	0	0	0	0	0.05
Broadway/Napa Street	1	0	0	0	0	N/A
Broadway between Napa Street and Broadway Terrace	7	1	1	2	0	0.35
Broadway/Broadway Terrace intersection	5	0	1	1	0	0.17
Broadway/Clifton Street intersection	1	0	0	0	0	N/A
Broadway/College Avenue intersection	1	0	0	0	0	0.02
Broadway/Coronado Ave intersection	2	0	0	0	0	0.05
Broadway between Coronado Avenue and 51st Street	6	0	1	1	0	0.15
Broadway between Pleasant Valley Avenue and 49th Street	8	1	2	4	0	0.28
Broadway/49th Street intersection	4	1	0	1	0	N/A
Broadway/45th Street intersection	4	0	0	0	0	0.11

Table 4.11-8
Study Area Collision Location Summary[1]

Location	Total Collisions	Collisions Involving Pedestrians	Collisions Involving Bicyclists	Collisions Resulting in Injury	Collisions Resulting in Fatality	Collision Rate[2]
Broadway between 45th Street and 42nd Street	7	0	0	1	0	0.22
Broadway/42nd Street/Mather Street intersection	9	0	0	2	0	N/A
Broadway/Garnet Street intersection	2	0	0	0	0	N/A
Broadway/Ridgeway Avenue intersection	9	2	3	4	1	N/A
Broadway between 41st Street and Ridgeway Avenue	7	0	1	1	0	0.24
Broadway/41st Street intersection	21	0	1	3	0	N/A
Broadway/40th Street intersection	19	2	2	7	0	0.45
51st Street/Telegraph Ave intersection	25	2	2	4	0	0.41
51st Street/Clarke Street intersection	5	0	0	0	0	N/A
51st Street/Miles Avenue intersection	1	0	0	0	0	N/A
51st Street/Webster Street intersection	3	0	0	1	0	N/A
51st Street/Shafter Avenue intersection	10	1	0	4	0	0.31
51st Street/Manila Avenue intersection	4	0	0	1	0	N/A
51st Street between Manila and Coronado Avenues	1	0	0	0	0	0.03
51st Street/Pleasant Valley Avenue/ Broadway intersection	14	0	1	3	0	0.20
Pleasant Valley Avenue between Broadway and Gilbert Street	9	0	2	3	0	0.23
Pleasant Valley Avenue/Gilbert Street intersection	8	0	0	1	0	0.17
Pleasant Valley Avenue/ Montgomery Street intersection	3	1	0	1	0	0.08
Pleasant Valley Avenue between Montgomery and Howe Streets	8	0	0	0	0	0.23
Pleasant Valley Avenue/Howe Street intersection	8	0	0	2	0	0.22
Pleasant Valley Avenue/Piedmont Avenue intersection	8	0	1	2	0	0.19

1. Collision history data summarized for the five year period between 2005 and 2009
2. Collision rate per million vehicles entering the intersection or roadway segment.

Source: California Highway Patrol SWITRS data between 2005 and 2009 as summarized by Fehr & Peers, 2012.

Planned Transportation Network Changes

A review of the available information indicates that several changes are planned for the various transportation modes in the study area, as described below. However, not all of these changes have finalized design plans, full approvals, and/or are not funded. Changes lacking final design, full approval and full funding are not available to mitigate any deficient conditions in the No Project conditions, and therefore are not assumed in the analysis.

Planned Roadway Changes

The following roadway modifications have been recently implemented or are currently planned at the study intersections:

- Broadway/40th Street (#9) intersection – The following improvements were implemented in summer 2012:
  - Modify northbound approach from the current configuration which provides one shared through/right lane, one through lane, and one shared through/left-turn lane to provide one shared right-turn/through lane, one through lane, and one left-turn lane.
  - Modify traffic signal equipment to provided protected/permissive phasing for the northbound left-turn movement.

  This improvement was designed, approved, and implemented after the NOP for this EIR was published. Therefore, it is not included in the Existing or Existing Plus Project conditions. However, it is included in the analysis of future conditions. In addition, the improvement has negligible effect on intersection operations.
- Broadway/West MacArthur Boulevard (#10) intersection – The following improvements are designed, approved, and scheduled to be implemented in 2013 as part of the Kaiser Medical Center Project:
  - Modify eastbound approach from the current configuration which provides one right-turn lane, two through lanes, and one left-turn lane to provide one shared through/right lane, two through lanes, and one left-turn lane.
  - Modify northbound approach from the current configuration which provides one shared through/right lane, one through lane, and one left-turn lane to provide one right-turn lane, two through lanes, and one left-turn lane.

No other roadways changes are currently planned in the study area. However, transit, and bicycle and pedestrian improvements that would change roadway configurations are discussed in the sections below.

Planned Transit Changes

AC Transit is currently planning the Route 51 Transit Performance Initiative which will consist of improvements along Broadway to increase bus travel speeds. These improvements may include traffic signal coordination, transit priority at traffic signals, relocation of bus stops, providing bus bulbouts, left or right turn lanes, and/or queue jump lanes. The project has full funding and is expected to be completed in 2014. However, the specific improvements and the exact locations are not known at this time. Therefore, these improvements are not included in the analysis of future conditions.

In 2012, AC Transit certified the *Environmental Impact Statement/Environmental Impact Report* for the implementation of Bus Rapid Transit (BRT) on Telegraph Avenue and International Boulevard connecting Berkeley, Oakland, and San Leandro. The proposed system would dedicate one travel lane in

each direction to bus operations only, allowing buses to provide a quicker and more reliable service than regular bus service today. AC Transit is proceeding with the segment of the project between Downtown Oakland and San Leandro. Currently, there are no plans to implement BRT along Telegraph Avenue. Since the segment of BRT that would be implemented would not affect the study intersections, this EIR assumes that the BRT Project will not be provided in the study area.

Planned Bicycle/Pedestrian Changes

Planned bicycle facilities in the Project vicinity include:

- City of Oakland completed bicycle facilities on 41st Street between Webster Street and Piedmont Avenue in March 2012. The project installed amenities such as sharrows and signage consistent with Class 3B bicycle boulevards, with the exception of the segment between Montgomery Street and Piedmont Avenue, which provides Class 2 bicycles lanes. Since the project did not modify the existing travel lane configurations or controls at any of the existing study intersections, it does not change traffic patterns in the area or affect the intersection operations analysis. This project is not included in the Existing or Existing plus Project conditions analysis because it was designed, approved, and implemented after the NOP for this EIR was published; however, it is assumed in the analysis of future conditions.
- City of Oakland upgraded the existing Class 3 bicycle route on the Shafter Avenue-48th Street-Webster Street corridor between 29th Street Berkeley City limits to Class 3B bicycle boulevard in May 2012 by installing amenities such as sharrows and signage. Since the project did not modify the existing travel lane configurations or controls at any of the existing study intersections, it does not change traffic patterns in the area or affect the intersection operations analysis. This project is not included in the Existing or Existing plus Project conditions analysis because it was designed, approved, and implemented after the NOP for this EIR was published; however, it is assumed in the analysis of future conditions.
- City of Oakland has completed design for Class 2 bicycle lanes on Piedmont Avenue between MacArthur Boulevard and Pleasant Valley Avenue. Since the project would not modify the existing travel lane configurations or controls at any of the existing study intersections, it would not affect the intersection operations analysis. This project is approved, fully funded, and scheduled to be completed in 2013. Therefore, this project is assumed in the analysis of future conditions.
- City of Oakland is currently designing Class 2 bicycle lanes on Broadway between 38th Street and SR 24. The project would accommodate the bicycle lanes by generally eliminating one travel lane in each direction of Broadway. The project is fully funded, and the segment between 38th Street and Broadway Terrace has been approved. Although the project is not assumed in the analysis of future conditions because it was neither approved nor funded in 2009 when the NOP for the Safeway Redevelopment Project was published, **Appendix 4.11E** provides an analysis of future conditions with the proposed Broadway bike lanes and with and without the proposed project.
- City of Oakland is designing a Class 3A arterial bicycle route on College Avenue between Broadway and Berkeley City limits. Since the project would not modify the existing travel lane configurations or controls at any of the existing study intersections, it would not affect the intersection operations analysis. This project is approved, fully funded, and scheduled to be completed in the next few years. Therefore, this project is assumed in the analysis of future conditions.
- City of Oakland is designing a combination of Class 2 bicycle lanes and Class 3A arterial bicycle routes on Shattuck Avenue between Telegraph Avenue and City of Berkeley. Since the project would not modify the existing travel lane configurations or controls at any of the existing study intersections, it would not affect the intersection operations analysis. This project is approved, fully

funded, and scheduled to be completed in 2013. Therefore, this project is assumed in the analysis of future conditions.

In addition, The City of Oakland's 2007 *Bicycle Master Plan Update* identifies the following streets in the project vicinity for future bicycle improvements (see Figure 4.11-4):

- Class 2 Bicycle Lanes on Broadway Terrace east of Carlton Street.
- Class 3A Arterial Bicycle Routes on 51st Street/Pleasant Valley Avenue, and Broadway Terrace west of Carlton Street.

None of these improvements are currently planned for implementation, have finalized design plans, or are fully funded. Thus, this EIR assumes that these changes will not be provided in the study area.

According to the City Oakland's *Pedestrian Master Plan*, there are no planned pedestrian improvements in the vicinity of the project site.

The Caldecott Tunnel Improvement Project Settlement Agreement

The Caldecott Tunnel Improvement Project Settlement Agreement provides funds to the Fourth Bore Coalition, and Cities of Oakland and Berkeley to ameliorate the impacts of adding a fourth bore to the Caldecott Tunnel in the greater community surrounding the SR 24 corridor between I-580 and Caldecott Tunnel, and improve pedestrian, bicycle, transit, and local circulation.

City of Oakland finalized and approved a list of 37 improvement projects in March 2011 based on public input and preliminary conceptual designs and cost estimates. The cost of all improvements projects in the City of Oakland's final project list exceeds the funding provided by the Settlement Agreement. Thus, the project list has been prioritized with 21 improvement projects expected to be funded. This EIR assumes that improvement projects expected to be funded that do not require approvals by other jurisdictions would be completed regardless of the proposed 51st and Broadway Center project and are included in the analysis of future conditions. In addition, these improvement projects are also discussed as part of potential project mitigation measures at locations where the proposed project causes a significant impact. Out of the 37 improvement project approved in March 2011, five are located in the study area. These final improvement projects in the study area and their current status are described below:

- Broadway/Manila Avenue/Monroe Avenue intersection (intersection #1) – Extend bulbouts at intersection corners, and upgrade traffic signal control equipment to allow countdown pedestrian signal heads and accessible pedestrian push-buttons. This improvement is not currently one of the 21 improvement projects expected to be funded. Therefore, it is not included in the analysis of future conditions.
- 52nd Street/Shattuck Avenue intersection (#12) - Install a traffic signal at eastbound SR 24 off-ramp on 52nd Street just west of Shattuck Avenue and coordinate with the existing signal, Tee 52nd Street into 51st Street. This improvement is currently one of the 21 improvement projects expected to be funded. Therefore, it is included in the analysis of future conditions. Since the project would not modify the existing travel lane configurations or controls at 52nd Street/Shattuck Avenue intersection, it would not affect the intersection operations analysis.
- Telegraph Avenue/52nd Street/Claremont Avenue intersection (#14) – Eliminate the slip right-turn lane from northbound Telegraph Avenue to Claremont Avenue, upgrade traffic signal control equipment to allow countdown pedestrian signal heads. This improvement is not currently one of the 21 improvement projects expected to be funded. Therefore, it is not included in the analysis of future conditions.
- Hudson Street/Manila Avenue/College Avenue intersection (#24) – Extend bulbouts on the west side of the intersection, upgrade traffic signal control equipment to allow countdown pedestrian signal heads, and provide a new north-south crosswalk along the west side of College Avenue. This

improvement is not currently one of the 21 improvement projects expected to be funded. Therefore, it is not included in the analysis of future conditions.

- Upgrade traffic signal equipment along Broadway between 40th Street and College Avenue to provide transit priority for AC Transit Route 51A buses. This improvement is not currently one of the 21 improvement projects expected to be funded at this time. Therefore, it is not included in the analysis of future conditions.

Regulatory Setting

AC Transit

Short-Range Transit Plan

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

Goal 1: Provide High Quality, Useful Transit Service for Customers in the East Bay.

Goal 4: Plan and Advocate for the Funding and Implementation of Future Projects.

- Work with City and Local agencies to make transit usage as safe, secure, reliable, and quick as possible and to promote transit usage in the planning process.
- Promote "Transit First" development practices and increased funding for transit through transit mitigation funding for new developments.

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

City of Oakland

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

- General Plan LUTE
- City of Oakland Pedestrian Master Plan
- City of Oakland Bicycle Master Plan
- City of Oakland Public Transit and Alternative Modes Policy
- City of Oakland Standard Conditions of Approval

General Plan

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

> *LUTE Policy Framework: Encouraging Alternative Means of Transportation*. "A key challenge for Oakland is to encourage commuters to carpool or use alternative modes of transportation, including bicycling or walking. The Policy Framework proposes that congestion be lessened by promoting alternative means of transportation, such as transit, biking, and walking, providing facilities that support alternative modes, and implementing street improvements. The City will continue to work closely with local and regional transit providers to increase accessibility to transit and improve intermodal transportation connections and facilities. Additionally, policies support the introduction of light rail and trolley buses along appropriate arterials in heavily traveled corridors, and expanded use of ferries in the bay and estuary." [4]
>
> *Policy T3.5, Including Bikeways and Pedestrian Walks:* The City should include bikeways and pedestrian walks in the planning of new, reconstructed, or realized streets, wherever possible.
>
> *Policy T3.6, Encouraging Transit*. The City should encourage and promote use of public transit in Oakland by expediting the movement of and access to transit vehicles on designated "transit streets" as shown on the Transportation Plan. (Policies T3.6 and T3.7 are based on the City Council's passage of "Transit First" policy in October 1996)
>
> *Policy T3.7, Resolving Transportation Conflicts:* The City, in constructing and maintaining its transportation infrastructure, should resolve any conflicts between public transit and single occupant vehicles in favor of the transportation mode that has the potential to provide the greatest mobility and access for people, rather than vehicles, giving due consideration to the environmental, public safety, economic development, health and social equity impacts.
>
> *Policy T4.1, Incorporating Design Features for Alternative Travel:* The City will require new development, rebuilding, or retrofit to incorporate design features in their projects that encourage use of alternative modes of transportation such as transit, bicycling, and walking.

Pedestrian Master Plan. In November 2002, the *Pedestrian Master Plan* (PMP) was adopted by the City Council and incorporated into the adopted *General Plan*. The PMP identifies policies and implementation measures that promote a walkable City. In the study area, the PMP designates a Pedestrian Route Network throughout Oakland and identifies Broadway and 51st Street/Pleasant Valley Avenue as City Routes, Broadway Terrace and Piedmont Avenue as District Routes, and Shafter Avenue, and Clifton and 45th Streets as Neighborhood Routes. The *PMP* includes the following relevant policies and actions:

> *Policy 1.1 Crossing Safety*: Improve pedestrian crossings in area of high pedestrian activity where safety is an issue.
>
> > *Action 1.1.1:* Consider the full range of design elements – including bulbouts and refuge islands – to improve pedestrian safety.
>
> *Policy 1.2: Traffic Signals*: Use traffic signals and their associated features to improve pedestrian safety at dangerous intersections.
>
> > *Action 1.2.7:* Consider using crossing enhancement technologies like countdown pedestrian signals at the highest pedestrian volume locations.

[4] Oakland General Plan, *Land Use and Transportation Element*, page 48.

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

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

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

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

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

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

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

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

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

Action 3.2.1. Use building and zoning codes to encourage a mix of uses, connect entrances and exits to sidewalks, and eliminate "blank walls" to promote street level activity.

Action 3.2.2. Promote parking and development policies that encourage multiple destinations within an area to be connected by pedestrian trips.

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

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

Bicycle Master Plan. The Oakland City Council adopted the Oakland *Bicycle Master Plan Update* in December 2007. The adopted plan includes the following policy-supporting actions that are applicable to the proposed Project:

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

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

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

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

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

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

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

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

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

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

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

City of Oakland Public Transit and Alternative Modes Policy

The City of Oakland adopted the Public Transit and Alternative Modes Policy, also known as the "Transit-First Policy," in October 2006 (City Council Resolution 73036 C.M.S.). This resolution supports public transit and other alternatives to single occupant vehicles, and directs the LUTE to incorporate "various methods of expediting transit services on designated streets, and encouraging greater transit use."

Standard Conditions of Approval and Uniformly Applied Development Standards

If the proposed Project is approved by the City, then all applicable Standard Conditions of Approval (SCA) for construction traffic and parking would be adopted as conditions of approval and required of the Project to help ensure less-than-significant impacts (for the applicable topic). These SCAs are incorporated and required as part of the Project, so they are not listed as mitigation measures.

SCA-Trans-1: **Parking and Transportation Demand Management**. *Prior to issuance of a final inspection of the building permit.* The applicant shall pay for and submit for review and approval by the City a Transportation Demand Management (TDM) plan containing strategies to:

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

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

a. Inclusion of additional long term and short term bicycle parking that meets the design standards set forth in chapter five of the Bicycle Master Plan, and Bicycle Parking Ordinance, shower, and locker facilities in commercial developments that exceed the requirement.

b. Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority Bikeway Projects, on-site signage and bike lane striping.

c. Installation of safety elements per the Pedestrian Master Plan (such as cross walk striping, curb ramps, count-down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials.

d. Installation of amenities such as lighting, street trees, trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.

e. Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements.

f. Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency).

g. Employees or residents can be provided with a subsidy, determined by the applicant and subject to review by the City, if the employees or residents use transit or commute by other alternative modes.

h. Provision of shuttle service between the development and nearest mass transit station, or ongoing contribution to existing shuttle or public transit services.

i. Guaranteed ride home program for employees, either through 511.org or through separate program.

j. Pre-tax commuter benefits (commuter checks) for employees.

k. Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants.

l. Onsite carpooling and/or vanpooling program that includes preferential (discounted or free) parking for carpools and vanpools.

m. Distribution of information concerning alternative transportation options

n. Parking spaces sold/leased separately for residential units. Charge employees for parking, or provide a cash incentive or transit pass alternative to a free parking space in commercial properties.

o. Parking management strategies; including attendant/valet parking and shared parking spaces.

p. Requiring tenants to provide opportunities and the ability to work off-site.

q. Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite.

r. Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours.

The applicant shall submit an annual compliance report for review and approval by the City. This report will be reviewed either by City staff (or a peer review consultant, chosen by the City and paid

for by the applicant). If timely reports are not submitted, the reports indicate a failure to achieve the stated policy goals, or the required alternative mode split is still not achieved, staff will work with the applicant to find ways to meet their commitments and achieve trip reduction goals. If the issues cannot be resolved, the matter may be referred to the Planning Commission for resolution. Applicants shall be required, as a condition of approval, to reimburse the City for costs incurred in maintaining and enforcing the trip reduction program for the approved Project.

SCA Trans-2: 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.

f. Provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces.

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

h. Any heavy equipment brought to the construction site shall be transported by truck, where feasible.

i. No materials or equipment shall be stored on the traveled roadway at any time.

j. Prior to construction, a portable toilet facility and a debris box shall be installed on the site, and properly maintained through project completion.

k. All equipment shall be equipped with mufflers.

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

Project Transportation Characteristics

Project Description

The Project is located on the northeast quadrant of the Broadway and 51st Street/Pleasant Valley Avenue intersection in Oakland. The Project site currently provides 185,500 square feet of retail, including a 48,000 square-foot Safeway supermarket, an 87,200 square-foot CVS Pharmacy (formerly the Longs Drug Store), and 50,300 square-feet of other retail space. Automobile access to the existing site is currently provided through one full-access unsignalized driveway and two right-in/right-out only driveways on Broadway, as well as one full access signalized driveway and one right-in/right-out driveway on Pleasant Valley Avenue.

The proposed Project would include a total of about 293,200 square feet of space[5]. It would include demolishing the existing 87,200 square foot CVS Pharmacy, relocating the 48,000 square foot Safeway to a new 65,000 square-foot space (for a net Safeway increase of 17,000 square feet of grocery), and by increasing the amount of total other commercial space (containing a mix of retail, restaurant, and office uses) by a net new amount of approximately 177,900 square feet.

The Project proposes the following automobile access to the site:

- A full-access signalized driveway on Broadway opposite Coronado Avenue
- A full-access signalized driveway on Pleasant Valley Avenue opposite Gilbert Street
- A right-in/right-out unsignalized driveway on Pleasant Valley Avenue just east of Gilbert Street

The proposed Project would also provide 967 off-street parking spaces in the following locations:

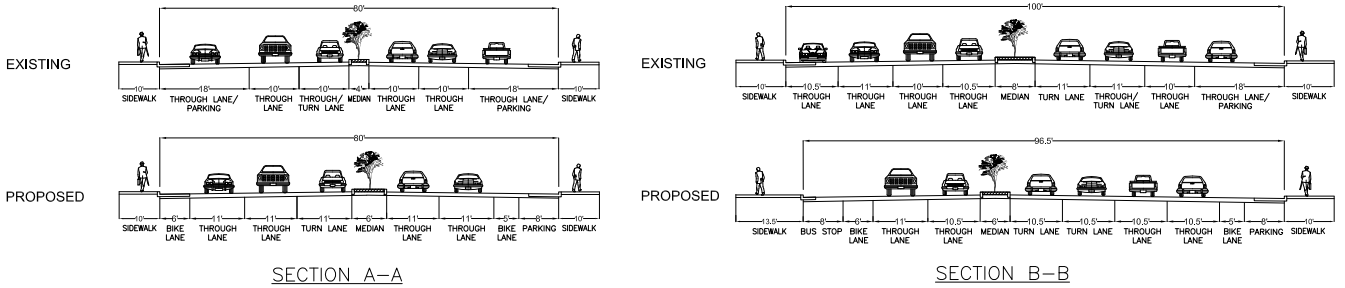
- Deck on top of the proposed Safeway and adjacent buildings (Buildings A, B, and C) providing 267 parking spaces
- Three level parking structure in the west portion of the site (Buildings H and J) providing 362 parking spaces
- Surface parking throughout the site providing 338 parking spaces

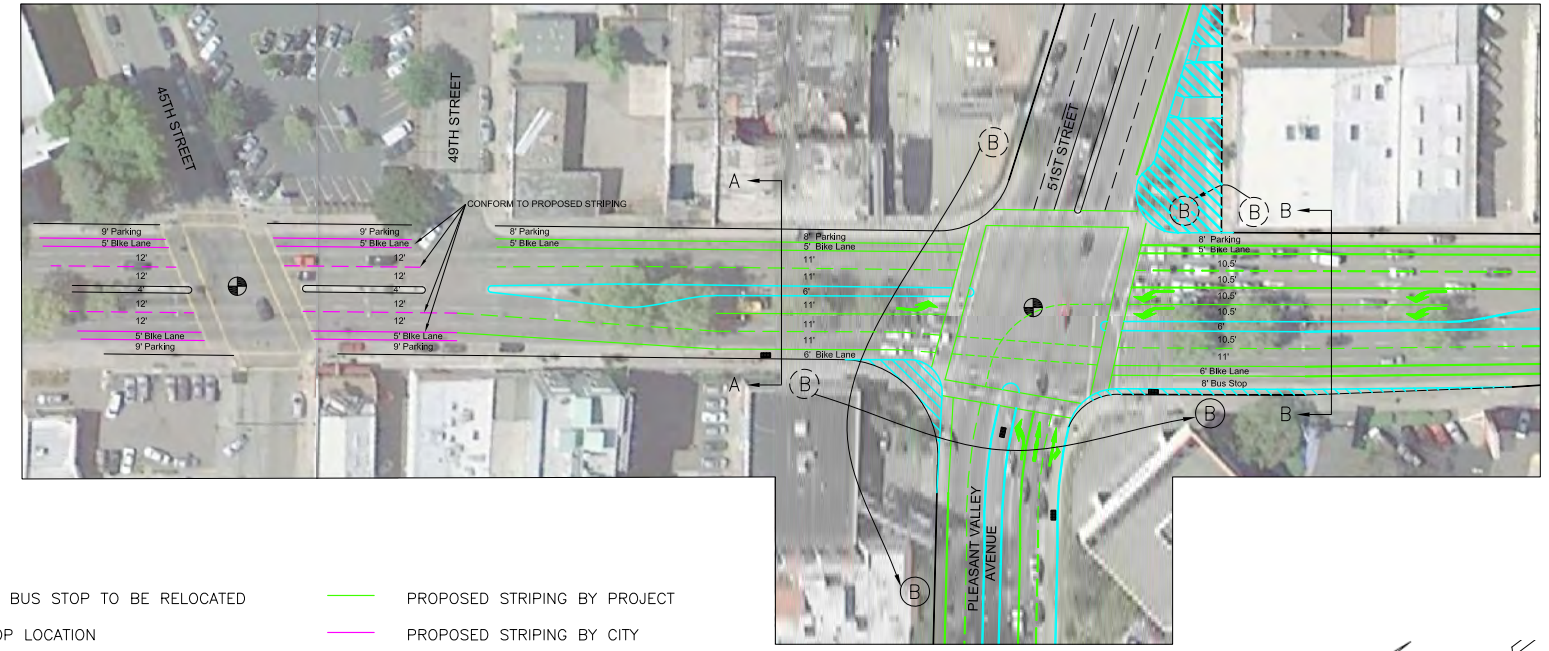
Project Roadway Modifications

The Project proposes roadway modifications to generally improve access and circulation around the site for all travel modes and specifically provide signalized left-turn access on Broadway to and from the Project site. The City of Oakland 2007 *Bicycle Master Plan Update* identifies Broadway as a future Class 2 (dedicated bicycle lanes) and Pleasant Valley Avenue as a future Class 3A (Arterial Bike Route) facility. The *Broadway Corridor Bikeway Feasibility Study* (March 2007) proposed to accommodate the Class 2 bicycle lanes on Broadway by reducing the number of automobile lanes from three to two in each direction. The proposed modifications incorporate comments from City of Oakland and AC Transit staff.

Figure 4.11-11 and **Figure 4.11-12** show the following proposed roadway modifications on Broadway and **Figure 4.11-13** shows the proposed roadway modifications on 51st Street/Pleasant Valley Avenue.

[5] As described in Chapter 3, Project Description, the Project would consist of approximately 323,000 square feet of gross space, including approximately 293,200 square feet of gross leasable area, and approximately 29,800 square feet of common space. The 293,200 square feet of gross leasable area is the space expected to generate Project trips.





LEGEND:

- (B) EXISTING BUS STOP TO BE RELOCATED
- (B) BUS STOP LOCATION
- EXISTING CURB/MEDIAN/STRIPING
- PROPOSED CURB/MEDIAN BY PROJECT
- PROPOSED STRIPING BY PROJECT
- PROPOSED STRIPING BY CITY
- EXISTING DRAINAGE INLET

80 0

80 0 80 160
1" = 80' GRAPHIC SCALE

Figure 4.11-11
Proposed Conceptual Plan for Broadway, Lower Section

Source: Fehr & Peers

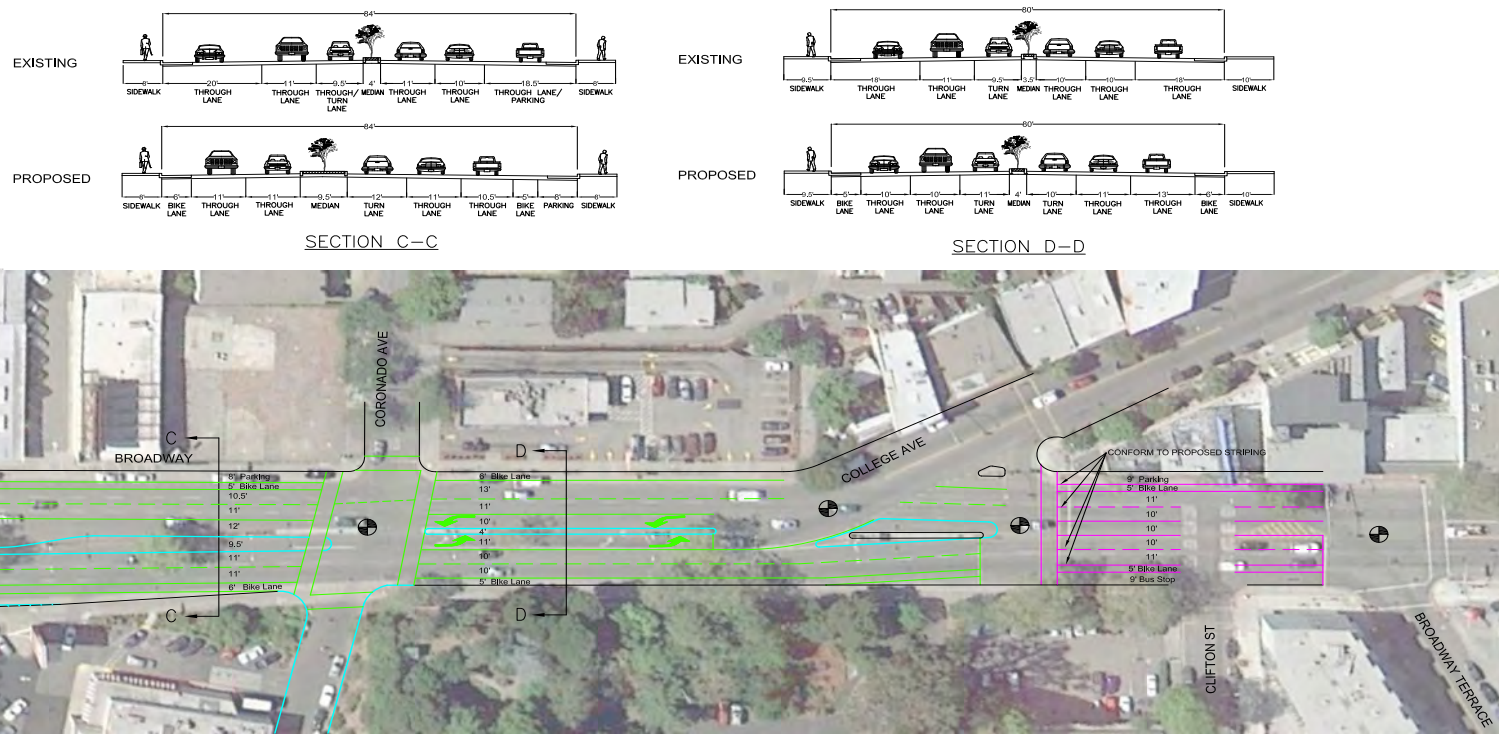


Figure 4.11-12
Proposed Conceptual Plan for Broadway, Upper Section

Source: Fehr & Peers

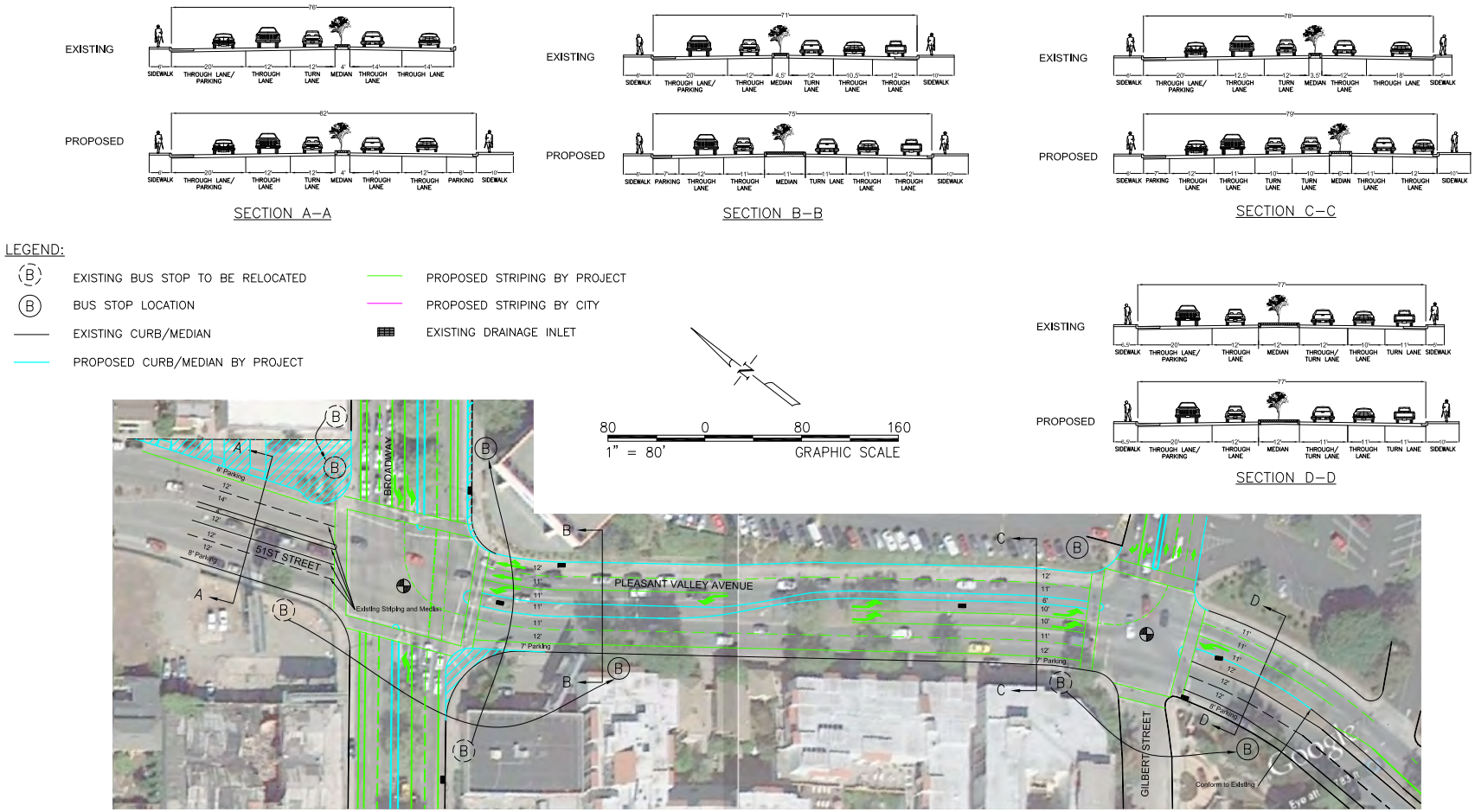


Figure 4.11-13
Proposed Conceptual Plan for Pleasant Valley Avenue

Source: Fehr & Peers

- Reduce Broadway from three through lanes to two through lanes in each direction between College Avenue and 49th Street.
- Provide Class 2 bicycle lanes on both sides of Broadway between College Avenue and just south of 51st Street/Pleasant Valley Avenue. It is anticipated that City of Oakland will install Class 2 bicycle lanes on Broadway in conjunction with a resurfacing project expected in 2013. The bicycle lanes proposed by the Project are consistent with the City project. If the City project is implemented prior to the proposed Safeway Redevelopment Project, the proposed roadway modifications associated with the Safeway Redevelopment Project must retain the same level of quality as the City improvements. For example, after the City repaves the street, the City will not accept patch repaving for utility excavations in the public right-of-way for the Safeway Redevelopment Project; utility work would either need to be trenchless or the entire street repaved to the median. If the 51st and Broadway Center Project is implemented prior to the City project, the City project would conform to the Safeway Redevelopment Project. Figure 4.11-11 illustrates the expected configuration of Broadway after the implementation of the Class 2 bicycle lanes along Broadway.
- Eliminate two existing right-in/right-out project driveways on Broadway between Pleasant Valley Avenue and Coronado Avenue.
- Signalize the project driveway on Broadway opposite Coronado Avenue to provide left-turns in and out of the Project site. The proposed signal would be coordinated with the existing signals on Broadway at 45th Street, 51st Street/Pleasant Valley Avenue, College Avenue, and Broadway Terrace. The intersection would provide an exclusive left-turn lane from southbound Broadway to the Project site. The proposed signal would also provide a protected pedestrian crossing connecting the residential neighborhood west of Broadway to the Project site.
- Eliminate the five metered on-street parking spaces on the west side of Broadway between College and Coronado Avenues. The parking meters can be replaced by converting the parking spaces on Broadway between Coronado Avenue and 51st Street/Pleasant Valley Avenue from unrestricted to metered spaces.
- Modify the northbound left-turn lane on Broadway at College Avenue in order to provide left-turn access into the existing Wendy's Restaurant. The provision for the southbound left-turn lane from Broadway into the Project site would require the elimination of the existing median break that provides access to Wendy's Restaurant from northbound Broadway.
- Following modifications at the Broadway/51st Street/Pleasant Valley Avenue intersection:
    - Modify southbound approach from the current configuration which provides one shared right/ through lane, one exclusive through lane, one shared through/left lane, and one exclusive left-turn lane to provide one shared right/through lane, one through lane, and two left-turn lanes. In addition, the southbound approach would also provide a six-foot wide median pedestrian refuge island.
    - Modify northbound approach from the current configuration which provides one shared right/ through lane, one through lane, and one shared through/left lane to provide one shared right/ through lane, one through lane, and one exclusive left-turn lane. In addition, the northbound approach would also provide a six-foot wide median pedestrian refuge island. These modifications would result in loss of four on-street parking spaces on the east side of Broadway just south of 51st Street/Pleasant Valley Avenue.
    - Upgrade intersection signal equipment to replace the existing split phasing with protected left-turn phasing in the north/south direction, which will result in more efficient and safer signal operations.
    - Eliminate the existing northbound and southbound right-turn slip lanes and pork chop islands (northwest and southeast corners of the intersection, respectively). The reconstructed northwest

corner of the intersection would be designed to accommodate access to the three driveways that would lose their access. In addition, the reconstructed northwest corner would also be redesigned to provide four parking spaces on 51st Street to replace the five parking spaces on the slip lane that would be eliminated.

  - Widen the median on the westbound Pleasant Valley Avenue approach to provide an 11-foot wide median pedestrian refuge island.

- Following modifications at the Gilbert Street/Project Driveway/Pleasant Valley Avenue intersection:
  - Provide a second left-turn lane from eastbound Pleasant Valley Avenue into the Project site.
  - Modify westbound approach from the current configuration which provides one right-turn lane, one through lane, and one shared through/left lane to provide one shared right/ through lane, one through lane, and one exclusive left-turn lane within the current right-of-way.
  - Provide one right-turn lane and a shared through/left-turn lane on the southbound Project Driveway.
  - Upgrade intersection signal equipment to replace the existing permitted left-turn phasing with protected phasing for the westbound Pleasant Valley Avenue left-turn movement.
- Move the following bus stops from the near-side to the far-side of the intersection:
  - Northbound Broadway from just south of Pleasant Valley Avenue to north of Pleasant Valley Avenue. The proposed configuration would result in an eight-foot wide bus stop just north of Pleasant Valley Avenue. In addition, the adjacent sidewalk would also be widened by three feet.
  - Eastbound 51st Street/Pleasant Valley Avenue from just west of Broadway to about 150 feet east of Broadway. This would also result in loss of four on-street parking spaces east of Broadway which can be replaced west of Broadway. In addition, one or more trees may also need to be removed to accommodate the new bus stop.
  - Eastbound Pleasant Valley Avenue from just west to just east of Gilbert Street.

The proposed modifications along Broadway can be accommodated within the existing curb-to-curb right-of-way. Providing a second left-turn lane from eastbound Pleasant Valley Avenue into the Project site would require widening Pleasant Valley Avenue. Pleasant Valley would be widened from 71 feet (curb-to-curb) to 75 feet just east of Broadway, and from 78 feet to 79 feet just west of Gilbert Street.

Project Trip Generation

Fehr & Peers collected vehicle counts during the weekday and Saturday PM peak and midday periods at the five shopping center driveways on Broadway and Pleasant Valley Avenue to estimate the total amount of vehicle trips generated by the existing site. Fehr & Peers also counted customers at both Safeway and CVS Pharmacy and conducted in-person intercept surveys at both stores during the weekday and Saturday PM peak period. The survey included questions such as travel mode choice, amount of time at the store, and if customers visited other stores in the shopping center, to better understand the travel characteristics at the shopping center. **Appendix 4.11F** presents the sample questionnaire used in the survey. The survey included 158 Safeway customers and 166 CVS Pharmacy customers on Friday evening and 185 Safeway customers and 157 CVS Pharmacy customers on Saturday evening. This corresponds to a survey response rate of about 21 percent for Safeway and 25 percent for CVS Pharmacy.

Customer counts at the entrances of the Safeway and CVS Pharmacy stores were used to determine the trip generation specific to the Safeway, CVS Pharmacy, and other stores in the shopping center. In addition, the intercept surveys were used to estimate the total amount of trips shared between the different stores within the shopping center. **Table 4.11-9** presents the existing shopping center vehicle trip

generation based on the driveway and door counts. Overall, the site generates about 1,627 vehicle trips during the weekday PM peak hour and 1,446 vehicle trips during the Saturday PM peak hour.

Counts conducted in October 2012 indicate that the vehicle trips currently generated during the Saturday midday (1,480 trips) are generally equivalent to the vehicle trips currently generated during the Saturday PM peak hour trips (1.446 trips).[6] The difference in trips between these two counting periods (roughly 2%) is within the daily fluctuations of traffic flow at the site. Based on other data, including Safeway shopping transactions and ITE trip rate assumptions, the proposed Project would reasonably be expected to generate about 14 percent fewer trips during the Saturday midday than during the Saturday PM peak hour.[7] However, the analysis conducted for this EIR assumes that the proposed Project would have a Saturday midday trip generation equivalent to the Saturday PM peak hour, in order to present a more conservative analysis.

Table 4.11- 9
Total Site, Existing Vehicle Trip Generation

Store	Size (ksf)[1]	Weekday PM Peak Hour			Saturday Midday/PM Peak Hour		
		In	Out	Total	In	Out	Total
Safeway [2]	48.0	271	281	552	267	275	542
CVS Pharmacy [2]	87.2	156	178	334	211	263	474
Other Stores [2]	50.3	468	359	827	311	245	556
Internalization [3]	*185.5*	*-43*	*-43*	*-86*	*-63*	*-63*	*-126*
Total[4]	**185.5**	**852**	**775**	**1,627**	**726**	**720**	**1,446**

1. KSF = 1,000-square feet
2. Data based on door and driveway counts conducted on June 6 and 7, 2008.
3. Based on intercept survey results, average internalization rates were five percent for weekday and eight percent for Saturday.
4. Based on driveway counts conducted on June 6 and 7, 2008.

Source: Fehr & Peers, 2011.

Safeway Store

Table 4.11-10 presents the Safeway trips generated based on the driveway/door counts and compares them to the vehicle trip generation estimates of the Institute of Transportation Engineers' (ITE) *Trip Generation, 8th Edition*. As shown in Table 4.11-10, the existing Safeway store generates a similar

[6] The current Saturday midday peak hour trips generated by the shopping center is about 2% (34 trips) higher than the Saturday PM peak hour, which is within the typical fluctuation at shopping centers. In addition, the Saturday midday counts include the traffic generated by the AAA Building, which was not occupied when the Saturday PM peak period counts were conducted in 2008. Therefore, it is assumed that the existing project site generates about the same amount of trips during the Saturday midday and Saturday PM peak hours.

[7] The difference in trip generation between the Saturday midday and PM peak hours can be estimated based on the following:

- Based on hourly transaction data provided by Safeway for the existing store, about 12 percent fewer transactions occur during the midday peak hour than during the PM peak hour.
- Based on data provided in ITE *Trip Generation, 8th Edition*, typical retail uses generate about 15 percent fewer trips during the midday peak hour than the PM peak hour.

number of vehicle trips compared to a typical suburban supermarket as evidenced by a less than five percent difference between the vehicle counts and the vehicle trip generation ITE would predict for the existing Safeway supermarket. Considering that ITE data closely predict the trip generation for the current Safeway Store, and since ITE data is based on data collected at stores of various sizes including stores similar in size to the proposed store, it is a better predictor of trip generation for larger stores. Thus, to estimate the increase in Safeway trips, the trip generation equations presented in ITE *Trip Generation* were applied to the existing Safeway square footage and the proposed Safeway expansion square footage. The difference in trips derived from the ITE equations would represent the net new Safeway trips with the Project.

Table 4.11-10
Comparison of Collected Data and ITE Trip Generation at the Existing Safeway Store

Source	ITE Code	Units[1]	Weekday PM Peak Hour[2] In	Out	Total	Saturday Midday/PM Peak Hour[2] In	Out	Total
Safeway Door Counts[3]	n/a	48.0 ksf	271	281	552	267	275	542
ITE Supermarket	850[4]	48.0 ksf	281	270	551	266	255	521
Difference			*-10*	*11*	*1*	*1*	*20*	*21*

1. KSF = 1,000-square feet
2. Weekday peak hour from 5:00 PM to 6:00 PM; Saturday evening peak hour from 4:00 PM to 5:00 PM
3. Estimated vehicle trip generation based on counts collected at Safeway entrance on Friday, June 6, 2008 and Saturday, June 7, 2008
4. ITE Trip generation Equation used:

Weekday PM: Ln(T) = 0.61 Ln(X) + 3.95; Enter = 51%, Exit = 49%

Saturday PM: T = 10.85 (X); Enter = 51%, Exit = 49%

Where: T = trips generated, X = 1,000 square feet, Ln = natural log

Source: *Trip Generation* (8th Edition), ITE, 2008; and Fehr & Peers, 2011.

Table 4.11-11 presents the net new trips generated by the proposed expansion of the Safeway Store. The expansion of the Safeway Store is estimated to generate 112 weekday PM peak hour trips and 184 Saturday midday and Saturday PM peak hour trips.

Table 4.11-11
Safeway Vehicle Trip Generation Estimates

Land Use	ITE Code	Units[1]	Weekday PM Peak Hour In	Out	Total	Saturday Midday/PM Peak Hour In	Out	Total
Proposed Safeway Store	850[2]	65.0 ksf	338	325	663	360	345	705
Existing Safeway Store	850[2]	48.0 ksf	-281	-270	-551	-266	-255	-521
Net New Safeway Trips			**57**	**55**	**112**	**94**	**90**	**184**

1. KSF = 1,000-square feet
2. ITE Trip generation Equation Used:

Weekday PM: Ln(T) = 0.61 Ln(X) + 3.95; Enter = 51%, Exit = 49%

Saturday PM: T = 10.85 (X); Enter = 51%, Exit = 49%

Where: T = trips generated, X = 1,000 square feet, Ln = natural log

Source: *Trip Generation* (8th Edition), ITE, 2008; and Fehr & Peers, 2011.

Total Project Trip Generation

In addition to the 65,000 square-foot Safeway store, the proposed Project would also provide about 228,200 square feet of commercial space in several buildings throughout the site. The site currently provides 50,300 square-feet of commercial space. Thus, the proposed Project would provide about 177,900 square feet of net new commercial space. Although specific tenants have not yet been identified, the site is expected to be occupied by several retail, restaurant, and office tenants in various buildings throughout the site.

The ITE Shopping Center land use was used to estimate the trip generation for commercial space in the Project because it best fits the services proposed for the site. As described in *ITE Trip Generation*, Shopping Center (land use 820) represents "an integrated group of commercial establishments." Some of the sites surveyed for land use code 820 contained retail stores, as well as "office buildings, movie theaters, restaurants, banks, health clubs, and recreational facilities" and they range in size from 1,700 to 2.2 million square feet.

Table 4.11-12 presents the net new Project trips that would be added to the roadway network with the Safeway expansion, the additional commercial space, and the demolition of the CVS Pharmacy. Table 4.11-12 also accounts for pass-by and internalized trips.

Table 4.11-12
Project Trip Generation Estimates – Net New Vehicle Trips

Land Use	ITE Code	Units[1]	Weekday PM Peak Hour In	Weekday PM Peak Hour Out	Weekday PM Peak Hour Total	Saturday Midday/PM Peak Hour In	Saturday Midday/PM Peak Hour Out	Saturday Midday/PM Peak Hour Total
Net New Safeway Trips[2]	850	17 ksf	57	55	112	94	90	184
Proposed Net New Commercial[3]	820	178.0 ksf	449	487	936	648	599	1,247
Existing CVS[4]	n/a	-87.2 ksf	-156	-178	-334	-211	-263	-474
New Project Trips			*350*	*364*	*714*	*531*	*426*	*957*
Pass-By Vehicles[5]			*-121*	*-121*	*-242*	*-124*	*-124*	*-248*
Internalized Trips[6]			*-18*	*-18*	*-36*	*-38*	*-38*	*-76*
Net New Project Trips			***211***	***225***	***436***	***369***	***264***	***633***

1. KSF = 1,000-square feet
2. See Table 4.3-11
3. Trip generation based on Institute of Transportation Engineers (ITE), *Trip Generation*, (8th Edition) regression equations for Shopping Center (Land Use Code 820) :
   Weekday PM: Ln(T) = 0.67 Ln(X) + 3.37; Enter = 49%, Exit = 51%
   Saturday PM: Ln(T) = 0.65 Ln(X) + 3.76; Enter = 52%, Exit = 48%
   Where: T = trips generated, X = 1,000 square feet, Ln = natural log
4. Data based on peak hour counts collected on June 6 and June 7, 2008.
5. Trip pass-by rate based on Institute of Transportation Engineers (ITE), *Trip Generation Handbook* average pass-by for Shopping Center (Land Use Code 820). Average Weekday pass-by rate: 34%; average Saturday pass-by rate: 26%.
6. Based on intercept survey results, average internalization rates were 5% for weekday and 8% for Saturday

Source: Trip Generation (8th Edition), ITE, 2008; and Fehr & Peers, 2012.

Pass-by vehicle trips are defined as trips attracted to the Project from traffic passing on adjacent roadways as an interim stop on the way to their ultimate destination. Pass-by trips consist of vehicles that would be on the roadway network regardless of the Project; therefore, these trips result in changed travel patterns but do not add *new* vehicle traffic to the roadway network. According to the ITE *Trip Generation Handbook*, the average pass-by trip reduction for a shopping center is 34 percent during the weekday PM peak period and 26 percent during the Saturday peak period. The pass-by rate for shopping center was also applied to the new Safeway trips. This is a conservative assumption because the ITE weekday PM peak hour pass-by rate for shopping center is slightly lower than the pass-by rate for grocery store (36 percent compared to 34 percent). In addition, ITE does not provide Saturday pass-by rate for a grocery store.

Internalized vehicle trips are defined as trips made internal to the Project site without using the external major street system. Based on the intercept survey results, the average internalization rate between the Safeway Store and the rest of the shopping center is about five percent for Friday and eight percent for Saturday.

Overall, the proposed Project is estimated to generate 436 net new weekday PM peak hour trips and 633 net new Saturday midday and Saturday PM peak hour trips.

Mode Share Characteristics

Because ITE trip generation estimates only quantify vehicle trips, a customer mode choice survey was conducted at the existing Safeway store to estimate the net new non-automobile trips (See Appendix 4.11F for sample). Based on the survey, about 85 percent of Safeway trips are made using personal vehicles, while about 15 percent are transit, walking, or biking trips.

The results of the mode choice survey were applied to the net new vehicle trips shown in Table 4.11-12. **Table 4.11-13** presents the mode share and the estimated net new non-automobile trips to the site. As shown, an additional 78 pedestrian and five bicycle trips are expected during the weekday PM peak hour; an additional 60 pedestrian, seven transit, and seven bicycle trips are expected during the Saturday peak hours.[8]

[8] Similar to the conservative assumptions regarding Saturday midday trip generation, this analysis also conservatively assumes equivalent mode splits during both Saturday midday and the Saturday PM peak hour.

Table 4.11-13
Project Mode Share Summary

	Mode Split Characteristics		Trip Generation	
Travel Mode	**Weekday PM Peak Hour[1]**	**Saturday Midday/ PM Peak Hour[2]**	**Weekday PM Peak Hour[1]**	**Saturday Midday/ PM Peak Hour[2]**
Drive	83%	89%	436	633
Walk	16%	9%	84	64
Transit	0%	1%	0	7
Bike	1%	1%	5	7
Total	**100%**	**100%**	**525**	**711**

1. Weekday evening period from 5:00 PM to 8:00 PM; data based on mode share surveys conducted June 6, 2008.
2. Saturday evening period from 4:00 PM to 7:00 PM; data based on mode share surveys conducted June 7, 2008.

Source: Fehr & Peers, 2012.

As shown in Table 4.11-12, the *ITE Trip Generation* data and methodology were used to estimate the new vehicle trips generated by the proposed Project. The supermarket and shopping center sites represented in the ITE data tend to be in suburban areas with little or no access by non-automobile modes. Conservatively, we did not assume any reductions in vehicle trips associated with pedestrian, bicycle, or transit access.

Trip Distribution and Assignment

Trip distribution is defined as the directions of approach and departure that vehicles would use to arrive at and depart from the site. Fehr & Peers estimated distribution of Project trips based on existing travel patterns, study area population density, and relative locations of other supermarkets in the area. **Figure 4.11-14** shows the population density and location of other supermarkets in the surrounding areas. The resulting distribution is presented on **Figure 4.11-15**. New trips generated by the Project were assigned to the roadway system based on these general directions of approach and departure.

The trip distribution was compared to customer spotting data (presented in **Appendix 4.11G**) provided by Safeway. The costumer spotting data presents the home location of Safeway customers over a four week period in 2010 based on Club Card data collected at the existing store. The home location of the Safeway customer is similar to the population distribution figure, with a majority of the customers originating from south and west within two miles of the Project site. Thus the trip distribution presented on Figure 4.11-14 reflects a reasonable assumption for the Project trip distribution.

The trips generated by the proposed Project, as shown in Table 4.11-12 were assigned to the roadway network according to the trip distribution shown on Figure 4.11-14. The resulting trip assignment by roadway segment is presented on **Figure 4.11-16** for the Saturday PM peak hour. **Figure 4.11-17** presents the Project-generated turning movements at the proposed study intersection.

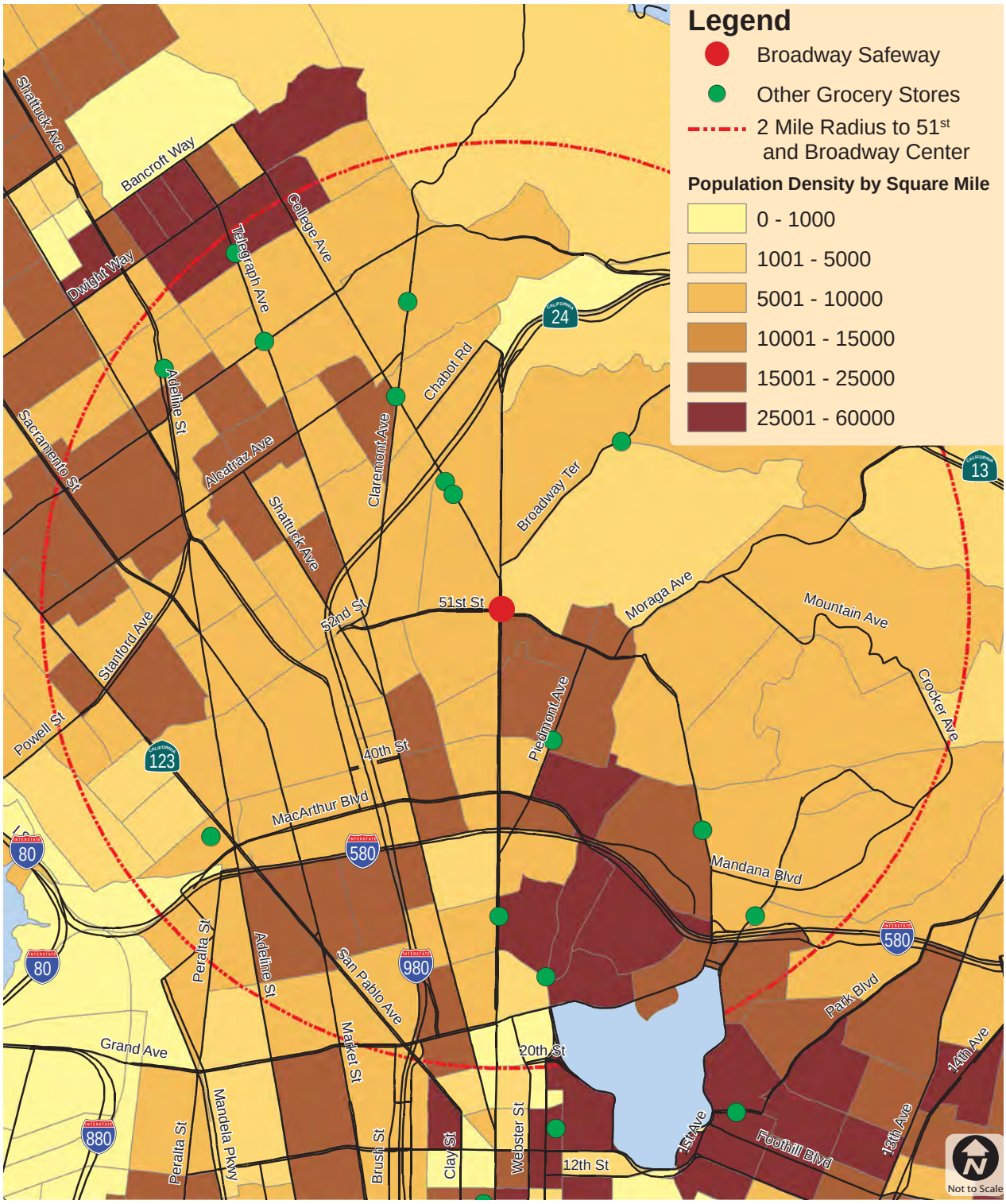


Figure 4.11-14
Population Density and Other Grocery Stores in Project Area

Source: Fehr & Peers

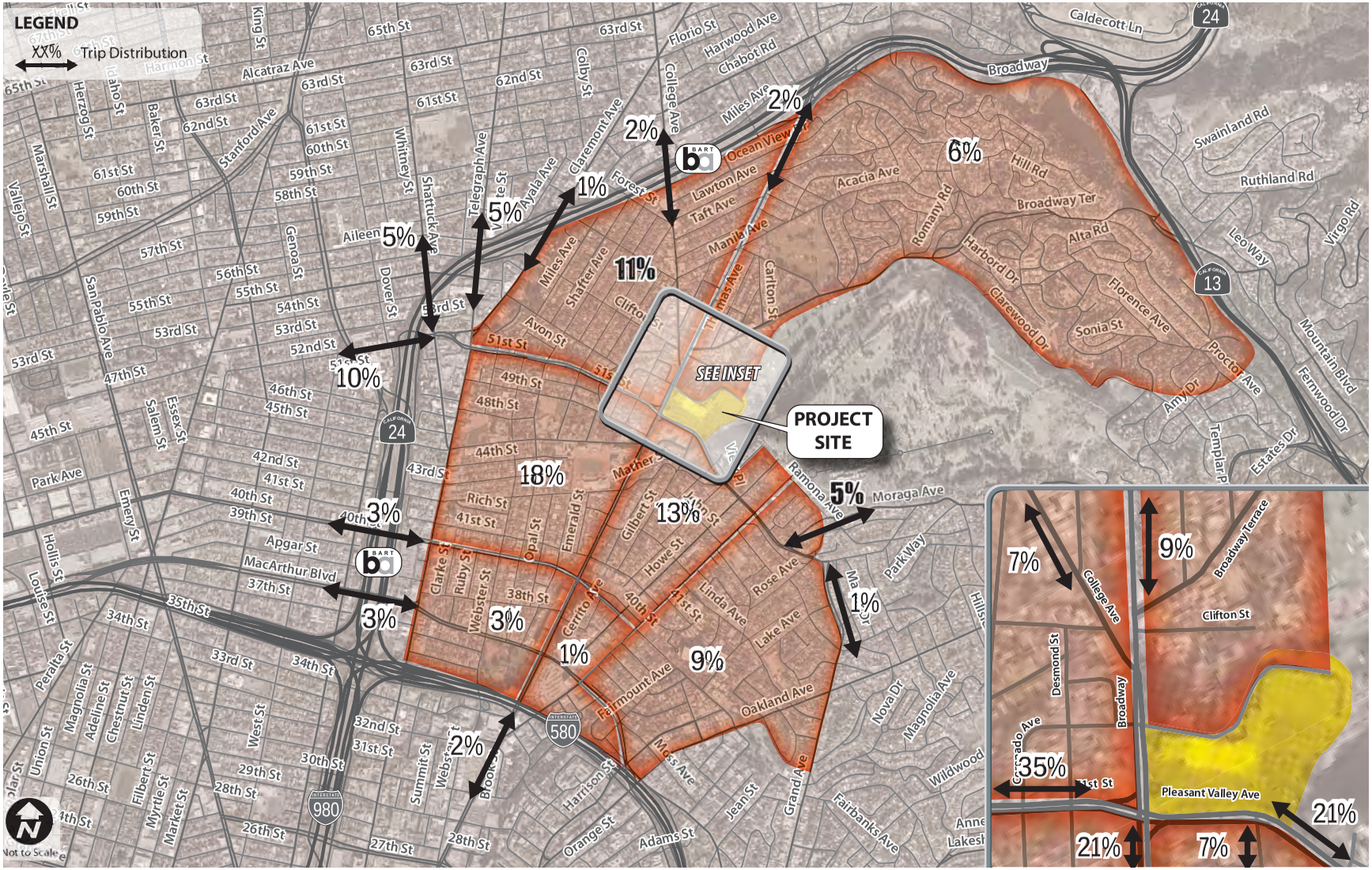


Figure 4.11-15
Project trip Distribution

Source: Fehr & Peers

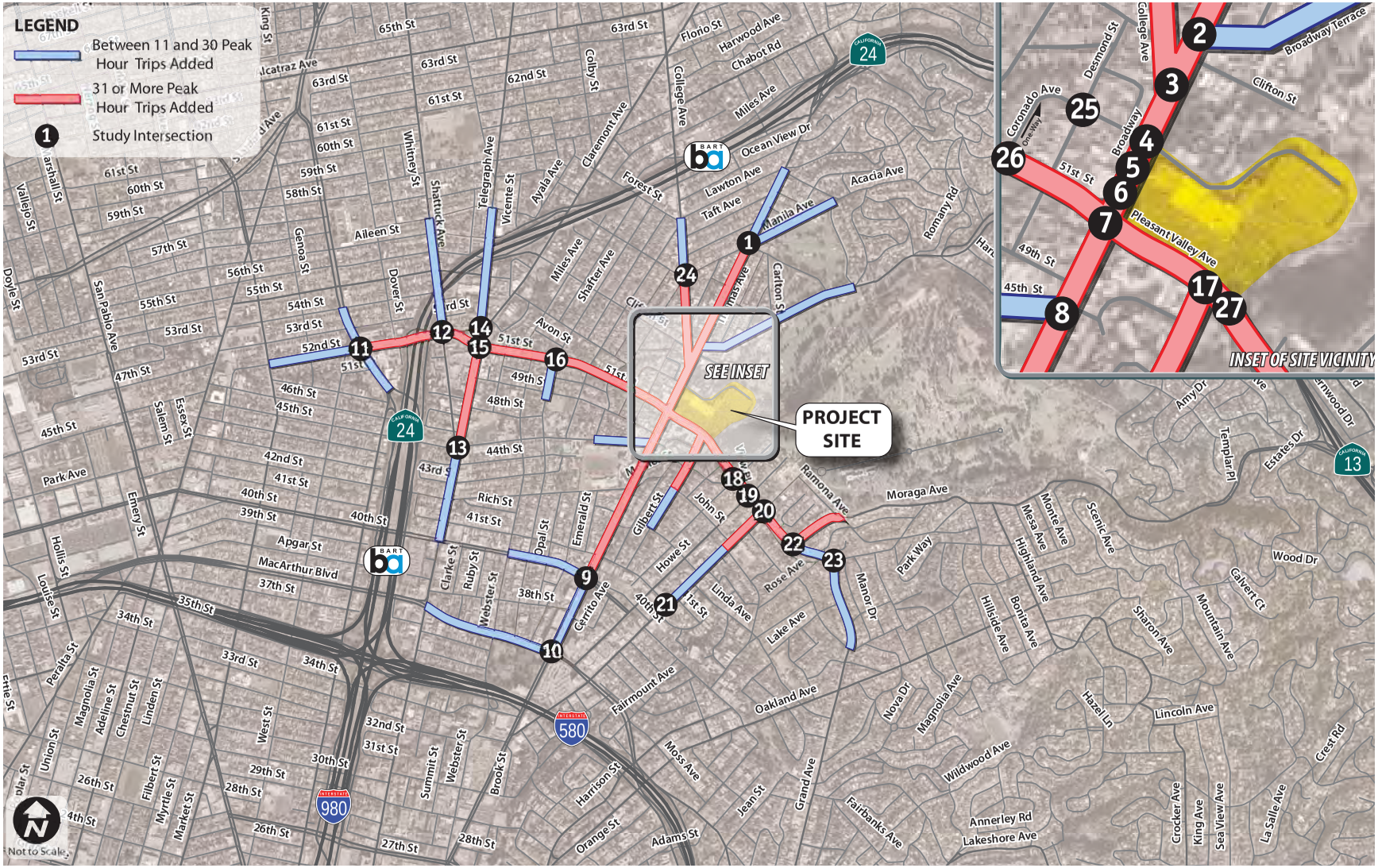


Figure 4.11-16
Saturday Peak Hour Project Trip Assignment and Proposed Study Locations

Source: Fehr & Peers

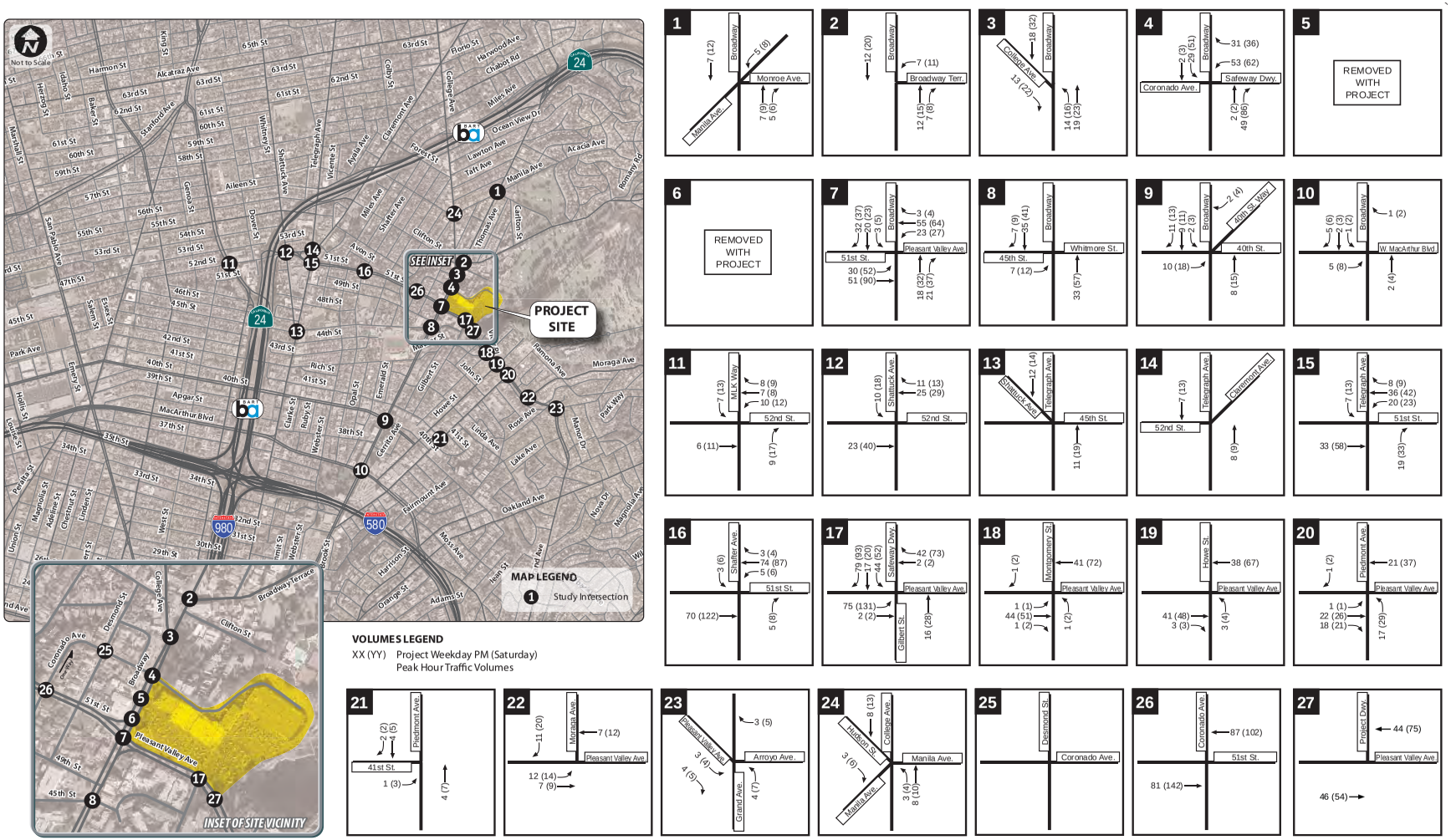


Figure 4.11-17
Project Trip Assignment

Source: Fehr & Peers

Impacts, Standard Conditions of Approval and Mitigation Measures

This section evaluates the Project's potential adverse effects related to transportation, circulation and parking, and it considers vehicles, bicycles and pedestrians. Traffic impacts are assessed at the study intersections in the study area for the following scenarios:

- Existing Plus Project
- Near-Term (2015) No Project
- Near-Term (2015) Plus Project
- Cumulative (2035) No Project
- Cumulative (2035) Plus Project

The City's assessment of traffic impacts at intersections is conducted on an intersection-by-intersection basis irrespective of whichever time period (PM peak, AM peak, mid-day) the impact occurs.

Following the intersection analysis, the Project's potential effects on: construction; vehicle, pedestrian and bicycle safety; emergency access; and consistency with local plans is presented. An assessment of non-CEQA issues such as parking, transit, and neighbor traffic intrusion are also provided.

Criteria of Significance

City of Oakland's CEQA Thresholds of Significance Guidelines, were used to determine if the Project would cause a significant impact. The Project would have a significant impact on the environment 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 area**,[9] the Project would cause the level of service (LOS) to degrade to worse than LOS D (i.e., LOS E);
2. At a study, signalized intersection which is located **within the Downtown area**, the Project would 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, the Project would 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);

[9] 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.

4. At a study, signalized intersection for **all areas** where the level of service is LOS E, the Project would cause an increase in the average delay for any of the critical movements of six (6) seconds or more, 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, the Project would 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 the Project would 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, the Project would cause (a) the LOS to degrade from LOS E or better to LOS F or (b) the V/C ratio to increase 0.03 or more for a roadway segment that would operate at LOS F without the Project [**Note**: 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];
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 [**Note**: This threshold only applies to a land use development project that involves either (a) a general plan amendment that would generate 100 or more PM peak hour trips above the current general plan land use designation or (b) an EIR and the project would generate 100 or more PM 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.];
9. Result in substantially increased travel times for AC Transit buses [**Note**: 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.];

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 [**Note**: 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.];
11. 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 [**Note**: 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.];
12. Directly or indirectly result in a permanent substantial decrease in pedestrian safety [NOTE: 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, 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)];

13. Directly or indirectly result in a permanent substantial decrease in bus rider safety [**Note**: 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 crossings, with insufficient sidewalks, or in isolated or unlit areas
    - Addition of new bus riders that creates overcrowding at a bus stop];
14. Directly or indirectly result in a permanent substantial decrease in bicyclist safety [Note: 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)];

Other Thresholds

15. 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;

16. 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 [NOTE: 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?

17. Result in a substantial, though temporary, adverse effect on the circulation system during construction of the Project.

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 are evaluated in order to inform decision-makers and the public about these issues.

Parking

The Court of Appeal has held that parking is not part of the permanent physical environment, that parking conditions change over time as people change their travel patterns, and that unmet parking demand created by a project need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects.[10] Similarly, the December 2009 amendments to the State CEQA Guidelines (which become effective March 18, 2010), removed parking from the State's Environmental Checklist (Appendix G of the State CEQA Guidelines) as an environmental factor to be considered under CEQA. Parking supply/demand varies by time of day, day of week, and seasonally. As parking demand increases faster than the supply, parking prices rise to reach equilibrium between supply and demand. Decreased availability and increased costs result in changes to people's mode and pattern of travel. However, the City of Oakland, in its review of the proposed Project, wants to ensure that the Project's provision of parking spaces along with measures to lessen parking demand (by encouraging the use of non-auto travel modes) would result in minimal adverse effects to Project occupants and visitors, and that any secondary effects (such as on air quality due to drivers searching for parking spaces) would be minimized. As such, although not required by CEQA, parking conditions are evaluated in this document as a non-CEQA topic for informational purposes.

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

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

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

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

Transit Ridership

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

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

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

Queuing

This document evaluates the Project's potential effect on 95th percentile queuing. Would the Project cause an increase in 95th percentile queue length of 25 feet or more at a study, signalized intersection?

Traffic Control Devices

This document evaluates the need for additional traffic control devices (e.g., stop signs, street lighting, crosswalks, traffic calming devices) using the California MUTCD and applicable City standards.

Collision History

This document evaluates three years of vehicle, pedestrian, and bicycle collision data for intersections and roadway segments within three blocks of the Project site to determine if the Project would contribute to an existing problem or if any improvements are recommended in order to alleviate potential effects of the Project.

Existing Plus Project Intersection Analysis

This section analyzes the transportation system with trips associated with the proposed Project added to the existing traffic counts. This analysis presents the extent of Project impacts relative to existing conditions.

Traffic Volumes

Figure 4.11-18 shows the traffic volumes for the Existing plus Project conditions. They include existing traffic volumes plus net added traffic volumes generated by the Project.

Roadway Network

As previously described, the proposed Project would implement a number of modifications to street configurations and signal operations on Broadway and Pleasant Valley Avenue adjacent to the Project site. No other modifications to the roadway network, including signal timing optimization, are assumed for the Existing Plus Project analysis.

Existing Plus Project Intersection Operations

Intersection LOS calculations were completed with the traffic volumes and the lane configurations for the Existing Plus Project conditions. **Table 4.11-14** summarizes traffic operations at the study intersections under Existing Plus Project conditions. **Appendix 4.11H** provides the detailed intersection LOS calculation worksheets.

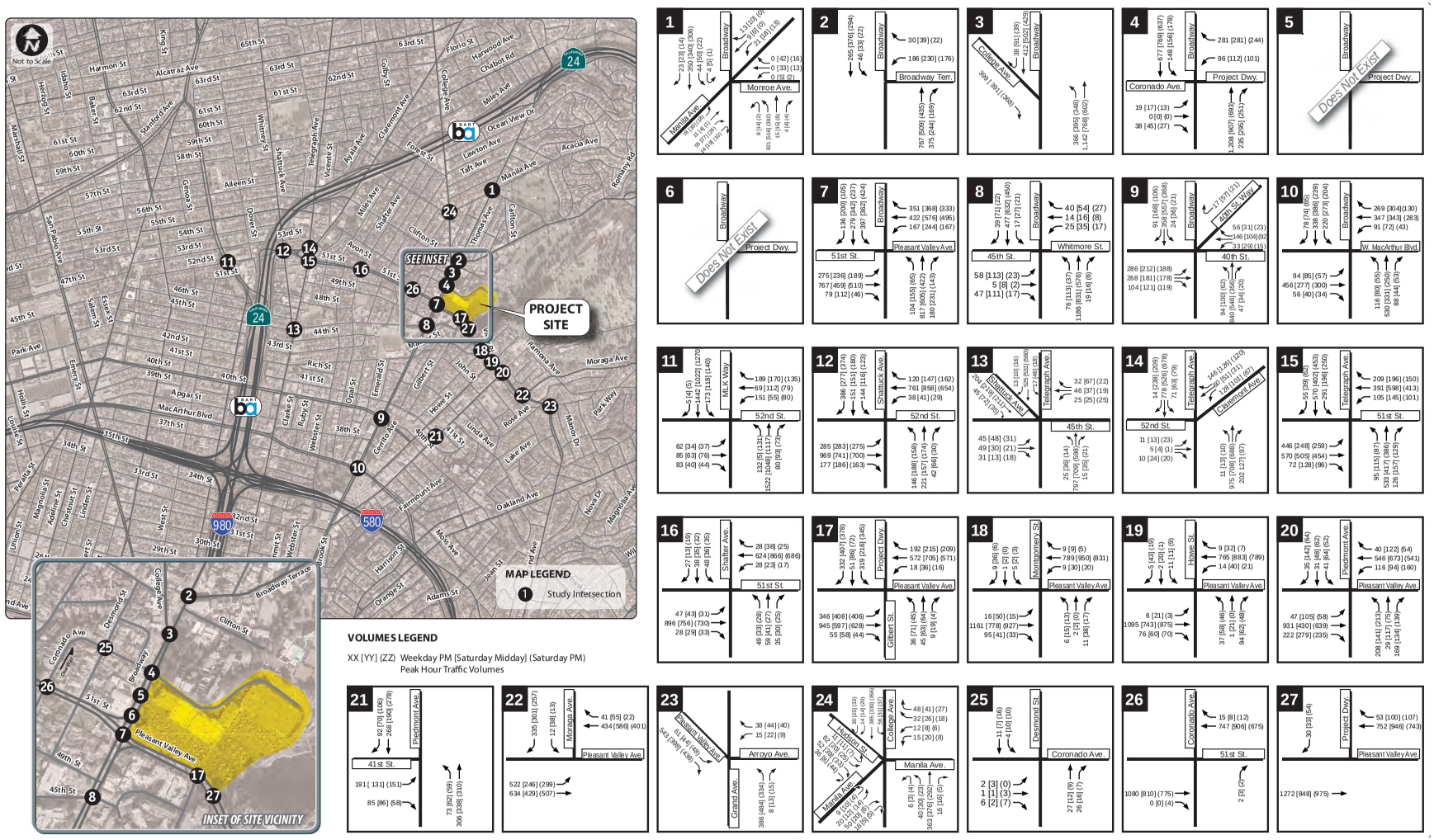


Figure 4.11-18
Existing Plus Project Conditions, Peak Hour Traffic Volumes

Source: Fehr & Peers

Table 4.11-14
Intersection LOS Summary
Existing Plus Project Conditions

#	Study Intersection	Traffic Control[1]	Peak Hour	Existing		Existing Plus Project		Significant Impact?
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
1	Broadway/Manila Avenue/ Monroe Avenue	Signal	Weekday PM	6.8	A	6.8	A	No
			Saturday MD	23.5	C	24.1	C	No
			Saturday PM	19.6	B	19.8	B	No
2	Broadway/Broadway Terrace	Signal	Weekday PM	10.6	B	17.4	B	No
			Saturday MD	9.5	A	9.0	A	No
			Saturday PM	7.6	A	6.6	A	No
3	Broadway/College Avenue	Signal	Weekday PM	9.8	A	9.5	A	No
			Saturday MD	12.9	B	11.7	B	No
			Saturday PM	12.5	B	11.7	B	No
4	Broadway/Coronado Avenue/ North Project Driveway	SSSC/ Signal[3]	Weekday PM	1.4 **(47.4)**	A **(E)**	27.6	C	No
			Saturday MD	1.5 **(40.6)**	A **(E)**	17.0	B	No
			Saturday PM	0.7 (19.6)	A (C)	16.9	B	No
5	Broadway/Center Project Driveway	SSSC	Weekday PM	1.2 (16.5)	A (C)	Does Not Exist		No
			Saturday MD	1.0 (13.1)	A (B)			No
			Saturday PM	0.9 (11.4)	A (B)			No
6	Broadway/South Project Driveway	SSSC	Weekday PM	0.3 (14.1)	A (B)	Does Not Exist		No
			Saturday MD	0.4 (12.2)	A (B)			No
			Saturday PM	0.2 (10.7)	A (B)			No
7	Broadway/51st Street/ Pleasant Valley Avenue	Signal	Weekday PM	49.3	D	54.0	D	No
			Saturday MD	**55.7**	**E**	52.4	D	No
			Saturday PM	47.1	D	40.6	D	No
8	Broadway/45th Street	Signal	Weekday PM	9.7	A	6.6	A	No
			Saturday MD	11.1	B	13.7	B	No
			Saturday PM	7.5	A	4.6	A	No
9	Broadway/40th Street/ 40th Street Way	Signal	Weekday PM	18.3	B	15.7	B	No
			Saturday MD	18.7	B	14.7	B	No
			Saturday PM	18.5	B	13.9	B	No
10	Broadway/West MacArthur Boulevard	Signal	Weekday PM	34.6	C	35.2	D	No
			Saturday MD	36.7	D	38.6	D	No
			Saturday PM	31.9	C	32.7	C	No

Table 4.11-14
Intersection LOS Summary
Existing Plus Project Conditions

#	Study Intersection	Traffic Control[1]	Peak Hour	Existing		Existing Plus Project		Significant Impact?
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
11	Martin Luther King Jr. Way/ 52nd Street	Signal	Weekday PM	26.3	C	27.5	C	No
			Saturday MD	13.7	B	14.6	B	No
			Saturday PM	16.9	B	17.8	B	No
12	Shattuck Avenue/ 52nd Street	Signal	Weekday PM	40.9	D	41.4	D	No
			Saturday MD	41.7	D	42.5	D	No
			Saturday PM	54.6	D	**57.3**	**E**	**Yes**[4]
13	Telegraph Avenue/Shattuck Avenue	Signal	Weekday PM	7.3	A	7.2	A	No
			Saturday MD	6.5	A	7.1	A	No
			Saturday PM	5.1	A	5.0	A	No
14	Telegraph Avenue/52nd Street/ Claremont Avenue	Signal	Weekday PM	17.3	B	17.2	B	No
			Saturday MD	15.8	B	14.6	B	No
			Saturday PM	12.5	B	12.5	B	No
15	Telegraph Avenue/51st Street	Signal	Weekday PM	**63.3**	**E**	**65.2**	**E**	**Yes**[5]
			Saturday MD	50.1	D	53.1	D	No
			Saturday PM	47.2	D	50.2	D	No
16	Shafter Avenue/51st Street	Signal	Weekday PM	11.9	B	12.1	B	No
			Saturday MD	11.4	B	11.8	B	No
			Saturday PM	10.8	B	11.2	B	No
17	Gilbert Street/Project Driveway/ Pleasant Valley Avenue	Signal	Weekday PM	12.8	B	22.8	C	No
			Saturday MD	14.8	B	27.4	C	No
			Saturday PM	15.2	B	28.3	C	No
18	Montgomery Street/Pleasant Valley Avenue	SSSC	Weekday PM	0.8 **(40.8)**	A **(E)**	0.9 **(42.4)**	A **(E)**	No[6]
			Saturday MD	2.1 (32.1)	A (D)	2.1 (32.2)	A (D)	No
			Saturday PM	0.9 (28.6)	A (D)	0.9 (30.4)	A (D)	No
19	Howe Street/Pleasant Valley Avenue	SSSC	Weekday PM	4.5 **(59.7)**	A **(F)**	2.4 (32.6)	A (D)	Yes[7]
			Saturday MD	12.4 **(137.8)**	B **(F)**	16.6 **(197.7)**	C **(F)**	Yes[7]
			Saturday PM	2.8 **(43.1)**	A **(E)**	2.3 **(38.3)**	A **(E)**	No[6]
20	Piedmont Avenue/Pleasant Valley Avenue	Signal	Weekday PM	**55.7**	**E**	**66.4**	**E**	**Yes**[8]
			Saturday MD	33.5	C	45.8	D	No
			Saturday PM	39.4	D	51.4	D	No

Table 4.11-14
Intersection LOS Summary
Existing Plus Project Conditions

#	Study Intersection	Traffic Control[1]	Peak Hour	Existing		Existing Plus Project		Significant Impact?
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
21	Piedmont Avenue/41st Street	Signal	Weekday PM	10.3	B	10.3	B	No
			Saturday MD	10.3	B	10.3	B	No
			Saturday PM	9.6	A	9.7	A	No
22	Moraga Avenue/Pleasant Valley Avenue	Signal	Weekday PM	24.2	C	25.5	C	No
			Saturday MD	20.4	C	20.9	C	No
			Saturday PM	16.3	B	16.6	B	No
23	Grand Avenue/Arroyo Avenue/ Pleasant Valley Avenue	Signal	Weekday PM	7.6	A	7.6	A	No
			Saturday MD	7.3	A	7.4	A	No
			Saturday PM	5.8	A	5.9	A	No
24	Hudson Street/Manila Avenue/ College Avenue	Signal	Weekday PM	31.0	C	33.0	C	No
			Saturday MD	20.2	C	21.4	C	No
			Saturday PM	18.5	B	19.3	B	No
25	Desmond Street/Coronado Avenue	SSSC	Weekday PM	8.2 (9.3)	A (A)	8.2 (9.3)	A (A)	No
			Saturday MD	8.3 (9.2)	A (A)	8.3 (9.2)	A (A)	No
			Saturday PM	7.3 (9.2)	A (A)	7.3 (9.2)	A (A)	No
26	Coronado Avenue/51st Street	SSSC	Weekday PM	0.0 (11.2)	A (B)	0.0 (11.0)	A (B)	No
			Saturday MD	0.0 (10.9)	A (B)	0.0 (10.8)	A(B)	No
			Saturday PM	0.0 (10.8)	A (B)	0.0 (11.1)	A (B)	No
27	Project Driveway/Pleasant Valley Avenue	SSSC	Weekday PM	0.2 (11.5)	A (B)	0.2 (11.7)	A (B)	No
			Saturday MD	0.2 (13.4)	A (B)	0.2 (13.9)	A (B)	No
			Saturday PM	0.4 (11.9)	A (B)	0.4 (12.3)	A (B)	No

Notes: **Bold** indicates intersection operating at LOS E or LOS F

1. Signal = signalized intersection, SSSC = side-street stop controlled intersection
2. For side-street stop controlled intersections, delay is reported as: intersection average (worst minor street approach); for signalized intersection, the average intersection delay is reported; for signalized intersections operating with high delay, volume-to-capacity (v/c) ratio is also reported. LOS for both unsignalized and signalized intersections based on 2000 HCM.
3. Intersection is side-street stop-controlled under No Project conditions and signalized under Plus Project conditions.
4. The proposed Project would cause an impact at this intersection because it would degrade intersection operations from LOS D to LOS E.
5. The proposed Project would cause an impact at this intersection because it would increase delay for a critical movement by more than six seconds at an intersection already operating at LOS E.
6. The proposed Project would not cause an impact at this unsignalized intersection because the intersection would not meet the peak hour signal warrant, although it would operate at LOS E.
7. The proposed Project would cause an impact at this unsignalized intersection because it would add more than ten trips to the intersection and the intersection would meet the peak hour signal warrant.
8. The proposed Project would cause an impact at this intersection because it would increase intersection average delay by more than four seconds at an intersection already operating at LOS E.

Source: Fehr & Peers, 2012.

Intersection operations at some study intersections, such as Broadway at 45th Street (#8) and 40th Street (#9), and Pleasant Valley Avenue/Howe Street intersection (#19) that would not be modified by the proposed Project would improve after the implementation of the Project because the proposed Project would upgrade signal equipment at upstream intersections and improve traffic flow along Broadway and Pleasant Valley Avenue, respectively.

With the addition of the Project generated traffic, the following intersections would operate at an unacceptable LOS during one or more peak hours:

- #12: The signalized Shattuck Avenue/52nd Street intersection would operate at LOS E during the Saturday PM peak hour.
- #15: The signalized Telegraph Avenue/51st Street intersection would operate at LOS E during the weekday PM peak hour.
- #18: The side-street stop-controlled northbound approach at the Montgomery Street/Pleasant Valley Avenue intersection would operate at LOS E during the weekday PM peak hour. This intersection would not meet the peak-hour volume signal warrant during this peak hour.
- #19: The side-street stop-controlled northbound approach at the Howe Street/Pleasant Valley Avenue intersection would operate at LOS F during the Saturday midday peak hour and at LOS E during the Saturday PM peak hour under Existing Plus Project conditions. This intersection would not meet the peak-hour volume signal warrant during the Saturday PM peak hour; but it would meet the warrant during the weekday PM and Saturday midday peak hour.
- #20: The signalized Piedmont Avenue/Pleasant Valley Avenue intersection (# 20) would operate at LOS E during the weekday PM peak hour.

The proposed Project would cause a significant impact at the following four of these intersections:

- #12: Shattuck Avenue/52nd Street intersection
- #15: Telegraph Avenue/51st Street intersection
- #19: The side-street stop-controlled northbound approach at the Howe Street/Pleasant Valley Avenue intersection. The proposed Project would improve the northbound approach of the intersection from LOS F to LOS D during the weekday PM peak hour due to improved traffic flow along Pleasant Valley Avenue. The northbound approach at this intersection would also continue to operate at LOS F during the Saturday midday peak hour. Since the unsignalized intersection would continue to meet the peak hour signal warrant and the proposed Project would add more than ten peak hour trips to the intersection, this EIR identifies the impacts as a significant impact.
- #20: Piedmont Avenue/Pleasant Valley Avenue intersection

Although the following unsignalized intersection would operate at LOS E or LOS F, the proposed Project would not cause an impact at the intersection:

- #18 Montgomery Street/Pleasant Valley Avenue intersection would operate at an unacceptable LOS E during the weekday PM peak hour. However, the proposed Project would not cause a significant impact because the intersection would not meet the peak hour vehicle signal warrant without or with the traffic generated by the proposed Project during the weekday or Saturday PM peak hours.

Shattuck Avenue/52nd Street (Intersection #12)

Impact Trans-1: The proposed Project would degrade intersection operations from LOS D to LOS E during the Saturday PM peak hour at the signalized Shattuck Avenue/52nd Street intersection (#12). (**Significant**)

Mitigation Measures

Mitigation Measure Trans-1: Implement the following measures at the Shattuck Avenue/52nd Street intersection:

a) Optimize signal timing parameters (i.e., adjust the allocation of green time for each intersection approach)

b) Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.

To implement this measure, the Project sponsor shall submit the following to City of Oakland's Transportation Services Division for review and approval:

Plans, Specifications, and Estimates (PS&E) to modify the intersection. All elements shall be designed to City standards in effect at the time of construction and all new or upgraded signals shall include these enhancements. All other facilities supporting vehicle travel and alternative modes through the intersection shall be brought up to both City standards and ADA standards (according to Federal and State Access Board guidelines) at the time of construction. Current City Standards call for among other items the elements listed below:

- 2070L Type Controller
- GPS communication (clock)
- Accessible pedestrian crosswalks according to Federal and State Access Board guidelines
- City Standard ADA wheelchair ramps
- Full actuation (video detection, pedestrian push buttons, bicycle detection)
- Accessible Pedestrian Signals, audible and tactile according to Federal Access Board guidelines
- Signal interconnect and communication to City Traffic Management Center for corridors identified in the City's ITS Master Plan
- Signal timing plans for the signals in the coordination group.

The Project sponsor shall fund, prepare, and install the approved plans and improvements.

Resulting Level of Significance

After implementation of this measure, the intersection would improve to LOS D during the Saturday PM peak hour and the impact would be reduced to a level of less than significant. No secondary significant impacts would result from implementation of this measure.

The City of Oakland, as part of the Caldecott Tunnel Improvement Project Settlement Agreement is planning the following improvement at this intersection:

- Install a traffic signal at eastbound SR 24 off-ramp on 52nd Street just west of Shattuck Avenue and coordinate it with the existing signal
- Tee 52nd Street into 51st Street

These planned improvements would not mitigate the Project impacts; however, the proposed mitigation measure would not prevent implementation of the planned improvements. In addition, the planned improvements would not prevent the implementation of the proposed mitigation measure.

Telegraph Avenue/51st Street (Intersection #15)

Impact Trans-2: The signalized Telegraph Avenue/51st Street intersection currently operates at LOS E, even without increased traffic from the Project. The proposed Project would add traffic that would increase delay for the critical southbound left-turn movements by more than six seconds during the weekday PM peak hour. (**Significant**)

Mitigation Measures

Mitigation Measure Trans-2: Implement the following measures at the Telegraph Avenue/51st Street intersection:

a) Optimize signal timing parameters (i.e., adjust the allocation of green time for each intersection approach).

b) Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.

To implement this measure, the Project sponsor shall submit the following to City of Oakland's Transportation Services Division for review and approval:

Plans, Specifications, and Estimates (PS&E) to modify the intersection. All elements shall be designed to City standards in effect at the time of construction and all new or upgraded signals shall include these enhancements. All other facilities supporting vehicle travel and alternative modes through the intersection shall be brought up to both City standards and ADA standards (according to Federal and State Access Board guidelines) at the time of construction. Current City Standards call for among other items the elements listed below:

- 2070L Type Controller
- GPS communication (clock)
- Accessible pedestrian crosswalks according to Federal and State Access Board guidelines
- City Standard ADA wheelchair ramps
- Full actuation (video detection, pedestrian push buttons, bicycle detection)
- Accessible Pedestrian Signals, audible and tactile according to Federal Access Board guidelines
- Signal interconnect and communication to City Traffic Management Center for corridors identified in the City's ITS Master Plan
- Signal timing plans for the signals in the coordination group.

The Project sponsor shall fund, prepare, and install the approved plans and improvements.

Resulting Level of Significance

After implementation of this measure, the intersection would improve to LOS D during the weekday PM peak hour and the impact would be reduced to a level of less than significant. This mitigation measure is consistent with the mitigation measure required by the *MacArthur Transit Village Project EIR* (January

2008) at this intersection. No secondary significant impacts would result from implementation of this measure.

Howe Street/Pleasant Valley Avenue (Intersection #19)

Impact Trans-3: The proposed Project would add more than 10 trips to the Howe Street/Pleasant Valley Avenue intersection during the weekday PM and Saturday midday peak hours under Existing plus Project conditions. The intersection would meet the peak hour signal warrant during both time periods. (**Significant**)

Mitigation Measures

Mitigation Measure Trans-3: Implementing one of the following measures at the Howe Street/ Pleasant Valley Avenue intersection would reduce the impact to a less than significant level:

a) Signalize the intersection, providing actuated operation with permitted left turns and coordinate the signal timings with the adjacent intersections that would be in the same signal coordination group.

b) Prohibit on-street parking for about 80 feet along northbound Howe Street just south of Pleasant Valley Avenue to allow right-turning vehicles to bypass the queued left-turning vehicles.

c) Prohibit the left-turn movement from Howe Street to westbound Pleasant Valley Avenue during the peak commute periods.

Resulting Level of Significance

Implementing any of these three measures would improve traffic operations at this intersection and mitigate the significant impact. However, each of these three measures would result in significant and unavoidable secondary impacts:

- Signalizing the intersection is not desirable because signalization of the Howe Street/Pleasant Valley Avenue intersection would allow easier automobile access between Howe Street and Pleasant Valley Avenue, which may encourage cut-through automobiles to use Howe Street as an alternative to the congested Broadway and Piedmont Avenue corridors. Considering that this segment of Howe Street is primarily residential, potential increase in cut-through traffic is not desired.
- This segment of Howe Street is a residential area, and parking is at or near capacity on weekday evenings. A loss of on-street parking would be a secondary significant impact of this mitigation measure that cannot be mitigated.
- Prohibiting left-turn movements onto westbound Pleasant Valley Avenue would divert traffic from Howe Street to other streets such as Piedmont Avenue or Montgomery Street. Vehicles diverted to Piedmont Avenue would increase the delay and the magnitude of traffic impact identified at the Piedmont Avenue/Pleasant Valley Avenue intersection under 2035 plus Project conditions (Impact Trans-14), a significant and unavoidable traffic impact. The increase in delay at the Piedmont Avenue/Pleasant Valley Avenue intersection would be a secondary significant impact of this mitigation measure that cannot be mitigated.

Because of these secondary significant impacts associated with each of the identified mitigation measures, these measures are considered infeasible and impacts at the Howe Street/Pleasant Valley Avenue intersection are considered ***significant and unavoidable***.

Piedmont Avenue/Pleasant Valley Avenue (Intersection #20)

Impact Trans-4: The signalized Piedmont Avenue/Pleasant Valley Avenue intersection currently operates at LOS E, even without increased traffic from the Project. The proposed Project would add traffic that would increase average delay at this intersection by more than four seconds during the weekday PM peak hour. (***Significant***)

Mitigation Measures

Mitigation Measure Trans-4: Implement the following measures at the Piedmont Avenue/ Pleasant Valley Avenue intersection:

a) Convert signal control equipment from pre-timed to actuated-coordinated operations

b) Optimize signal timing parameters (i.e., adjust the allocation of green time for each intersection approach)

c) Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.

To implement this measure, the Project sponsor shall submit the following to City of Oakland's Transportation Services Division for review and approval:

Plans, Specifications, and Estimates (PS&E) to modify the intersection. All elements shall be designed to City standards in effect at the time of construction and all new or upgraded signals shall include these enhancements. All other facilities supporting vehicle travel and alternative modes through the intersection shall be brought up to both City standards and ADA standards (according to Federal and State Access Board guidelines) at the time of construction. Current City Standards call for among other items the elements listed below:

- 2070L Type Controller
- GPS communication (clock)
- Accessible pedestrian crosswalks according to Federal and State Access Board guidelines
- City Standard ADA wheelchair ramps
- Full actuation (video detection, pedestrian push buttons, bicycle detection)
- Accessible Pedestrian Signals, audible and tactile according to Federal Access Board guidelines
- Signal interconnect and communication to City Traffic Management Center for corridors identified in the City's ITS Master Plan
- Signal timing plans for the signals in the coordination group.

The Project sponsor shall fund, prepare, and install the approved plans and improvements.

Resulting Level of Significance

After implementation of this measure, the intersection would improve to LOS B during the weekday PM, Saturday midday, and Saturday PM peak hours and the impact would be reduced to less than significant. No secondary significant impacts would result from implementation of this measure.

Existing Plus Project Mitigated Conditions

Table 4.11-15 summarizes intersection operations after implementation of the recommended mitigation measures at the affected intersections. Mitigation measures would reduce the impacts at three of the four impacted intersections to a less than significant level. However, the impact at the Howe Street/Pleasant Valley Avenue intersection would remain significant and unavoidable.

Mitigation measures described above include signal timing optimization to minimize the delay to vehicle traffic. Signal timing optimization is adjusting the amount of green time (i.e., when the green signal light is on) assigned to each intersection approach. When signal timings are changed along a corridor, the average amount of delay experienced by drivers traveling through the corridor can be reduced by 10 to 30 percent. However, there can be unintended consequences, such as:

- Increased pedestrian delay: Reducing delay to drivers by increasing the amount of green time assigned to each lane of traffic can increase the amount of time that a pedestrian must wait to cross the street.
- Increased vehicle queues: While increasing the amount of green time assigned to each lane of traffic increases the number of cars that can pass through the intersection, it also increases the amount of time that drivers need to wait at the intersection because the other traffic must wait longer for a green light, the line of cars waiting gets longer.

Signal timing optimization may also include changing the way left-turn movements are provided the green light. One method uses a solid green ball which means that a driver can make a left-turn if there is a gap in the oncoming traffic and a pedestrian is not in the crosswalk. Traffic engineers refer to this as permitted left-turn movements. The second method uses a green arrow which means that a driver can make a left-turn without stopping because the oncoming traffic and pedestrians have a red light. The latter method is called protected left-turn movements and can improve safety by separating opposing movements, but it also tends to increase the vehicle delay at the intersection.

Because of the competing needs described above, signal timing optimization and the benefit to drivers traveling through the area needs to be balanced against the impacts to pedestrians crossing at intersections, transit riders on buses, drivers waiting in vehicle queues, and bicyclists waiting for a green light at a traffic signal.

Based on general industry practice in urban areas, changes to signal operations including timing and signal phasing are considered to mitigate impacts to less than significant levels only if the changes can be accomplished within the current cycle length or if the signal cycle length is no greater than 90 seconds. In general, longer cycle lengths are considered to cause adverse impacts to pedestrians and bicyclists because they would experience additional delay at the intersection and so do not fully mitigate intersection impacts. Additional upgrades may also be needed for the signal equipment to comply with the latest local, state, and federal requirements. These may include: providing count-down pedestrian signal heads, providing audible pedestrian signals, and providing bicycle detection at actuated signals.

Table 4.11-15
Intersection LOS Summary
Existing Plus Project Mitigated Conditions

#	Study Intersection	Traffic Control[1]	Peak Hour	Existing		Existing Plus Project		Existing Plus Project Mitigated		Significance after Mitigation
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
12	Shattuck Avenue/ 52nd Street	Signal	Weekday PM	40.9	D	41.4	D	41.4	D	Less than Significant
			Saturday MD	41.7	D	42.5	D	42.5	D	
			Saturday PM	54.6	D	**57.3**	**E**	43.5	D	
15	Telegraph Avenue/ 51st Street	Signal	Weekday PM	**63.3**	**E**	**65.2**	**E**	47.8	D	Less than Significant
			Saturday MD	50.1	D	53.1	D	53.1	D	
			Saturday PM	47.2	D	50.2	D	50.2	D	
19	Howe Street/ Pleasant Valley Avenue	SSSC	Weekday PM	4.5 **(59.7)**	A **(F)**	2.3 (32.6)	A (D)	2.3 (32.6)	A (D)	***Significant and Unavoidable***[3]
			Saturday MD	12.4 **(137.8)**	B **(F)**	16.6 **(197.7)**	C **(F)**	16.6 **(197.7)**	C **(F)**	
			Saturday PM	2.8 **(43.1)**	A **(E)**	2.3 **(38.3)**	A **(E)**	2.3 **(38.3)**	A **(E)**	
20	Piedmont Avenue/ Pleasant Valley Avenue	Signal	Weekday PM	**55.7**	**E**	**66.4**	**E**	19.5	B	Less than Significant
			Saturday MD	33.5	C	45.8	D	14.7	B	
			Saturday PM	39.4	D	51.4	D	16.1	B	

Notes: **Bold** indicates intersection operating at unacceptable LOS E or LOS F

1. Signal = signalized intersection, SSSC = side-street stop controlled intersection
2. For side-street stop controlled intersections, delay is reported as: intersection average (worst minor street approach); for signalized intersection, the average intersection delay is reported; for signalized intersections operating with high delay, volume-to-capacity (v/c) ratio is also reported. LOS for both unsignalized and signalized intersections based on 2000 HCM.
3. Although the proposed mitigation measure would mitigate the impact, the impact is identified as significant and unavoidable due to potential secondary impacts.

Source: Fehr & Peers, 2012.

2015 Intersection Impacts

This section addresses the intersection impacts that would occur in 2015 with the completion of the proposed Project. Items discussed in this section include the development of traffic volume forecasts for the 2015 No Project and 2015 Plus Project scenarios, intersection operations results, and Project intersection impacts.

2015 Intersection Traffic Forecasts

Traffic volume forecasts for the 2015 No Project scenario were developed using the ACTC Model and existing traffic counts, which reflect past, present, and future developments expected by year 2015. The main inputs to the 2015 forecasting process are the model outputs from a modified version of the ACTC Model (with updated land use) and the existing traffic counts. The base land use data in the ACTC Model was modified to reflect more accurate land use projections in the City of Oakland, including developments on the City's Active Major Project list. **Appendix 4.11I** describes the modifications to the model land use database that assure that the ACTC Model correctly accounts for traffic growth from pending, planned, proposed, and recently completed residential and non-residential developments in the Project vicinity.

The ACTC Model produces weekday peak hour roadway segment volumes. The difference method, which increases existing turning movement volumes to reflect model-predicted increases in roadway segment volumes, was applied to these forecasted segment volumes to estimate weekday PM peak hour intersection turning movements under 2015 No Project conditions.

Since the ACTC model does not include non-weekday time periods, the ratio between the weekday PM peak hour existing volumes and the forecasted 2015 No Project volumes were applied to the existing Saturday midday and PM peak hour volumes to estimate Saturday midday and PM peak hour volumes under the 2015 No Project conditions. **Figure 4.11-19** shows the traffic volumes for the 2015 No Project scenario.

In addition, this analysis assumes that pedestrian and bicycle volumes at the study intersections would increase proportional to the projected growth in land uses in the study area.

Figure 4.11-20 shows the traffic volumes under the 2015 Plus Project scenario. They include 2015 No Project traffic volumes plus traffic volumes generated by the proposed Project.

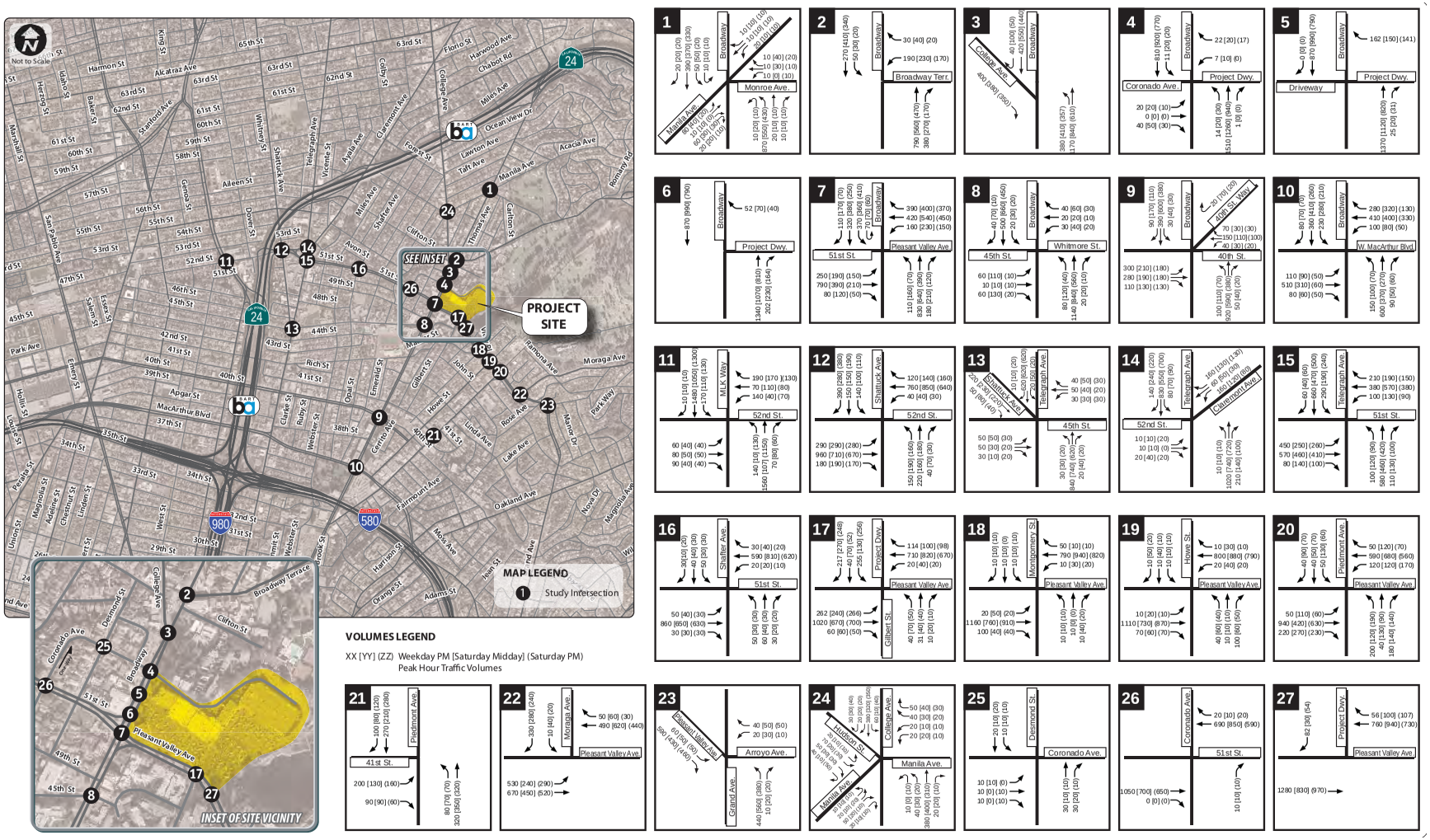


Figure 4.11-19
2015 No Project Conditions, Peak Hour Traffic Volumes

Source: Fehr & Peers

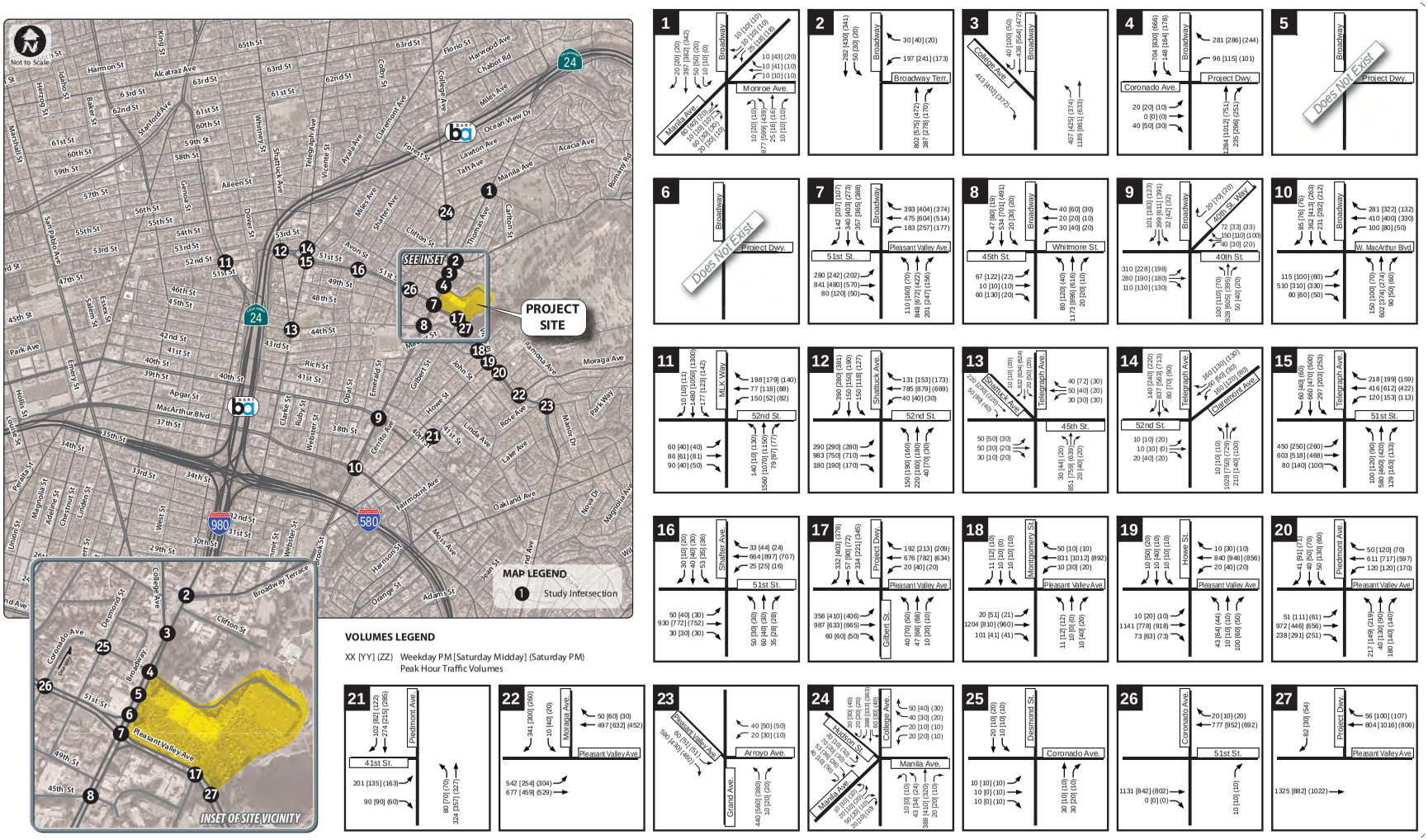


Figure 4.11-20
2015 Plus Project Conditions, Peak Hour Traffic Volumes

Source: Fehr & Peers

Roadway Network

The 2015 No Project and Plus Project analyses assume the following modifications as previously described:

- Broadway/40th Street (#9) intersection:
  - Modify northbound approach from the current configuration which provides one shared through/ right lane, one through lane, and one shared through/left-turn lane to provide one shared right-turn/through lane, one through lane, and one left-turn lane.
  - Modify traffic signal equipment to provide protected/permissive phasing for the northbound left-turn movement.
- Broadway/West MacArthur Boulevard (#10) intersection:
  - Modify eastbound approach from the current configuration to provide one shared through/right lane, two through lanes, and one left-turn lane.
  - Modify northbound approach from the current configuration to provide one right-turn lane, two through lanes, and one left-turn lane.

In addition the 2015 Plus Project analysis assumes that the proposed Project would implement a number of modifications to street configurations and signal operations in the study area as previously described.

No other modifications to the roadway network that would affect the intersection traffic operations, including signal timing optimization, are assumed for the 2015 No Project or Plus Project analyses.

2015 Intersection Operations

The forecasted 2015 intersection turning movement volumes in conjunction with the 2015 intersection lane configurations and traffic signal timings were used to evaluate intersection operations for the 2015 No Project scenario. The 2015 Plus Project scenario was analyzed after adding trips generated by the Project and accounting for the roadway modifications proposed by the Project. **Table 4.11-16** summarizes the results of the traffic operations analysis. **Appendix 4.11J** and **Appendix 4.11K** present the detailed intersection LOS calculation worksheets for the 2015 No Project and 2015 Plus Project conditions, respectively.

Table 4.11-16
Intersection LOS Summary
2015 Conditions

#	Study Intersection	Traffic Control [1]	Peak Hour	2015 No Project		2015 Plus Project		Significant Impact?
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
1	Broadway/Manila Avenue/ Monroe Avenue	Signal	Weekday PM	10.4	B	10.5	B	No
			Saturday MD	27.3	C	28.5	C	No
			Saturday PM	20.5	C	20.7	C	No
2	Broadway/Broadway Terrace	Signal	Weekday PM	11.7	B	14.1	B	No
			Saturday MD	9.9	A	8.8	A	No
			Saturday PM	7.6	A	6.3	A	No

Table 4.11-16
Intersection LOS Summary
2015 Conditions

#	Study Intersection	Traffic Control [1]	Peak Hour	2015 No Project		2015 Plus Project		Significant Impact?
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
3	Broadway/College Avenue	Signal	Weekday PM	10.1	B	10.0	B	No
			Saturday MD	13.4	B	12.4	B	No
			Saturday PM	12.9	B	12.1	B	No
4	Broadway/Coronado Avenue/ North Project Driveway	SSSC/ Signal[3]	Weekday PM	1.9 **(65.1)**	A **(F)**	26.7	C	No
			Saturday MD	2.5 (**74.1**)	A (**F**)	15.3	B	No
			Saturday PM	0.9 (20.2)	A (C)	16.5	B	No
5	Broadway/Center Project Driveway	SSSC	Weekday PM	1.2 (17.7)	A (C)	Does Not Exist		No
			Saturday MD	0.9 (14.0)	A (B)			No
			Saturday PM	0.9 (11.7)	A (B)			No
6	Broadway/South Project Driveway	SSSC	Weekday PM	0.3 (14.8)	A (B)	Does Not Exist		No
			Saturday MD	0.4 (12.9)	A (B)			No
			Saturday PM	0.2 (10.9)	A (B)			No
7	Broadway/51st Street/ Pleasant Valley Avenue	Signal	Weekday PM	50.8	D	**55.1**	**E**	Yes[4]
			Saturday MD	**62.2**	**E**	**55.6**	**E**	Yes[5]
			Saturday PM	45.5	D	39.7	D	No
8	Broadway/45th Street	Signal	Weekday PM	10.2	B	7.7	A	No
			Saturday MD	10.2	B	13.2	B	No
			Saturday PM	7.9	A	5.0	A	No
9	Broadway/40th Street/ 40th Street Way	Signal	Weekday PM	20.4	C	17.8	B	No
			Saturday MD	16.0	B	17.3	B	No
			Saturday PM	20.8	C	15.8	B	No
10	Broadway/West MacArthur Boulevard	Signal	Weekday PM	34.7	C	35.3	D	No
			Saturday MD	38.2	D	39.7	D	No
			Saturday PM	32.0	C	32.8	C	No
11	Martin Luther King Jr. Way/ 52nd Street	Signal	Weekday PM	27.3	C	28.7	C	No
			Saturday MD	13.9	B	14.7	B	No
			Saturday PM	17.3	B	18.3	B	No
12	Shattuck Avenue/ 52nd Street	Signal	Weekday PM	43.3	D	44.0	D	No
			Saturday MD	43.0	D	43.4	D	No
			Saturday PM	**62.8**	**E**	**65.6**	**E**	Yes[5]
13	Telegraph Avenue/Shattuck Avenue	Signal	Weekday PM	7.6	A	7.6	A	No
			Saturday MD	6.7	A	7.3	A	No

Table 4.11-16
Intersection LOS Summary
2015 Conditions

#	Study Intersection	Traffic Control [1]	Peak Hour	2015 No Project		2015 Plus Project		Significant Impact?
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
			Saturday PM	5.1	A	5.1	A	No
14	Telegraph Avenue/52nd Street/ Claremont Avenue	Signal	Weekday PM	18.6	B	18.5	B	No
			Saturday MD	17.6	B	17.5	B	No
			Saturday PM	13.0	B	12.9	B	No
15	Telegraph Avenue/51st Street	Signal	Weekday PM	**63.9**	**E**	**65.8**	**E**	Yes[5]
			Saturday MD	51.6	D	53.8	D	No
			Saturday PM	47.8	D	51.2	D	No
16	Shafter Avenue/51st Street	Signal	Weekday PM	12.1	B	12.3	B	No
			Saturday MD	11.4	B	11.9	B	No
			Saturday PM	10.9	B	11.3	B	No
17	Gilbert Street/Project Driveway/ Pleasant Valley Avenue	Signal	Weekday PM	14.2	B	24.4	C	No
			Saturday MD	15.7	B	27.4	C	No
			Saturday PM	16.0	B	28.9	C	No
18	Montgomery Street/Pleasant Valley Avenue	SSSC	Weekday PM	3.6 **(136.6)**	A **(F)**	3.7 **(144.5)**	A **(F)**	No[6]
			Saturday MD	2.8 **(82.0)**	A (**F**)	2.3 (**60.9**)	A **(F)**	No[6]
			Saturday PM	1.3 (34.4)	A (D)	1.3 (**35.1**)	A (**E**)	No[6]
19	Howe Street/Pleasant Valley Avenue	SSSC	Weekday PM	17.7 **(235.2)**	C **(F)**	4.9 **(59.6)**	A **(F)**	Yes[7]
			Saturday MD	29.4 **(360.1)**	D(**F**)	34.5 (**445.4**)	D (**F**)	Yes[7]
			Saturday PM	6.0 **(91.6)**	A **(F)**	4.6 **(69.2)**	A **(F)**	No[6]
20	Piedmont Avenue/Pleasant Valley Avenue	Signal	Weekday PM	**72.6**	**E**	**87.1 (v/c=1.10)**	**F**	Yes[8]
			Saturday MD	46.1	D	**61.0**	**E**	Yes[4]
			Saturday PM	49.9	D	**66.3**	**E**	Yes[4]
21	Piedmont Avenue/41st Street	Signal	Weekday PM	10.5	B	10.5	B	No
			Saturday MD	10.5	B	10.6	B	No
			Saturday PM	9.9	A	9.9	A	No
22	Moraga Avenue/Pleasant Valley Avenue	Signal	Weekday PM	26.6	C	28.2	C	No
			Saturday MD	22.4	C	23.0	C	No
			Saturday PM	16.9	B	17.2	B	No
23	Grand Avenue/Arroyo Avenue/Pleasant Valley Avenue	Signal	Weekday PM	6.4	A	6.4	A	No
			Saturday MD	7.7	A	7.8	A	No
			Saturday PM	6.2	A	6.3	A	No

Table 4.11-16
Intersection LOS Summary
2015 Conditions

#	Study Intersection	Traffic Control [1]	Peak Hour	2015 No Project		2015 Plus Project		Significant Impact?
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
24	Hudson Street/ Manila Avenue/ College Avenue	Signal	Weekday PM	38.0	D	41.2	D	No
			Saturday MD	21.3	C	22.5	C	No
			Saturday PM	19.6	B	20.3	C	No
25	Desmond Street/Coronado Avenue	SSSC	Weekday PM	7.7 (9.7)	A (A)	7.7 (9.7)	A (A)	No
			Saturday MD	8.7 (9.4)	A (A)	8.7 (9.4)	A (A)	No
			Saturday PM	6.6 (9.3)	A (A)	6.6 (9.3)	A (A)	No
26	Coronado Avenue/51st Street	SSSC	Weekday PM	0.1 (11.3)	A (A)	0.1 (11.1)	A (A)	No
			Saturday MD	0.1 (11.2)	A (B)	0.1 (11.0)	A (B)	No
			Saturday PM	0.1 (11.1)	A (B)	0.1 (11.2)	A (B)	No
27	Project Driveway/Pleasant Valley Avenue	SSSC	Weekday PM	0.5 (12.6)	A (B)	0.5 (12.9)	A (B)	No
			Saturday MD	0.2 (14.1)	A (B)	0.2 (14.7)	A (B)	No
			Saturday PM	0.4 (12.3)	A (B)	0.3 (12.8)	A (B)	No

Notes: **Bold** indicates intersection operating at unacceptable LOS E or LOS F

1. Signal = signalized intersection, SSSC = side-street stop controlled intersection
2. For side-street stop controlled intersections, delay is reported as: intersection average (worst minor street approach); for signalized intersection, the average intersection delay is reported; for signalized intersections operating with high delay, volume-to-capacity (v/c) ratio is also reported. LOS for both unsignalized and signalized intersections based on 2000 HCM.
3. Intersection is side-street stop-controlled under No Project conditions and signalized under Plus Project conditions.
4. The proposed Project would cause an impact at this intersection because it would degrade intersection operations from LOS D to LOS E.
5. The proposed Project would cause an impact at this intersection because it would increase delay for a critical movement by more than six seconds at an intersection already operating at LOS E.
6. The proposed Project would not cause an impact at this unsignalized intersection because the intersection would not meet the peak hour signal warrant, although it would operate at LOS E or LOS F.
7. The proposed Project would cause an impact at this unsignalized intersection because it would add more than ten trips to the intersection and the intersection would meet the peak hour signal warrant.
8. The proposed Project would cause an impact at this intersection because it would degrade intersection operations from LOS E to LOS F.

Source: Fehr & Peers, 2012.

The following intersections are projected to operate at a deficient level in 2015 without or with the proposed Project:

- #4 The side-street stop-controlled westbound approach at the Broadway/Coronado Avenue/North Project Driveway intersection would operate at LOS F during the weekday PM and Saturday midday peak hours under 2015 No Project conditions. This intersection would be signalized as part of the Project and would improve to LOS C during the weekday PM peak hour LOS B during the Saturday midday peak hour.
- #7 The signalized Broadway/51st Street/Pleasant Valley Avenue intersection would degrade from LOS D under 2015 No Project Conditions to LOS E under 2015 Plus Project conditions during the weekday PM peak hour. The intersection would operate at LOS E during the Saturday midday peak hour and at LOS D during the Saturday PM peak hour regardless of the proposed Project.

- #12 The signalized Shattuck Avenue/52nd Street intersection would operate at LOS E during the Saturday PM peak hour regardless of the proposed Project.
- #15 The signalized Telegraph Avenue/51st Street intersection would operate at LOS E during the weekday PM peak hour regardless of the proposed Project.
- #18 The side-street stop-controlled northbound approach at the Montgomery Street/Pleasant Valley Avenue intersection would operate at LOS F during the weekday PM and Saturday midday peak hour regardless of the proposed Project. The approach would degrade from LOS D under 2015 No Project Conditions to LOS E under 2015 Plus Project conditions during the Saturday PM peak hour. This intersection would not meet the peak-hour volume signal warrant.
- #19 The side-street stop-controlled northbound approach at the Howe Street/Pleasant Valley Avenue intersection would operate at LOS F during the weekday and Saturday peak hours regardless of the proposed Project in 2015. This intersection would meet the peak-hour volume signal warrant during the weekday PM and Saturday midday peak hours.
- #20 The signalized Piedmont Avenue/Pleasant Valley Avenue intersection would degrade from LOS E under 2015 No Project Conditions to LOS F under 2015 Plus Project conditions during the weekday PM peak hour. The intersection would also degrade from LOS D under 2015 No Project conditions to LOS E under 2015 Plus Project conditions during both Saturday midday and PM peak hours.

The proposed Project would cause a significant impact at the following intersections:

- #7 Broadway/51st Street/Pleasant Valley Avenue
- #12 Shattuck Avenue/52nd Street
- #15 Telegraph Avenue/51st Street
- #19: The side-street stop-controlled northbound approach at the Howe Street/Pleasant Valley Avenue intersection. The proposed Project would reduce the delay experienced by the northbound approach of the intersection during the weekday PM peak hour due to improved traffic flow along Pleasant Valley Avenue. The northbound approach at this intersection would also continue to operate at LOS F during the Saturday midday peak hour. Since the unsignalized intersection would continue to meet the peak hour signal warrant and the proposed Project would add more than ten peak hour trips to the intersection, this EIR conservatively identifies the impacts as a significant impact.
- #20 Piedmont Avenue/Pleasant Valley Avenue

Although the following unsignalized intersection would operate at LOS E or LOS F, the proposed Project would not cause an impact:

- #18 Montgomery Street/Pleasant Valley Avenue intersection would operate at an unacceptable LOS F during the weekday PM and Saturday midday peak hours and LOS E during the Saturday PM peak hour. However, the proposed Project would not cause a significant impact because the intersection would not meet the peak hour vehicle signal warrant without or with the traffic generated by the proposed Project during the weekday or Saturday peak hours.

Broadway/51st Street/Pleasant Valley Avenue (Intersection #7)

Impact Trans-5: The proposed Project would degrade intersection operations from LOS D to LOS E during the weekday PM peak hour at the Broadway/51st Street/Pleasant Valley Avenue (#7) intersection under 2015 Conditions. The proposed Project would also add traffic that would increase delay for the critical eastbound through movement by more than six

seconds during the Saturday midday peak hour, which the intersection would operate at LOS E regardless of the proposed Project (***Significant***)

Mitigation Measures

Mitigation Measure Trans-5: Implementation of the following measures at the Broadway/51st Street/Pleasant Valley Avenue intersection would reduce the impact to a less-than-significant level:

a) Install a left-turn lane on the westbound Pleasant Valley Avenue approach.

b) Install a left-turn lane on the eastbound 51st Street approach.

Resulting Level of Significance

After implementation of this measure, the intersection would improve to LOS D during both weekday PM and Saturday midday peak hours, mitigating the significant impact. However, this mitigation measure would require widening both 51st Street and Pleasant Valley Avenue. This would introduce an additional vehicle lane and increase the pedestrian distance crossing both 51st Street and Pleasant Valley Avenue. The intersection signal cycle length would also need to be increased to accommodate the increased pedestrian crossing distance. These modifications would conflict with City policy concerning pedestrian safety and comfort, including the Public Transit and Alternative Modes Policy (i.e., "Transit-First Policy") which supports alternative transportation modes to automobile travel, and the City's Pedestrian Master Plan Policy 1.1 which promotes using design elements, such as median refuges, to improve pedestrian safety at intersections. Additional automobile lanes would also degrade pedestrian safety by increasing pedestrian crossing distances and increasing pedestrian exposure to automobiles. Therefore, the mitigation would result in secondary unmitigated impacts. Due to the secondary significant impacts on pedestrians, adverse effects on other travel modes and conflicts with City policies, the mitigation is considered infeasible.

No other feasible mitigation measures are available that would mitigate the Project impacts at the Broadway/51st Street/Pleasant Valley Avenue (#7) intersection. Traffic operations at the intersection can be further improved by providing additional automobile travel lanes, such as a third through travel along northbound Broadway. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of bicycle lanes, on-street parking, or medians and are considered to be infeasible. Thus, the mitigation measure is considered infeasible and the impact would remain ***significant and unavoidable***.

Shattuck Avenue/52nd Street (Intersection #12)

Impact Trans-6: The Shattuck Avenue/52nd Street intersection is projected to operate at LOS E under 2015 Conditions, even without increased traffic from the Project. The proposed Project would add traffic that would increase delay for the critical southbound through movement by more than six seconds during the Saturday PM peak hour. (***Significant***)

Mitigation Measure

Mitigation Measure Trans-6: Implement Mitigation Measure Trans-1.

Resulting Level of Significance

After implementation of this measure, the intersection would improve to LOS D during the Saturday PM peak hour and reduce impacts to less than significant. No secondary significant impacts would result from implementation of this measure.

Telegraph Avenue/ 51st Street (Intersection #15)

Impact Trans-7: The Telegraph Avenue/ 51st Street intersection is projected to operate at LOS E under 2015 Conditions, even without increased traffic from the Project. The proposed Project would add traffic that would increase delay for the critical southbound left-turn movement by more than six seconds during the weekday PM peak hour. (***Significant***)

Mitigation Measure

Mitigation Measure Trans-7: Implement Mitigation Measure Trans-2.

Resulting Level of Significance

After implementation of this measure, the intersection would improve to LOS D during the weekday PM peak hour and reduce impacts to less than significant. No secondary significant impacts would result from implementation of this measure.

Howe Street/Pleasant Valley Avenue (Intersection #19)

Impact Trans-8: The proposed Project would add more than 10 trips to the Howe Street/Pleasant Valley Avenue (#19) intersection during the weekday PM and Saturday midday peak hours under 2015 Plus Project conditions. The intersection would meet the peak hour signal warrant during both time periods. (***Significant***)

Mitigation Measures

Mitigation Measure Trans-8: Implement Mitigation Measure Trans-3.

Resulting Level of Significance

Implementation any of the three measures described in Mitigation Measure Trans-3 would improve traffic operations at this intersection and mitigate the significant impact. However, because each of these three measures would result in significant and unavoidable secondary impacts, the mitigation measures are considered infeasible and the impact would remain ***significant and unavoidable***.

Piedmont Avenue/Pleasant Valley Avenue (Intersection #20)

Impact Trans-9: The proposed Project would degrade intersection operations from LOS E to LOS F during the weekday PM peak hour at the Piedmont Avenue/Pleasant Valley Avenue (#20) intersection under 2015 Conditions; the Project would also degrade the intersection operations during the Saturday midday and PM peak hour from LOS D to LOS E. (***Significant***)

Mitigation Measures

Mitigation Measure Trans-9: Implement Mitigation Measure Trans-4.

Resulting Level of Significance

After implementation of this measure, the intersection would improve to LOS C during the weekday PM, Saturday midday, and Saturday PM peak hours and the impact would be reduced to less than significant. No secondary significant impacts would result from implementation of this measure.

2015 Plus Project Mitigated Conditions

Table 4.3-17 summarizes intersection operations after implementation of the mitigation measures at the affected intersections. Mitigation measures would reduce the impacts at three of the five impacted intersections to a less than significant level. However, the impacts at the Broadway/51st Street /Pleasant Valley Avenue and Howe Street/Pleasant Valley Avenue intersections would remain significant and unavoidable.

Table 4.11-17
Intersection LOS Summary
2015 Plus Project, Mitigated Conditions

#	Study Intersection	Traffic Control [1]	Peak Hour	2015 No Project		2015 Plus Project		2015 Plus Project Mitigated		Significance after Mitigation
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
7	Broadway/51st Street/ Pleasant Valley Avenue	Signal	Weekday PM	50.8	D	**55.1**	**E**	**55.1**	**E**	***Significant and Unavoidable***[3]
			Saturday MD	**62.2**	**E**	**55.6**	**E**	**55.6**	**E**	
			Saturday PM	45.4	D	39.7	D	39.7	D	
12	Shattuck Avenue/ 52nd Street	Signal	Weekday PM	43.3	D	44.0	D	44.0	D	Less than Significant
			Saturday MD	43.0	D	43.4	D	43.4	D	
			Saturday PM	**62.8**	**E**	**65.6**	**E**	47.3	D	
15	Telegraph Avenue/51st Street	Signal	Weekday PM	**63.9**	**E**	**65.8**	**E**	48.9	D	Less than Significant
			Saturday MD	51.6	D	53.8	D	53.8	D	
			Saturday PM	47.8	D	51.2	D	50.3	D	
19	Howe Street/Pleasant Valley Avenue	SSSC	Weekday PM	17.7 **(235.2)**	C **(F)**	4.7 **(57.3)**	A **(F)**	4.5**(53.6)**	A **(F)**	***Significant and Unavoidable***[3]
			Saturday MD	29.4 **(360.1)**	D(**F**)	34.5 (**445.4**)	D (**F**)	34.5 (**445.4**)	D (**F**)	
			Saturday PM	6.0 **(91.6)**	A **(F)**	6.2 **(92.2)**	A **(F)**	4.6**(68.9)**	A **(F)**	
20	Piedmont Avenue/Pleasant Valley Avenue	Signal	Weekday PM	**72.6**	**E**	**86.0 (v/c=1.09)**	**F**	25.2	C	Less than Significant
			Saturday MD	46.1	D	**61.0**	**E**	28.5	C	
			Saturday PM	49.9	D	**62.5**	**E**	21.8	C	

Notes: **Bold** indicates intersection operating at unacceptable LOS E or LOS F

1. Signal = signalized intersection, SSSC = side-street stop controlled intersection
2. For side-street stop controlled intersections, delay is reported as: intersection average (worst minor street approach); for signalized intersection, the average intersection delay is reported; for signalized intersections operating with high delay, volume-to-capacity (v/c) ratio is also reported. LOS for both unsignalized and signalized intersections based on 2000 HCM.
3. Although the proposed mitigation measure would mitigate the impact, the impact is identified as significant and unavoidable due to potential secondary impacts.

Source: Fehr & Peers, 2012.

2035 Intersection Impacts

This section addresses the intersection impacts that would occur in 2035 with the completion of the proposed Project. Items discussed in this section include the development of traffic volume forecasts for the 2035 No Project and 2035 Plus Project scenarios, intersection operations results, and Project intersection impacts.

2035 Intersection Traffic Forecasts

The 2035 No Project intersection turning movement forecasts were developed using the same procedure as the 2015 No Project forecasts. The only difference is that instead of the ACTC model output for 2015, the ACTC model output for 2035, which reflects past, present, and future developments expected by year 2035, was used. **Figure 4.11-21** shows the traffic volumes for the 2035 No Project scenario.

Figure 4.11-22 shows the traffic volumes under the 2035 Plus Project scenario. They consist of 2035 No Project traffic volumes plus traffic volumes generated by the proposed Project.

Roadway Network

The 2035 No Project and Plus Project analyses assume the following modifications as described on page 4.11-30:

- Broadway/40th Street (#9) intersection:
  - Modify northbound approach from the current configuration which provides one shared through/ right lane, one through lane, and one shared through/left-turn lane to provide one shared right-turn/through lane, one through lane, and one left-turn lane.
  - Modify traffic signal equipment to provide protected/permissive phasing for the northbound left-turn movement.
- Broadway/West MacArthur Boulevard (#10) intersection:
  - Modify eastbound approach from the current configuration to provide one shared through/right lane, two through lanes, and one left-turn lane.
  - Modify northbound approach from the current configuration to provide one right-turn lane, two through lanes, and one left-turn lane.

In addition the 2035 Plus Project analysis assumes that the proposed Project would implement a number of modifications to street configurations and signal operations in the study area as described on page 4.11-39.

No other modifications to the roadway network that would affect the intersection traffic operations, including signal timing optimization, are assumed for the 2035 No Project or Plus Project analyses.

2035 Intersection Operations

The forecasted 2035 intersection turning movement volumes in conjunction with the 2035 intersection lane configurations and traffic signal timings were used to evaluate intersection operations for the 2035 No Project scenario. The 2035 Plus Project scenario was analyzed after adding trips generated by the Project, and accounting for the roadway modifications proposed by the Project. **Table 4.11-18** summarizes the results of the traffic operations analysis. **Appendix 4.11L** and **Appendix 4.11M** present the detailed intersection LOS calculation worksheets for 2035 No Project and 2035 Plus Project conditions, respectively.

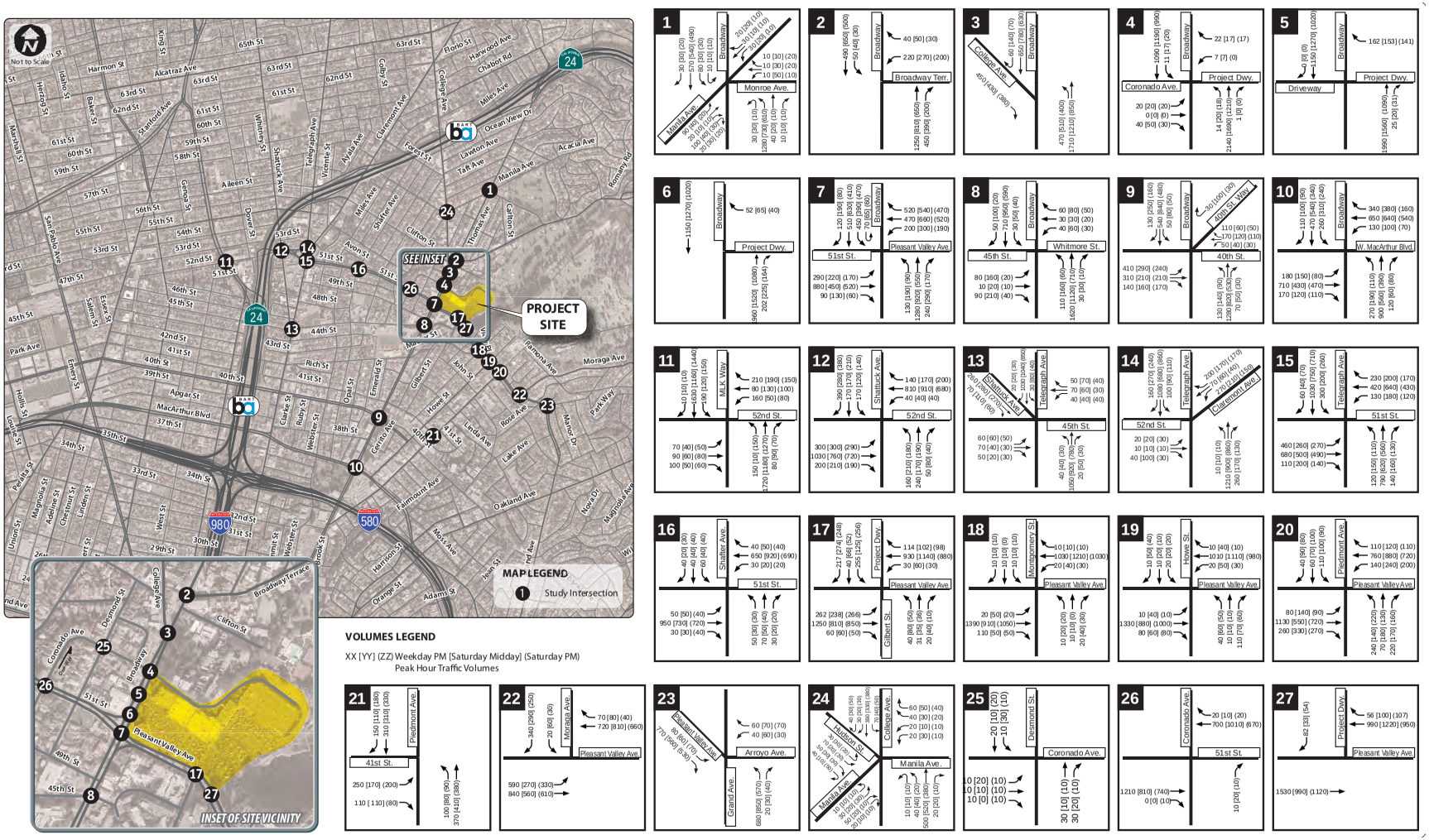


Figure 4.11-21
2035 No Project Conditions, Peak Hour Traffic Volumes

Source: Fehr & Peers

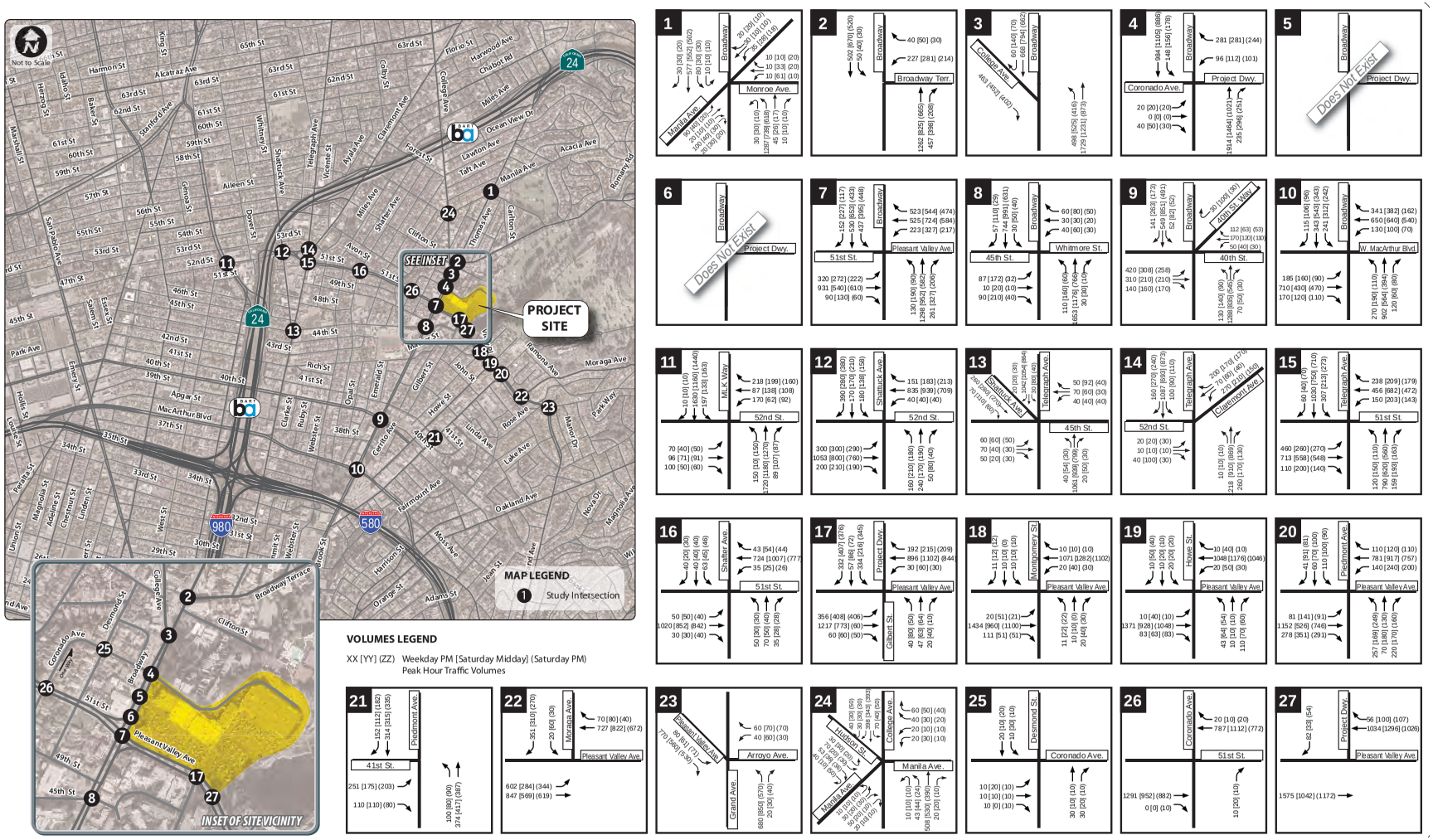


Figure 4.11-22
Cumulative 2035 Plus Project Conditions, Peak Hour Traffic Volumes

Source: Fehr & Peers

Table 4.11-18
Intersection LOS Summary
2035 Conditions

#	Study Intersection	Traffic Control[1]	Peak Hour	2035 No Project		2035 Plus Project		Significant Impact?
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
1	Broadway/Manila Avenue/ Monroe Avenue	Signal	Weekday PM	15.8	B	16.0	B	No
			Saturday MD	46.5	D	52.8	D	No
			Saturday PM	28.2	C	29.7	C	No
2	Broadway/Broadway Terrace	Signal	Weekday PM	28.6	C	22.2	C	No
			Saturday MD	13.8	B	11.9	B	No
			Saturday PM	9.1	A	7.7	A	No
3	Broadway/College Avenue	Signal	Weekday PM	11.4	B	13.0	B	No
			Saturday MD	16.9	B	14.4	B	No
			Saturday PM	13.6	B	11.8	B	No
4	Broadway/Coronado Avenue/ North Project Driveway	SSSC/ Signal[3]	Weekday PM	2.8 **(206.9)**	A **(F)**	43.9	D	No
			Saturday MD	2.3 (**109.7**)	A (**F**)	24.7	C	No
			Saturday PM	1.6 **(53.7)**	A **(F)**	15.2	B	No
5	Broadway/Center Project Driveway	SSSC	Weekday PM	0.5 (10.8)	A (B)	Does Not Exist		No
			Saturday MD	0.5 (10.3)	A (B)			No
			Saturday PM	0.8 (13.2)	A (B)			No
6	Broadway/South Project Driveway	SSSC	Weekday PM	0.2 (9.9)	A (A)	Does Not Exist		No
			Saturday MD	0.3 (14.9)	A (B)			No
			Saturday PM	0.2 (11.7)	A (B)			No
7	Broadway/51st Street/ Pleasant Valley Avenue	Signal	Weekday PM	**120.0 (v/c=1.13)**	**F**	**136.4 (v/c=1.23)**	**F**	Yes[4, 5]
			Saturday MD	**146.1 (v/c=1.31)**	**F**	**139.7 (v/c=1.24)**	**F**	Yes[5]
			Saturday PM	**57.0**	**E**	47.2	D	No
8	Broadway/45th Street	Signal	Weekday PM	12.0	B	10.0	A	No
			Saturday MD	27.1	C	23.7	C	No
			Saturday PM	8.6	A	6.3	A	No
9	Broadway/40th Street/ 40th Street Way	Signal	Weekday PM	29.0	C	27.2	C	No
			Saturday MD	20.5	C	22.7	C	No
			Saturday PM	21.9	C	17.2	B	No
10	Broadway/West MacArthur Boulevard	Signal	Weekday PM	49.2	D	53.2	D	No
			Saturday MD	45.3	D	47.1	D	No
			Saturday PM	34.7	C	35.6	D	No

Table 4.11-18
Intersection LOS Summary
2035 Conditions

#	Study Intersection	Traffic Control[1]	Peak Hour	2035 No Project		2035 Plus Project		Significant Impact?
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
11	Martin Luther King Jr. Way/ 52nd Street	Signal	Weekday PM	32.9	C	35.7	D	No
			Saturday MD	15.0	B	16.8	B	No
			Saturday PM	20.1	C	21.2	C	No
12	Shattuck Avenue/ 52nd Street	Signal	Weekday PM	52.5	D	53.0	D	No
			Saturday MD	48.3	D	48.3	D	No
			Saturday PM	**83.6 (v/c=0.93)**	**F**	**84.0 (v/c=0.94)**	**F**	Yes[4]
13	Telegraph Avenue/Shattuck Avenue	Signal	Weekday PM	10.0	A	10.0	A	No
			Saturday MD	9.3	A	10.1	B	No
			Saturday PM	6.7	A	6.7	A	No
14	Telegraph Avenue/52nd Street/ Claremont Avenue	Signal	Weekday PM	26.3	C	26.3	C	No
			Saturday MD	36.9	D	37.8	D	No
			Saturday PM	16.5	B	16.3	B	No
15	Telegraph Avenue/51st Street	Signal	Weekday PM	**66.7**	**E**	**68.9**	**E**	Yes[6]
			Saturday MD	**60.9**	**E**	**66.1**	**E**	Yes[7]
			Saturday PM	53.5	D	**56.7**	**E**	Yes[8]
16	Shafter Avenue/51st Street	Signal	Weekday PM	12.6	B	12.9	B	No
			Saturday MD	12.1	B	12.6	B	No
			Saturday PM	11.4	B	11.9	B	No
17	Gilbert Street/Project Driveway/ Pleasant Valley Avenue	Signal	Weekday PM	16.0	B	26.6	C	No
			Saturday MD	23.9	C	33.8	C	No
			Saturday PM	17.8	B	29.5	C	No
18	Montgomery Street/Pleasant Valley Avenue	SSSC	Weekday PM	5.8 **(209.7)**	A **(F)**	6.2 **(230.6)**	A **(F)**	No[9]
			Saturday MD	9.3 **(216.3)**	A **(F)**	3.4 (**69.8**)	A (**F**)	No[9]
			Saturday PM	2.2 **(55.4)**	A **(F)**	1.8 **(43.2)**	A **(E)**	No[9]
19	Howe Street/Pleasant Valley Avenue	SSSC	Weekday PM	24.5 **(345.9)**	C **(F)**	5.7 **(73.9)**	A **(F)**	Yes[10]
			Saturday MD	*** (*)**	**F (F)**	18.5 (**238.2**)	C (F)	Yes[10]
			Saturday PM	26.7**(420.6)**	C **(F)**	6.4**(92.9)**	A **(F)**	Yes[10]

Table 4.11-18
Intersection LOS Summary
2035 Conditions

#	Study Intersection	Traffic Control[1]	Peak Hour	2035 No Project		2035 Plus Project		Significant Impact?
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
20	Piedmont Avenue/Pleasant Valley Avenue	Signal	Weekday PM	**164.7 (v/c=1.37)**	**F**	**180.3 (v/c=1.42)**	**F**	Yes[4, 5]
			Saturday MD	**140.9 (v/c=1.27)**	**F**	**167.4 (v/c=1.37)**	**F**	Yes[4, 5]
			Saturday PM	**119.7 (v/c=1.26)**	**F**	**139.5 (v/c=1.34)**	**F**	Yes[4, 5]
21	Piedmont Avenue/41st Street	Signal	Weekday PM	11.5	B	11.6	B	No
			Saturday MD	12.2	B	12.3	B	No
			Saturday PM	10.8	B	10.9	B	No
22	Moraga Avenue/Pleasant Valley Avenue	Signal	Weekday PM	41.4	D	44.0	D	No
			Saturday MD	52.2	D	54.3	D	No
			Saturday PM	22.5	C	23.2	C	No
23	Grand Avenue/Arroyo Avenue/ Pleasant Valley Avenue	Signal	Weekday PM	10.6	B	10.6	B	No
			Saturday MD	23.0	C	23.1	C	No
			Saturday PM	8.2	A	8.3	A	No
24	Hudson Street/Manila Avenue/ College Avenue	Signal	Weekday PM	**75.7**	**E**	**83.1 (v/c=0.80)**	**F**	Yes[11]
			Saturday MD	34.9	C	39.0	D	No
			Saturday PM	23.2	C	24.3	C	No
25	Desmond Street/Coronado Avenue	SSSC	Weekday PM	7.7 (9.7)	A (A)	7.7 (9.7)	A (A)	No
			Saturday MD	8.1 (9.8)	A (A)	8.1 (9.8)	A (A)	No
			Saturday PM	6.6 (9.4)	A (A)	6.6 (9.4)	A (A)	No
26	Coronado Avenue/51st Street	SSSC	Weekday PM	0.1 (11.4)	A (B)	0.1 (11.2)	A (B)	No
			Saturday MD	0.1 (11.4)	A (B)	0.1 (11.0)	A (B)	No
			Saturday PM	0.1 (11.3)	A (B)	0.1 (11.0)	A (B)	No
27	Project Driveway/Pleasant Valley Avenue	SSSC	Weekday PM	0.4 (14.6)	A (B)	0.4 (15.0)	A (B)	No
			Saturday MD	0.2 (17.1)	A (C)	0.2 (17.9)	A (C)	No
			Saturday PM	0.3 (13.9)	A (B)	0.3 (14.6)	A (B)	No

Notes: **Bold** indicates intersection operating at unacceptable LOS E or LOS F. * indicates that intersection parameters exceed the limits of the methodology and delay cannot be calculated.

1. Signal = signalized intersection, SSSC = side-street stop controlled intersection
2. For side-street stop controlled intersections, delay is reported as: intersection average (worst minor street approach); for signalized intersection, the average intersection delay is reported; for signalized intersections operating with high delay, volume-to-capacity (v/c) ratio is also reported. LOS for both unsignalized and signalized intersections based on 2000 HCM.
3. Intersection is side-street stop-controlled under No Project conditions and signalized under Plus Project conditions.
4. The proposed Project would cause an impact at this intersection because it would increase the intersection v/c ratio by 0.01 or more at an intersection already operating at LOS F.

Table 4.11-18
Intersection LOS Summary
2035 Conditions

#	Study Intersection	Traffic Control[1]	Peak Hour	2035 No Project		2035 Plus Project		Significant Impact?
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	

5. The proposed Project would cause an impact at this intersection because it would increase the v/c ratio for a critical movement by 0.02 or more at an intersection already operating at LOS F.
6. The proposed Project would cause an impact at this intersection because it would increase delay for a critical movement by more than six seconds at an intersection already operating at LOS E.
7. The proposed Project would cause an impact at this intersection because it would increase intersection average delay by more than four seconds at an intersection already operating at LOS E.
8. The proposed Project would cause an impact at this intersection because it would degrade intersection operations from LOS D to LOS E.
9. The proposed Project would not cause an impact at this unsignalized intersection because the intersection would not meet the peak hour signal warrant, although it would operate at LOS E or LOS F.
10. The proposed Project would cause an impact at this unsignalized intersection because it would add more than ten trips to the intersection and the intersection would meet the peak hour signal warrant.
11. The proposed Project would cause an impact at this intersection because it would degrade intersection operations from LOS E to LOS F.

Source: Fehr & Peers, 2012.

The following intersections are projected to operate at a deficient level in 2035 without or with the proposed Project:

- #4 The side-street stop-controlled westbound approach at the Broadway/Coronado Avenue/North Project Driveway intersection would operate at LOS F during the weekday PM, Saturday midday, and Saturday PM peak hours under 2035 No Project conditions. This intersection would be signalized as part of the Project and would improve to LOS D or better under 2035 Plus Project conditions.
- #7 The signalized Broadway/51st Street/Pleasant Valley Avenue intersection would operate at LOS F during the weekday PM and Saturday midday peak hours, regardless of the proposed Project. The intersection would operate at LOS E during the Saturday PM peak hour under 2035 No Project conditions and improve to LOS D under 2035 Plus Project conditions.
- #12 The signalized Shattuck Avenue/52nd Street intersection would operate at LOS E and LOS F during the weekday PM and Saturday PM peak hours, respectively, regardless of the proposed Project.
- #15 The signalized Telegraph Avenue/51st Street intersection (# 15) would operate at LOS E during the weekday PM and Saturday midday peak hours regardless of the proposed Project. During the Saturday PM peak hour, the intersection would degrade from LOS D under 2035 No Project conditions to LOS E under 2035 Plus Project conditions.
- #18 The side-street stop-controlled northbound approach at the Montgomery Street/Pleasant Valley Avenue intersection would operate at LOS E or LOS F during the weekday PM, Saturday midday, and Saturday PM peak hours regardless of the proposed Project. The intersection would not meet the peak-hour volume signal warrant.
- #19 The side-street stop-controlled northbound approach at the Howe Street/Pleasant Valley Avenue intersection would operate at LOS F during the weekday PM, Saturday midday, and Saturday PM peak hours regardless of the proposed Project. The intersection would meet the peak-hour volume signal warrant during all three peak hours.

- #20 The signalized Piedmont Avenue/Pleasant Valley Avenue intersection would operate at LOS F during the weekday PM, Saturday midday, and Saturday PM peak hours regardless of the proposed Project.
- #24 The signalized Hudson Street/Manila Avenue/College Avenue intersection would degrade from LOS E under 2035 No Project conditions to LOS F under 2035 Plus Project conditions during the weekday PM peak hour.

The proposed Project would cause a significant impact at the following intersections:

- #7 Broadway/51st Street/Pleasant Valley Avenue
- #12 Shattuck Avenue/52nd Street
- #15 Telegraph Avenue/51st Street
- #19: The side-street stop-controlled northbound approach at the Howe Street/Pleasant Valley Avenue intersection. The proposed Project would reduce the delay experienced by the northbound approach of the intersection during the weekday PM, Saturday midday, and Saturday PM peak hours due to improved traffic flow along Pleasant Valley Avenue. Since the unsignalized intersection would continue to meet the peak hour signal warrant and the proposed Project would add more than ten peak hour trips to the intersection, this EIR conservatively identifies the impacts as a significant impact.
- #20 Piedmont Avenue/Pleasant Valley Avenue
- #24 Hudson Street/Manila Avenue/College Avenue

Although the following unsignalized intersection would operate at LOS E or LOS F, the proposed Project would not cause an impact:

- #18 Montgomery Street/Pleasant Valley Avenue intersection would operate at an unacceptable LOS F during the weekday PM peak hour and LOS E during the Saturday PM peak hour, the proposed Project would not cause a significant impact because the intersection would not meet the peak hour vehicle signal warrant without or with the traffic generated by the proposed Project during the weekday or Saturday PM peak hours.

Broadway/51st Street/Pleasant Valley Avenue (Intersection #7)

Impact Trans-10: The proposed Project would increase volume-to-capacity (v/c) ratio for the intersection by 0.01 or more and the critical movement v/c ratio for the eastbound left, eastbound through, westbound left, northbound through, and the southbound left movements by 0.02 or more during the weekday PM peak hour, and it would increase v/c ratio for the intersection by 0.01 or more and the critical movement v/c ratio for the eastbound left, eastbound through, and, northbound through movements by 0.02 or more during the Saturday midday peak hour at the Broadway/51st Street/Pleasant Valley Avenue (#7) intersection under 2035 Conditions, which would operate at LOS F regardless of the Project. (***Significant***)

Mitigation Measures

Mitigation Measure Trans-10 Implement Mitigation Measure Trans-5.

Resulting Level of Significance

After implementation of this measure, the intersection would continue to operate at LOS F during the weekday PM and Saturday midday peak hours. Although the mitigation measure would reduce the v/c

ratio for the intersection and the critical movements, it is not adequate to reduce the impact to a less-than-significant level. After the implementation of this mitigation measure, the proposed Project would continue to increase the intersection v/c ratio by 0.01 or more, and the critical movement v/c ratios by 0.02 or more. Therefore, even with the implementation of this mitigation measure, the impact would remain ***significant and unavoidable***.

In addition, this mitigation measure would require widening both 51st Street and Pleasant Valley Avenue. This would introduce an additional vehicle lane, and increase the pedestrian distance crossing both 51st Street and Pleasant Valley Avenue. The intersection signal cycle length would also need to be increased to accommodate the increased pedestrian crossing distances. These modifications would conflict with City policy concerning pedestrian safety and comfort, therefore resulting in secondary significant impacts. Due to the secondary significant impacts on pedestrians, the mitigation is considered infeasible.

No other feasible mitigation measures are available that would mitigate the Project impacts at the Broadway/51st Street/Pleasant Valley Avenue (#7) intersection. Traffic operations at the intersection can be further improved by providing additional automobile travel lanes, such as a third through travel along northbound Broadway. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of bicycle lanes, on-street parking, or medians and are considered to be infeasible because it would adversely affect other travel modes and conflict with City's policies including the Public Transit and Alternative Modes Policy (i.e., "Transit-First Policy") which supports alternative transportation modes to automobile travel, the City's Bicycle Master Plan which identifies Broadway as a planned Class 2 bicycle lane facility, and the City's Pedestrian Master Plan Policy 1.1 which promotes using design elements, such as median refuges, to improve pedestrian safety at intersections. Thus, the mitigation measure is considered infeasible and the impact would remain ***significant and unavoidable***.

Shattuck Avenue/52nd Street (Intersection #12)

Impact Trans-11: The proposed Project would increase intersection volume-to-capacity (v/c) ratio by 0.01 or more during the Saturday PM peak hour at the Shattuck Avenue/52nd Street (#12) intersection under 2035 Conditions, which would operate at LOS F regardless of the Project. (***Significant***)

Mitigation Measures

Mitigation Measure Trans-11: Implement Mitigation Measure Trans-1.

Resulting Level of Significance

After implementation of this measure, the intersection would improve to LOS D during the Saturday PM peak hour and the impact would be reduced to less than significant. No secondary significant impacts would result from implementation of this measure.

Telegraph Avenue/ 51st Street (Intersection #15)

Impact Trans-12: The proposed Project would increase delay for the critical southbound left-turn movement by more than six seconds during the weekday PM peak hour at the Telegraph Avenue/ 51st Street (#15) intersection under 2035 Conditions, which would operate at LOS E regardless of the Project; the Project would also increase delay for the critical westbound and southbound movements by more than six seconds during the Saturday midday peak hour; the Project would also degrade the intersection during the Saturday PM peak hour from LOS D to LOS E. (***Significant***)

Mitigation Measures

Mitigation Measure Trans-12: Implement Mitigation Measure Trans-2.

Resulting Level of Significance

After implementation of this measure, the intersection would improve to LOS D during the three studied peak hours and the impact would be reduced to less than significant. No secondary significant impacts would result from implementation of this measure.

Howe Street/ Pleasant Valley Avenue (Intersection #19)

Impact Trans-13: The proposed Project would add more than 10 trips to the Howe Street/ Pleasant Valley Avenue (#19) during the weekday PM, Saturday midday, and Saturday PM peak hours under 2035 Plus Project conditions. The intersection would meet the peak hour signal warrant during the three time periods. (***Significant***)

Mitigation Measures

Mitigation Measure Trans-13: Implement Mitigation Measure Trans-3.

Resulting Level of Significance

Implementing any of these three measures would improve traffic operations at this intersection and mitigate the significant impact. However, all three measures are considered infeasible because they would result in significant and unavoidable impacts. In addition to the secondary significant impacts previously described, queues on eastbound Pleasant Valley Avenue at Piedmont Avenue would also spill back and block this intersection under 2035 Plus Project conditions. Therefore, this impact is considered ***significant and infeasible***.

Piedmont Avenue/Pleasant Valley Avenue (Intersection #20)

Impact Trans-14: The proposed Project would increase volume-to-capacity (v/c) ratio for the intersection by 0.01 or more, and the critical movement v/c ratio for the eastbound, westbound, and northbound movements by 0.02 or more during the weekday PM, Saturday midday, and Saturday PM peak hours at the Piedmont Avenue/Pleasant Valley Avenue (#20) intersection under 2035 Conditions, which would operate at LOS F regardless of the Project. (***Significant***)

Mitigation Measures

Mitigation Measure Trans-14: Implement the following measures at the Piedmont Avenue/Pleasant Valley Avenue intersection:

a) Mitigation Measure Trans-4.

b) Modify signal control equipment to provide lagging protected phasing in the northbound direction.

Resulting Level of Significance

After implementation of this measure, the intersection would continue to operate at LOS F during the weekday PM peak hour, and improve to LOS E during the Saturday PM peak hour. Although the mitigation measure would reduce the v/c ratio for the intersection to less than significant level under the 2035 No Project conditions, the critical westbound and northbound movements would continue to experience an increase in v/c ratio of 0.02 or more. Therefore the impact would remain ***significant and unavoidable***.

The impact can be reduced to a less than significant level by installing a left-turn lane on the northbound Piedmont Avenue approach. Implementation of this measure would improve intersection operations to LOS D during the weekday PM peak hour and LOS C during the Saturday PM peak hour. However, this improvement would result in elimination of planned bicycle lanes on Piedmont Avenue and loss of on-street parking. The loss of the planned bicycle lanes is considered a significant secondary impact that would make this improvement infeasible. No other feasible mitigation measures are available within the existing automobile right-of-way.

Hudson Street/Manila Avenue/College Avenue (Intersection #24)

Impact Trans-15: The proposed Project would degrade intersection operations from LOS E to LOS F during the weekday PM peak hour at the Hudson Street/Manila Avenue/College Avenue (#24) intersection under 2035 Conditions. (***Significant***)

Mitigation Measures

Mitigation Measure Trans-15: Implement the following measures at the Hudson Street/Manila Avenue/College Avenue intersection.

a. Optimize signal timing parameters (i.e., adjust the allocation of green time for each intersection approach)

b. Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.

To implement this measure, the Project sponsor shall submit the following to City of Oakland's Transportation Services Division for review and approval:

Plans, Specifications, and Estimates (PS&E) to modify the intersection. All elements shall be designed to City standards in effect at the time of construction and all new or upgraded signals shall include these enhancements. All other facilities supporting vehicle travel and alternative modes through the intersection shall be brought up to both City standards and ADA standards (according to Federal and State Access Board guidelines) at the time of construction. Current City Standards call for among other items the elements listed below:

- 2070L Type Controller
- GPS communication (clock)
- Accessible pedestrian crosswalks according to Federal and State Access Board guidelines
- City Standard ADA wheelchair ramps
- Full actuation (video detection, pedestrian push buttons, bicycle detection)
- Accessible Pedestrian Signals, audible and tactile according to Federal Access Board guidelines Signal interconnect and communication to City Traffic Management Center for corridors identified in the City's ITS Master Plan
- Signal timing plans for the signals in the coordination group.

The Project sponsor shall fund, prepare, and install the approved plans and improvements.

Resulting Level of Significance

After implementation of this measure, the intersection would improve to LOS D during the weekday PM peak hour and the impact would be reduced to less than significant. This mitigation measure is consistent with the mitigation measure identified by the *College Avenue Safeway Project Draft EIR* (July 2011) at this intersection. No secondary significant impacts would result from implementation of this measure.

The City of Oakland, as part of the Caldecott Tunnel Improvement Project Settlement Agreement is planning the following improvement at this intersection:

- Extend bulbouts at the west side of the intersection,
- Install new traffic signal control equipment to allow countdown pedestrian signal heads
- Provide a new north-south crosswalk along the west side of College Avenue.

These planned improvements would not mitigate the Project impacts; however, the proposed mitigation measure would not prevent implementation of these planned improvements.

2035 Plus Project Mitigated Conditions

Table 4.11-19 summarizes intersection operations after implementation of the mitigation measures at the affected intersections. Mitigation measures would reduce the impacts at three of the six intersections to a less than significant level. However, the impacts at the Broadway/51st Street/ Pleasant Valley Avenue, Howe Street/Pleasant Valley Avenue, and Piedmont Avenue/Pleasant Valley Avenue intersections would remain significant and unavoidable.

Table 4.11-19
Intersection LOS Summary
2035 Plus Project Mitigated Conditions

#	Study Intersection	Traffic Control [1]	Peak Hour	2035 No Project		2035 Plus Project		2035 Plus Project Mitigated		Significance after Mitigation
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
7	Broadway/51st Street/ Pleasant Valley Avenue	Signal	Weekday PM	**120.0 (v/c=1.13)**	**F**	**136.4 (v/c=1.23)**	**F**	**136.4 (v/c=1.23)**	**F**	***Significant and Unavoidable***[3]
			Saturday MD	**146.1 (v/c=1.31)**	**F**	**139.7 (v/c=1.24)**	**F**	**139.7 (v/c=1.24)**	**F**	
			Saturday PM	**57.0**	**E**	47.2	D	47.2	D	
12	Shattuck Avenue/ 52nd Street	Signal	Weekday PM	52.5	D	53.0	D	53.0	D	Less than Significant
			Saturday MD	48.3	D	48.3	D	48.3	D	
			Saturday PM	**83.6 (v/c=0.93)**	**F**	**84.0 (v/c=0.94)**	**F**	51.2	D	
15	Telegraph Avenue/ 51st Street	Signal	Weekday PM	**66.7**	**E**	**68.9**	**E**	54.6	D	Less than Significant
			Saturday MD	**60.9**	**E**	**66.1**	**E**	48.5	D	
			Saturday PM	53.5	D	**56.6**	**E**	43.6	D	
19	Howe Street/ Pleasant Valley Avenue	SSSC	Weekday PM	24.5 **(345.9)**	C**(F)**	5.2 **(66.2)**	A **(F)**	4.4 **(56.5)**	A **(F)**	***Significant and Unavoidable***[4]
			Saturday MD	*** (*)**	**F (F)**	18.5 (**238.2**)	C (F)	18.5 (**238.2**)	C **(F)**	
			Saturday PM	26.7**(420.6)**	C **(F)**	6.4**(92.8)**	A **(F)**	6.4**(92.8)**	A **(F)**	
20	Piedmont Avenue/ Pleasant Valley Avenue	Signal	Weekday PM	**164.7 (v/c=1.37)**	**F**	**180.3 (v/c=1.42)**	**F**	**88.2 (v/c=1.21)**	**F**	***Significant and Unavoidable***[4]
			Saturday MD	**140.9 (v/c=1.27)**	**F**	**167.4 (v/c=1.37)**	**F**	**113.9 (v/c=1.26)**	**F**	
			Saturday PM	**119.7 (v/c=1.26)**	**F**	**139.5 (v/c=1.34)**	**F**	**75.2**	**E**	

Table 4.11-19
Intersection LOS Summary
2035 Plus Project Mitigated Conditions

#	Study Intersection	Traffic Control [1]	Peak Hour	2035 No Project		2035 Plus Project		2035 Plus Project Mitigated		Significance after Mitigation
				Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	Delay (Seconds)[2]	LOS	
24	Hudson Street/Manila Avenue/ College Avenue	Signal	Weekday PM	**75.7**	**E**	**83.1 (v/c=0.80)**	**F**	50.0	D	Less than Significant
			Saturday MD	34.9	C	39.0	D	39.0	D	
			Saturday PM	23.2	C	24.3	C	24.3	C	

Notes: **Bold** indicates intersection operating at unacceptable LOS E or LOS F

1. Signal = signalized intersection, SSSC = side-street stop controlled intersection
2. For side-street stop controlled intersections, delay is reported as: intersection average (worst minor street approach); for signalized intersection, the average intersection delay is reported; for signalized intersections operating with high delay, volume-to-capacity (v/c) ratio is also reported. LOS for both unsignalized and signalized intersections based on 2000 HCM.
3. Although the proposed mitigation measure would reduce the magnitude of the impact, the impact is identified as significant and unavoidable due to potential secondary impacts.
4. Although the proposed mitigation measure would mitigate the impact, the impact is identified as significant and unavoidable due to potential secondary impacts.

Source: Fehr & Peers, 2012.

Required Congestion Management Program (CMP) Evaluation

Impact Trans-16: The proposed Project would not cause congestion of regional significance on a roadway segment on the Congestion Management Program (CMP) and/or the Metropolitan Transportation System (MTS) evaluated per the requirements of the Land Use Analysis Program of the CMP. (***Less than Significant***)

The Alameda County CMP requires the assessment of development-driven impacts to regional roadways. Because the Project would generate more than 100 "net new" PM peak-hour trips, ACTC requires the use of the Countywide Travel Demand Forecasting Model to assess the impacts on regional roadways near the Project site. The CMP and Metropolitan Transportation System (MTS) roadways in the Project vicinity identified in the NOP comments by ACTC (July 17, 2009 letter) include the following:

CMP and MITS roadways:

- I-880
- I-580
- I-80
- I-980
- SR 24
- SR 13
- Broadway (south of College Avenue)
- San Pablo Avenue
- 51st Street
- Martin Luther King Jr. Way
- Telegraph Avenue
- Shattuck Avenue
- College Avenue

MTS only roadways:

- Broadway (North of College Avenue)
- Grand Avenue
- Pleasant Valley Avenue
- MacArthur Boulevard
- Claremont Avenue

The ACTC Model used in this study is a regional travel demand model that uses socio-economic data and roadway and transit network assumptions to forecast traffic volumes and transit ridership using a four-step modeling process that includes trip generation, trip distribution, mode split, and trip assignment. This process takes into account changes in travel patterns due to future growth and balances trip productions and attractions. This version of the Countywide Model is based on Association of Bay Area Governments (ABAG) *Projections 2007* land uses for 2015 and 2035.

For the purposes of this CMP and MTS Analysis, the Project is assumed to not be included in the Countywide Model in order to present a more conservative analysis. The traffic forecasts for the 2015 and 2035 scenarios were extracted for the CMP and MTS roadway segments from that model and used as the "No Project" forecasts. Vehicle trips generated by the Project were added to the "No Project" forecasts to estimate the "Plus Project" forecasts.

The CMP and MTS segments were assessed using a v/c ratio methodology. For freeway segments, a per-lane capacity of 2,000 vehicles per hour (vph) was used, consistent with the latest CMP documents. For surface streets, a per-lane capacity of 800 vph was used. Roadway segments with a v/c ratio greater than 1.00 signify LOS F.

The "Plus Project" results were compared to the baseline results for the 2015 and 2035 horizon years. The 2015 and 2035 peak hour volumes, v/c ratios and the corresponding levels of service for without and with Project conditions are provided in **Appendix 4.11N**.

Due to differences in the land use assumptions and differences in analysis methodologies, the forecasted traffic volumes on the roadway links can be different from the intersection volumes, particularly at the local level. The first area of difference is the land use data sets employed for the intersection forecasts

and the MTS forecasts. The intersection forecasts, which are used to assess Project traffic impacts on City of Oakland intersections, are based on land use data adjusted to reflect all past, present, existing, approved, pending and reasonably foreseeable projects in the City of Oakland, which differs from the data in the ACTC Model. The second area of difference is the use of the Furness process. The intersection forecasts use the output of the ACTC Model as an input to develop intersection volumes in conjunction with existing traffic counts. The CMP and MTS roadway analysis is based on the outputs of the ACTC Model directly on a roadway segment level. It is not unusual to have discrepancies given that the two analyses measure impacts at a different scale. For local streets, intersections are typically a more accurate measure of operating conditions because the capacity of an urban street, defined as the number of vehicles that can pass through its intersections, is controlled by the capacity at its intersections.

The Project would contribute to 2015 and 2035 increases in traffic congestion on CMP roadways. However, the Project would not cause a roadway segment on the CMP to degrade from LOS E or better to LOS F. The Project also would not increase the v/c ratio by more than three percent for roadway segments that would operate at LOS F without the Project. Therefore, the Project would not have a significant impact on CMP roadways.

Based on the application of the CMP thresholds to the MTS roadway segments, the Project would not cause congestion of regional significance on the MTS roadway segments. This is a less-than-significant impact, and as a result no mitigation measures are required.

Mitigation Measures

None required.

Transit Travel Time

Impact Trans-17: The proposed Project would not substantially increase travel times for AC Transit buses. (***Less than Significant***)

In general, the City of Oakland has no basis to establish a numerical threshold for "substantially increased travel times" due to several factors:

- First, bus service, in general, is extremely transitory, and can change quite frequently, as is the case with AC Transit's bus network. Existing routes may be eliminated, or new routes may be put in service by the time the proposed Project is completed. Similar to parking, transit service is not part of the physical environment, and can change over time in response to external factors. In fact, AC Transit has generally reduced its bus service over the past few years in response to budget issues.
- Second, any numerical threshold to determine the significance of increased travel times needs to consider additional characteristics of the bus service, including its headway (the amount of time between scheduled trips) and total travel time. Considering the transitory nature of bus service, establishing such thresholds is not reasonable, as service can be rerouted, eliminated, or created at any time. Consideration would also have to be given to different types of transit service (e.g., trunk service, Transbay service, local service, and community service), as they generally operate with different characteristics.
- Third, unlike the situation for intersections or roadway facilities, there are no well-established methodologies for characterizing the operations of transit service in relation to travel times. For intersections, clear distinctions are made between intersections that operate at acceptable conditions (e.g., LOS D or better) and those that operate at unacceptable conditions (e.g., LOS E or LOS F), and separate impact thresholds are provided. For bus service, however, there is no well-established LOS equivalent for characterizing transit service in relation to travel times.

The three factors described above would make establishing numerical thresholds for AC Transit travel times difficult and impractical, as the City would have little background or experience on which to base such thresholds. However to the extent feasible, this section provides a quantitative and qualitative analysis of how the proposed Project would affect transit travel times for local routes serving the Project.

Currently, the Project site is directly served by two local bus routes:

- Route 12 which operates with headways as low as 20 minutes during weekday peak periods along Pleasant Valley Avenue/51st Street
- Route 51A which operates with headways as low as 10 minutes during weekday peak periods along Broadway and College Avenue

Table 4.11-20 shows peak-hour travel times on the corridors that these buses operate. Existing average travel speeds range from 13 miles per hour along eastbound Pleasant Valley Avenue/51st Street during the weekday PM peak hour to about 19 miles per hour along northbound Broadway and College Avenue during the Saturday PM peak hour.

Table 4.11-20
Travel Times Along AC Transit Corridors

				Existing		Existing Plus Project		Existing Plus Project Mitigated	
Bus Route	Direction	Distance (miles)	Peak Hour	Travel Time (min:sec)	Average Speed (mph)	Travel Time (min:sec)	Average Speed (mph)	Travel Time (min:sec)	Average Speed (mph)
12	Eastbound (from Pleasant Valley Ave. at Piedmont Ave. to 51st St. at Telegraph Ave)	1.0	Weekday PM	4:30	13	4:50	12	3:20	18
			Saturday MD	3:50	15	4:30	13	3:40	16
			Saturday PM	4:00	15	4:40	13	3:20	18
	Westbound (from 51st St. at Telegraph Ave to Pleasant Valley Ave. at Piedmont Ave.)	1.0	Weekday PM	3:40	16	3:40	16	3:50	16
			Saturday MD	4:20	14	4:30	13	4:30	13
			Saturday PM	3:50	15	4:00	15	4:00	15
51A	Northbound (from Broadway at MacArthur Blvd. to College Ave at Manila Ave.)	1.2	Weekday PM	4:20	16	5:00	14	5:00	14
			Saturday MD	4:00	17	4:20	16	4:20	16
			Saturday PM	3:50	19	3:40	19	3:40	19

Table 4.11-20
Travel Times Along AC Transit Corridors

Bus Route	Direction	Distance (miles)	Peak Hour	Existing		Existing Plus Project		Existing Plus Project Mitigated	
				Travel Time (min:sec)	Average Speed (mph)	Travel Time (min:sec)	Average Speed (mph)	Travel Time (min:sec)	Average Speed (mph)
	Southbound (from College Ave. at Manila Ave. to Broadway at MacArthur Blvd.)	1.2	Weekday PM	4:40	15	4:10	17	4:10	17
			Saturday MD	4:40	15	4:20	16	4:20	16
			Saturday PM	4:40	15	4:00	18	4:00	18

Note: Corridor travel times were calculated using intersection delay and free-flow segment speeds from Synchro 7.0.

Source: Fehr and Peers, 2012.

The traffic generated by the proposed Project would result in increased congestion along these two corridors. In addition, the Project would also include a number of roadway modifications, such as new traffic signal on Broadway at Coronado Avenue/Project Driveway, and coordination of traffic signals along Broadway, that would affect travel time along the corridor. As shown on Table 4.3-20, average speeds on the Pleasant Valley Avenue/51st Street corridor in both directions and on Broadway/College Avenue corridor in the northbound direction would either remain about the same or decrease under Existing Plus Project conditions. Average speeds on the southbound Broadway/College Avenue corridor would decrease primarily because of improved signal coordination along Broadway and separation of through and left-turn movements on southbound Broadway as proposed by the Project.

Mitigation Measures Trans-2 and Trans-4 proposed at Telegraph Avenue/51st Street (intersection #15) and Piedmont Avenue/Pleasant Valley Avenue (intersection #20) intersections, respectively, would improve travel times on the Pleasant Valley Avenue/51st Street corridor. Overall, it is estimated that the congestion caused by the Project-generated traffic in combination with the roadway modifications proposed by the Project and mitigation measures presented in the EIR would reduce travel times for most buses on these two corridors. However, travel times for some buses would increase. At most, it is estimated that travel times on the northbound Broadway/College Avenue corridor during the weekday PM peak hour would increase by about 40 seconds.

Although not reflected in the quantitative travel time analysis presented above, the Project would also move the following bus stops from the near-side (before the intersection) to the far-side (after the intersection) of the intersection:

- Eastbound 51st Street/Pleasant Valley Avenue (Route 12) from just west of Broadway to about 150 feet east of Broadway.
- Eastbound Pleasant Valley Avenue (Route 12) from just west to just east of Gilbert Street.
- Northbound Broadway (Route 51A) from just south of Pleasant Valley Avenue to north of Pleasant Valley Avenue.

In general, moving a bus stop from the near-side to the far-side of the intersection would reduce the delay experienced by buses by about 15 to 20 seconds as buses would experience less delay waiting for signals.

While the proposed Project may increase some bus travel times, the resulting increases would have a minor effect on transit service within the area as some of the travel time increase would be offset by moving some bus stops from the near-side to the far-side of intersections. The estimated increase is within the variability in travel time experienced by each bus on these corridors. This impact is less than significant.

Mitigation Measures

None required.

Vehicle, Pedestrian and Bicycle Safety

The proposed Project would result in increased vehicular traffic and pedestrian and bicycle activity in and around the Project area. The proposed Project would also modify the roadways serving the Project site, affecting various travel modes. Access and circulation for different travel modes are discussed below.

Transportation Hazards

Impact Trans-18: The proposed Project would not 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. (***Less than Significant***)

The Project site plan has not been finalized; the final Project design would be reviewed to ensure consistency with applicable design standards. Considering the improvements included with the Project and the recommendation provided in the following subsections, the design for the final Project and the adjacent roadways would minimize potential conflicts between various modes and provide safe and efficient pedestrian, bicycle, and vehicle circulation within the site and between the Project and the surrounding circulation systems.

Broadway/College Avenue Intersection

The proposed Project would generate additional automobiles, bicycles, and pedestrians at the Broadway/ College Avenue intersection. The Project would also include modifications to the Broadway/College Avenue intersection including reducing the length of the northbound left-turn lane on Broadway to accommodate left-turn access to the Wendy's Restaurant and changes to the signal timing parameters at the intersection. The intersection currently does not provide a crosswalk on the south approach. In addition, vehicles on southbound College Avenue turn right into Broadway at high speeds due to the angle that College Avenue intersects Broadway. These vehicles may potentially conflict with pedestrians crossing College Avenue or vehicles turning left from northbound Broadway into Wendy's Restaurant.

Mitigation Measures / Recommendations

Impacts related to transportation hazards are less than significant, and therefore no mitigation measures are required. However, while not required to address a CEQA impact, the following design modifications are recommended to further reduce transportation hazards at or near the Project site:

Recommendation Trans-18: Modify the Broadway/College Avenue intersection so that College Avenue would intersect Broadway at a right angle. This modification, as shown on **Figure 4.11-23**, would reduce the size of the intersection and make it more inviting for pedestrians and bicyclists.

The proposed recommendation would have the following benefits:

- Reduce the speed for automobiles on southbound College Avenue turning right to Broadway, which would reduce the potential for conflicts with pedestrians and bicyclists crossing the intersection, as well the automobiles making a U-turn from northbound Broadway to access Wendy's Restaurant.
- Provide a crosswalk across Broadway on the south approach of the intersection.
- Reduce the crossing distance for pedestrians crossing College Avenue west of the intersection.
- Provide longer queuing space for the left-turns from northbound Broadway to College Avenue and from southbound Broadway into the Project site.
- Allow left-turns from southbound College Avenue to northbound Broadway.
- The Broadway/College Avenue intersection would operate at LOS C or better if these modifications are implemented.

The proposed modification would have the following disadvantage; however, none of these would be CEQA impacts:

- Large trucks would continue to not be able to turn right from southbound Broadway to northbound College Avenue.
- Motor vehicles, including buses, on southbound College Avenue would turn right to southbound Broadway at reduced speeds which would result in higher delay.
- Vehicles on northbound Broadway would not be able to turn left into Wendy's Restaurant. However, they would be able to make a U-turn.

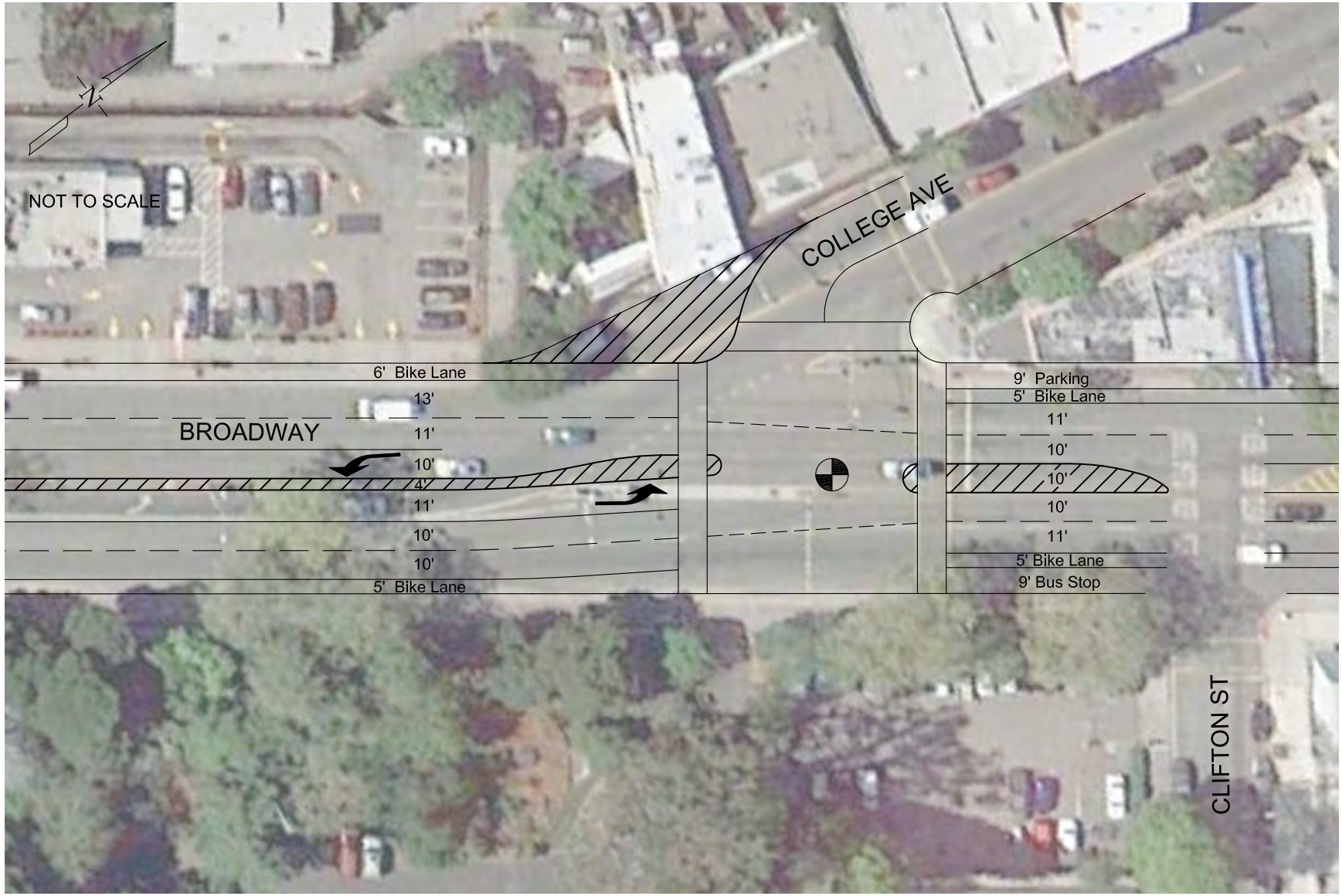


Figure 4.11-23
Conceptual Improvements at Broadway/College Avenue Intersection

Source: Fehr & Peers

At-Grade Railroad Crossings

Impact Trans-19: The proposed Project would not 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 (**Less than Significant**)

The Project is not located near any at-grade railroad crossings. Therefore, it will not generate substantial traffic of any travel mode travelling across at-grade railroad crossings. This impact is less than significant.

Mitigation Measures

None required.

Pedestrian Safety

Impact Trans-20: The proposed Project would not directly or indirectly result in a permanent substantial decrease in pedestrian safety (Less than Significant)

The proposed Project would include the following modifications to pedestrian access and circulation in and around the Project area:

- Curb-to-curb pedestrian crossing distances at crosswalks on westbound approach of the Broadway/ 51st Street/Pleasant Valley Avenue intersection, and on the eastbound and southbound approaches of the Gilbert Street/Project Driveway/Pleasant Valley Avenue intersection would increase.
- Provide median pedestrian refuges with minimum width of six feet on the northbound, westbound, and southbound approaches of the Broadway/51st Street/Pleasant Valley Avenue intersection, on the westbound, southbound, and eastbound approaches of the Gilbert Street/Project Driveway/Pleasant Valley Avenue intersection, and on the northbound approach of the Broadway/Coronado Avenue/ Project Driveway intersection.
- Eliminate the existing northbound and southbound right-turn pork chop islands at Broadway/51st Street/Pleasant Valley Avenue intersection, reducing the potential for conflicts between right-turning vehicles and pedestrians crossing to or from the pork chop islands.
- Signalize the Broadway/Coronado Avenue/Project Driveway intersection, which would provide a protected pedestrian crossing across Broadway.
- Provide protected left-turn phasing at Gilbert Street/Project Driveway/Pleasant Valley Avenue intersection minimizing potential conflicts between left-turn traffic and pedestrians.
- Decrease the number of driveways on Broadway from three to one, reducing potential conflict points between automobiles and pedestrians.
- Widen the sidewalks along Project frontage on Broadway and Pleasant Valley Avenue to a minimum of ten feet.
- Provide internal sidewalks and paths that connect the various uses inside the Project to each other and to the existing sidewalk on Pleasant Valley Avenue and Broadway.
- Provide pedestrian passageways between the west portion of the Project and Broadway just north of Pleasant Valley Avenue and Pleasant Valley Avenue at intersection with the Project driveway opposite Gilbert Street.
- The proposed site plan includes the Safeway store in the northeast corner of the site. Although, the site plan includes pedestrian paths that connect the supermarket to the existing sidewalks on

Broadway and Pleasant Valley Avenue, the supermarket is in the furthest location from existing sidewalks and the most difficult to access by pedestrians and bus riders.

All features described above, except the first and last one, would improve pedestrian safety in and around the Project site.

As part of modifying the roadways adjacent to the Project site, the proposed Project would also reconstruct and improve the sidewalks adjacent to the Project. The following specific improvements are expected:

- Upgrade curb ramps to meet ADA design requirements
- Provide tree grates for trees within sidewalks
- Repair cracked and uneven sidewalks
- Adjust signal timing parameters at intersections to ensure adequate crossing times for pedestrians.

The improvements on adjacent roadways proposed as part of the Project or included in the Project mitigation measures include modification to signal timing parameters. In general, longer cycle lengths are considered to adversely affect pedestrians and bicyclists because they would experience additional delay at the intersection, but these are not considered significant CEQA impacts. Additional upgrades to the signal equipment may also be installed as part of the signal modification to comply with the latest local, state, and federal requirements. These may include: providing count-down pedestrian signal heads, providing audible pedestrian signals, and providing bicycle detection at actuated signals.

The proposed Project includes modifications to the existing conditions that would improve pedestrian safety and circulation in the vicinity of the site. In addition, all features of the proposed Project and the mitigation measures will be designed and constructed based on the latest applicable design standards. Therefore, the proposed Project would not result in permanent substantial decrease in pedestrian safety and this impact is less than significant.

Mitigation Measures / Recommendations

Impacts related to pedestrian safety are less than significant, and therefore no mitigation measures are required. However, while not required to address a CEQA impact, the following design modifications are recommended to further improve pedestrian safety at or near the Project site:

Recommendation Trans-20: Implement the following in order to improve pedestrian access, circulation, and safety:

a) Use different materials and/or striping patterns at all crosswalks within the site plan, including mid-block crossings, parking aisle crossings, and parking structure driveways. Also, consider using raised speed tables at crosswalks to reduce automobile speeds.

b) Ensure adequate sight distance is provided at all crosswalks, specially at midblock and parking structure driveways.

c) The internal street in the western portion of the site provides a continuous commercial frontage and is intended as a pedestrian oriented street. The loading berths at Building "M" disrupt the pedestrian flow along the internal street and may result in potential conflicts when truck are backing to/leaving the loading dock. Potential options include:

- Allow trucks to load/unload along the internal street during non-peak periods.
- Provide a pull-out on Pleasant Valley Avenue that would allow trucks to parallel park without interfering with automobile or bicycle flow along Pleasant Valley Avenue. This strategy would also require direct access between the uses on the south side of the internal street and Pleasant Valley Avenue.

- Enlarge the existing loading berth adjacent to Building "J." This strategy would require material to be manually delivered to the uses south of the internal street.
- Implement a loading management program at Building "M" loading berths to minimize disruptions on pedestrian activity.

d) Ensure that all pedestrian paths and sidewalks within the Project site have a minimum width of six feet (10 feet preferred).

e) Ensure that all pedestrian facilities provide pedestrian scale lighting.

Bus Rider Safety

Impact Trans-21: The proposed Project would not directly or indirectly result in a permanent substantial decrease in bus rider safety (***Less than Significant***)

The proposed Project would include modifications to transit access and circulation in and around the Project area, including moving the following bus stops from the near-side to the far-side of the intersection:

- Northbound Broadway from just south of Pleasant Valley Avenue to north of Pleasant Valley Avenue.
- Eastbound 51st Street/Pleasant Valley Avenue from just west of Broadway to about 150 feet east of Broadway.
- Eastbound Pleasant Valley Avenue from just west to just east of Gilbert Street.
- Provide pedestrian passageway between the Project site and Broadway adjacent to the bus stop north of Pleasant Valley Avenue and Pleasant Valley Avenue at the bus stop just west of the Project driveway.

The proposed Project includes modifications to the existing conditions to improve access to bus stops and bus rider safety. In addition, all features of the proposed Project and the mitigation measures will be designed and constructed based on the latest applicable design standards. Therefore, the proposed Project would not result in permanent substantial decrease in bus rider safety and this impact is less than significant.

Mitigation Measures / Recommendations

Impacts related to bus rider safety are less than significant, and therefore no mitigation measures are required. However, while not required to address a CEQA impact, the following design modifications are recommended to further improve bus rider safety at or near the Project site:

Recommendation Trans-21: Implement the following in order to improve access, circulation, and safety for bus riders:

a) Provide bus shelter at the bus stops on northbound and southbound Broadway north of Pleasant Valley Avenue/51st Street and on westbound Pleasant Valley Avenue west of Project driveway.

Bicyclist Safety

Impact Trans-22: The proposed Project would not directly or indirectly result in a permanent substantial decrease in bicyclist safety (***Less than Significant***)

The proposed Project would include the following modifications to bicycle access and circulation in and around the Project area:

- Eliminate the existing northbound and southbound right-turn pork chop islands at Broadway/51st Street/Pleasant Valley Avenue intersection reducing potential conflicts between right-turning automobiles and through bicycles.
- Provide protected left-turn phasing at Gilbert Street/Project Driveway/Pleasant Valley Avenue intersection minimizing potential conflicts between left-turn traffic and bicyclists.
- Decrease the number of driveways on Broadway from three to one, reducing potential conflict points between automobiles and bicycles.
- Provide Class 2 bicycle lanes on Broadway between 49th Street and College Avenue.
- Eliminate the right-turn only lane from westbound Pleasant Valley Avenue to Project Driveway.

As part of modifying the roadways adjacent to the Project site, the proposed Project would also reconstruct and improve the street infrastructure adjacent to the Project. The following specific improvements benefiting bicyclists are expected:

- Adjust signal timing parameters at intersections to ensure adequate crossing times for bicyclists.
- Modify existing gutter-pans and modify or move drainage inlets that conflict with bicycle circulation.

The proposed Project includes modifications to the existing conditions to improve bicycle safety. In addition, all features of the proposed Project and the mitigation measures will be designed and constructed based on the latest applicable design standards. Therefore, the proposed Project would not result in permanent substantial decrease in bicycle safety and this impact is less than significant.

Mitigation Measures / Recommendations

None Required.

Change in Air Traffic Patterns

Impact Trans-23: The proposed Project would not 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. (***Less than Significant***)

The Oakland International Airport is located about nine miles south of the Project site. The proposed Project would increase density and increase building heights at the Project site. However, building heights are not expected to interfere with current flight patterns of Oakland International Airport or other nearby airports. Therefore, the proposed Project would not result in change in air traffic patterns.

Mitigation Measures

None Required.

Consistency with Adopted Policies, Plans or Programs Supporting Alternative Transportation

Impact Trans-24: The proposed Project would not 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. (***Less than Significant***)

A discussion of applicable polices and plans is provided below. In general, the proposed Project and the associated mitigation measures presented in this EIR, are consistent with these policies, plans and programs, and would not cause a significant impact by conflicting with adopted policies, plans, or programs supporting public transit, bicycle, or pedestrian.

The City of Oakland General Plan LUTE states a strong preference for encouraging the use of alternative transportation modes, such as transit, bicycling, and walking. As previously documented, about 15 percent of existing Safeway customers currently use non-auto travel modes. The usage of non-auto modes is mostly due to the site's proximity to residential neighborhoods and AC Transit's Route 51A, one of the busiest AC Transit bus routes. Since the proposed Project is located in the same existing site and considering the demographics of the surrounding community, the proposed Project is expected to have similar travel mode characteristics as the existing Safeway Store.

As part of the City's SCA TRANS-1, the proposed Project would implement a TDM program at the Project site to encourage more employees and customers to shift from driving alone to other modes of travel. Potential TDM measures may include, but are not limited to, awareness programs, direct transit sales to employees, parking management strategies, and physical improvements that encourage walking, bicycling, and transit. The components of the proposed TDM program have not been finalized. A TDM program may not be as effective for retail developments as other types of developments. Typically, TDM programs are most effective for developments, such as office buildings, where most trips are daily peak period commute trips. Most retail employees do not work every day, have irregular work hours, and start and end their work shift outside the peak commute periods; as a result, they may not have access to convenient transit. Most customers would not travel to the site daily and may make large purchases which may not be convenient to transport by walking, bicycling, or transit.

The proposed Project is consistent with the City's *Pedestrian Master Plan* by including features and improvements such as providing signalized access across Broadway at Coronado Avenue, providing median refuges at several intersections, and widening sidewalks along Broadway and Pleasant Valley Avenue adjacent to the Project site. In addition, recommendations included in Mitigation Measures TRANS-20 would improve pedestrian access, circulation, and safety and further encourage pedestrian activity in and around the site.

The proposed Project is consistent with the City's *Bicycle Master Plan* (BMP) in that the proposed Project does not preclude the BMP from being implemented. Consistent with the BMP, the Project would install Class 2 bicycle lanes on Broadway between College Avenue and 49th Street and Class 3A arterial bicycle route on Pleasant Valley Avenue along Project frontage. The Project includes short-term and long-term bicycle parking that encourage bicycle activity (addressed in more detail in a subsequent section).

The proposed Project would also move existing bus stops on northbound Broadway from south to north of Pleasant Valley Avenue, and on eastbound 51st Street/Pleasant Valley Avenue from east to west of Broadway. The new bus stops would encourage additional transit trips because they would be closer to the Project site. In addition, the Project would provide a pedestrian connection adjacent to the bus stop on northbound Broadway. In addition, moving bus stops from the near-side to the far-side of the intersection would improve bus travel times by reducing potential delays experienced by buses at the signal.

Mitigation Measures

None Required.

Construction-Period Impacts

Impact Trans-25: The proposed Project would result in a substantial, though temporary adverse effect on the circulation system during construction of the Project. (***Less than Significant with Standard Conditions of Approval***)

The proposed Project will be constructed in phases and the shopping center would continue to be open during construction. The eastern portion of the site, which will include the proposed Safeway Store, will be constructed in the early phases while the western portion of the site will be constructed during the later phases of construction. Each phase of construction would consist of demolishing existing facilities and construction new ones. Project modification on Pleasant Valley Avenue would occur in the early phases of construction and Project modifications on Broadway would occur in the later phases of construction.

During the construction period, temporary and intermittent transportation impacts may result from truck movements as well as construction worker vehicles to and from the Project site. The construction-related traffic may temporary reduce capacities of Project area roadways because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles. Depending on the phase of construction, trucks would enter and/or exit the site from the Project driveway on Broadway opposite Coronado Avenue or the Project driveway on Pleasant Valley Avenue opposite Gilbert Street.

Considering the proximity of SR 24 freeway ramps on Broadway and 51st Street, use of local roadways by construction trucks would be limited to those streets. Truck traffic that occurs during the peak commute hours (7:00 to 9:00 AM and 4:00 to 6:00 PM) may result in worse levels of service and higher delays at study intersections during the construction period. Also, if parking of construction workers' vehicles cannot be accommodated within the Project site, it would temporarily increase parking occupancy levels in the area. Project construction, especially in the public right-of-way, could also impact the operations of AC Transit buses.

Standard Conditions of Approval

The City of Oakland **SCA Trans-2** requires that a Construction Traffic Management Plan be developed as part of a larger Construction Management Plan to address potentially significant impacts during the Project's construction. To further implement SCA Trans-2, the Construction Traffic Management Plan developed for the Project shall include the following:

m) A set of comprehensive traffic control measures for motor vehicles, transit, bicycle, and pedestrian access and circulation during each phase of construction.

n) A construction period parking management plan to ensure that parking demands for construction workers, site employees, and customers are accommodated during each phase of construction.

Mitigation Measures

None Required.

Neighborhood Traffic Intrusion

Impact Trans-26: Neighborhood traffic intrusion would not exceed the capacity of affected residential streets, and would not result in a significant impact. (**LTS**)

The traffic operations analysis presented in previous sections assumed that motorists would access the site using arterials and major streets in the Project vicinity. The proposed mitigation measures, to the extent feasible, would ensure that the major streets would have adequate capacity to serve the Project. However, considering existing and expected traffic congestion in the area, the proposed Project may result in additional traffic on surrounding residential neighborhood streets. Additional traffic generated by the proposed Project may use adjacent residential streets such as Coronado Avenue, and Desmond, Gilbert, and Whitmore Streets, as cut-through routes to divert from potential congestion on Broadway or 51st Street/Pleasant Valley Avenue.

Some traffic calming strategies have already been implemented on the residential streets in the Project vicinity to reduce the potential for cut-through traffic and speeding. These include:

- One-way traffic flow on Coronado Avenue between 51st Street and Broadway
- One-way traffic flow on Whitmore Street between Gilbert Street and Broadway
- Speed humps on Desmond Street between 51st Street and Coronado Avenue
- Traffic circle at Gilbert Street/Mather Street intersection

Travel times along Broadway and 51st Street/Pleasant Valley Avenue were summarized in Table 4.11-20. As shown in that table, travel times along both corridors are expected to generally remain similar or better than Existing conditions under Existing plus Project conditions and Existing plus Project Mitigated conditions. Considering that travel times would remain similar to current conditions, it is expected that most motorists would continue to use the major arterials in the area (i.e., Broadway and 51st Street/Pleasant Valley Avenue) and not divert to the adjacent residential streets.

Potential for Significant Impacts on Residential Streets

The significance criteria used to determine if the Project would result in significant impacts are based on the physical capacity of intersections. Due to the relatively low current traffic volumes on residential streets, even if the majority of the Project generated traffic were assigned to these residential streets, the traffic volumes would not meet the thresholds for adverse impacts set by City of Oakland's Significance Criteria, and no significant impacts would be identified. In addition, as shown in the intersection operations analysis, the intersections of these residential streets with the major arterials, such as Broadway/Coronado Avenue (Intersection #4), Gilbert Street/Pleasant Valley Avenue (#17), and Coronado Avenue/51st Street (#26) operate at acceptable LOS and additional traffic on the residential streets would not cause a significant impact at these intersections.

Since neighborhood traffic intrusion would not exceed the capacity of these residential streets, it would not result in a significant impact based on the identified significant criteria. As a result, no mitigation measure is required.

Planning-Related Non-CEQA Issues Discussion

The items discussed in this section include:

- Parking Considerations
- Truck Access and Circulation

- Transit Considerations
- Intersection Queuing Analysis
- Traffic Control Devices
- Collision History

While these subjects do not relate to environmental impacts that are required to be evaluated under CEQA, they are discussed for informational purposes to aid the public and decision makers in evaluating and considering the merits of the Project.

Parking for Bicycles and Automobiles

Bicycle and automobile parking requirements and parking demand estimates are typically based on specific land use activities. Except for the proposed Safeway Store, the specific commercial land uses in the Project are not known at this time. Thus, the bicycle and automobile parking zoning requirements and the estimated automobile parking demand presented below are based on the commercial land use mix presented in the preliminary Project plans.

Bicycle Parking

City of Oakland Bicycle Parking Ordinance, found in Municipal Code Chapter 17.117, provides bicycle parking requirements for new facilities and additions to existing facilities. Two types of bicycle parking are required: long-term bicycle parking, which includes lockers or locked enclosures, and short-term bicycle parking, which includes bicycle racks. Municipal Code Chapter 17.117.110 indicates the bicycle parking requirements as follows:

Long-Term (minimum two spaces per activity type):

- General Food Sales: One space for each 12,000 square feet of floor area
- Retail Sales Use: One space for each 12,000 square feet of floor area
- Office: One space for each 10,000 square feet of floor area

Short-Term (minimum two spaces per activity type):

- General Food Sales: One space for each 2,000 square feet of floor area
- Retail Sales Use: One space for each 5,000 square feet of floor area
- Office: One space for each 20,000 square feet of floor area

Table 4.11-21 summarizes bicycle parking supply as required by the Bicycle Parking Ordinance. At completion, the proposed Project would require 26 long-term and 85 short-term spaces. The Oakland Bicycle Parking Ordinance addresses not only the quantity of parking, but the design and layout of that parking. Generally, long-term and short-term bicycle parking spaces are required to be located within 500 feet and 50 feet of the building entrance, respectively.

Table 4.11-21
Bicycle Parking Required
Per Bicycle Parking Ordinance

Use	Net Floor Area	Parking Required		
		Long-Term	Short-Term	Total
Supermarket	65.0 KSF		33 spaces	
Retail	200.0 KSF	24 spaces	40 spaces	107 spaces
Restaurant	19.4 KSF		10 spaces	
Office	8.8 KSF	2 spaces	2 spaces	4 spaces
Total Bicycle Parking Required		**26 spaces**	**85 spaces**	**111 spaces**

Source: Fehr & Peers, 2012.

The latest Project site plan (dated July 3, 2012) identifies bicycle parking throughout the Project site near the entrances to buildings. However, the site plan does not identify the type or quantity of bicycle parking locations.

Since the proposed Project would provide more than 150,000 square feet of floor area, Municipal Code Chapter 17.117.130 requires a minimum of two showers per gender (four showers total) and four lockers per shower (16 lockers totals).

Recommended Improvement Measures

Recommendation Trans-27: Although not required to address an adverse environmental impact, the City should consider the following improvements to bicycle parking:

a) Consider locating the long-term bicycle parking in the parking structures.

b) Ensure the short-term bicycle parking on sidewalks do not block pedestrian circulation.

c) Ensure that some short-term bicycle parking spaces can accommodate bicycles with trailers.

d) Monitor the usage of long-term and short-term bicycle parking spaces and if necessary provide additional parking spaces.

e) Consider providing shower and locker facilities in a central location that can be accessed by all site employees.

Automobile Parking

The evaluation includes the following:

- Comparison of the proposed parking supply to the City's parking requirements
- Comparison of the proposed parking supply to the estimated Project demand
- Summary of strategies to reduce parking demand and/or increase supply

Project Parking Supply

The proposed Project would provide 967 off-street parking spaces in the following locations:

- Deck on top of the proposed Safeway and adjacent buildings (Buildings A, B, and C) providing 267 parking spaces
- Three level parking structure in the west portion of the site (Buildings H and J) providing 362 parking spaces
- Surface parking throughout the site providing 338 parking spaces

In addition, the Project would result in the loss of following ten on-street parking spaces:

- Loss of five metered on-street parking spaces on the west side of Broadway between College and Coronado Avenues. These parking meters can be replaced by converting the parking spaces on Broadway between Coronado Avenue and 51st Street/Pleasant Valley Avenue from unrestricted to metered spaces
- Loss of four unmetered on-street parking spaces on the east side of Broadway just south of 51st Street/Pleasant Valley Avenue.
- Loss of one unmetered parking space on 51st Street

City Off-Street Project Parking Requirements

A consideration when evaluating the Project's proposed parking supply is how it compares to the City's Municipal Code requirements for off-street parking (Municipal Code Chapter 17.116). This analysis applies the requirements for the C-30 zone consistent with the applicable zoning for the Project site as described in Chapter 3, Project Description. The City of Oakland Municipal Code Chapter 17.116.80 indicates the parking requirements as follows:

- General Food Sales: one space per 200 square feet of net floor area
- General Retail Sales: one space per 400 square feet of net floor area
- Office: one space per 600 square feet of net floor area

Table 4.11-22 summarizes parking supply as required by the Municipal Code. The proposed Project would require 937 off-street parking spaces. Based on the Project site plan, the Project would provide 967 spaces which would satisfy the City's zoning code requirements.

Table 4.11-22
Required Automobile Parking Supply
Per City of Oakland Zoning Ordinance

Use	Net Floor Area	Parking Required
Supermarket	65.0 KSF	325 spaces
Retail	200.0 KSF	500 spaces
Restaurant	19.4 KSF	97 spaces
Office	8.8 KSF	15 spaces
Total Parking Required		**937 spaces**
Parking Supply		**967 spaces**
Parking Surplus		**30 spaces**

Source: Fehr & Peers, 2012.

Based on the Project site plan, the parking supply would include 86 compact spaces, corresponding to about nine percent of the overall parking supply. The amount of compact spaces satisfies the City of Oakland Municipal Code Chapter 17.116.200, which allows up to one-third of the overall parking spaces to be compact spaces.

The Project would also provide 30 accessible (handicap) parking spaces, corresponding to about three percent of the overall parking supply. The amount of accessible spaces satisfies the Access Board's *ADA Accessibility Guidelines for Buildings and Facilities* (ADAAG) which recommends that two percent of parking spaces be accessible.

Parking Demand Analysis

The parking supply provided for the proposed Project was also measured against the expected parking demand for the proposed Project uses, using parking demand rates based on ITE *Parking Generation, 4th Edition* (ITE, 2010). **Table 4.11-23** summarizes the estimated weekday and Saturday peak parking demand. Since the Project would consist of mostly commercial uses with usage peaked in December, the parking demand analysis was completed for both December and non-December periods. This analysis also assumes that all uses would peak at the same time of the day.

The parking demand for the Safeway component of the Project was estimated using the 85th percentile demand rates for urban supermarkets. The proposed Safeway store is estimated to generate about 184 and 180 parked automobiles during the weekday and Saturday peaks, respectively in non-December months. In December, parking demand is estimated to increase to about 199 and 194 parked automobiles during the weekday and Saturday peaks, respectively.

Table 4.11-23
Automobile Parking Demand Estimate

Land Use	ITE Code	Units[1]	Weekday (Non-Friday)	Friday	Saturday
Non-December					
Supermarket	850[2]	65.0 KSF	184	184	180
Retail	820[3]	228.2 KSF	582	671	655
Total Demand			766	855	835
Parking Supply			967	967	967
Parking Surplus (Deficit)			201	106	132
December					
Supermarket	850[4]	65.0 KSF	199	199	194
Retail	820[5]	228.2 KSF	858	904	1,066
Total Demand			1,057	1,102	1,260
Parking Supply			967	967	967
Parking Surplus (Deficit)			(90)	(141)	(293)

1. KSF = 1,000-square feet
2. ITE parking generation rates:
   85th percentile rate for urban supermarkets on weekdays = 2.83 spaces per KSF.
   ITE does not provide 85th percentile rates for urban supermarkets on Saturdays. The weekday 85th percentile to average ratio was applied to the Saturday average rate = 2.77 spaces per KSF.
3. ITE parking generation rates:
   Average rate for shopping center on non-December weekdays (non-Friday) = 2.55 spaces per KSF.
   Average rate for shopping center on non-December Friday = 2.94 spaces per KSF.
   Average rate for shopping center on non-December Saturdays = 2.87 spaces per KSF.
4. Based on data presented in ITE *Parking Generation*, parking demand in December is expected to be 8% higher than other months for supermarkets.
5. ITE parking generation rates:
   Average rate for shopping center on December weekdays (non-Friday) = 3.76 spaces per KSF.
   Average rate for shopping center on December Friday = 3.96 spaces per KSF.
   Average rate for shopping center on December Saturdays = 4.67 spaces per KSF.

Source: *Parking Generation* (3rd Edition), ITE, 2004 and Fehr & Peers, 2012.

Although specific retail tenants have not yet been identified, the site is expected to be occupied by mostly retailers in various buildings throughout the site. The ITE data for suburban Shopping Center land use was used to estimate the trip generation for both the retail and office components of the Project because it best fits the services proposed for the site. In order to present a more conservative analysis, the data was not adjusted to account for the urban setting of the Project site which would result in fewer customers and employees driving to the site due to the availability of other travel modes. The data was also not adjusted to account for the internalization of the trips between the supermarket and the other uses.

Since demand for shopping centers is higher during the December holiday season, this analysis estimates parking demand for non-Friday weekdays, Fridays, and Saturdays during December and non-December periods using the average rates for suburban shopping center uses. The retail component of the Project is estimated to generate between 582 parked automobiles on non-December non-Friday weekdays and 1,066 parked automobiles on December Saturdays.

Overall as shown in Table 4.11-23, the proposed Project is estimated to have a typical parking demand of between 766 and 855 parking spaces in non-December months. The proposed parking supply of 967 spaces would be adequate to meet the expected demand during most of the year. In December, the overall parking demand would increase to between 1,057 and 1,260 parking spaces. The parking supply provided on-site would not be adequate to meet the parking demand in December. The Project is predicted to have a parking deficit as much as 293 spaces on Saturdays in December. This is typical of urban retail centers where adequate parking supply is provided to meet the parking demand throughout most of the year but not the few busiest days during the holiday shopping period. Providing adequate parking supply to meet the highest parking demand would require considerable resources to construct and maintain parking facilities that would be vacant throughout most of the year and are only used a few days a year. In addition, an excessive parking supply would not be consistent with the urban setting of the Project which aims to encourage pedestrian, bicycle, and transit activity.

Parking Analysis Conclusions

As discussed in previous sections, the parking supply provided for the proposed Project would meet City code requirements. The Project parking supply would also meet the estimated demand throughout most of the year. Thus, Project customers and employees are not expected to park on-street during most the year.

Parking supply would not be adequate to meet the Project parking demand during peak periods in December. When demand exceeds capacity, it is expected that most customers will circulate through the site and wait to find an available parking space. Some Project customers or employees may use on-street parking when on-site demand would exceed the supply. Currently, the on-street parking on 51st Street west of Broadway and on Pleasant Valley Road east of the Project site do not have any restrictions and operate below capacity. It is expected that these spaces would be used by Project customers and employees when needed. Thus, parking by Project customers and employees in the adjacent residential neighborhoods is expected to be minimal.

Recommended Improvement Measures

Recommendation Trans-28: Although not required to address an adverse environmental impact, the City should consider the following strategies to reduce overall parking demand for the Project site and better manage the available parking supply:

a) Implement a Transportation Demand Management (TDM) plan to encourage more Project employees to use other travel modes than driving as required by SCA Trans-1.

b) Encourage employees to use the least convenient parking spaces such as parking spaces on the top deck of the parking structures and behind the buildings.

c) Install an automated parking counting system including variable message signs to inform motorists of the number of parking spaces available in the structured parking facilities and reduce potential traffic circulation.

d) Consider strategies to manage the parking demand and supply during the peak December periods:

- Provide attendant parking for employees and/or customers. Automobiles can park in the drive aisles with attendant parking and increase the overall parking capacity of the site.
- Provide remote parking for site employees.

The environmental consequences of each strategy listed above have been considered. It is not anticipated that the implementation of any of these strategies would result in any significant CEQA impacts.

Truck Access and Circulation

Municipal Code Requirements

The following off-street loading facilities are required for commercial uses per City Municipal Code Section 17.116.140:

- Buildings providing less than 10,000 square feet of net floor area do not require any loading berths
- Buildings between 10,000 and 24,999 square feet of net floor area require one loading berth
- Buildings between 25,000 and 49,999 square feet of net floor area require two loading berths
- Buildings between 50,000 and 99,999 square feet of net floor area require three loading berths
- Each additional 120,000 square feet (or fraction of one-half or more) of net floor area require one additional loading berth

Proposed Truck Loading

The proposed Project would provide the following loading berths:

- The 65,000-square foot Safeway Store (Building "A") would have two loading berths in the back of the store on the northwest corner of the building and space for two additional trucks to load/unload adjacent to the store on the northeast corner of the building. Trucks accessing the Safeway loading berths would enter the site from the signalized driveway on Pleasant Valley Avenue, travel along the access road on the east perimeter of the site, and back into the loading docks; they would leave the site by traveling along the access road on the north perimeter of the site and exit through the signalized Project driveway on Broadway.
- About 129,000 square feet of uses in the southwest portion of the site (Buildings "G," "L," "N," and "O") would share two loading berths (Building "M"). The loading berths would be on the internal Project street. Trucks would access these loading berths by entering the site from the signalized driveway on Pleasant Valley Avenue, turning left into the internal street, and backing into the loading berths; they would leave the site by traveling north along the internal street and exiting through the signalized Project driveway on Broadway.
- About 17,554 square feet of uses in the center of the site (Buildings "C1a" and C1b) would share one loading area. The loading area would be located in back of the stores. Trucks would access the loading area by entering the site from the signalized driveway on Broadway, travel along the access road on the north parameter of the site, and back into the loading area; they would leave the site by traveling along the access road on the north and east parameters of the site and exiting through the driveway on Pleasant Valley Avenue.
- The 14,310 square-foot Building "H" would provide one loading berth. The loading berth would be located in back of the stores. Trucks would access the loading berth by entering the site from the signalized driveway on Broadway, travel along the access road on the north parameter of the site, and back into the loading berth; they would leave the site by traveling along the access road exiting through either driveway on Pleasant Valley Avenue or Broadway.
- About 16,330 square feet of uses in the center of the site (Building "J") would share one loading area. The loading area would be located in back of the stores. Trucks would access the loading area by entering the site from the signalized driveway on Broadway, travel along the access road on the north parameter of the site, and back into the loading area; they would leave the site by traveling along the access road on the north and east parameters of the site and exiting through the driveway on Pleasant Valley Avenue.

Based on City Municipal Code requirements, the 293,200 square-feet of the Project would require five loading berths. Overall, the Project would provide five loading berths and loading area for four additional trucks. Thus, the Project would meet the City's Code requirements.

Recommended Improvement Measures

> **Recommendation Trans-29**: Implement a loading management program to ensure that truck deliveries for all Project buildings can be accommodated with minimal disruptions to pedestrian, bicycle, and automobile access and circulation and parking throughout the site. The loading management program should identify loading areas for all Project buildings and truck waiting areas when truck loading areas are occupied.

Transit Ridership

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

This section analyzes the transit system with trips associated with the proposed Project added to the existing system. This analysis presents the extent of Project impacts relative to existing transit conditions.

Since the proposed Project primarily serves the nearby areas and the nearest BART station (Rockridge Station) is over 0.5 miles away, the Project is expected to generate very few trips that would use BART. Thus, potential impacts of the proposed Project on BART train occupancy and station gate capacity are expected to be minimal and are not further discussed.

AC Transit Ridership

Table 4.11-13 summarized the current customer mode share and estimated Project trips generated by different travel modes. Currently, about zero percent of weekday PM peak hour trips and one percent of Saturday peak hour trips are by transit. Based on the existing mode share, the proposed Project is estimated to generate no new weekday PM peak hour and seven new Saturday PM peak hour transit trips. All new transit trips are expected to be by bus.

Based on criteria presented on page 4.11-58, an impact would occur on an AC Transit line if the Project would add more than three percent to the total ridership on a line when the average passengers per seat rate (i.e., load factor) on that line exceeds 125 percent.

Transit operations are evaluated against the existing conditions using the transit trips generated by the proposed Project. Table 4.11-2 shows AC Transit average and maximum passenger load factors for buses serving the Project site. Two local bus routes currently serve the Project site: Line 12 and Line 51A. Currently, Line 12 has maximum ridership of 50 percent in the eastbound direction and 33 percent in the westbound direction, while Line 51A has a maximum load factor of 103 percent in both directions.

Although the existing mode share data does not show any transit riders during the weekday PM peak hour, this transit ridership analysis assumes that two percent of trips generated by the Project (corresponding to about 10 trips) would by bus. In addition, it is also conservatively assumes that all transit trips generated by the proposed Project would use Line 51A which operates above capacity in the Project vicinity.

Of the 10 weekday PM peak-hour AC Transit trips generated by the proposed Project, about one additional rider is expected to be added to each northbound or southbound Line 51A bus. As shown in **Table 4.11-24**, this would result in a three percent increase in load factors in both northbound and

southbound directions. However, since the overall load factors would continue to be less than 125 percent, the Project-generated ridership increases to AC Transit lines would result in a less than significant impact.

Table 4.11-24
AC Transit Maximum Loads
(No Project and Plus Project)

Bus Line	Stop Location	Direction	Average Capacity (Seats)	No Project		Plus Project	
				Maximum Load[1]	Max. Load Factor[2]	Maximum Load[1]	Max. Load Factor
51A	Broadway at Pleasant Valley Avenue/51st Street[3]	NB	32	33	**103%**	34	**106%**
		SB	32	33	**103%**	34	**106%**

Notes: **Bold** indicates maximum load factor above seating capacity.
1. Maximum number of passengers on the bus observed on a typical weekday.
2. Maximum load divided by average seated capacity.
3. The No Project ridership is for Line 51. Line 51B is assumed to have the same ridership as Line 51.

Source: Fehr & Peers, 2011.

Intersection Queuing Analysis

Environmental impacts of the Project on intersection traffic operations were analyzed through the delay/ LOS analysis presented earlier in this document. Although not an environmental impact, in addition, an analysis on the Project's potential to affect queuing at intersections was also completed to provide additional information to aid the public and decision makers in evaluating and considering the merits of the Project.

Queuing analysis for intersections in the Project vicinity was completed for all analysis scenarios using the Synchro software. The software calculates the expected queue using a formula that extrapolates the length of queue based on two cycle lengths. This methodology provides reasonable results for locations operating in the LOS A through D, but can miss-represent conditions as intersection operations approach capacity. In these instances, the software output denotes the condition with a letter/symbol adjacent to the analysis output worksheet.

The potential for queuing was identified where the Project trips would add 25 or more feet to the 95th percentile queue if the 95th percentile queue was over the available storage length without the Project or where Project trips would extend the queue over the available storage length. The findings are summarized below and in **Appendix 4.11O**.

In general, the locations with queuing are consistent with the delay/LOS analysis presented earlier in this document. Potential queuing would be expected at intersections where a significant impact on traffic operations was identified. Typically, improvements recommended to mitigate the significant impacts and reduce delay at intersections would also reduce queue lengths.

At some intersections, queues for one of two movements may increase while queues for other movements decrease. This is due to the reallocation of signal green time to the intersection approach and/or movements with higher traffic volumes which reduces the average delay experienced at the intersection.

As traffic signal timing parameters are implemented, they will be further refined to balance delays and queues for motorists on all approaches as well as safety and convenience of all users at the intersection including pedestrians and bicyclists.

Existing Plus Project Conditions

Intersection #2: Broadway/Broadway Terrace:

Northbound Through – Project would increase queue from 285 to 400 feet during the weekday PM peak hour and from 130 feet to 260 feet during the Saturday midday peak hour. Storage length is 160 feet before upstream signalized intersection is blocked.

Intersection #4: Broadway/Coronado Avenue/Project Driveway:

Southbound Left – The new southbound left-turn lane proposed as part of the Project would have a queue of 270 feet during weekday PM peak hour, 220 feet during the Saturday midday peak hour, and 250 feet during the Saturday PM peak hour, exceeding the 180 feet of available storage before upstream signalized intersection is blocked. Recommendation Trans-18 would increase the storage length by about 60 feet and eliminate the queue spill back during the Saturday midday peak hour.

Intersection #7: Broadway/51st Street/Pleasant Valley Avenue:

Eastbound Left - Project would increase queue from 290 to 390 feet during the weekday PM peak hour, from 255 feet to 365 feet during the Saturday midday peak hour, and from 160 to 265 feet during the Saturday PM peak hour; storage length is 120 feet before queue spills out of the left-turn pocket.

Westbound Left – Project would increase queue from 205 to 235 feet during the weekday PM peak hour. The Project would also reduce the storage length of the westbound left-turn pocket from 300 to 200 feet; thus, exceeding the available storage length.

Northbound Left – The new northbound left-turn lane proposed as part of the Project would have a queue of 245 feet during Saturday midday peak hour, exceeding the 140 feet of available storage in the left-turn pocket.

Northbound Through – Project would increase queue from 280 to 390 feet during the Saturday midday peak hour; storage length is 280 feet before upstream unsignalized intersection is blocked.

Intersection #15: Telegraph Avenue/51st Street:

Westbound Left – Project would increase queue from 150 to 190 feet during the Saturday midday peak hour; storage length is 180 feet before queue spills out of the left-turn pocket.

Intersection #20: Piedmont Avenue/Pleasant Valley Avenue:

Eastbound Through – Project would increase queue from 235 feet to 410 feet during the Saturday midday peak hour and from 275 to 445 feet during the Saturday PM peak hour; storage length is 250 feet before upstream unsignalized intersection is blocked. The proposed Mitigation Measure Trans-4 would reduce the queue to 90 feet during the Saturday midday peak hour and 70 feet during the Saturday PM peak hour.

Northbound Through – Project would increase queue from 165 to 225 feet during the Saturday midday peak hour; storage length is 140 feet before upstream unsignalized intersection is blocked. The proposed Mitigation Measure Trans-4 would not change the queue during the Saturday midday peak hour.

2015 Plus Project Conditions

Intersection #2: Broadway/Broadway Terrace:

Northbound Through – Project would increase queue from 305 to 415 feet during the weekday PM peak hour and from 25 to 175 feet during the Saturday PM peak hour. Storage length is 160 feet before upstream signalized intersection is blocked.

Intersection #3: Broadway/College Avenue:

Northbound Left – Project would increase queue from 240 to 300 feet during the Saturday midday peak hour. The Project would also reduce the available storage from 200 feet to 180 feet. Recommendation Trans-18A would increase the storage length by about 60 feet and reduce the queue spill back.

Intersection #4: Broadway/Coronado Avenue/Project Driveway:

Southbound Left – The new southbound left-turn lane proposed as part of the Project would have a queue of 270 feet during weekday PM peak hour, 235 feet during the Saturday midday peak hour, and 250 feet during the Saturday PM peak hour, exceeding the 180 feet of available storage before upstream signalized intersection is blocked. Recommendation Trans-18A would increase the storage length by about 60 feet which would reduce the queue spillback.

Intersection #7: Broadway/51st Street/Pleasant Valley Avenue:

Eastbound Left – Project would increase queue from 300 to 435 feet during the weekday PM peak hour, from 265 to 375 feet during the Saturday midday peak hour, and from 175 to 285 feet during the Saturday PM peak hour; storage length is 120 feet before queue spills out of the left-turn pocket.

Westbound Left – Project would increase queue from 235 to 275 feet during the weekday PM peak hour. The Project would also reduce the length of the westbound left-turn pocket from 300 to 200 feet; thus, exceeding the available storage length.

Northbound Left – The new northbound left-turn lane proposed as part of the Project would have a queue of 255 feet during Saturday midday peak hour, exceeding the 140 feet of available storage in the left-turn pocket.

Northbound Through – Project would increase queue from 315 to 515 feet during the Saturday midday peak hour; storage length is 280 feet before upstream unsignalized intersection is blocked.

Intersection #15: Telegraph Avenue/51st Street:

Westbound Left – Project would increase queue from 165 to 205 feet during the Saturday midday peak hour; storage length is 180 feet before queue spills out of the left-turn pocket.

Intersection #20: Piedmont Avenue/Pleasant Valley Avenue:

Eastbound Through – Project would increase queue from 490 to 515 feet during the weekday PM peak hour, from 250 feet to 455 feet during the Saturday midday peak hour, and from 295 to 495 feet during the Saturday PM peak hour; storage length is 250 feet before upstream unsignalized intersection is blocked. The proposed Mitigation Measure Trans-4 would reduce the queue to 290 feet during the weekday PM peak hour, 265 feet during the Saturday midday peak hour, and 240 feet during the Saturday PM peak hour.

Northbound Through – Project would increase queue from 365 to 390 feet during the weekday PM peak hour, from 195 to 250 feet during the Saturday midday peak hour, and from 250 to 280 feet during the Saturday PM peak hour; storage length is 140 feet before upstream unsignalized intersection is blocked.

The proposed Mitigation Measure Trans-4 would decrease or increase the queue to 380 feet during the weekday PM peak hour, 275 feet during the Saturday midday peak hour, and 275 feet during the Saturday PM peak hour.

2035 Plus Project Conditions

Intersection #2: Broadway/Broadway Terrace:

Northbound Through – Project would increase queue from 720 to 860 feet during the weekday PM peak hour and from 175 to 255 feet during the weekday PM peak hour. Storage length is 160 feet before upstream signalized intersection is blocked.

Intersection #3: Broadway/College Avenue:

Northbound Through – Project would increase queue from 65 to 500 feet during the weekday PM peak hour and from 195 to 380 feet during the Saturday midday peak hour. Storage length is 350 feet before upstream signalized intersection is blocked.

Intersection #4: Broadway/Coronado Avenue/Project Driveway:

Southbound Left – The new southbound left-turn lane proposed as part of the Project would have a queue of 255 feet during weekday PM peak hour and 235 feet during the Saturday PM peak hour, exceeding the 180 feet of available storage before upstream signalized intersection is blocked. Recommendation Trans-18A would increase the storage length by about 60 feet.

Southbound Through – The newly signalized southbound through movement proposed as part of the Project would have a queue of 220 feet during weekday PM peak hour, exceeding the 180 feet of available storage before upstream signalized intersection is blocked. Recommendation Trans-18A would increase the storage length by about 60 feet which would accommodate the estimated queue spillback.

Intersection #7: Broadway/51st Street/Pleasant Valley Avenue:

Eastbound Left – Project would increase queue from 370 to 505 feet during the weekday PM peak hour, from 325 to 430 feet during the Saturday midday peak hour, and from 215 to 325 feet during the Saturday PM peak hour; storage length is 120 feet before queue spills out of the left-turn pocket.

Westbound Left – Project would reduce the queue from 310 to 300 feet during the weekday PM peak hour, but the Project would also reduce the length of the westbound left-turn pocket from 300 to 200 feet; thus, exceeding the available storage length.

Northbound Left – The new northbound left-turn lane proposed as part of the Project would have a queue of 170 feet during weekday PM peak hour and 240 feet during the Saturday midday peak hour, exceeding the 140 feet of available storage in the left-turn pocket.

Northbound Through – Project would increase queue from 670 to 965 feet during the weekday PM peak hour, from 560 to 840 feet during the Saturday midday peak hour, and from 225 to 370 feet during the Saturday PM peak hour; storage length is 280 feet before upstream unsignalized intersection is blocked.

Intersection #12: Shattuck Avenue/52nd Street:

Southbound Left – Project would increase queue from 130 to 165 feet during the Saturday midday peak hour, and from 170 to 205 feet during the Saturday PM peak hour; storage length is 150 feet before queue spills out of the left-turn pocket. The proposed Mitigation Measure Trans-1 would reduce the queue to 150 feet during the Saturday PM peak hour.

Intersection #15: Telegraph Avenue/51st Street:

Westbound Left – Project would increase queue from 165 to 200 feet during the weekday PM peak hour, from 250 to 290 feet during the Saturday midday peak hour, and from 150 to 190 feet during the Saturday PM peak hour; storage length is 180 feet before queue spills out of the left-turn pocket. The proposed Mitigation Measure Trans-2 would increase the queue to 220 feet during the weekday PM peak hour and reduce the queue to 260 feet during the Saturday midday peak hour and 185 feet during the Saturday PM peak hour.

Northbound Through – Project would increase queue from 380 to 410 feet during the weekday PM peak hour and from 255 to 270 feet during the Saturday PM peak hour; storage length is 220 feet before upstream signalized intersection is blocked. The proposed Mitigation Measure Trans-2 would increase the queue to 420 feet during the weekday PM peak hour and 340 feet during the Saturday PM peak hour.

Intersection #20: Piedmont Avenue/Pleasant Valley Avenue:

Eastbound Through – Project would increase queue from 635 to 660 feet during the weekday PM peak hour, from 345 to 690 feet during the Saturday midday peak hour, and from 380 to 740 feet during the Saturday PM peak hour; storage length is 250 feet before upstream unsignalized intersection is blocked. The proposed Mitigation Measure Trans-4 would reduce the queue to 530 feet during the weekday PM peak hour, 380 feet during the Saturday midday peak hour, and 360 feet during the Saturday PM peak hour.

Westbound Through – Project would increase queue from 165 to 170 feet during the weekday PM peak hour and from 260 to 280 feet during the Saturday PM peak hour; storage length is 280 feet before upstream unsignalized intersection is blocked. The proposed Mitigation Measure Trans-3 would increase the queue to 400 feet during the weekday PM peak hour and 405 feet during the Saturday PM peak hour.

Northbound Through – Project would increase queue from 490 to 510 feet during the weekday PM peak hour, from 305 to 340 feet during the Saturday midday peak hour, and from 340 to 370 feet during the Saturday PM peak hour; storage length is 140 feet before upstream unsignalized intersection is blocked. The proposed Mitigation Measure Trans-4 would increase the queue to 515 feet during the weekday PM peak hour, 465 feet during the Saturday midday peak hour, and 500 feet during the Saturday PM peak hour.

Traffic Control Devices

As previously described, the California MUTCD peak hour traffic signal warrant would be satisfied at the following intersection under Project scenarios:

- #19 Howe Street/Pleasant Valley Avenue

However as shown in Table 4.11-6, this intersection currently satisfies the MUTCD peak hour signal warrant. The intersection will also continue to meet the peak hour signal warrant regardless of the proposed Project. While the Project would add traffic to this intersection, the stop-controlled northbound Howe Street approach would experience less delay with the proposed Project during the weekday and Saturday PM peak hours because the proposed Project and mitigation measures would improve traffic flow along Pleasant Valley Avenue and provide additional gaps for vehicles to turn from northbound Howe Street into Pleasant Valley Avenue.

Since the intersection satisfies the peak hour signal warrant and the Project would add more than ten peak hour vehicles to the intersection, the Project would have a significant impact at this intersection (See Impact Trans-3). However, signalizing the intersection is not desirable because signalization of the Howe Street/Pleasant Valley Avenue intersection would allow easier automobile access between Howe Street

and Pleasant Valley Avenue, which may encourage cut-through automobiles to use Howe Street as an alternative to the congested Broadway and Piedmont Avenue corridors. Considering that this segment of Howe Street is primarily residential, potential increase in cut-through is not desirable.

No other study intersection would satisfy the peak hour signal warrant.

In addition, the proposed Project includes a number of roadway modifications adjacent to the project site and a number of mitigation measures in the project vicinity. These roadway modifications would include either new traffic control devices (such as traffic signals) or upgrades to existing traffic control devices. As previously described, all improvements, including crosswalks and pedestrian signals, will be designed and constructed to City standards in effect at the time of construction.

Collision History

The Collision Characteristics subsection summarizes five years of historical collision data in the vicinity of the Project and provides collision rate per million vehicles at the study intersections.

As described in the "Vehicle, Pedestrian, and Bicycle Safety" section earlier in this chapter, the off-site improvements proposed by the Project and the mitigation measures included in this EIR would have a positive impact on vehicle, pedestrian, or bicycle safety. The proposed Project would generally redesign Broadway and Pleasant Valley Avenue adjacent to the Project site to the latest applicable standards. As previously described, most of the modifications on adjacent streets proposed by the Project would improve safety, especially for pedestrians and bicyclists. Therefore, it is expected that the Project would generally reduce collision rates in the Project vicinity.

4.12

Utilities and Public Services

This section evaluates the proposed Project's potential impacts related to utilities and service systems. This section describes the existing utilities and services in the vicinity of the site, and evaluates the changes that development of the Project site as proposed might have with respect to utilities and service systems.

Physical Setting

Stormwater

Regional Storm Drainage

The Alameda County Flood Control and Water Conservation District (District) is responsible for the construction, operation and maintenance of major storm drain trunk lines and flood control facilities in Oakland. The District was created in 1949 by the State legislature to provide flood control services to Alameda County. The District's flood control infrastructure includes hundreds of miles of pipelines, channels, creeks, erosion control measures and pump stations. The City of Oakland is within Zone 12 (which also includes the City of Emeryville) and is the largest of the District's zones. Zone 12 has approximately 50 miles of closed conduit, approximately 10 miles of earthen and concrete channels, as well as the existing natural waterways, which move stormwater to the San Francisco Bay.[1] Four pump stations (Lake Merritt, Ettie, McKillop and Temescal) lift stormwater to the Bay.

The Project site is within the Glen Echo Creek sub-watershed, which is a component of the San Antonio Creek watershed. To the northeast of the Project site is the Rockridge branch of Glen Echo Creek, part of the District's flood control facilities also known as Line B-1. Line B-1 is approximately 2.5 miles in length and originates in the vicinity of Broadway Terrace and Romany Road, beginning as a natural creek meandering through the Claremont Golf Course, and then flowing into a large multi-purpose quarry pond located along the southern tip of the Claremont Country Club immediately adjacent to the Project site. An inverted-bell spillway carries overflow into a closed culvert that exits the property across Pleasant Valley Avenue at the southern boundary. The Rockridge branch joins the Broadway branch near 42nd Street and Broadway, and then joins the main stem at 30th Street and Richmond Boulevard, which flows into Lake Merritt at the northwest inlet, which flows into San Antonio Creek and ultimately into San Francisco Bay.

Local Storm Drain System

The Oakland Public Works Agency (PWA) is responsible for maintenance of the local storm drainage system within Oakland's public areas and roads. The City of Oakland's storm drainage system consists of more than 300 miles of storm drainpipes and 15,000 structures (mostly inlets, manholes and catch basins).

[1] Alameda County Flood Control and Water Conservation District, *Report to the Community, Fiscal Year 2005*, 2005.

The storm drain system is a network of disjointed private and public drainage ways. City-owned drainage systems are improved drainage facilities located within easements and rights-of-way.

The existing storm drain system on the Project site consists of a series of drop-inlets connected by underground pipes. Runoff on the impervious portions of the site is directed by sheet flow, either toward the on-site system drop-inlet or curbside storm drains in Pleasant Valley Avenue and Broadway. Existing storm drainage facilities in, and in the immediate vicinity of the Project site include:

- 24-inch and 12-inch storm drain conduits located beneath the shopping center parking lot
- 24-inch storm drain lines which underlie Pleasant Valley Avenue and Broadway
- A 54-inch storm drain which carries overflow from the quarry pond into a buried culvert on the south side of Pleasant Valley Avenue. This overflow line is contained within an easement which runs across the Project site just northwest of the new AAA building.

Water

The Project site is served by existing water supplies, treatment facilities and distribution systems operated and managed by the East Bay Municipal Utility District (EBMUD). EBMUD provides potable water to approximately 1.3 million people throughout portions of Alameda and Contra Costa counties including the City of Oakland.

In October 2009, EBMUD adopted a long-term *Water Supply Management Program 2040* that serves as a water supply planning guide through the year 2040 (WSMP 2040). EBMUD now uses the WSMP 2040 to assess water supplies and analyze demands over a thirty-year planning horizon. The main objective of the WSMP 2040 was to identify and recommend solutions to meet or overcome dry-year water demands now and through the year 2040. EBMUD also prepared and certified a Programmatic EIR for the WSMP 2040 which evaluated the impacts associated with implementation of the WSMP 2040. Individual projects identified in the WSMP could be subject to project-specific environmental review. The following information is primarily derived from the EBMUD WSMP 2040 and its associated EIR.

Water Supply

EBMUD obtains approximately 90 percent of its water from the Mokelumne River watershed, and transports it through pipe aqueducts to temporary storage reservoirs in the East Bay hills. The remaining 10 percent of their water supply originates as runoff from protected watershed lands in the East Bay hills.

Current Water Supply and Demand

EBMUD has water rights and facilities to divert up to a daily maximum of 325 million gallons per day (mgd) from the Mokelumne River.[2] However, this allocation may be constrained by the interrelationships between EBMUD's water rights and the rights of other users of Mokelumne River water, its ability to store water, and the amount of Mokelumne River runoff. Additional water supply from local runoff put to beneficial uses is approximately 15 to 25 mgd during normal hydrologic years, but is reduced to near zero during drought conditions. EBMUD's normal year water supply for 2005 was 222 mgd.[3]

According to EBMUD's *Water Supply Master Plan 2040*, the current (2010) average daily water demand within its service area is estimated to be 251 mgd. That number is adjusted to account for conservation and recycled water program savings, resulting in an adjusted 2010 demand of approximately 216 mgd.[4]

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[2] East Bay Municipal Utility District, *Water Supply Master Plan 2040*, October 2009,

[3] EBMUD, *Water Supply Master Plan 2040*, October 2009.

[4] EBMUD, *Water Supply Master Plan 2040*, October 2009. Table 4-2, pg 4-8

Thus, EBMUD's current water supply (normal year supply of 222 mgd) is sufficient to meet current demands (of approximately 216 mgd) during normal and wet years. However, due to the various constraints on EBMUD's supply from the Mokelumne River and local sources, current supply is insufficient to meet customer needs in multiple year droughts despite water conservation measures and recycling programs. For example, during the recent 1987 to 1992 drought, customers were subject to water use restrictions (rationing) each year.

Future Year Water Supply and Demand

The primary purpose of the EBMUD *Water Supply Master Plan 2040* is to identify recommendations and solutions to meet dry-year water demands through year 2040.

WSMP 2040 includes an update of water demand projections for future potable water demands up to the year 2040. These future year water demands were calculated using existing and future demands for various land use categories and future changes in land use as stated in the respective general plans of communities within the EBMUD service area. Based on this land use information for residential and non-residential land use categories, EBMUD forecasts that service area demands would be about 304 mgd by 2030, but that with implementation of conservation techniques and recycled water use, the adjusted water demand would be reduced to approximately 229 mgd. By year 2040, the unadjusted water demand is projected to increase to 312 mgd, matched with decreases due to water conservation and water recycling that can bring the adjusted demand number down to 230 mgd by year 2040.[5] The demand projections were developed prior to the onset of the economic recession in December 2007. EBMUD anticipates the economic development and associated demand could be realized at a slower rate over time, but demand would average out close to the projected 2040 value.[6]

The Master Plan includes a "portfolio" of supplemental water supply sources, conservation, recycling and water rationing to satisfy customer water demand through 2040, even during drought year conditions. The preferred "portfolio" strategy is meant to be open and flexible, with different components of the portfolio to be pursued over time based on which elements of the portfolio are the most feasible for implementation. These portfolio components include:

- increased water conservation (EBMUD's WSMP 2040 set a goal of reducing water demand through conservation by as much as 39 mgd);
- increased production and use of recycled water (the WSMP includes a goal of achieving up to 11 mgd or water recycling use by year 2040);
- managed water rationing during years of prolonged drought (with a rationing level of 15% used to allow the District flexibility to respond to emergencies and unknown factors); and
- targeted supplemental water supply sources (including Northern California water transfers, the Bayside Groundwater Project, Sacramento Basin and San Joaquin groundwater banking and exchanges, regional desalination projects and reservoir expansions). Beginning in year 2010, EBMUD will be adding two additional supplemental water supplies to its portfolio; the Freeport Regional Water Project and the first phase of the Bayside Groundwater Project.

The combination of these portfolio elements, implemented over time, will satisfy increased customer demand through 2040, even during drought year conditions.[7]

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[5] Ibid.

[6] City of Oakland, *Housing Element of the General Plan Draft EIR,* August 2010, pg 6-3

[7] EBMUD, *Water Supply Master Plan 2040*, October 2009. pg 6-53

Water Treatment Facilities

There are six water treatment plants in the EBMUD water supply and distribution system. Combined, the six plants have a treatment capacity of over 375,000,000 gallons per day. The Orinda Treatment Plant (WTP) supplies water to portions of Oakland, including the Project site. This WTP has the largest output of EBMUD's treatment plants with a peak capacity of 200,000,000 gallons per day, and is currently operating at approximately 70 percent of capacity.[8] At the WTP, water is subject to coagulation, filtration and disinfection prior to being distributed to the public.

Water Distribution System

Water distribution systems in Oakland are divided into pressure zones covering approximately 200-foot elevation ranges. As a result, water pressure ranges from 40 to 130 pounds per square inch (psi). Water pressure is generally adequate throughout the City, but pressure may be reduced in some locations with older water mains if they are not sized based on current standards or have lost capacity due to deterioration. Typically, required pipeline relocations and extensions, in addition to other water distribution infrastructure improvements, are made at the expense of the project applicant in consultation with EBMUD's New Business Office.

The Project site is served by a six inch water main located beneath Broadway. The Oakland Fire Department maintains a minimum fire flow standard of 1,500 gallons per minute, and these lines and associated minor water line connections are anticipated to have an available capacity.

Wastewater

Wastewater Treatment Facility

EBMUD provides wastewater service to approximately 642,000 people in Alameda and Contra Costa counties.[9] Wastewater collected by interceptors in the EBMUD service area Special District No. 1, which includes the City of Oakland, flows to the Main Wastewater Treatment Plant (MWWTP), which is located in Oakland near the eastern approach to the San Francisco-Oakland Bay Bridge. Additionally, EBMUD has two wet weather wastewater treatment facilities (WWF) in Oakland: the San Leandro Creek WWF and the Oakport WWF.

The MWWTP provides both primary and secondary treatment of wastewater. Primary treatment involves the removal of floating materials, oils and greases, sand, silt and organic solids sufficiently heavy to settle in water. Secondary treatment involves the removal of suspended organic and chemical impurities. The MWWTP has a primary treatment capacity of 320,000,000 gallons per day, and a secondary treatment capacity of 168,000,000 gallons per day. Storage basins provide plant capacity for short-term hydraulic peak of 415,000,000 gallons per day. The average annual daily flow into the MWWTP is approximately 80,000,000 gallons per day, representing 48 percent of the plant's secondary capacity.[10] Treated effluent is disinfected, dechlorinated and discharged through a deep-water outfall one mile off the East Bay shoreline into San Francisco Bay.

In addition, EBMUD has been recycling water at its MWWTP since the early 1970s. Recycled water is suitable for land uses that do not require potable water sources, such as golf courses, some agricultural areas and industrial uses. EBMUD provided more than 8,000,000 gallons per day of recycled water to

[8] East Bay Municipal Utility District, *Daily Water Supply Report,* August 5, 2005, www.ebmud.com/water_&_environment/water_supply/daily_reports/default.htm.

[9] East Bay Municipal Utility District, 2005, op. cit.

[10] East Bay Municipal Utility District, Wastewater Treatment, http://www.ebmud.com/wastewater/treatment/.

customers in 2004, and has a goal to recycle 14,000,000 gallons per day by 2020.[11] Incentives used by EBMUD to encourage customers to utilize recycled water include rate discounts on recycled water and low-interest loans used to retrofit buildings so that they can accommodate recycled water.

In January 2002, the City of Oakland adopted a dual plumbing ordinance, which requires new development to use recycled water provided by EBMUD, and to install a dual plumbing system if recycled water is anticipated to be available. The multi-phased East Bayshore Recycled Water Project will supply up to 2,500,000 gallons per day of recycled water to portions of Alameda, Albany, Berkeley, Emeryville and Oakland. Recycled water use is not planned within the Project area.

Wastewater Collection System

The City of Oakland owns and maintains approximately 1,000 miles of sewer collection pipelines and seven pump stations within Oakland. Most of the City's wastewater collection system is 50 years old, and some of the existing infrastructure is as old as 100 years. The sewer system is connected to trunk lines which convey flows to EBMUD's wastewater interceptors, which consist of 29 miles of reinforced concrete pipes ranging from 1 to 9 feet in diameter. Wastewater from the Project site is conveyed through these interceptors to the MWWTP.

The City of Oakland has delineated and numbered sewer sub-basins which encompass a specific physical area, and its sewer flows are assigned by the City of Oakland to a single discharge point from the City's collection system to the EBMUD interceptor system. The City allocates each sub-basin a certain amount of sewer flow that may be discharged to the EBMUD system, and flows within a sub-basin normally may not exceed that allocation. Should a sub-basin require more flow than its allocation, allocation may be redirected between adjacent sub-basins. In total, flows from the sewer basin may not exceed that basin's allocation. In this manner, the City ensures the capacity of the EBMUD wastewater transport and treatment system is adequate to serve development as planned and as proposed. The Project site is situated in sewer Sub-basin 50-05.

The Project site is currently served by existing sewer infrastructure located beneath the surrounding roadways. Existing infrastructure consists of eight-inch pipelines located beneath both Broadway and Pleasant Valley Avenue. An eight inch lateral connection near the northeast corner of the Project site connects its sanitary sewer system to the existing infrastructure in Broadway.

The City of Oakland has a 25-year Sanitary Sewer Infiltration/Inflow Correction Program intended to reduce inflow and infiltration by upgrading the existing sewer system by rehabilitating and enhancing key portions of the sewer system that had the greatest problems within infiltration and inflow in order to eliminate overflows. The areas with the highest infiltration and inflow were identified and targeted cost-effectively for system rehabilitation and/or capacity correction. The 25-year plan was prioritized, in general, to achieve the maximum sanitary sewer overflow reduction at the least initial capital cost in the shortest time possible. Also, locations with the highest impact to public health and safety were given higher priorities. This program will be completed by 2013, and Oakland's Sewer Discharge Permit with the Regional Water Quality Control Board mandates the order of these projects.

Capacity improvements have targeted the trunk network only, on the assumption that the local mains have sufficient capacity to serve their respective sub-basins. The Sanitary Sewer Infiltration/Inflow Correction Program has been designed to accommodate a 20 percent increase in base-flow, with remaining system capacity determined by sub-basin. If the base-flow level of wastewater generated by a proposed development Project would not exceed the projected capacity of the sub-basin in which that project is located, impact analysis may be limited to the study of those local sewer mains which directly serve the Project site.

[11] East Bay Municipal Utility District, 2005, op. cit.

Solid Waste

Solid waste and yard trimmings within the City of Oakland are collected by Waste Management of Alameda County. These materials are taken to the Davis Street Transfer Station in San Leandro. The Transfer Station, which has a maximum allowable capacity of 5,600 tons of waste per day, received an average of 3,028 tons per day in 2003.[12] The facility can process up to 320 tons per day of concrete, asphalt, dirt, bricks, wood and metal. After undergoing processing, waste from the Transfer Station is delivered to the Altamont Landfill in eastern Alameda County. The landfill comprises approximately 2,170 acres (480 acres permitted landfill area) and has a permitted maximum disposal of 11,150 tons per day and an average input of 7,505 tons per day. The landfill is projected to have sufficient capacity to operate until at least 2031, and potential to operate through 2071, depending on waste flows and waste reduction measures.[13]

The City provides curbside recycling within the City, including the project site. Curbside recycling includes the following materials: glass, aluminum and tin, motor oil, cardboard, magazine and newsprint, and plastic. Recyclable materials are delivered to the Davis Street Transfer Center, where they are processed.

The California Integrated Waste Management Board (CIWMB) estimates an average waste generation rate of 2.5 pounds per 1,000 square feet of commercial retail use.[14]

Energy

The Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to the City of Oakland, including the project site. Most of Oakland's electrical power is delivered via 12-kilovolt (kV) transmission lines from PG&E Substation L. Substation L receives 155 kV and distributes power to upper downtown Oakland and West Oakland. Local electric and gas distribution lines are located within the Project site. PG&E charges connection and user fees for all new development in addition to sliding rates for electrical and natural gas service based on use. These services are currently available at the Project site.

Regulatory Setting

State Regulations

California Integrated Waste Management Act

In 1989, the California legislature enacted the California Integrated Waste Management Act (AB 939), which requires the diversion of waste materials from landfills in order to preserve the decreasing capacity of landfills. Cities and counties in California were required to divert 25 percent of solid waste by 1995, and 50 percent of solid waste by 2000. The City of Oakland met this requirement by diverting 65 percent or more of its waste from 2000 through 2004.[15] AB 939 further requires every city and county to prepare

[12] Alameda County Waste Management Authority, *Alameda County Integrated Waste Management Plan*, February 26, 2003.

[13] Ibid.

[14] Integrated Waste Management Board, *Estimated Solid Waste Generation Rates for Commercial Establishments*, 2009, http://www.ciwmb.ca.gov/WasteChar/WasteGenRates/Commercial.htm.

[15] California Integrated Waste Management Board, *Jurisdiction Profile for City of Oakland, Waste Stream Information Profiles*, 2005, http://www.ciwmb.ca.gov/profiles/.

two documents demonstrating how the mandated rates of diversion will be achieved. The Source Reduction and Recycling Element describes the chief source of the jurisdiction's waste, the existing diversion programs, and current rates of waste diversion and new or expanded diversion programs. The Household Hazardous Waste element describes each jurisdiction's responsibility in ensuring that household hazardous wastes are not mixed with non-hazardous solid wastes and subsequently deposited at a landfill. Oakland's Source Reduction and Recycling Element and its Household Hazardous Waste Element were approved in 1995 by the California Integrated Waste Management Board.[16]

Title 24, California's Energy Efficiency Standards

Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings, details requirements to achieve minimum energy efficiency standards of the State of California. The standards apply to new construction of both residential and nonresidential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating and lighting. Compliance with these standards is verified and enforced through the local building permit process.

City of Oakland Regulations

Waste Reduction and Recycling Plan

Oakland Municipal Code Chapter 15.34 requires building permit applications for new construction, demolition, or alterations (with a valuation of $50,000 or greater) to be accompanied by an approved Waste Reduction and Recycling Plan (WRRP). The WRRP is required to document the ways that the applicant will reduce the quantity of construction and demolition debris disposed at landfills by 65 percent or more. The City does not approve building permits for projects until the WRRP is approved.

Oakland General Plan

Land Use and Transportation Element

The Land Use and Transportation Element of the Oakland General Plan includes the following policies related to the provision of utilities and infrastructure:

> *Policy N.12.4:* Electrical, telephone, and related distribution lines should be undergrounded in commercial and residential areas, except where special local conditions, such as limited visibility of the poles and wires makes this unneeded. They should also be underground in appropriate institutional, industrial, and other areas, and generally along freeways, scenic routes, and heavily traveled streets. Programs should lead systematically toward the eventual undergrounding of all existing lines in such places. Where significant utility extensions are taking place in these areas, such as in new subdivisions, utilities should be installed underground at the start.

City of Oakland's Standard Conditions of Approval

The City's Standard Conditions of Approval relevant to this impact topic are listed below for reference. The conditions of approval will be adopted as requirements of the proposed project if the project is approved by the City to help ensure that no significant impacts (for the applicable topic) occur. As a result, they are not listed as mitigation measures.

[16] Ibid.

SCA Util-1: Waste Reduction and Recycling. The project applicant will submit a Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP) for review and approval by the Public Works Agency.

a. Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3), and all demolition (including soft demo).The WRRP must specify the methods by which the development will divert C&D debris waste generated by the proposed project from landfill disposal in accordance with current City requirements. Current standards, FAQs, and forms are available at www.oaklandpw.com/Page39.aspx or in the Green Building Resource Center. After approval of the plan, the project applicant shall implement the plan.

a. 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 Util-2: Stormwater and Sewer. *Prior to completing the final design for the project's sewer service.* Confirmation of the capacity of the City's surrounding stormwater and sanitary sewer system and state of repair shall be completed by a qualified civil engineer with funding from the project applicant. The project applicant shall be responsible for the necessary stormwater and sanitary sewer infrastructure improvements to accommodate the proposed project. In addition, the applicant shall be required to pay additional fees to improve sanitary sewer infrastructure if required by the Sewer and Stormwater Division. Improvements to the existing sanitary sewer collection system shall specifically include, but are not limited to, mechanisms to control or minimize increases in infiltration/inflow to offset sanitary sewer increases associated with the proposed project. To the maximum extent practicable, the applicant will be required to implement Best Management Practices to reduce the peak stormwater runoff from the project site. Additionally, the project applicant shall be responsible for payment of the required installation or hook-up fees to the affected service providers.

Impacts, Standard Conditions of Approval and Mitigation Measures

Criteria of Significance

The Project would result in a significant impact related to public utilities if it would:

Stormwater:

1. Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects;

Wastewater:

2. Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board;

3. 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;

Water

4. 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;

Solid Waste:

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;

Energy:

7. Violate applicable federal, state and local statutes and regulations relating to energy standards; or
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.

Stormwater

Impact Util-1: Although the Project will result in the construction of certain new storm water drainage facilities, the construction of these facilities would not cause significant environmental effects. (**LTS with SCA**)

Construction Effects

The Project proposes to construct a number of on-site bio-retention storm water treatment areas to capture and treat storm water runoff from all building rooftops. The total area of bio-retention as proposed is approximately 8,890 square feet. Additionally, the Project would construct new on-site storm drains under the parking lot and driveways to collect storm runoff and convey that runoff to the City's existing storm drain system in Pleasant Valley Avenue. Construction of the storm drain improvements would occur in areas that are currently part of the existing shopping center's parking lots and driveways, i.e., areas with minimal to no environmental sensitivity.

Standard Conditions of Approval

All construction activity on-site, including construction of these storm drain system components, would be required to comply with City of Oakland standard conditions of approval regarding construction noise (SCA Noise-1 and SCA Noise-2), air quality and dust suppression (SCA Air-1 and SCA Air-2), erosion control (SCA Geo-1) and temporary construction traffic controls (SCA Trans-1) which would ensure that standard construction effects remain at less than significant levels.

Effects on Downstream Drainage Facilities

As indicated in the hydrology chapter of this EIR, the reduction in impervious surfaces associated with the proposed new bio-retention storm water treatment areas, coupled with the time for the flows to work their way through the various BMP's, will serve to reduce overall site runoff as compared to existing conditions. The amount of surface runoff leaving the site post-Project construction is anticipated to be less than current runoff volumes. Therefore, no increase in stormwater flows entering the City's storm drainage system will occur, and no downstream storm drainage systems improvements are anticipated.

Standard Conditions of Approval

Pursuant to SCA Util-2, the Project sponsor will be required to confirm the capacity of the City's surrounding stormwater system and state of repair, and the Project will be responsible for any necessary stormwater infrastructure improvements necessary to accommodate the proposed Project, thus ensuring that potential impacts remain at a less than significant level.

Mitigation Measures

None needed

Wastewater Treatment Capacity

Impact Util-2: The Project would not generate wastewater flows that would exceed the capacity of existing wastewater treatment facilities or necessitate the expansion of existing wastewater treatment facilities. (**LTS**)

Wastewater Flows

Baseline Wastewater Flows

The Project site is currently an actively used shopping center generating wastewater flows from its existing commercial tenants. These current activities produce a baseline amount of wastewater flows against which to measure the incremental change associated with the Project. Existing wastewater flows are presented in **Table 4.12-1** below.

Table 4.12-1: Existing Wastewater Flows

Existing Uses	Area (square feet/seats)	gpd/Unit	Average Daily Flow (gpd)	Peak Daily Flow (gpd)[1]
Retail	149,126 SF	0.1 GPD/SF	14,913	
Bank /Office	17,261 SF	0.2 GPD/SF	5,969	
Restaurant	19,421 SF/777 seats	50 GPD/seat	12,984	
Total:			33,865	133,809

Source: BKF 2011; Lamphier-Gregory 2012.

[1] Peak flow based on 3.5 peaking factor + 1000 gpd/acre infiltration rate over 15.28-acre site.

Project Wastewater Flows

The proposed new Safeway store is estimated to generate approximately the same wastewater flows as the current store, even though the new Safeway would be larger than the existing Safeway store. This is because the proposed new Safeway would use more efficient plumbing fixtures and water conservation features that would result in an overall reduction in sanitary sewer flows from the Safeway store on a per square footage basis. The existing Safeway uses 3.5 gallon per flush (gpf) toilets, whereas the new store would utilize 1.6 gpf toilets. The existing Safeway has a refrigeration cooling tower, whereas the new Safeway will have more efficient air-cooled condensing units in lieu of the cooling tower. However, the EIR conservatively assumes that per-unit wastewater generation rates for both Safeway and the Project as a whole would be the same as existing per-unit wastewater generation rates.

Projected wastewater flows from the Project are shown in the **Table 4.12-2**. As indicated in Table 4.14-2, the Project's total estimated average daily sewer load is approximately 67,949 gpd, an increase of 34,084 gpd over existing average daily flows. Estimated daily peak flow would be 253,103 gpd, an increase of 119,294 gpd over existing peak daily flows.

Table 4.14-2: Project Wastewater Flows

Existing Uses	Area (square feet/seats)	gpd/Unit	Average Daily Flow (gpd)	Peak Daily Flow (gpd)[1]
Retail	256,551 SF	0.1 gpd/SF	25,655	
Bank /Office	17,261 SF	0.2 gpd/SF	3,452	
Restaurant	19,421 SF/777 seats	50 gpd/seat	38,842	
Subtotal:			67,949	253,103
Less Existing Flows			- 33,865	133,809
Net Increase			34,084	119,294

Source: BKF 2011; Lamphier-Gregory 2012.

[1] Peak flow based on 3.5 peaking factor + 1000 gpd/acre infiltration rate over 15.28-acre site.

Wastewater Treatment Capacity

The City of Oakland uses a numbered sub-basin system and assigns the discharges from each sub-basin a single discharge point from the City's collection system to the EBMUD interceptor system. The City allocates each sub-basin a certain amount of sewer flow that may be discharged to the EBMUD system, and flows within a sub-basin normally may not exceed that allocation. Should a sub-basin require more flow than its allocation, allocation may be redirected between adjacent sub-basins. In this manner, the City ensures the capacity of the EBMUD wastewater transport and treatment system is adequate to serve development as planned and as proposed.

The Project site is located in sewer sub-basin 50-05. City of Oakland Public Works staff has indicated that, without off-site sewer rehabilitation (infiltration/inflow reduction) improvements to offset its estimated base flow increase, the estimated Project wastewater base flow exceeds the 20% growth rate of Sub-basin 50-05 and Sub-basin 50-05 does not currently have capacity for this net increase.

Standard Conditions of Approval

Pursuant to SCA Util-2, the Project applicant would be required to confirm the capacity of the City's wastewater system, and the Project would be responsible for any necessary wastewater infrastructure

improvements necessary to accommodate the Project. With the City's wastewater sub-basin allocation approach, should a sub-basin require more flow than its allocation, allocation may be redirected between adjacent sub-basins. In this manner, the City ensures the capacity of the EBMUD wastewater transport and treatment system is adequate to serve development as planned and as proposed. Therefore, portions of unused allocation would be re-allocated, through coordination agreements with EBMUD, to the relevant sub-basins to accommodate the Project's projected demand. As there is sufficient system-wide conveyance and treatment capacity dedicated to the City of Oakland, the fact that the Project would cause Sub-basin 50-05 to exceed its wet weather allocation prescribed by the City would not be considered a significant impact.

Inabilities to handle wet weather flows are also a concern of EBMUD. The City of Oakland implements an inflow and infiltration correction program (IICP) to reduce wet weather overflows into the sanitary sewer system. The IICP sets a maximum allowable peak wastewater flow from each sub-basin within the City. The IICP is expected to increase the capacity of the collection system to allow an approximately 20 percent increase in wastewater flows. City of Oakland Public Works staff has indicated that the estimated wastewater base flow exceeds the 20% growth rate of Sub-basin 50-05 and Sub-basin 50-05 does not currently have capacity for this net increase. Implementation of the City's Standard Conditions of Approval and adherence to the provisions of the IICP would help decrease the amount of inflow and infiltration into the existing wastewater transport system. City of Oakland Public Works staff has indicated that, pursuant to SCA Util-2, the Project would be required to implement off-site sewer rehabilitation (infiltration/inflow reduction) improvements to offset its estimated base flow increase; implement improvements of the on-site and local collection system to accommodate the Project; and/or pay the current sewer mitigation fee.

Construction of needed off-site improvements would generally occur along existing pipeline alignments and within existing rights-of-way, and would be required to comply with City of Oakland Standard Conditions of Approval regarding construction noise (SCA Noise-1 and SCA Noise-2), air quality and dust suppression (SCA Air-1 and SCA Air-2), erosion control (SCA Geo-1) and temporary construction traffic controls (SCA Trans-1) which would ensure that standard construction effects remain less than significant.

With implementation of City of Oakland Standard Conditions of Approval regarding construction effects, the construction of any sewer infrastructure improvements that may be necessary pursuant to SCA Util-2, and the payment of sanitary sewer improvement fees, installation fees and hook-up fees, the Project's effects on wastewater infrastructure would remain at a level of less than significant.

Mitigation Measures

None needed

Wastewater Collection Infrastructure

Impact Util-3: Although the Project will result in the construction of new on-site wastewater collection infrastructure, the construction of such infrastructure would not cause significant environmental effects. (**LTS with SCA**)

The Project would need to construct a number of on-site wastewater collection lines (sewer lateral lines) to connect new buildings to the existing wastewater infrastructure. Construction of these new sewer lateral lines would occur in areas that are currently part of the existing shopping center, either in areas currently occupied by buildings, parking lots or driveways (areas with minimal to no environmental sensitivity). The Project's sanitary sewer system would connect to existing eight-inch sanitary sewer lines located beneath both Broadway and Pleasant Valley Avenue, which ultimately empty into EBMUD's interceptors.

Standard Conditions of Approval

All construction activity on-site, including construction of these sewer laterals, would be required to comply with City of Oakland standard conditions of approval regarding construction noise (SCA Noise-1 and SCA Noise-2), air quality and dust suppression (SCA Air-1 and SCA Air-2), erosion control (SCA Geo-1) and temporary construction traffic controls (SCA Trans-1) which would ensure that standard construction effects remain at less than significant levels.

All new and potentially upgraded sanitary sewer infrastructure elements will be required to be designed and constructed in accordance with the City's *Sanitary Sewer Design Guidelines*, including adherence to accepted engineering principles.

Pursuant to SCA Util-2, the Project sponsor would be required to show proposed sewer discharge calculations at the final design stage and to confirm the capacity of the City's surrounding sanitary sewer system and state of repair. The applicant would be responsible to verify the capacity of the main sewer pipe where the proposed sewer flow will be discharged to by using a peak flow factor of 3.75 and assuming the main sewer is flowing at one-third capacity. The Project would be responsible for any sewer infrastructure improvements necessary to accommodate the Project. Improvements to the existing sanitary sewer collection system may 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. In addition, the Project applicant shall be required to pay fees to improve sanitary sewer infrastructure if required by the Sewer and Stormwater Division, and for payment of all required installation or hook-up fees to the affected service providers.

City-wide capacity improvements to the sewer collection system are being conducted through the City's on-going Sanitary Sewer Infiltration/Inflow Correction Program. This program includes improvements to certain portions of the main sewer trunk network, which are designed to accommodate an overall 20 percent increase in base-flow. Property owners within the City of Oakland fund the Sanitary Sewer Infiltration/Inflow Correction Program improvements through the payment of property taxes, and a portion of the property taxes from the Project would be directed toward this Program.

With implementation of City of Oakland standard conditions of approval regarding construction effects, design and construction of new sewer system components in compliance with the City's *Sanitary Sewer Design Guideline*, the construction of any sewer infrastructure improvements that may be necessary pursuant to SCA Util-2, and the payment of sanitary sewer improvement fees, installation fees and hook-up fees, the Project's effects on wastewater infrastructure would remain at a level of less than significant.

Mitigation Measures

None needed

Water Supply

Impact Util-4: The Project would not exceed water supplies available from existing entitlements and resources. (**LTS**)

CEQA Guidelines Section 15155 requires a city or county with discretionary land use oversight for a "water demand" project to request a determination from the governing body of the public water system as to whether the projected water demand of that project was accounted for in the most recently adopted urban water management plan, and to request a water supply assessment (WSA). A "water demand" project is specifically defined in the Guidelines as a shopping center employing more than 1,000 persons or occupying more than 500,000 square feet of space. Since the proposed Project is a shopping center that would neither employ more than 1,000 persons (total projected employment under the Project is estimated to be approximately 515 people, or an increase of approximately 193 employees over existing conditions)

nor occupy more than 500,000 square feet of space (the Project would occupy a total of approximately 279,000 square feet, or a net increase over current conditions of approximately 97,000 square feet), a WSA was not required nor requested.

The total water demand for the Project has been extrapolated from the wastewater demands presented above as derived from the City of Oakland's *Sanitary Sewer Design Guidelines*. The estimated average daily wastewater flow rates have been divided by a factor of 0.9, based on the assumption that approximately 90% of the overall water use of the Project will end up as wastewater and approximately 10% will be consumed through irrigation. The resulting water demands for the Project are as follows:

- Current, or baseline water demand of the existing shopping center is estimated to be approximately 34,100 gpd
- Total water demand of the Project at buildout is estimated to be 52,600 gpd.
- The net increased water demand as a result of redevelopment as proposed under the Project is estimated at 18,500 gpd.

This increased water demand represents a very marginal increase in overall water demands from throughout the EBMUD service area (less than $1/100^{th}$ of a percent increase over the current adjusted demand of 216,000,000 gpd). The Project's estimated water demand is fully accounted for in EBMUD's water demand projections as published in the 2009 *WSMP 2040* and would not exceed water supplies available from existing entitlements and resources. The proposed Project would not result in a new significant increase in water usage and would not, by itself, require new or expanded water entitlements. Additionally, as part of standard development practices within the City of Oakland, the Project applicant would be required to comply with the Oakland Water Efficient Landscape Requirements found in Title 10, Chapter 7 of the Municipal Code. Therefore, the Project would not exceed water supplies available from existing entitlements and resources, and the water supply impacts of the Project would be less than significant.

Mitigation Measures

None needed

Water Supply Infrastructure

Impact Util-5: Although the Project would result in the construction of certain new on-site water supply infrastructure, the construction of such infrastructure would not cause significant environmental effects. (**LTS with SCA**)

The Project will need to construct a number of on-site water supply lines to connect new buildings to the existing water infrastructure. Construction of these new water lines would occur in areas that are currently part of the existing shopping center, either in areas currently occupied by buildings, parking lots or driveways (areas with minimal to no environmental sensitivity). All construction activity on-site, including construction of these sewer laterals, would be required to comply with City of Oakland standard conditions of approval regarding construction noise (SCA Noise-1), air quality and dust suppression (SCA Air-1), erosion control (SCA Geo-1) and temporary construction traffic controls (SCA Trans-1) which would ensure that standard construction effects remain at less than significant levels.

The existing main water pipeline system near the Project site is expected to be adequate to deliver water to the proposed Project, although the water pipelines within the site may need to be extended or relocated to provide the requested service. As part of standard development practices, all modifications and improvements to the existing water supply infrastructure required to accommodate the Project would be

determined in consultation with EBMUD upon application for water service, with all associated costs to be borne by the Project sponsor.

Additionally, minimum fire flow requirements would be assessed at the time of Project funding. The Oakland Fire Department maintains a minimum fire flow standard of 1,500 gallons per minute.

Mitigation Measures

None needed

Solid Waste

Impact Util-6: The amount of solid waste generated by the proposed Project would not exceed the capacity of the Davis Street Transfer Station or the Altamont Landfill and would not require the construction or expansion of landfill facilities. As such, the proposed Project would have a less than significant impact on solid waste facilities. Demolition activities associated with the removal of the existing buildings, paved asphalt areas, and utilities would be subject to City of Oakland waste reduction and recycling requirements (**LTS with SCA**).

Operational Waste

The proposed project would be served by landfills with the capacity to handle solid wastes generated by the demolition, construction and operational phases of the proposed project. The CIWMB estimates an average waste generation rate of 2.5 pounds per 1,000 square feet per day for commercial retail uses. Although solid waste generation rates can vary substantially by specific use, this generation rate can be used to approximate the additional amount of waste that would be generated by the Project as proposed. The current approximately 185,000 square feet of commercial retail space is estimated to generate approximately 462 pounds of solid waste per day. The addition of approximately 95,000 square feet of net new commercial retail uses at the Project site would be expected to increase this waste generation by approximately 237 pounds of additional solid waste each day, for a total of approximately 700 pounds per day.

This would represent approximately ½ of 1 percent of the total daily permitted throughput for the Davis Street Transfer Station, and one one-thousandth of a percent (0.001 %) of the Altamont Landfill capacity. The amount of solid waste generated by operation of the proposed Project would not exceed the capacity of the Davis Street Transfer Station or the Altamont Landfill, and would not require the construction or expansion of landfill facilities. As such, operation of the proposed Project would have a less than significant impact on solid waste facilities.

Standard Conditions of Approval

Demolition activities associated with the removal of the existing building space, paved asphalt areas and utilities would be subject to City of Oakland waste reduction and recycling requirements. Compliance with SCA Util-1, the City's Waste Reduction and Recycling Standard, and Oakland Municipal Code Chapter 15.34 (which requires implementation of a recycling and waste reduction plan for construction and demolition activities) would reduce the amount of waste generated during the construction phases of the proposed Project. The Project would be required to comply with existing solid waste reduction requirements and would not violate applicable federal, State and local solid waste statutes and regulations.

Mitigation Measures

None needed

Energy Demands

Impact Util-6: The Project would not require more energy than what the local energy provider (PG&E) has the capacity to serve, nor would it require construction of new energy facilities or expansion of existing facilities which could cause significant environmental effects. The Project would be subject to the requirements of currently applicable federal, state and local statutes and regulations relating to energy standards. (**LTS with SCA**)

The Project would be subject to Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings, and would not violate applicable regulations related to energy standards.

The Project is located in an area that currently receives electrical and natural gas services from PG&E. Connecting new buildings to existing lines would involve relatively minor improvements to the existing energy infrastructure. Energy consumption would primarily be associated with the new commercial uses at the site. The Project would not require or result in the construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects. As such, the proposed project would have a less than significant impact on the provision of electricity and natural gas, and on energy consumption.

Mitigation Measures

None needed

Cumulative Utility Impacts

Cumulative Impact Util-7: The Project, in combination with other known past, present, planned or reasonably anticipated future projects would not exceed existing or projected utility capacities. (**LTS with SCA**)

Stormwater Drainage

The geographic area considered for the cumulative analysis of stormwater drainage collection systems is the City of Oakland, since the City is responsible for the local storm drainage system and the Alameda County Flood Control and Water Control District (ACFCWCD) operates the major trunk lines and flood control facilities. Cumulative development would occur in urbanized areas and primarily involve redevelopment of previously developed properties, so there would be limited change in impervious surface area and stormwater runoff. In addition, with required compliance of individual development projects with SCA Util-2, *Stormwater and Sewer*, compliance with City of Oakland Storm Drainage Design Guidelines which require a net reduction of 25 percent in the peak stormwater runoff rate from new projects to the extent possible, and the Alameda Countywide Clean Water Program National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit, cumulative stormwater drainage system impacts would be less than significant.

Water Supply

The geographic area considered for cumulative water supply impacts is the planning area for EBMUD, the water district that serves the City of Oakland and many other East Bay cities. As discussed above, EBMUD accounted for water demands associated with the Project within the current 2009 WSMP 2040. The WSMP includes an analysis of past, present, existing, pending and reasonably foreseeable future development projects based on the Association of Bay Area Governments (ABAG's) *Projections 2005*. Based on the ABAG projections, the WSMP acknowledges that Oakland is continuing to see additional redevelopment, and no significant Project-related cumulative impacts related to water supply are anticipated.

Wastewater Collection and Treatment

The geographic area considered for the cumulative analysis of wastewater collection systems is the City of Oakland, as the City owns, operates and maintains the wastewater collection system within the City. The Project site is located within Sub-basin 50-05. EBMUD allocates a certain amount of sewer flow that may be discharged into the interceptor system. Each sub-basin encompasses a specific physical area, and its sewer flows are assigned to a single discharge point from the City's collection system into the EBMUD South Interceptor. The sub-basin allocation system is the method by which EBMUD and the City of Oakland ensures that the City does not exceed its city-wide allocation of wastewater collection and treatment capacity. The City has determined that development of the Project would exceed the sub-basin allocation. Therefore, portions of unused allocation would be re-allocated, through coordination agreements with EBMUD, to the relevant sub-basins to accommodate the Project's projected demand. As there is sufficient system-wide conveyance and treatment capacity dedicated to the City of Oakland, the fact that the Project would cause Sub-basin 50-05 to exceed its wet weather allocation prescribed by the City is not a physical impact, and would not be considered a significant cumulative impact. The allocation system utilized enables EBMUD to ensure that the capacity of its wastewater transport and treatment system is adequate to serve past, present, existing, pending and reasonably foreseeable future development projects.

Inabilities to handle wet weather flows are also a concern of EBMUD. The City of Oakland implements an inflow and infiltration correction program (IICP) to reduce wet weather overflows into the sanitary sewer system. The IICP sets a maximum allowable peak wastewater flow from each sub-basin within the City. The IICP is expected to increase the capacity of the collection system to allow an approximately 20 percent increase in wastewater flows.

The City's implementation of its Standard Conditions of Approval and adherence to the provisions of the IICP would help decrease the amount of inflow and infiltration into the existing wastewater transport system. As a result, past, present, existing, pending and reasonably foreseeable future development projects are not anticipated to require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities, and there would be no significant cumulative wastewater impacts.

Solid Waste

The proposed Project, together with past, present, existing, pending and reasonably foreseeable future development projects would result in a cumulative increase in solid waste generation. As discussed above, the waste generated by the Project would amount to an estimated 295 additional pounds per day, representing approximately 0.05 percent and 0.001 percent of the total daily permitted throughput for the Davis Street Transfer Station and the Altamont Landfill, respectively. The landfill is projected to have sufficient capacity to operate until at least 2031, and potentially through 2071 depending on waste flows and waste reduction measures. As such, the Project would not result in a significant cumulative impact related to solid waste.

Additionally, demolition activities associated with the removal of the existing structures, paved asphalt areas and utilities would be subject to City of Oakland waste reduction and recycling requirements. Compliance with the City's Waste Reduction and Recycling Standard Condition of Approval (SCA Util-3) and Oakland Municipal Code Chapter 15.34 (which requires implementation of a recycling and Waste reduction Plan for construction and demolition activities) would reduce the amount of waste generated during the construction phase of the all cumulative development projects.

Energy

The Project, together with past, present, existing, pending and reasonably foreseeable future development projects would increase demand for electricity and natural gas, but not to the extent that energy providers have identified a significant adverse cumulative impact. The Project and all other cumulative

development projects in Oakland would be required to meet current State and local codes concerning energy consumption, including Title 24 of the California Code of Regulations. The Project would not violate applicable statutes and regulations related to energy standards and no significant adverse cumulative energy impacts are expected.

4.13

Other Less-than-Significant Effects

The June 2009 Notice of Preparation for this EIR did not include an Initial Study Checklist and therefore did not identify any environmental topics as being specifically screened out for potential adverse environmental effects. However, the NOP did indicate that it was "*. . . anticipated that the Project will not have significant environmental impacts on agricultural resources; cultural resources; mineral resources; population and housing; public services; and recreation. Nevertheless, these environmental factors will be analyzed in the EIR.*" This chapter of the EIR provides a discussion and analysis of these environmental topics which were not anticipated to rise to a level of significance and are not evaluated elsewhere in the EIR.

Agricultural Resources

Farmland Conversion

Impact Ag-1: The project would not 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. (**No Impact**)

The Project site is located in a highly urbanized portion of the City of Oakland, is currently an existing shopping center and is entirely covered by buildings or paved areas. The Project site is not shown on the Farmland Mapping and Monitoring Program of the California Resources Agency as containing any prime, unique or important farmland.

Mitigation Measures

None needed

Williamson Act Conflicts

Impact Ag -2: The Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. (**No Impact**)

The Project site is zoned for commercial and medium density residential use. There are no lands in the vicinity that are zoned for agriculture, and neither the Project site nor any lands in the surroundings are under Williamson Act contracts.

Mitigation Measures

None needed

Other Changes Affecting Farmlands

Impact Ag-3: The Project would not involve any changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use. (**No Impact**)

The Project site is located in a highly urbanized portion of the City of Oakland. There are no farmlands in the vicinity that could be converted to non-agricultural use as a result of any Project changes.

Mitigation Measures

None needed

Mineral Resources

Loss of Mineral Resources

Impact Min-1: The Project would not 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. (**LTS**)

The Project site is the location of a former quarry known originally as the Oakland Paving Company Quarry or the Bilger Quarry, which was opened as far back as the late 1860's. At that time it was one of the largest quarries in Alameda County.[1] Rocks from the quarry, known as "blue-rock" (metamorphosed sandstone with lime carbonate in seams)[2] and "trap-rock" (Franciscan quartz diorite, a near-basalt)[3] were crushed, shipped out via rail spur and used for macadam, concrete, and gutter rock. The last quarry operator, DeSilva Construction, permanently closed the quarry in the 1950s.

According to the California Department of Conservation Division of Mines and Geology's Aggregate Resource Map,[4] the Project site is not currently considered an Aggregate Resource sector.

The Leona Quarry was the last mine in Oakland to be identified as a regionally significant source of aggregate resources. Areas with this designation are judged to be of prime importance in meeting future mineral needs in the region, and land use decisions must consider the importance of these resources to the region as a whole, and not just their importance to Oakland. The Leona Quarry has been closed for many years, and there is no other land in Oakland with such a designation.

Mitigation Measures

None needed

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[1] From *Stone Quarries and Beyond*, complied by Peggy Perazzo, http://quarriesandbeyond.org/states/ca/quarry_photo/ca-alameda_photos.html

[2] From *The Structural and Industrial Materials of California*, Bulletin No. 38, California, State Mining Bureau, San Francisco, California, 1906

[3] http://oaklandgeology.wordpress.com/2008/03/10/rockridge-shopping-center-quarry

[4] http://www.conservation.ca.gov/smgb/reports/Designation/DR%207/Documents/ DR7_SR146_Plate2.60.pdf

Loss of a Mineral Resource Recovery Site

Impact Min-2: The project would not 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. (**No Impact**)

The Project site is not designated as a locally important mineral resource recovery site under the City of Oakland General Plan Land Use and Transportation Element (LUTE) or Conservation Element. There are no specific plans or other local land use plans applicable to the site.

Conservation Element Policy CO-3.2: Quarry Operations prohibits new quarrying activity in Oakland except upon clear and compelling evidence that the benefits will outweigh the resulting environmental, health, safety, aesthetic and quality of life costs.

Mitigation Measures

None needed

Population and Housing

Population Growth

Impact Pop-1: The Project will not induce substantial population growth in a manner not contemplated in the General Plan, either directly or indirectly. (**LTS**)

The Project does not propose to construct any new homes that would induce population growth. The estimated increase in employment at the Project site (approximately 193 employees over existing conditions) is not so large as to induce population growth, and employees for new businesses can be found from within the existing available labor force. The Project does not require the extension of any roads or other infrastructure that would lead to growth inducing impacts that were not previously considered or analyzed in the General Plan and its associated EIR.

Mitigation Measures

None needed

Housing and/or Population Displacement

Impact Pop-2: The Project would not displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element. (**No Impact**)

The Project involves the redevelopment of an existing shopping center with a new commercial center. No housing exists within the Project site and no housing would be removed as part of the Project.

At buildout, the Project will result in demolition of all 185,500 square feet of currently existing commercial space and be redeveloped with approximately 322,500 square feet of new space, for a net increase of about 137,000 square feet of building space. While some existing business tenants within the existing shopping center may be displaced either temporarily during construction or permanently as a result of a new tenant mix, such displacement would not necessitate the construction of replacement housing or replacement commercial space in excess of that contained in the City's General Plan Land Use and Transportation Element or Housing Element.

Mitigation Measures

None needed

Public Services

Fire Protection

Impact Pub Serv-1: The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities in order to maintain acceptable service ratios, response times or other fire protection service performance objectives. (**LTS**)

The Oakland Fire Department (OFD), Fire Prevention Bureau provides protection of all citizens within the City of Oakland from natural or man-made hazards which may cause both injury and loss of property. The Fire Prevention Bureau is primarily responsible for fire safety education, fire cause determination, inspection of high hazard occupancies, fire code enforcement, hazardous materials regulation, and vegetation management. The Bureau provides plan checking services that assure the incorporation of proper life safety standards, as well as code compliance, in all new construction in the city.

The Operations Division of the Fire Prevention Bureau includes 500 uniformed personnel to fill three complete shifts of response personnel, 25 fire stations, and extensive equipment and resources to handle emergencies. The Fire Department receives an average of 60,000 response calls annually, 80% of which are medical emergencies. The Fire Department's response time goal is seven minutes or less, 90 percent of the time.

The OFD fire stations nearest to the Project site include Station 8 (located at 463 51st Street, near 51st and Telegraph) which is approximately ½ mile from the Project site, and Station 19 (located at 5766 Miles Avenue, near Highway 24 and College Avenue), which is approximately ¾ of a mile from the Project site. Both of these stations are capable of providing prompt fire protection service to the Project site (less than 7 minutes) in an emergency. Station 8, which nearest to the site, is a truck company with a ladder-equipped fire truck capable of fighting structural fires in multi-level buildings.

The Project site is not located within the Oakland Wildfire Prevention Assessment District, indicating that it is not located in the high wildland fire zone.

The increase in retail space at the Project site may result in an increase in calls for fire and emergency service. However, the Fire Department would be able to provide adequate fire suppression and emergency medical response services to the Project Site with existing staff. The Project would not require development of new or physically altered facilities.

City of Oakland's Standard Conditions of Approval

The City's Standard Conditions of Approval relevant to this impact topic are listed below for reference. The conditions of approval will be adopted as requirements of the proposed Project if the Project is approved by the City to help ensure that no significant impacts (for the applicable topic) occur. As a result, they are not listed as mitigation measures.

> **SCA Pub Serv-1: Fire Safety Phasing Plan**. *Prior to issuance of a demolition, grading, and/or construction and concurrent with any P-job submittal permit.* The project applicant shall submit a separate fire safety phasing plan to the Planning and Zoning Division and Fire Services Division for their review and approval. The fire safety plan shall include all of the fire safety features incorporated into the project and the schedule for implementation of the features. Fire Services Division may

require changes to the plan or may reject the plan if it does not adequately address fire hazards associated with the project as a whole or the individual phase.

In accordance with the California State Fire Code, the Fire Department would require that fire prevention measures such as automatic sprinklers, smoke detectors, fire alarm systems, and fire resistant construction, be incorporated into final Project plans for each building. The building and fire code requirements adopted by the City of Oakland would be incorporated into Project construction. The Fire Department would review the Project, including provisions for onsite access, exits, and any necessary special equipment to assist firefighters on-site. The Project applicant would be required to incorporate the Fire Department's recommendations into the final Project.

Mitigation Measures

None needed

Police Protection

Impact Pub Serv-2: The Project could result in an increase in calls for police protection services, but would not result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities or the need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other Oakland Police Department performance objectives (**LTS**)

The Oakland Police Department (OPD) Patrol Division uses a geographic, area command system to serve the City. The project site is located in Area 1, which includes West and North Oakland and is bordered by the Berkeley Hills on the north, Lake Merritt on the east, the Oakland Estuary on the south, and the Bay on the west. Officers assigned to this patrol respond to calls for service and critical incidents, conduct preliminary investigations and engage in community-oriented problem-solving projects. In addition to patrol officers, area personnel include community policing officers (the Project site is located with the OPD Community Policing Beat 1), crime response team officers, neighborhood enhancement team officers, foot patrol officers, police canine officers, police service technicians, and police evidence technicians.[5]

According to the OPD's Crimewatch web site,[6] during the 3-month period from November 2010 through February 2011, there were a total of 2 aggravated assaults, 5 robberies, 7 vehicle thefts, 10 burglaries and 31 thefts reported within ¼ mile of the Project site. The data indicates that the general area surrounding the Project site has a relatively high incidence of crime.

The Project would increase development intensity on the Project site as well as increase the on-site population (employees and visitors). This increase could result in an increase in reported crimes. Whereas the City continues to deal with issues surrounding crime and crime prevention, and whereas the OPD continues to manage its resources as effectively as possible given budgetary constraints, it is not anticipated that the Project will result in the need for any new physical facilities to maintain acceptable service ratios, response times or other Oakland Police Department performance objectives which could result in direct physical environmental effects.

[5] http://www2.oaklandnet.com/oakca/groups/police/documents/image/oak025561.pdf

[6] http://gismaps.oaklandnet.com/crimewatch/wizard.asp

Mitigation Measures

None needed

Public Schools

Impact Pub Serv-3: The Project could result in new students for local schools, but would not require new or physically altered school facilities to maintain acceptable performance objectives. (**LTS**)

The Project does not include any proposed new residential uses and would not directly generate new student enrollment in the Oakland Unified School District. Whereas it is possible that families could relocate to Oakland or other adjacent communities as a result of the minor increase in employment opportunities generated by the Project, such increases in new families would be so minor (the estimated increase in employment at the Project site is approximately 120 employees over existing conditions) that it is unlikely to induce population growth, Employees for new businesses can likely be found from within the existing available labor force.

Pursuant to Senate Bill 50 (SB 50), the Project sponsor would be required to pay school impact fees established to offset potential impacts from new development on school facilities. Therefore, although the Project could indirectly result in a minor increase in resident population and potential student enrollment, payment of fees mandated under SB 50 is the mitigation measure prescribed by the statute. Payment of such fees is deemed full and complete mitigation.

Mitigation Measures

None required

Recreation

Park Usage

Impact Rec-1: The Project would not 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. (**LTS**)

Public parks in the vicinity of the Project site include Frog Park (approximately ¾ mile from the site), Rockridge Park (approximately 1 mile from the site), Ostrander Park (approximately 1.5 mile from the site), and the Lake Temescal Regional Recreation Area (approximately 2 miles from the site).

The Project's effect on parks and recreation facilities would be indirect, resulting from the increase in employment opportunities at the site, which could result in a minor increase in the resident population in Oakland and surrounding communities. Increases in the number of employees and shoppers at the Project site could result in an increased use of nearby parks. However, the expected increase in park usage would be very minor and existing parks offer substantial capacity for increased use.

Mitigation Measures

None needed

Construction or Expansion of Recreational Facilities

Impact Rec-2: The Project does not include recreational facilities nor does it require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. (**No Impact**)

The Project does not provide for new public recreation areas or parks, but does expand on the existing pedestrian and bicycle network for the site and includes a number of public gathering places and plazas. The main plazas are located along Broadway at the Pleasant Valley Avenue intersection, connecting through the corner buildings at this location. The internal project street also has a number of smaller plazas and gathering places, including wide sidewalks for outdoor cafes and public seating. The landscaped edge near the quarry pond will have two smaller plazas which serve as scenic outlooks over the Pond and small shelter away from the large parking lot.

Construction of these pedestrian and bicycle networks, public plazas and gathering spaces would have no adverse physical effects on the environment, other than as described and identified on other chapters of this EIR.

Mitigation Measures

None needed

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Alternatives

Introduction and Overview

CEQA Guidelines require an analysis of a reasonable range of alternatives for any project subject to an EIR. The purpose of the alternatives section is to provide decision-makers and the public with a discussion of alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly. Evaluation of alternatives should present the proposed action and all the alternatives in comparative form to define the issues and provide a clear basis for choice among the options.

CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Where a lead agency has determined that even after adoption of all feasible mitigation measures, a project as proposed would still result in significant environmental effects that cannot be substantially lessened or avoided, the agency must first determine whether there are any alternatives that are both environmentally superior and feasible. CEQA provides the following guidelines for discussing project alternatives:

- An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation (§15126.6(a)).
- An EIR is not required to consider alternatives which are infeasible (§15126.6(a)).
- The discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project (§15126.6(b)).
- The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects (§15126.6(c)).
- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis and comparison with the proposed project (§15126.6(d)).

Accomplishing Basic Project Objectives

CEQA requires an analysis of alternatives that would feasibly attain most of the basic objectives of the project. The overall Project objective is to redevelop the Project site to support development of a new Safeway store and to add new commercial space at the site. The specific Project objectives are as follows:

- Revitalize the 15.4-acre site at the intersection of Pleasant Valley Avenue and Broadway through phased redevelopment of the existing 1960s suburban style commercial development with a vibrant urban shopping environment composed of an approximately 65,000 square foot Safeway store and approximately 228,000 square feet of net leasable space for retail, restaurant, office, and associated uses.

- Improve Safeway store to offer a more comprehensive range of retail services and products to Safeway's customers, including: an on-site "from scratch" bakery; a pharmacy; expanded wine, cheese and floral offerings; an expanded deli (including warm food table, and prepared catering food items); a "service" meat and seafood service (as compared to the pre-packaged items currently available); organic produce; and one or more specialty drink kiosks.
- Provide a more functional and efficient shopping area configuration by improving access and walkability to create a sense of place where customers can enjoy amenities from all the retailers within the center, thereby enhancing the overall shopping experience.
- Construct an urban infill development that accommodates a larger grocery store anchor than currently exists and that attracts and retains other high-quality retail tenants, including those that will provide shopping options to local customers that are not currently available in the City.
- Construct a retail development that will provide significant benefits to the City and community in terms of increased employment opportunities, tax revenues and shopping opportunities.
- Enable the shopping center, especially the grocery store, to remain operational throughout the construction period.
- Coordinate development in phases in order to meet both current and expected future retail market demands.
- Construct energy efficient buildings using environmentally-friendly design practices incorporating "green" features where possible.
- Improve aesthetics of the site through native and drought-tolerant landscaping, while maintaining and protecting adjacent surface waters.
- Comply with all applicable agreements pertaining to the property, including the terms of a land lease that precludes development of housing on the site.
- Improve site circulation by consolidating access points, developing an outer ring road and providing internal roadways with clear direction options for various destinations within the center.
- Enhance pedestrian and bicycle access to the project site by providing a meandering sidewalk that substantially encircles the site and new plaza areas as well as a pedestrian/bike path along the eastern edge of the site.
- Provide sufficient parking to serve the needs of Safeway and other retail tenants that has direct and convenient access from major thoroughfares and will be inviting, well-lit, safe and screened to a greater degree than current conditions from pedestrians and motorists.
- Provide several hundred construction jobs as well as approximately 70 new union jobs with Safeway and approximately 170 new positions with the expansion of the retail center.
- Complete the project on schedule and within budget.
- Capitalize on the current opportunity to move the Safeway grocery store into the CVS Pharmacy site soon after the current CVS lease expires.

Reducing Significant and Unavoidable Project Impacts

CEQA also requires the identification and analysis of alternatives that would avoid or substantially lessen any of the significant effects of the project. As explained in Chapter 4.11: Transportation, Circulation and Parking and summarized below, the Project would result in significant unavoidable impacts related to traffic operations at the Howe Street/Pleasant Valley Avenue, Piedmont Avenue/Pleasant Valley Avenue and Broadway/51st Street/Pleasant Valley Avenue intersections. Pursuant to the CEQA Guidelines, the

alternatives evaluated in this EIR were developed with the purpose of substantially reducing these unavoidable significant impacts, as well as avoiding or reducing other significant impacts of the Project for which feasible mitigation measures have been identified.

However, none of the alternatives would avoid all of the significant and unavoidable traffic impacts identified for the Project. These impacts are as follows:

- Howe Street/Pleasant Valley Avenue (Existing, 2015 and 2035): Under Existing plus Project, 2015 plus Project, and 2035 plus Project conditions, the proposed Project would add more than 10 trips to the Howe Street/Pleasant Valley Avenue intersection during the weekday PM and Saturday midday peak hours. This intersection would meet the peak hour signal warrant, and this impact would exceed the City's threshold and be considered significant. Although several improvements are identified as capable of improving traffic operations at this intersection and mitigating the traffic impact, each of these improvements would result in significant and unavoidable secondary impacts. Because of these secondary significant impacts, these measures are considered infeasible and traffic impacts at the Howe Street/Pleasant Valley Avenue intersection are considered ***significant and unavoidable***.
- Piedmont Avenue/Pleasant Valley Avenue – Intersection #20 (2035): Under 2035 plus Project conditions, the Project would increase the volume-to-capacity (v/c) ratio for the intersection at Piedmont Avenue/Pleasant Valley Avenue during both the weekday PM and Saturday peak hours by more than the City's acceptable thresholds, and the traffic impact would be considered significant. Although intersection improvements are identified which are capable of improving traffic operations at this intersection, one of the recommended improvements would not reduce the impact to a less-than-significant level and the other identified improvement would result in significant and unavoidable secondary impacts (i.e., elimination of planned bicycle lanes on Piedmont Avenue and loss of on-street parking). Because of these secondary significant impacts, these improvements are considered infeasible and traffic impacts at the Piedmont Avenue/Pleasant Valley Avenue intersection are considered ***significant and unavoidable***.
- Broadway/51st Street/Pleasant Valley Avenue – Intersection #7 (2015 and 2035): Under 2015 plus Project and 2035 plus Project conditions, the Project would increase volume-to-capacity (v/c) ratio for the intersection at Broadway/51st Street/Pleasant Valley Avenue during the weekday PM peak hour by more than the City's acceptable thresholds, and the traffic impact would be considered significant. Although a mitigation measure is identified that is capable of reducing the impact, it is not adequate to reduce the impact to a less-than-significant level. In addition, this mitigation measure would result in significant and unavoidable secondary impacts (i.e., conflicts with City policy concerning pedestrian safety). Traffic operations at the intersection could be improved by providing additional automobile travel lanes, but such lanes could not be accommodated within the existing right-of-way and thus are considered to be infeasible. Because of the secondary significant impacts and infeasibility of identified improvements, traffic impacts at the Broadway/51st Street/Pleasant Valley Avenue intersection are considered ***significant and unavoidable***.

Alternatives Analyzed

The five alternatives analyzed in this EIR are listed below. These alternatives are intended to meet the CEQA requirement that an EIR describe the no project alternative as well as a range of reasonable alternatives to the project that would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen the significant effects of the project.

Alternative 1: No Project

CEQA Guidelines Section 15126.6(e)(3)(B) states that "If the project is…a development project on identifiable property, the "no project" alternative is the circumstance under which the project does not proceed. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed." Under Alternative 1: No Project, the Safeway store would remain in its existing location at its present size and there would be no redevelopment of the shopping center buildings or grounds apart from a possible remodeling of the Safeway store.

Alternative 2: Safeway Relocation

Alternative 2: Safeway Relocation includes relocation of the Safeway store to the current CVS Pharmacy space, but retains the remainder of the shopping center as it currently exists. Safeway would simply re-occupy the CVS Pharmacy building with minor alterations as necessary. New commercial tenants would be sought to fill the vacated Safeway site, but no new or additional space would be added. The Safeway Relocation alternative would retain the approximately 185,500 square feet of commercial uses that currently exist on the site, with no net increase in building space. This alternative may require additional discretionary action on the part of the City; administrative building permits would be necessary for internal improvements to suit future retail tenants.

Alternative 3: Reduced Project

Alternative 3: Reduced Project is envisioned to include all site improvements as proposed under the Project with the exception of upper-floor space. Similar to the Project, this alternative would demolish all of the existing buildings on the site, and redevelop the site with a new commercial center. However, the amount of new space constructed under this alternative would be approximately 254,700 square feet, or about 80 percent of the amount of new space proposed under the Project. The Project proposes to construct approximately 67,700 square feet of new space on upper levels, including above the new Safeway and on a second floor along Pleasant Valley Avenue. Under the Reduced Project alternative, the site would be re-built without the upper-floor commercial space included in the Project, for a total development of approximately 254,700 square feet of space.

Alternative 4: Concept with Commercial Emphasis (RCPC Plan)

During the scoping process for this EIR, in written responses to the June 25, 2009 Notice of Preparation (NOP) (see **Appendix 1B**) and at a July 15, 2009 City of Oakland Planning Commission public hearing on the scope of the EIR, individuals and neighborhood groups expressed their desire for a different design and mix of land uses that they believed was more pedestrian-, bicycle- and transit-friendly, and more urban in character. Alternative 4: Concept with Commercial Emphasis is based on a concept plan put forth by the Rockridge Community Planning Council (RCPC), which can be viewed on the RCPC website.[1]

Alternative 4 includes a mix of land uses and site layout that are very similar to the Project evaluated in this EIR. Similar to the Project, Alternative 4 would involve the demolition of all of the existing buildings and the construction of a new 65,000 square foot Safeway store along with other retail, office and restaurant space, for a total of 320,000 square feet of commercial space. A total of 1,000 off-street parking spaces would be located in surface parking lots, along a new internal "shopping street," on a rooftop parking lot over the new Safeway store, and in a three level parking garage located over retail space. Unlike the Project, Alternative 4 would retain the Chase bank in its present location, and place

[1] http://www.rockridge.org/ludocs/Safeway/RockridgeCenterSafeway/rcpc_plans.pdf

more retail space where the Project proposes a new freestanding bank with a drive-thru. Alternative 4 would connect the new entry on Broadway to the center of the site through the internal "shopping street," whereas the Project would extend Coronado Avenue along the northerly boundary of the site through to the quarry pond.

Alternative 5: Concept with Residential Emphasis (ULTRA Plan)

Alternative 5: Concept with Residential Emphasis (ULTRA Plan) is a concept plan put forth by Urbanists for a Livable Temescal-Rockridge Area (ULTRA) in its July 27, 2009 letter responding to the NOP (**Appendix 1B**). Alternative 5 would involve the demolition of all of the existing buildings and the construction of a new Safeway store along with a lesser amount of retail and office space than the Project, plus a substantial number of housing units. Alternative 5 would include 121,000 square feet of commercial space and up to 349 residential units in both residential and mixed-use buildings. Approximately 800 off-street parking spaces would be located in two parking structures. The new Safeway store would be located along Broadway, next to a new transit plaza. Safeway's "boutique" shops (i.e., deli, bakery, butcher shop, pharmacy, floral, specialty drinks, banking) would front onto Broadway and the transit plaza, with access from both the main store and the street. Live/work homes/offices would front on Pleasant Valley Avenue. Townhouses and flats would line the parking garage, fill the upper stories above the Safeway store and other retail, and occupy the area by the quarry pond. Three-story townhouses with garages on alleys would occupy the more remote portion of the site, where the CVS Pharmacy building now stands, organized around a central park.

Table 5-1 compares the amount of development and mix of uses proposed by the Project to the five alternatives.

Table 5-1: Project and Alternatives Development Summary

	Demo of Existing Structures?	Commercial (sq. ft.)	Residential (units)	Parking Spaces
Project	Yes	322,536	0	967
Alternative 1: No Project	No	185,500	0	667
Alternative 2: Safeway Relocation	No	185,500	0	667
Alternative 3: Reduced Project	Yes	254,700	0	820
Alternative 4: Concept with Commercial Emphasis (RCPC Plan)	Yes	320,000	0	1,000
Alternative 5: Concept with Residential Emphasis (ULTRA Plan)	Yes	121,000	349	804

Alternatives Considered but Rejected

"Fully Mitigated" Alternative

CEQA Guidelines, Section 15126.6(c) indicates that the range of potential alternatives to the proposed project shall include those that could feasibly accomplish *most of the basic objectives of the project* (emphasis added) and could avoid or substantially lessen one or more of the significant effects. The fundamental objectives of the proposed Project are: 1) to revitalize the existing shopping center with a new, larger Safeway store that provides a more comprehensive range of retail services and products to

Safeway's customers; and 2) to attract and retain other high-quality retail tenants, including stores that will provide shopping options to local customers that are not currently available in the City.

As more fully described under Alternative #2, the increased number of vehicle trips associated with a larger grocery store as the only change at the site would, by itself, result in significant and unavoidable traffic impacts. The only means of off-setting the increased vehicle trips attributed to the larger Safeway store would be to reduce the total number of other vehicle trips generated at the site by reducing the amount of other retail space that currently exists.

It is possible to describe any number of alternatives that include a new 65,000 square foot "Lifestyle" Safeway store, and that would reduce the amount of other currently existing retail space, such that the total number of vehicle trips generated from the site would be less than or equal to the current baseline condition. Such an alternative would be capable of lessening the significant traffic effects that would otherwise result from the proposed Project. However, any such alternative would also result in further under-utilization of the site, would not allow for the attraction and retention of other high-quality retail tenants that could provide shopping options to local customers not currently available, and would likely worsen the City's current retail sales leakage.

Although such an alternative is physically feasible, there is no alternative that would be capable of reducing or avoiding the significant traffic impacts identified for the Project, while still accomplishing the basic Project objectives. For this reason, a "fully mitigated" alternative was eliminated from further consideration in this EIR.

Alternative Site Location

In considering the range of alternatives to be analyzed in an EIR, the CEQA Guidelines state that an alternative site location should be considered when feasible alternative locations are available and the "significant effects of the project would be avoided or substantially lessened by putting the project in another location."

The Project applicant does control other locations in Oakland and has other sites that are either currently proposed for redevelopment or are suitable for redevelopment potential. However, considering an alternative site for this Project would not accomplish the main objective of the Project, which is to redevelop this older obsolete shopping center with a new, more modern and more functional shopping center, thereby improving the Project site and enhancing its sales potential.

Relocation of this Project to another location would reduce identified traffic impacts at intersections in the vicinity of the Project site. However, similar traffic impacts may likely result at different intersections in proximity to any alternative site. For these reasons, an alternative site location was eliminated from further consideration in this EIR.

Overview of Alternatives Analysis

Each of the alternatives is more fully described below, and their potential environmental effects are also disclosed. The environmental effects of each alternative are compared to those of the Project and to existing conditions. As permitted by CEQA (CEQA Guidelines Section 15126.6[d]) the effects of the alternatives are discussed in less detail than the impact discussions of the Project. However, the alternatives analysis is conducted at a sufficient level of detail to provide the public, other public agencies, and City decision-makers adequate information to fully evaluate the alternatives and possibly to enable the City to consider approval of the alternatives without further environmental review. Two of the alternatives, Alternative 4 and Alternative 5, may require further analysis before the City could consider approval of those alternatives based on this EIR. For each of the alternatives, the significance of each impact is compared to City of Oakland thresholds of significance, as indicated in the topic heading (e.g., Aesthetics [LTS]). These significance conclusions assume implementation of Standard Conditions of

Approval and/or mitigation measures. The impacts of each alternative are also compared to the impacts of the Project to indicate whether the alternative would: 1) avoid potentially significant impacts of the Project; 2) generally have the same impact as the Project; or 3) result in impacts either greater than or less than the impacts of the Project.

Table 5-2 provides a summary comparison of the impacts of the alternatives relative to those of the Project. For each impact discussion found within the Draft EIR chapters, this table identifies the extent to which this impact would be significant under each alternative, for example:

- no impact (No Impact)
- less than significant (LTS)
- less than significant with implementation of City of Oakland Standard Conditions of Approval (LTS with SCA)
- less than significant with implementation of mitigation measures recommended for the Project (LTS with Mitigation)
- significant and unavoidable (SU)

Table 5-2 also compares the magnitude of the impact relative to the proposed Project. For example:

- the symbol "↓" indicates that the alternative would have a less substantial impact relative to the Project, even if the CEQA conclusion were similar for both the Project and the alternative (e.g., an alternative could have a less substantial adverse effect than does the Project, even though both levels of impacts can be addressed through City of Oakland Standard Conditions of Approval);
- the symbol "↑" indicates that the alternative's impact would be more substantial than the proposed Project; and
- the symbol "←→" indicates that the magnitude of the alternative's impact would be relatively the same or similar to the proposed Project.

Table 5-3 provides a comparison of how each of the alternatives would address or compare to the significant impacts identified in this EIR as resulting from the proposed Project.

Table 5-2: Summary of Impacts for Each Alternative, and Relative Comparison to the Project

Environmental Topic	Project	Alternative 1: No Project	Alternative 2: Safeway Relocation	Alternative 3: Reduced Project	Alternative 4: Concept with Commercial Emphasis (RCPC Plan)	Alternative 5: Concept with Residential Emphasis (ULTRA Plan)
Aesthetic						
Vistas	No Impact	No impacts	No Impact, ↓	No Impact, ↓	No Impact, ←→	No Impact, ←→
Character	No Impact		No Impact, ↑	No Impact, ↑↓	No Impact, ←→	No Impact, ←→
Light/Glare/Shadows	LTS with SCA		No Impact, ↓	LTS with SCA, ↓	LTS with SCA, ←→	LTS with SCA, ↑
Urban Decay	LTS		LTS, ←→	LTS, ←→	LTS, ←→	LTS, ←→
Air Quality						
Construction	LTS with SCA	No impacts	LTS with SCA, ↓	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→
Operations	LTS		LTS, ↓	LTS, ←→	LTS, ←→	LTS, ↓
Biological Resources						
Special Status Species	LTS w/ Mitig.	No impacts	No Impact, ↓	LTS with Mitig. ←→	LTS with Mitig. ←→	LTS with Mitig. ←→
Wetlands	LTS with SCA		No Impact, ↓	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→
Wildlife Movement	No Impact		No Impact, ↓	No Impact, ←→	No Impact, ←→	No Impact, ←→
Tree Protection	LTS with SCA		LTS, ↓	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→
Creek Protection	LTS with SCA		No Impact, ↓	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→
Cultural Resources						
Historic	No Impact	No impacts	No Impact, ←→	No Impact, ←→	No Impact, ←→	No Impact, ←→
Archaeology	LTS with SCA		No Impact, ↓	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→
Geology and Soils						
Seismic Hazards	LTS with SCA	No impacts	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→
Slope Instability, Unstable Fill and Expansive Soils	LTS with SCA		No Impact, ↓	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→
Greenhouse Gas						
GHG Emissions	LTS	No impacts	LTS, ↓	LTS, ↓	LTS, ←→	LTS, ↓
CAP Consistency:	LTS		LTS, ↓	LTS, ↓	LTS, ←→	LTS, ←→
Hazards/Haz Materials:						
Site Contamination:	No Impact	No impacts	No Impact, ←→	No Impact, ←→	No Impact, ←→	LTS with SCA, ↑
Disposal, Transport, Use	LTS with SCA		LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→

Table 5-2: Summary of Impacts for Each Alternative, and Relative Comparison to the Project

Environmental Topic	Project	Alternative 1: No Project	Alternative 2: Safeway Relocation	Alternative 3: Reduced Project	Alternative 4: Concept with Commercial Emphasis (RCPC Plan)	Alternative 5: Concept with Residential Emphasis (ULTRA Plan)
Schools, Airports, Emergency Response, Wildfire	No Impact		No Impact, ←→	No Impact, ←→	No Impact, ←→	No Impact, ←→
Hydrology/Water Quality						
Groundwater, Flooding	No Impact	No impacts	No Impact, ↓	No Impact, ←→	No Impact, ←→	No Impact, ←→
Increased Runoff	No Impact		No Impact, ←→	No Impact, ←→	No Impact, ←→	No Impact, ←→
Construction	LTS with SCA		LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→
Operations	LTS with SCA		LTS, ↓	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→
Creek Protection	LTS with SCA		LTS, ↓	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→
Land Use						
Divide Community	No Impact	No impacts	No Impact, ←→	No Impact, ←→	No Impact, ←→	No Impact, ↓
Plans and Policy Conflict	No Impact		No Impact, ←→	No Impact, ←→	No Impact, ←→	No Impact, ←→
Noise and Vibration						
Construction Noise	LTS with SCA	No impacts	LTS with SCA, ↓	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→
Traffic Noise	LTS with SCA		LTS, ↓	LTS, ←→	LTS with SCA, ←→	LTS with SCA, ↓
Land Use Compatibility	No Impact		No Impact, ←→	No Impact, ←→	No Impact, ←→	LTS, with SCA, ↑
Operations Noise	LTS with SCA		LTS, ↓	LTS, ←→	LTS, ←→	LTS with SCA , ↑
Transportation:						
Trip Generation (compared to Project)		No change	41% of weekday, 50% of weekend, ↓	64% of weekday, 65% of weekend, ↓	Same, ←→	19% of weekday, 0.1% of weekend, ↓
Broadway/51st at 2015	SU		LTS, ↓	LTS, ↓	SU, ←→	LTS, ↓
Broadway/51st at 2035	SU		SU, ↓	SU, ↓	SU, ←→	SU, ↓
Howe//Plsnt. Valley, Existing	SU		SU, ↓	SU, ↓	SU, ↓	SU, ↓
Howe//Plsnt. Valley, 2015	SU		SU, ↓	SU, ↓	SU, ↓	SU, ↓
Howe//Plsnt. Valley, 2035	SU		SU, ↓	SU, ↓	SU, ↓	SU, ↓
Piedmont/Plsnt. Valley, 2035	SU		SU, ↓	SU, ↓	SU, ←→	LTS, ↓
Transit Travel	LTS		LTS, ↓	LTS, ←→	LTS, ←→	LTS, ↓
Construction Period	LTS with SCA		LTS with SCA, ↓	LTS with SCA, ←→	LTS with SCA, ←→	LTS with SCA, ←→

Table 5-2: Summary of Impacts for Each Alternative, and Relative Comparison to the Project

Environmental Topic	Project	Alternative 1: No Project	Alternative 2: Safeway Relocation	Alternative 3: Reduced Project	Alternative 4: Concept with Commercial Emphasis (RCPC Plan)	Alternative 5: Concept with Residential Emphasis (ULTRA Plan)
Support of Alt. Transp.	LTS		LTS, ↑	LTS, ←→	LTS, ←→	LTS, ↓
Utilities and Public Services						
Utilities	LTS with SCA	No impacts	LTS, ↓	LTS with SCA, ↓	LTS with SCA, ←→	LTS with SCA, ↑
Parks and Schools	No Impact		No Impact, ←→	No Impact, ←→	No Impact, ←→	LTS with SCA, ↑

Alternative 1: No Project

CEQA Guidelines Section 15126.6(e) requires that a "no project" alternative be evaluated, along with its impacts. The "no project" alternative must be the *practical result* of non-approval of the project.

Description of Alternative 1

For this Draft EIR, the Alternative 1: No Project is defined as an alternative under which the site remains in its existing state (**Figure 5-1**). The Safeway store remains in its existing location at its present size, but the store could be remodeled with interior improvements and façade upgrades to remain more competitive. Existing shopping center tenants either remain or vacate based on their individual desires and leases. There would be no redevelopment of the shopping center buildings or grounds apart from a possible remodeling of the Safeway store, no reconfiguration of the existing parking area, and no improvements to on-site or off-site circulation.

At the current CVS Pharmacy building, one of three scenarios could occur: (1) CVS Pharmacy and Property Development Centers, Inc. (PD Centers), an affiliate of Safeway, Inc., the lease holder, and the Project applicant, would agree to new lease terms such that CVS Pharmacy stays in its current location; (2) the CVS Pharmacy lease could expire and PD Centers would find a new retail tenant or tenants to occupy the space; or (3) the CVS Pharmacy lease could expire and the building would be left vacant and not utilized.

The first two scenarios would be consistent with the description of existing physical settings from each of the sub-chapters in Chapter 4 of this Draft EIR. There would be no change in the existing physical characteristics of the Project site. Existing uses would continue to operate as they do now. Under the second scenario, replacement of one retail tenant with another would have no material consequences for the existing physical setting. Under the third scenario, the only change would be that the CVS Pharmacy building would be left vacant and not utilized. The potential remodeling of the Safeway store could occur regardless of what happens at the CVS building.

Figure 5-1
No Project / No Development Alternative

Comparative Environmental Analysis

Aesthetics *(LTS)*

No impacts. The existing visual character and light, glare and shadow conditions on the Project site would remain unchanged. Although the existing Safeway store could be remodeled in its existing location at its present size, there would be no substantial improvement in the visual quality of the site, and no change from the current suburban character of the shopping center to a more urban character that is more compatible with surrounding development. The potential loss of a major retail anchor like CVS Pharmacy could cause the shopping center to become further underutilized for a time, particularly in the absence of substantial upgrades to the overall site. However, the retail market is strong in the Project's market area and vacant properties are well-maintained and quickly absorbed, so the No Project alternative would not be expected to result in significant urban decay impacts.

Air Quality *(No Impact)*

No impacts. There would be no new development and thus no increase in air pollutant emissions.

Biological Resources *(No Impact)*

No impacts. None of the trees that exist on the site would be removed and there would be no potential disturbance of roosting bats or western pond turtles during construction, or potential disturbance of wetlands.

Cultural Resources *(No Impact)*

No impacts. There would be no impacts on the historic resources in the vicinity and no unlikely disturbance of previously undiscovered archaeological resources during construction.

Geology and Soils *(No Impact)*

No impacts. There would be no new buildings, other improvements, or additional occupants on the site exposed to potential on-site slope instability, or seismic or soils-related hazards.

Greenhouse Gas Emissions *(No Impact)*

There would be no new development and thus no increase in greenhouse gas emissions and no impact on global climate change. There would also be no opportunity to improve the energy efficiency and performance of buildings on the site, or to enhance pedestrian and bicycle access to the shopping center and thereby reduce vehicle miles traveled and greenhouse gas emissions.

Hazards and Hazardous Materials *(No Impact)*

No impacts. There would be no change in potential exposure of people or property to hazards or hazardous materials.

Hydrology and Water Quality *(No Impact)*

No impacts. Potential degradation of water quality from construction period erosion and sedimentation would be avoided. There would be no change in the existing impervious surface area, the amount or rate of surface water runoff, or potential impacts to surface water quality from new development. There would also be no new infrastructure installed and thus no opportunity to reduce the peak flow or improve the water quality of stormwater runoff from the site.

Land Use *(No Impact)*

No impacts. The existing land use characteristics on the Project site would remain unchanged. There would be no opportunity to better integrate the site with the surrounding neighborhoods. There would also be no opportunity to further land use planning and economic development objectives related to the property. If the CVS Pharmacy lease were to expire and the building left vacant, this would also impede attainment of land use planning and economic development objectives related to the property and the surrounding area.

Noise and Vibration *(No Impact)*

No impacts. There would be no new development and thus no change in the existing noise environment for adjacent sensitive receptors, no Project-related change in traffic noise on surrounding roadways, and no construction-related noise and vibration impacts.

Transportation, Circulation and Parking *(No Impact)*

There would be no increase in the number of vehicle trips generated from the Project site and no impact on intersections in the vicinity. The potential remodeling of the Safeway store in its existing location with no increase in size could enable the store to remain competitive, but would not be expected to substantially divert sales and thus generate additional trips. There would be less opportunity to enhance pedestrian and bicycle access to the shopping center and thereby reduce vehicle trips, traffic congestion and vehicle miles traveled. There would also be no Project-related off-site improvements to Broadway and Pleasant Valley Avenues. Existing circulation and parking conditions on the site would remain unchanged.

This alternative would avoid the significant and unavoidable impacts on operations at the Howe Street/Pleasant Valley Avenue, Piedmont Avenue/Pleasant Valley Avenue, and Broadway/51st Street/Pleasant Valley Avenue intersections identified for the Project. However, the Piedmont Avenue/Pleasant Valley Avenue and Broadway/51st Street/Pleasant Valley Avenue intersections would continue to operate at unacceptable levels of service during both the Saturday and weekday PM peak hours in the future.

Utilities and Public Services *(No Impact)*

No impacts. There would be no development and thus no additional water demand, sewage generation, solid waste generation or energy demand associated with the Project site. There would also be no opportunity to improve the energy efficiency of buildings on the site.

Alternative 2: Safeway Relocation

The second alternative identified and evaluated in this EIR considers the practical results of not approving the Project as proposed, but recognizing that PD Centers, the Project applicant, will still have an important economic interest in the property and a desire to improve the existing shopping center and enhance revenue. As the primary lease holder of the shopping center, PD Centers sub-leases the majority of the retail space within the shopping center to other commercial tenants. One of those sub-lease tenants, CVS Pharmacy, has a sub-lease that is due to expire. The Project applicant has indicated that even if the Project is not approved, one likely option would be to not renew the sub-lease with CVS Pharmacy and to instead move Safeway into the CVS Pharmacy space. The CVS space is over 87,000 square feet and has room to accommodate the larger Safeway store that Safeway wishes to put in. Alternative 2: Safeway Relocation is perhaps the most likely practical result of non-approval of the Project.

Description of Alternative 2

Alternative 2: Safeway Relocation would involve the relocation of the existing Safeway store, which occupies approximately 48,000 square feet of space in the shopping center, to the current site of the CVS Pharmacy once the CVS lease expires. The CVS Pharmacy space is approximately 87,000 square feet in size, large enough to accommodate the proposed "Lifestyle" Safeway store. The Project applicant has indicated that relocating the Safeway store to this larger, more functional space is critical to long-term business plans for the site and would occur whether the remainder of the Project is approved or not. Relocation of the Safeway store may require discretionary action on the part of the City. Building permits would be necessary for re-modeling of the former CVS Pharmacy building.

The remainder of the existing shopping center would remain as it is. New tenants would be sought to fill the vacated 48,000 square feet of the former Safeway site, but no new building space would be added to the shopping center. This alternative would retain the current approximately 185,500 square feet of commercial space at the site, along with the existing parking configuration. Functionally, there would be no change in the physical characteristics of the site and all existing uses at the site would continue to operate substantially the same as they do now, but with a shifting of internal uses within the existing shopping center structures (see **Figure 5-2**).

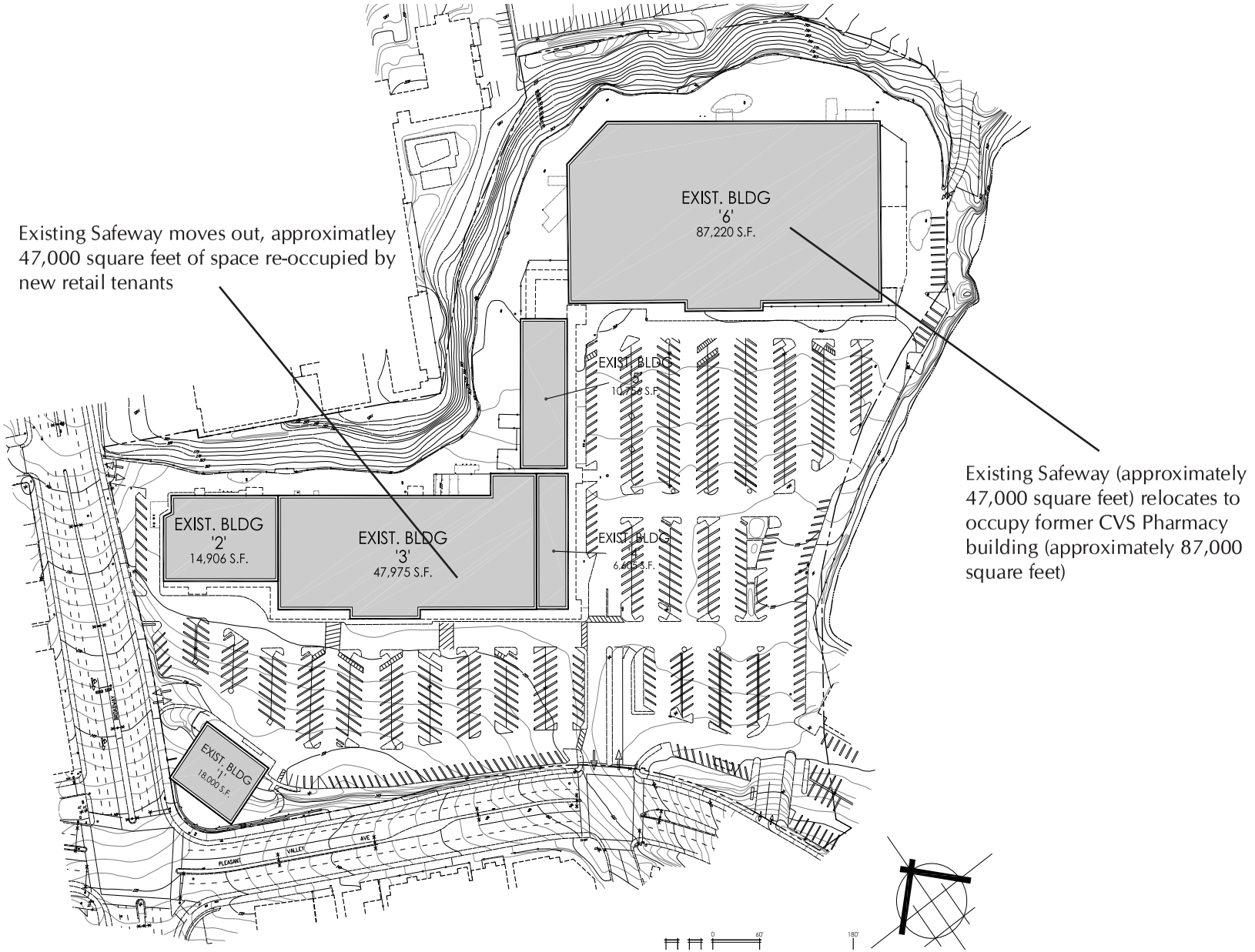

Figure 5-2
Alternative 2: Safeway Relocation Alternative

Comparative Environmental Analysis

Aesthetics

Scenic Vistas and Visual Resources (No Impact)

In the absence of new development, no views from the site, no scenic vistas and no important visual resources in the Oakland General Plan would be affected. The prominent rock outcroppings and significant geologic features which remain from prior quarrying activities at the site would not be disturbed by this alternative. This alternative would not require the removal of any existing trees which have minor scenic value, but would also be less likely to result in the substantial planting of new trees and vegetation as proposed under the Project.

Visual Character (No Impact)

The visual character of the site would undergo little or no change, and thus the existing visual character and quality of the site and its surroundings would not be substantially degraded, but the visual improvements and enhancements as proposed under the Project would also not occur. The general character of the site would remain as a commercial shopping center, and the majority of the shopping center would remain in appearance much as it does today, although the relocated Safeway store would likely have an improved façade.

Light/Glare/Shadows (No Impact)

Lighting at the site would be only slightly modified with new illumination standards at the new Safeway store, but light and glare effects would remain substantially similar to what is currently observed at the site. Under this alternative, no new structures or landscaping improvements would create substantial shadows beyond the site, and thus would not interfere with any off-site solar collectors or generate shadows that would fall on any public space or historic resources.

Urban Decay (LTS)

With a new, larger "Lifestyle" Safeway store but no other change in the overall amount of commercial space on the site, there would be less diverted sales to the site than with the Project. The potential urban decay impacts of Alternative 2 would be less than significant.

Air Quality

Construction Period Fugitive Dust Emissions (LTS with SCA)

Most construction activities associated with this alternative would occur indoors as a result of interior modifications to the former CVS Pharmacy building to accommodate the new Safeway, and as future tenant improvements at the former Safeway. The site preparation and new building construction activities associated with the Project that could generate short-term emissions of fugitive dust would not occur.

For any exterior work that may result in dust emission, this alternative would be required to implement BAAQMD recommended construction-period dust control measures, implement the City's Standard Conditions of Approval (SCA Air-1) and comply with the requirements found under the City Municipal Code (Section 15.36.100; Dust Control Measures). Implementation of these standard conditions of approval would ensure that the impact of construction-period fugitive dust remains at a less than significant level.

Construction Period Criteria Air Pollutants and Precursor Emissions (LTS)

Construction and re-modeling activities under this alternative could generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. However, because the emphasis of the construction work would be interior remodeling, it is reasonable to conclude that this alternative would not result in emissions of construction-related criteria air pollutants and/or precursor emissions that exceed City of Oakland thresholds of significance.

Construction Period Health Risks to Adjacent Sensitive Receptors (LTS)

Construction and re-modeling activities under this alternative would be considerably shorter and simpler, and involve less use of diesel-powered heavy equipment such as bulldozers, generators, pavers or lifters, than would the Project. Given that the Project would not result in a significant inhalation cancer risk, a significant inhalation chronic hazard, or a significant exposure to $PM_{2.5}$, Alternative 2 would have reduced less-than-significant health risks compared to the Project.

Operational Related Criteria Air Pollutants (LTS)

This alternative would result in an increase in traffic as compared to current conditions due to an increase in the size and shopping activity at the new, larger Safeway store. The Safeway would increase in size from its current approximately 48,000 square foot location to its new location within the 87,000 square-foot former CVS Pharmacy building, for a net increase of approximately 39,000 square feet. Since the Project would result in less-than-significant criteria air pollutant and precursor emissions, and Alternative 2 would result in 41% of the weekday PM peak hour trips and 50% of the Saturday PM peak period trips generated by the Project, the criteria air pollutant and/or precursor emissions of Alternative 2 would be less than those of the Project and, like the Project, would be less than significant.

Carbon Monoxide Concentrations (LTS)

Alternative 2 would be consistent with the 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. Alternative 2 would also not contribute a substantial number of vehicle trips to any intersection experiencing more than 44,000 vehicles per hour, or to any intersection experiencing more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited. Peak hour traffic volumes at all surrounding intersections are well below the 44,000 vehicle-per-hour criteria and are projected to remain below that level in 2015 and 2030. Since Alternative 2 would not exceed these conditions, like the Project, this alternative would be expected to result in a less-than-significant impact to air quality from CO concentrations.

Biological Resources

Special Status Species (No Impact)

Alternative 2 would not result in removal of large trees or the demolition of buildings within the site and its immediate vicinity that could provide potential nesting habitat for birds or roosting habitat for bats. This alternative would not result in any construction at or near the quarry pond, such that there would be no adverse effects to pond turtles under this alternative.

Wetlands, Riparian Habitat and Sensitive Natural Communities (No Impact)

With no new landscaping and access improvements along the quarry pond, Alternative 2 would avoid potential impacts on regulated wetlands and waters of the US associated with the quarry pond.

Wildlife Movement/Nursery Sites (No Impact)

Alternative 2 would not adversely affect wildlife movement or nursery sites. The site is located in an urbanized area that has supported commercial uses for more than 40 years. There are no wildlife movement corridors passing through the site, and the site is not used as a wildlife nursery.

Habitat Conservation Plans (No Impact)

No habitat conservation plans or natural community conservation plans are applicable to the site or the vicinity of the site. This alternative would not conflict with any applicable habitat conservation plan or natural community conservation plan.

Compliance with Oakland Tree Protection Ordinance (LTS)

Alternative 2 would not require removal of protected trees (as defined by the City's ordinance) or Monterey pines, as would be required for the Project. To the extent that any protected trees in the nearby medians might need to be removed to improve access, compliance with the provisions of the Oakland Tree Protection Ordinance pursuant to City of Oakland Standard Conditions of Approval would be required, ensuring that such potential impacts remain less than significant.

Compliance with Oakland Creek Protection Ordinance (No Impact)

Alternative 2 would likely require a Creek Protection Permit as a Category I project (for any indoor development or work) or a Category II project (for any exterior work that does not include earthwork), as the new Safeway site would be within 100 feet of the quarry pond. Unlike the Project, Alternative 2 would not include pedestrian access and landscaping adjacent to the quarry pond. As with the Project, this alternative would not discharge new pollutants into the creek or watercourse, it would not significantly modify the natural flow of water, it would not deposit substantial amounts of new material into a creek or cause substantial bank erosion or instability, nor would it adversely impact a riparian corridor by significantly altering vegetation or wildlife habitat.

Cultural Resources

Materially Impair an On-site Historic Resource (No Impact)

Alternative 2 would not directly result in a substantial adverse change in the significance of an on-site historical resource as defined in CEQA Guidelines §15064.5. The site is not included on nor has it been found eligible for inclusion on the National Register of Historical Resources, the California Register of Historical Resources or the Local Register, nor has it been documented on a DPR Form 523 historical resources survey form with a rating of 1 through 5. Therefore, the Project site is not considered a significant historical resource for purposes of CEQA. Relocation of the Safeway store would not alter or change the significance of an historic resource.

Materially Impair an Adjacent Historic Resource (No Impact)

Like the Project, Alternative 2 would not directly or indirectly result in a substantial adverse change in the significance of a nearby historical resource.

Archaeological or Paleontological Resources, and Human Remains (No Impact)

Alternative 2 would not cause a substantial adverse change in the significance of a known archaeological resource, nor would it directly or indirectly destroy a known unique paleontological resource or site, or unique geologic feature. Unlike the Project, this alternative would also not include any earthwork activity that could damage currently unknown archaeological or paleontological resources.

Geology and Soils

Seismic Ground Shaking and Ground Failure (LTS with SCA)

The site is located in an area that would be subject to very strong ground shaking and potential liquefaction in a major seismic event. Substantial remodeling activities under the this alternative would be required to implement City of Oakland Standard Conditions of Approval, including SCA Geo-2, which require a detailed soils report and compliance with Uniform Building Code standards to ensure that building designs minimize the effects of ground shaking and seismic-induced ground failure. Similar to the Project, implementation of the requirements found in City of Oakland Standard Conditions of Approval would ensure risks of injury and structural damage from seismic ground shaking and seismic ground failure would remain less than significant.

Landslides (No Impact)

A cut slope at the site's northerly boundary shows evidence of erosion and fallen debris, and could potentially be susceptible to slides. There are areas of erosion on this slope and there is evidence of fallen debris at the toe of the slope behind the cyclone fence and low wooden walls that have been constructed to protect the existing asphalt loading area/driveway and buildings. Alternative 2 would not conduct any grading, tree removal or alteration to this cut slope and thus would not change these existing conditions. In addition, Alternative 2 would not increase the amount of development on the site and thus would not expose additional occupants or construction workers to potential hazards. Alternative 2 would have no impact related to landslides.

Geologic Fill (No Impact)

Portions of the easterly side of the site near the quarry pond contain clayey soil with variable gravel content, potentially unsuitable as a sub-grade soil for building foundations. This alternative would not result in any new development in this area and therefore would not expose people or property to hazards related to potentially unsuitable clayey soils.

Expansive Soil (No Impact)

Since this alternative would not result in any new building construction, no further analysis of soil expansion potential would be required and no compaction, removal or replacement of soils for foundation support would be necessary.

Underground Hazards (No Impact)

There are no known wells, pits, swamps, mounds, tank vaults or unmarked sewer lines located below the surface of the site that would be disturbed, and there is no evidence to suggest that the site has been previously used as a landfill. The site is currently served by municipal sewage systems, and this alternative would continue to be served by these systems.

Greenhouse Gas Emissions

Greenhouse Gas Emissions (LTS)

The site is currently an actively used shopping center generating GHG emissions from stationary and indirect sources such as electricity, gas and water use. It also generates GHG emissions from mobile sources including those associated with employee trips, shopping trips and deliveries. Although the amount of commercial space at the shopping center would not change, Alternative 2 would involve an increase in the size of the Safeway store and a corresponding overall increase in vehicle trips and in turn GHG emissions. Like the Project, the new Safeway store under Alternative 2 would achieve the same

substantial reductions in GHG emissions with respect to refrigerants, which have a particularly high global warming potential. In combination, the increase in vehicle trips and decreased operational GHG emissions under Alternative 2 would generate less GHG emission than would the Project. Construction emissions would also be considerably less than with the Project. The GHG emissions impacts of Alternative 2 would be less than the Project and, like the Project, would be less than significant.

Conflict with an Applicable Plan, Policy or Regulation Adopted for the Purpose of Reducing GHG Emissions (LTS)

Because the estimated GHG emissions of the Alternative 2 would not exceed the City's numeric significance threshold, like the Project, Alternative 2 would also comply with applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions.

Hazards and Hazardous Materials

Cortese List / Presence of Hazardous Materials Contamination (No Impact)

No portion of the site is included on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Environmental Site Assessments prepared for the site do not indicate the presence of on-site soil or groundwater contamination at significant levels, nor do they indicate that off-site contamination of soil or groundwater presents a concern to construction or operation of a shopping center.

Disposal, Transport, Upset or Use of Hazardous Materials (LTS with SCA)

Construction workers, future commercial tenants and shoppers at the site could be exposed to hazardous materials during construction and remodeling of the new Safeway and/or remodeling of future tenant improvements at the former Safeway store. Under this alternative, portions of the existing shopping center with asbestos-containing materials and lead-based paint could be removed, and the handling and disposal of such material could potentially result in release of asbestos fibers into the air, potentially exposing those nearby to increased risk.

Like the Project, the Alternative 2 would be subject to implementation of City of Oakland Standard Condition of Approval SCA Air-3, Haz-4, Haz-10 and Haz-11, specifically requiring adherence to all applicable laws and regulations particular to asbestos removal and lead-based paint remediation. Furthermore, implementation of this alternative would be required to comply with the additional site-specific conditions of approval (as recommended for the Project) regarding removal and disposal of materials which may contain asbestos at the site. Compliance with these state and federal laws and site-specific conditions of approval regarding hazardous materials will ensure potential exposure to these materials remains less than significant.

Hazardous Materials near School, Hazards near Airports, Interference with Emergency Response, and Wildfire Hazards (No Impact)

Although the site is located within one-quarter mile of Oakland Technical High School and Emerson Elementary School, there are no known components of this alternative that would emit hazardous emissions or result in the need to handle hazardous or acutely hazardous materials, substances or waste. The site is not located near any public airport, within an airport plan area or near a private airstrip. This alternative would not impair implementation of, or physically interfere with any adopted emergency response plan or emergency evacuation plan. The Project site is located in an urbanized area of Oakland more than ½ mile outside of the Fire Prevention and Assessment District boundary, which indicates that it is not subject to significant wildfire hazard.

Hydrology and Water Quality

Depletion of or Interference with Groundwater Supplies (No Impact)

The site is already fully developed and/or paved, and is served with water from the East Bay Municipal Utility District. Alternative 2 would not result in any change in existing groundwater recharge and would not deplete groundwater resources.

Flooding (No Impact)

The site is not subject to potential flooding, and Alternative 2 would not subject off-site areas to increased flood potential. No portion of the site is within the 100-year or 500-year flood hazard area as mapped on Federal Flood Hazard Boundary or Flood Insurance Rate Maps or other flood hazard delineation maps. This alternative would not place any structures within a 100-year flood hazard area that might impede or redirect flood flows, or expose people or structures to a substantial risk of loss, injury or death involving flooding, seiche, tsunami, or mudflow.

Increased Runoff Exceeding Stormwater Drainage System Capacity (No Impact)

The site currently has very little impervious surface and is almost entirely covered by buildings and paved areas. Virtually all storm water falling on the site runs off the site as surface runoff. No retention or detention of runoff currently occurs prior to entering into the City's storm drain system. Implementation of this alternative would not increase impervious surface area and thus would not increase stormwater runoff.

City of Oakland standard conditions of approval generally require new construction projects to apply for and obtain a Stormwater Management Plan pursuant to NPDES water quality treatment requirements, However, it is unlikely that this alternative would require implementation of NPDES water quality treatment requirements as it would not create and/or "replace" 10,000 square feet or more of impervious surface, nor would it result in an increase or replacement of more than 50 percent of the impervious surface of the previously existing development. Thus, this alternative would likely not result in the construction of bio-retention storm water treatment areas to capture and treat storm water runoff, and is unlikely to be required to strive to achieve a net reduction of 25 percent from the current peak stormwater runoff rate.

Erosion and Sedimentation (No Impact)

Alternative 2 would not result in the need for site preparation or construction activity that could result in soil erosion or have an adverse effect on water quality. No site grading or construction activity would expose underlying soils which could be carried via stormwater runoff into the storm drain system and/or into adjacent surface water, resulting in increased sedimentation.

Degradation of Water Quality during Construction (LTS with SCA)

Alternative 2 would be unlikely to result in significant degradation of stormwater quality from minor quantities of paint, solvents, oil and grease, or petroleum hydrocarbons being allowed to enter into the storm water runoff from the site and contributing to potential degradation of downstream receiving waters. Implementation of this alternative would have little or no outdoor construction activity (beyond potential façade improvements) that would involve these substances.

City of Oakland Standard Conditions of Approval generally require new construction projects to apply for and obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board, including preparation of a Stormwater Pollution Prevention Plan (SWPPP) that contains best management practices to eliminate or reduce

discharge of materials to stormwater. However, this alternative would not likely be required to prepare and implement a SWPPP as it would not disturb 1acre or more of soil ("disturbance" generally refers to exposed soil resulting from activities such as clearing, grading, and excavating).

Degradation of Water Quality during Operations (LTS)

Continued operational activities such as vehicular use, landscaping maintenance and other operational activities would continue to potentially introduce pollutants into stormwater runoff, but would not increase or exacerbate existing conditions.

Although City's Standard Conditions of Approval generally require demonstration of compliance with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES), this alternative would be unlikely to require implementation of NPDES water quality treatment requirements as it would not create and/or "replace" 10,000 square feet or more of impervious surface and would not result in an increase of, or replacement of, more than 50 percent of the impervious surface of a previously existing development.

Conflict with Oakland Creek Protection Ordinance (LTS)

Alternative 2 would likely require a Creek Protection Permit as a Category I project (for any indoor development or work) or a Category II project (for any exterior work that does not include earthwork), as the new Safeway site would be within 100 feet of the quarry pond. Unlike the Project, Alternative 2 would not include pedestrian access and landscaping adjacent to the quarry pond. However, as with the Project, there is nothing about this alternative that would fundamentally conflict with elements of the ordinance intended to protect hydrologic resources. This alternative would not discharge a substantial amount of pollutants into the creek or watercourse, it would not significantly modify the natural flow of water, it would not deposit substantial amounts of new material into a creek or cause substantial bank erosion or instability, nor would it substantially endanger public or private property or threaten public health or safety.

Land Use

Physical Division of an Existing Community (No Impact)

Alternative 2 would not result in redevelopment of the existing shopping center, and would not physically divide an existing community. However, this alternative would not facilitate improved pedestrian, bicycle or vehicular connections from the site to the surrounding community as would the Project.

Conflict with Land Use Policies (No Impact)

Alternative 2 would not conflict with any land use policies adopted for the purpose of avoiding or mitigating an environmental effect. However, this alternative would not necessarily support planning policies intended to foster greater social interaction and to attract more people (i.e., shoppers) to the area. Although this alternative would retain existing businesses and jobs from the current shopping center tenants, it would not expand retail shopping choices with a greater mix of new major anchor and minor retail shops within a distinctive "node" of commercial development and would not provide an opportunity to capture a greater share of retail expenditures within the City.

Conflict with Applicable Habitat Conservation Plan (No Impact)

This alternative would not result in a fundamental conflict with any applicable habitat conservation plan or natural community conservation plan.

Noise and Vibration

Construction Noise (LTS with SCA)

Noise generated by construction and remodeling activities at the site would not be expected to violate the City of Oakland Noise Ordinance or result in a nuisance of persistent construction-related noise. Construction-related noise levels are normally highest during demolition (which would not occur under this alternative) and during construction of project infrastructure. Noise generated by interior work would be much lower outdoors and would not affect community noise levels. Construction noises associated with this alternative, including the delivery of construction materials, would be subject to SCAs Noise-1 and Noise-2, which regulate hours of construction, requires implementation of a noise mitigation plan, and place restrictions on the delivery of construction materials. With the incorporation of the City of Oakland's Standard Conditions of Approval, noise impacts resulting from this alternative would be less-than-significant.

Permanent Increase in Ambient Noise (LTS)

Alternative 2 would not result in a substantial increase in the permanent outdoor ambient noise levels in the vicinity above existing levels. This alternative would result in little to no increase in traffic and associated traffic noise above existing conditions. Vehicular traffic noise levels and other ambient noise conditions would not increase measurably above existing levels or future baseline levels.

Conflict with Land Use Compatibility Guidelines (No Impact)

Alternative 2 would not result in a conflict with land use compatibility guidelines used to determine the acceptability of noise for a commercial land use.

Operational Noise in Excess of Oakland Noise Ordinance Standards (LTS)

Analysis of the Project (see Chapter 4.7) included an assessment of new noise sources throughout the Project area, including noise specifically associated with an improved Safeway store at the site currently occupied by the CVS Pharmacy. Under Alternative 2, the only new (or relocated) noise sources would occur at the new Safeway, representing the only change as compared to existing conditions. Noise levels specifically generated at the new Safeway store would be the same as that analyzed for the Project, but other sources of operational noise as analyzed for the Project would not occur. Specifically:

- New roof-top mechanical equipment (heating, ventilating, air conditioning, and refrigeration equipment) would likely be located on the top of the new Safeway store. Based on equipment specifications, the worst-case noise level produced by this equipment is 82 dBA at 5 feet from the top of the units. Noise levels at the nearest noise-sensitive land uses (approximately 570 feet from the Safeway store) would be approximately 41 dBA, well below the daytime and night-time noise standards set forth in the City of Oakland Noise Ordinance.
- Noise generated by the operation of trash compactors at the rear of the new Safeway store would be expected to be well below ambient noise levels at the nearest residential land uses to the east and south.
- The Safeway loading docks are presumed to be located at the northeast corner of the new Safeway building, approximately 620 feet from the nearest residential land uses south of the site. The highest noise levels would be generated when heavy trucks pull into or out of the loading area. Maximum noise levels generated by truck circulation would be expected to reach 53 dBA at a distance of 620 feet, and the day-night average noise level resulting from the arrival and departure of heavy trucks and vendor trucks at any time during the day or night would result in a 0 dBA L_{dn} increase outside the nearest receiving residences.

Alternative 2 would not result in new or exacerbated operational noise levels that would exceed the City of Oakland Noise Ordinance regarding operational noise pursuant to Oakland Planning Code, Section 17.120.050.

Transportation, Circulation and Parking

Trip Generation

As indicated in **Table 5-3**, Alternative 2 would result in an increase in both weekday peak and Saturday peak hour traffic as compared to existing conditions. The total number of trips generated under this alternative would increase relative to the baseline (or existing conditions) by approximately 180 trips during the weekday pm peak, and by approximately 317 trips during the Saturday peak hours. Trips generated by the Safeway store are a function of a trip generation rate applied to the space of the store. With relocation of Safeway to the new, larger site at the CVS Pharmacy building, the number of Safeway-related trips would increase as a function of the increased size of the store. With a lower trip generation rate for other types of retail uses, the reduced number of other retail trips would off-set to some degree the increase in Safeway trips.

Table 5-3: Trip Generation Estimates
Alternative 2: Safeway Relocation

Land Use	ITE Code	Units[1]	Weekday PM Peak Hour In	Weekday PM Peak Hour Out	Weekday PM Peak Hour Total	Saturday Peak Hour In	Saturday Peak Hour Out	Saturday Peak Hour Total
Relocated Safeway[2]	850	87.2 KSF	404	389	793	482	464	946
- Existing Safeway[2]	850	48.0 KSF	-281	-270	-551	-266	-255	-521
Net New Safeway Trips			123	119	242	216	209	425
New Retail Infill[3]	820	48.0 KSF	191	198	389	277	255	532
- Existing CVS[4]	n/a	-87.2 KSF	-156	-178	-334	-211	-263	-474
New Project Trips			158	139	297	282	201	483
- Pass-By Vehicles[5]			-51	-51	-102	-63	-63	-126
- Internalized Trips[6]			-8	-8	-16	-20	-20	-40
Alternative 2 Trip Generation			***99***	***80***	***179***	***199***	***118***	***317***
Project Trip Generation			211	225	436	369	264	633
Net Difference, compared to Project (%)					***41%***			***50%***

KSF = 1,000-square feet
Trip generation based on Institute of Transportation Engineers (ITE), *Trip Generation*, (8th Edition) regression equation and average for Supermarket (Land Use Code 850) :
Weekday PM: Ln(T) = 0.61 Ln(X) + 3.95; Enter = 51%, Exit = 49%
Saturday: T = 10.85 (X); Enter = 51%, Exit = 49%
Where: T = trips generated, X = 1,000 square feet, Ln = natural log
Trip generation based on Institute of Transportation Engineers (ITE), *Trip Generation*, (8th Edition) regression equations for Shopping Center (Land Use Code 820) :
Weekday PM: Ln(T) = 0.67 Ln(X) + 3.37; Enter = 49%, Exit = 51%
Saturday: Ln(T) = 0.65 Ln(X) + 3.76; Enter = 52%, Exit = 48%
Where: T = trips generated, X = 1,000 square feet, Ln = natural log
Data based on peak hour counts collected on June 6 and June 7, 2008.
Trip pass-by rate based on Institute of Transportation Engineers (ITE), *Trip Generation Handbook* average pass-by for Shopping Center (Land Use Code 820). Average Weekday pass-by rate: 34%; average Saturday pass-by rate: 26%.
Based on intercept survey results, average internalization rates were 5% for weekday and 8% for Saturday
Source: Trip Generation (8th Edition), ITE, 2008; and Fehr & Peers, 2012.

Compared to the Project, Alternative 2 would result in a decrease of approximately 257 trips during the weekday pm peak (approximately 41% of the trips generated by the Project), and a decrease of 316 trips during the Saturday peak hours (approximately 50% of the trips generated by the Project).

Roadway Network

Similar to the Project, this alternative is also assumed to implement a number of modifications to street configurations and signal operations on Broadway and Pleasant Valley Avenue adjacent to the site.

Intersection Impacts (SU)

This alternative would generate only about 41% of the net new vehicle trips during the weekday PM peak as compared to the Project, and about 50% of the net new vehicle trips during the Saturday peak as compared to the Project.

- This reduction in trips would be sufficient to reduce the impact at Broadway/51st Street/Pleasant Valley Avenue (intersection #7) under 2015 Plus Project conditions from significant and unavoidable to a less-than-significant level.
- However, the reduction in trips would not be sufficient to avoid the significant and unavoidable traffic impacts at Howe Street/Pleasant Valley Avenue (intersection #19) under Existing plus Project, 2015 plus Project, and 2035 plus Project conditions, and at Broadway/51st Street/Pleasant Valley Avenue (intersection #7) and Piedmont Avenue/Pleasant Valley Avenue (intersection #20) under 2035 plus Project conditions.

Congestion Management Program Evaluation (LTS)

With less traffic than the Project, this alternative would not cause congestion of regional significance on a roadway segment on the Metropolitan Transportation System (MTS).

Transportation Hazards (LTS)

The design of the Project and the adjacent roadways seeks to minimize potential conflicts between various modes of transportation and to provide safe and efficient pedestrian, bicycle, and vehicle circulation within the site and between the site and the surrounding circulation systems. It is unlikely that this alternative would include modifications to the Broadway/College Avenue intersection which reduce conflicts between pedestrians crossing College Avenue and vehicles turning left from northbound Broadway into Wendy's Restaurant. It is also unlikely that this alternative would implement any of those modifications to pedestrian access, transit access, bicycle access and circulation in and around the site area as are proposed under the Project. However, even without these improvements as proposed and recommended for the Project, Alternative 2 would not directly or indirectly result in a permanent substantial decrease in vehicular, pedestrian, bus rider or bicyclist safety.

Transit Travel Time (LTS)

With even less traffic than the Project, traffic generated by this alternative would not substantially increase travel times for AC Transit buses travelling east and west along Pleasant Valley Avenue and 51st Street, nor for buses travelling north and south along Broadway and College Avenue.

At-Grade Railroad Crossings (No Impact)

This alternative is not located near any at-grade railroad crossings and, like the Project, this alternative would not generate substantial multi-modal traffic traveling across at-grade railroad crossings that cause or expose roadway users to a permanent and substantial transportation hazard.

Change in Air Traffic Patterns (No Impact)

Similar to the Project, this alternative would not 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.

Consistency with Adopted Policies Supporting Alternative Transportation (LTS)

About 15 percent of existing Safeway customers currently use non-auto travel modes, due to the site's proximity to residential neighborhoods and AC Transit's Route 51A, one of the busiest AC Transit bus routes. Since the Safeway store would remain within the same center, this alternative would be expected to have similar travel mode characteristics as the existing Safeway store. Without a discretionary approval process, this alternative may not be required to implement a TDM program to encourage more employees and customers to shift from driving alone to other modes of travel. Additionally, some of the improvements proposed as part of the Project (e.g., providing signalized access across Broadway at

Coronado Avenue, providing median refuges at several intersections, widening sidewalks along Broadway and Pleasant Valley Avenue adjacent to the site, installing Class 2 bicycle lanes on Broadway and a Class 3A arterial bicycle route on Pleasant Valley Avenue along the site's frontage, and moving bus stop locations) may not be part of this alternative. Even without these improvements, this alternative would not 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.

Construction-Period Impacts (LTS with SCA)

Most construction activities associated with this alternative would occur indoors as a result of interior modifications to the former CVS Pharmacy building to accommodate the new Safeway, and as future tenant improvements at the former Safeway. During the remodeling period, temporary and intermittent transportation impacts may result from truck movements as well as construction worker vehicles to and from the site. The construction-related traffic may result in a temporary adverse effect on the circulation system. The City of Oakland SCA Trans-1 requires that a Construction Traffic Management Plan be developed as part of a larger Construction Management Plan to address potentially significant impacts during construction, and implementation of such a plan would ensure that construction-period impacts remain less than significant.

Utilities and Public Services

Stormwater (No Impact)

Alternative 2 would likely not result in the construction of new storm drainage facilities. This alternative would be unlikely to require implementation of NPDES water quality treatment requirements such as on-site bio-retention storm water treatment areas to capture and treat storm water runoff from building rooftops. No environmental effects related to the construction of storm drain improvements would occur.

Wastewater (No Impact)

The site is currently an actively used shopping center generating wastewater flows from its existing commercial tenants. Alternative 2 could generate an increase in wastewater flows over these baseline conditions as a result of the larger grocery store. This increased flow would be off-set to some degree by a reduction in wastewater flows from the current Safeway site when it becomes occupied with less water-intensive retail uses and by elimination of the CVS Pharmacy use. The marginal increase in wastewater flows would not exceed the capacity of existing wastewater treatment facilities or necessitate the expansion of existing wastewater treatment or collection facilities. This alternative would also be unlikely to require construction of new or additional on-site wastewater collection lines, since no new buildings would be constructed and the existing buildings already are connected to the City's wastewater infrastructure.

Water Supply (No Impact)

The site is currently an actively used shopping center creating demand for water from its existing commercial tenants. Alternative 2 could generate an increased demand for water over these baseline conditions as a result of the larger, expanded grocery store. This increased water demand would be off-set to some degree by a reduction in water demands from the current Safeway site as it becomes backfilled with less water-intensive retail uses and by elimination of the CVS Pharmacy use. The increased water demands of this alternative would not exceed the water supplies available from existing entitlements and resources. This alternative would also be unlikely to require construction of new or additional on-site water collection lines, as no new buildings would be constructed and existing buildings already are connected to the City's main water infrastructure system.

Solid Waste (No Impact)

Alternative 2 would generate a small additional demand for solid waste collection and disposal from the larger grocery store. The amount of solid waste generated by this alternative can be accommodated within the capacity of the Davis Street Transfer Station and the Altamont Landfill. Construction and remodeling activities associated with commercial tenant spaces would be subject to the City of Oakland's waste reduction and recycling requirements.

Energy Demands (No Impact)

Alternative 2 would not require more energy than the current baseline energy demands of the existing shopping center. The local energy provider (PG&E) has the capacity to serve this current demand and no construction of new energy facilities or expansion of existing facilities would be required. New construction and remodeling activity would be subject to the requirements of currently applicable federal, state and local statutes and regulations relating to energy standards including Title 24, the California Energy Efficiency Standards for Residential and Nonresidential Buildings.

Alternative 3: Reduced Project

CEQA Guidelines Section 15126.6(c) requires that the range of potential alternatives to the proposed project include alternatives that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. This alternative has been developed to consider an alternative capable of achieving most of the Project applicant's major objectives, and which is also able to lessen its significant adverse effects on traffic congestion.

Description of Alternative 3

Alternative 3: Reduced Project would include all improvements as proposed under the Project, with the exception of upper level space. Under the Reduced Project alternative, all 185,500 square feet of existing shopping center space would be demolished, and the site would be re-built with a new shopping center. The Project proposes to rebuild the site with a total of approximately 322,500 square feet of space, a net increase of approximately 137,000 square feet of commercial space on the site. Approximately 67,700 square feet is proposed as upper floor space, primarily along Pleasant Valley Avenue and Broadway, and above the new Safeway store.

Development under the Reduced Project alternative would be similar to the proposed Project, but this alternative would not include the 67,700 square feet of upper level space. This alternative would result in a total of approximately 254,700 square feet of commercial space at the site, for a net increase of approximately 69,200 square feet (see **Figure 5-3**).

1-Story Elevation (above) versus Proposed 2-Sory Elevation (Below)

Figure 5-3
Alternative 2: Reduced Alternative

Original elevations modified for illustrative purposes only

Comparative Environmental Analysis

Aesthetics

Scenic Vistas (No Impact)

Given the urban nature of the area, views from and through the site of the surrounding area are generally limited to the immediate developed area adjacent to the site. Views from the site have not been identified as scenic vistas or important visual resources in the Oakland General Plan or by a regulatory agency with jurisdiction over the site. As a result, development of the Reduced Project alternative would not significantly alter scenic vistas. Given its reduced height, private views (though not a CEQA topic) would be less affected by this alternative.

Scenic Resources (No Impact)

No scenic resources have been formally identified at the site, and development of this alternative would have no adverse effects on any formally-identified scenic resources. Certain trees located on the site would likely be removed, but these trees are ornamental landscape species with minor scenic value, and their loss would be compensated by replacement plantings. The prominent rock outcroppings and significant geologic features which remain from prior quarrying activities at the site would not be disturbed by this alternative. The site contains no historic resources or other potentially significant scenic resources.

Visual Character (No Impact)

The visual character of the site would change with development of the Reduced Project alternative, but the general character of the site would remain as a commercial shopping center. This alternative would not substantially degrade the existing visual character or quality of the site and its surroundings, but instead would improve the visual character of the site. Much of the existing surface parking lot along the street frontage of Broadway and Pleasant Valley Avenue would be replaced with new buildings and associated landscaping, resulting in a more urban character, denser development, newer architecture and an internal street pattern. The Reduced Project alternative would have lower building heights than the Project, making it somewhat less urban in character than the Project.

Light/Glare/Shadows (LTS with SCA)

Lighting at the site would be modified under this alternative, but stores and parking areas at the site would still be illuminated in a manner similar to what is currently observed at the site. This alternative would be subject to implementation of SCA Aesth-1: Lighting Plan, which would require that proposed lighting fixtures be adequately shielded to a point below the light bulb and reflector to prevent unnecessary glare onto adjacent properties, ensuring that light and glare impacts would be less than significant. No structures or landscape improvements developed under this alternative would create substantial shadows beyond the Project site, and thus would not adversely affect off-site locations. Since the Reduced Project alternative would generally be shorter in height than the Project, the shadows of this alternative would be comparatively shorter and would similarly have no off-site effects.

Urban Decay (LTS)

With a reduction in the amount of commercial space on the site compared to the Project there would be less diverted sales to the site than would occur under the Project. The potential urban decay impacts of the Reduced Project Alternative would be less than significant.

Air Quality

Violate an Air Quality Standard (No Impact)

Like the Project, this alternative would not include any type of use that would emit substantial amounts of pollutants other than precursors of ozone and particulate matter, such that it might individually violate an air quality standard.

Construction Period Fugitive Dust Emissions (LTS with SCA)

Like the Project, this alternative would generate fugitive dust from demolition, grading, hauling and construction activities. The fugitive dust emissions associated with these construction activities would be effectively reduced to a level of less than significant with implementation of required City of Oakland Standard Condition of Approval Air-1. Additionally, this alternative would be required to implement SCA Air-3 which would require certified asbestos removal, encapsulation, or enclosure of any identified asbestos containing materials in accordance with all applicable laws and regulations.

Construction Period Criteria Air Pollutants and Precursor Emissions (LTS)

During construction, this alternative would generate regional ozone precursor emissions and regional particulate matter emissions from construction equipment exhaust. For comparison, the analysis of the Project concludes that it would not be expected to generate emissions of criteria air pollutants during construction that would exceed the City's thresholds of significance. This alternative would have slightly lower construction-period air pollutant emissions since it would have approximately 67,800 square feet less new building space than the Project. Thus, its construction-period exhaust emission would similarly not exceed the City's thresholds of significance. This alternative would be subject to implementation of the City's Standard Conditions of Approval SCA Air-1 and SCA Air-2, further reducing construction-period emission levels.

Construction Period Health Risks to Adjacent Sensitive Receptors (LTS With SCA)

Construction of this alternative would use traditional diesel-powered equipment such as bulldozers, generators, pavers and lifters, all of which would contribute to both cancer and non-cancer health risks. However, with implementation of SCA Air-1 and SCA Air -2 the construction-period health risks associated with the Project were found to not expose nearby sensitive receptors to levels of diesel emissions that would exceed thresholds of significance for inhalation cancer risk, chronic exposure or $PM_{2.5}$ exposure. With 67,800 square feet less new building space than the Project, Alternative 3 would have a slightly reduced inhalation cancer risk, chronic exposure and $PM_{2.5}$ exposure. This alternative would similarly be subject to implementation of the City's Standard Conditions of Approval SCA Air-1 and SCA Air-2, including its diesel reduction measures, which would ensure that the construction–period health risks to adjacent residents remain less than significant.

Operational Related Criteria Air Pollutants (LTS)

Once complete and occupied, this alternative would generate emissions of criteria pollutants, primarily as a result of increased motor vehicle traffic as well as new area source emissions. Since the Project would result in less-than-significant criteria air pollutant and precursor emissions, and Alternative 3 would result in approximately 64% of the weekday PM peak hour trips and 65% of the Saturday PM peak period trips generated by the Project, the criteria air pollutant and/or precursor emissions of Alternative 3 would be less than those of the Project and, like the Project, would be less than significant.

Carbon Monoxide Concentrations (LTS)

Alternative 3 would be consistent with the 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. Alternative 3 would also not contribute a substantial number of vehicle trips to any intersection experiencing more than 44,000 vehicles per hour, or to any intersection experiencing more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited. Peak hour traffic volumes at all surrounding intersections are well below the 44,000 vehicle-per-hour criteria and are projected to remain below that level in 2015 and 2035. Since Alternative 3 would not exceed these conditions, like the Project, this alternative would be expected to result in a less-than-significant impact to air quality from CO concentrations.

Biological Resources

Special Status Species (LTS with Mitigation)

The large trees and existing buildings within the site and its immediate vicinity provide potential migratory bird nesting habitat bat roosting habitat, and the adjacent quarry pond and surrounding vegetation provides some habitat value to water birds, nesting birds, roosting bats and potentially western pond turtle. These habitats could be disturbed during construction of the Reduced Alternative. Implementation of City of Oakland Standard Conditions of Approval would reduce potential adverse effects to nesting migratory birds. Additional mitigation measures as recommended for the Project (bat surveys and western pond turtle surveys), together with compliance with requirements of applicable regulatory programs would mitigate potential impacts to special status species to levels of less than significant.

Wetlands, Riparian Habitat and Sensitive Natural Communities (LTS with SCA)

The Reduced Project Alternative is assumed to have new landscaping and access improvements along the quarry pond, similar to the Project. Implementation of Standard Conditions of Approval Bio-2 through Bio-5 would be required for those portions of this alternative that fall within 20 feet of the top of bank. A City of Oakland Creek Protection permit would be required, including an Erosion and Sedimentation Control Plan, a Creek Protection Plan and a detailed Landscape Plan. Compliance with the requirements of the City's Creek Protection permit would ensure that the Project would not adversely affect off-site wetlands, riparian habitat and sensitive natural communities.

Wildlife Movement/Nursery Sites (No Impact)

The site is located in an urbanized area that has supported commercial uses for more than 40 years. There are no wildlife movement corridors passing through the site, and the site is not used as a wildlife nursery. Redevelopment of the site under this alternative would not adversely affect wildlife movement or nursery sites.

Habitat Conservation Plans (No Impact)

No habitat conservation plans or natural community conservation plans are currently applicable to the site or the vicinity of the site. Redevelopment of the site under this alternative would not fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.

Compliance with Oakland Tree Protection Ordinance (LTS with SCA)

Similar to the Project, construction of the Reduced Project alternative would likely result in the removal of three "protected trees" and three Monterey pines in order to accommodate new buildings, improved parking areas, and improved pedestrian access adjacent to the quarry pond. Compliance with City of

Oakland Standard Conditions of Approval to obtain a tree removal permit prior to removal of any "protected trees"(SCA Aesth-2), the requirements for the provision of replacement trees (SCA Aesth-3) and provisions for the protection of trees to remain during construction activities (SCA Aesth-4) would ensure that any potential tree removal necessary for Project construction would be conducted in compliance with City ordinances and regulations, thereby ensuring that this impact remains less than significant.

Compliance with Oakland Creek Protection Ordinance (LTS with SCA)

Similar to the Project, no development or work would occur within the daylighted section of the Rockridge branch of Glen Echo Creek or on the downside slope of the quarry pond. However, new landscaping and a pedestrian path within 20 feet of the top of bank of the adjacent pond would likely qualify for a Category IV Creek Protection permit pursuant to SCAs Bio-2, Bio-3, Bio-4 and Bio-5. Although this alternative would likely be subject to the provisions of the City of Oakland Creek Protection Ordinance, there is nothing about this alternative that would fundamentally conflict with elements of the ordinance intended to protect biological resources. The Reduced Project alternative would not discharge a substantial amount of pollutants into the creek or watercourse, it would not significantly modify the natural flow of water, it would not deposit substantial amounts of new material into a creek or cause substantial bank erosion or instability, nor would it adversely impact a riparian corridor by significantly altering vegetation or wildlife habitat.

Cultural Resources

Materially Impair an On-site Historic Resource (No Impact)

The site is not considered a significant historic property, and therefore development of the Reduced Project alternative would not directly result in a substantial adverse change in the significance of an on-site historical resource.

Materially Impair an Adjacent Historic Resource (LTS)

This alternative would not directly or indirectly result in a substantial adverse change in the significance of a nearby historical resource. It is highly unlikely that demolition or construction activity associated with this alternative would produce vibrations that could damage adjacent historic structures.

Archaeological or Paleontological Resources, and Human Remains (LTS)

Construction of this alternative would not cause a substantial adverse change in the significance of a known archaeological resource, nor would it directly or indirectly destroy a known unique paleontological resource or site, or unique geologic feature. It is possible that currently unknown archaeological or paleontological resources could be damaged during site grading and construction. Implementation of City of Oakland Standard Conditions of Approval Cultural-1 through-3, including the site-specific conditions as recommended for the Project, would ensure that potential impacts remain at a level of less than significant.

Geology and Soils

Seismic Ground Shaking and Ground Failure (LTS with SCA)

The site is not located within an Alquist-Priolo Special Studies zone, but the City of Oakland Safety Element indicates that the easterly portions of the site are located in a Potential Liquefaction Area and subject to seismic-induced ground failure. The Reduced Project alternative would be subject to the City's Standard Conditions of Approval, including SCA Geo-2, which requires submittal of a detailed soils

report along with detailed engineering drawings to ensure that buildings are designed and constructed in conformance with the requirements of all applicable building code regulations. Implementation of City of Oakland standard conditions of approval and compliance with Uniform Building Code standards would ensure that foundation designs for all new buildings minimize the effects of ground shaking and seismic-induced ground failure to a level of less than significant.

Landslides (LTS with SCA)

According to the City of Oakland Safety Element, the existing off-site cut slope extending along the site's northern boundary (averaging approximately 50 feet in height) is identified as a Potential Landslide Area. There are areas of erosion on this slope and there is evidence of fallen debris at the toe of the slope. This alternative would not conduct any grading, tree removal or alteration to this cut slope and would not exacerbate or further increase slope instability. However, this alternative would be subject to implementation of City Standard Condition of Approval Geo-2, which would require that site stability issues be addressed and corrective actions be prescribed at locations where land stability problems exist. With implementation of this Standard Condition of Approval, including the 2007 geotechnical investigation's recommendation for reconstruction of on-site catchment structures at the toe of the cut slope, the risks of injury and structural damage from slope failure under the Reduced Project alternative would be less than significant.

Geologic Fill (LTS with SCA)

Soils at the site where new buildings would be constructed under this alternative are anticipated to be able to support building loads on shallow footings, with floor slabs supported on-grade over a prepared sub-grade. The Reduced Project alternative would be subject to the City's Standard Conditions of Approval, including SCA Geo-2 as well as the associated recommendations of the 2007 geotechnical investigation prepared for the site, which include that if unsuitable soil is encountered during the construction phase, such soils should be excavated to a firm bottom and the resulting hole should be backfilled with engineered fill or lean mix concrete. With implementation of SCA Geo-2 and the associated recommendations of the 2007 geotechnical investigation, the potential risk of structural damage from unstable soils would be less than significant.

Greenhouse Gas Emissions

GHG Emissions (LTS)

The Reduced Project alternative would increase vehicle trips as compared to the proposed Project. Assuming that vehicle-related GHG emissions would be approximately proportional to the total number of net new trips, this alternative would result in a corresponding reduction in vehicular GHG emissions as compared to the Project, and would also generate approximately half the net increase in area source emissions as the Project. The new Safeway store under the Reduced Project alternative would result in the same substantial reductions in GHG emissions as estimated for the Project with respect to refrigerants, which have a particularly high global warming potential. Overall, the GHG emissions impacts of the Reduced Project alternative would be less than significant, and slightly less than the Project.

Conflict with an Applicable Plan, Policy or Regulation Adopted for the Purpose of Reducing GHG Emissions (LTS)

Because the estimated GHG emissions of the Reduced Project alternative would not exceed the City's numeric significance threshold, like the Project, the Reduced Project alternative would also comply with applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions.

Hazards and Hazardous Materials

Cortese List / Presence of Hazardous Materials Contamination (No Impact)

No portion of the site is included on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Environmental Site Assessments prepared for the site do not indicate the presence of on-site soil or groundwater contamination at significant levels, nor do they indicate that off-site contamination of soil or groundwater presents a concern to construction or operation of a shopping center.

Disposal, Transport, Upset or Use of Hazardous Materials (LTS with SCA)

Construction workers, future commercial tenants and shoppers at the site could be exposed to hazardous materials during construction activities. Under this alternative, portions of the existing shopping center with asbestos-containing materials and lead-based paint would be removed, and the handling and disposal of such material could potentially result in release of asbestos fibers into the air, potentially exposing those nearby to increased risk.

Like the Project, the Reduced Project alternative would be subject to implementation of City of Oakland Standard Condition of Approval SCA Air-3, Haz-4, Haz-10 and Haz-11 pertaining to asbestos removal and lead-based paint remediation, including the recommendations from the Phase II Environmental Site Assessment and subsequent Addendum prepared for the Project site. With implementation of these Standard Conditions of Approval and the associated recommendations of the Phase II Environmental Site Assessment and subsequent Addendum, the potential risk from asbestos and lead-based paint with the Reduce Project alternative would be less than significant.

Hazardous Materials near School, Hazards near Airports, Interference with Emergency Response, and Wildfire Hazards (No Impact)

Although the site is located within one-quarter mile of Oakland Technical High School and Emerson Elementary School, there are no known components of this alternative that would emit hazardous emissions or result in the need to handle hazardous or acutely hazardous materials, substances or waste. The site is not located near any public airport, within an airport plan area or near a private airstrip. This alternative would not impair implementation of, or physically interfere with any adopted emergency response plan or emergency evacuation plan. The Project site is located in an urbanized area of Oakland more than ½ mile outside of the Fire Prevention and Assessment District boundary, which indicates that it is not subject to significant wildfire hazard.

Hydrology and Water Quality

Depletion of or Interference with Groundwater Supplies (No Impact)

The site is already fully developed and/or paved, and is served with water from the East Bay Municipal Utility District. The Reduced Project alternative would not result in any change in existing groundwater recharge and would not deplete groundwater resources.

Flooding (No Impact)

No portion of the site is within the 100-year or 500-year flood hazard area as mapped on Federal Flood Hazard Boundary or Flood Insurance Rate Maps or other flood hazard delineation maps. This alternative would not place any structures within a 100-year flood hazard area that might impede or redirect flood flows, or expose people or structures to a substantial risk of loss, injury or death involving flooding, seiche, tsunami, or mudflow.

Increased Runoff Exceeding Stormwater Drainage System Capacity (LTS)

The site currently has very little impervious surface and is almost entirely covered by buildings and paved areas. Virtually all storm water falling onto the site results in surface runoff. No retention or detention of runoff currently occurs prior to entering into the City's storm drain system. Implementation of the Reduced Project alternative would not increase impervious surface area and thus would not increase stormwater runoff.

This alternative would be subject to City of Oakland Standard Conditions of Approval which require new construction projects to apply for and obtain approval of a Stormwater Management Plan pursuant to NPDES water quality treatment requirements. As such, this alternative would be required to implement on-site storm water treatment areas and other best management practices to capture and treat storm water runoff from all building rooftops and parking area, similar to that proposed under the Project. Additionally, the pervious surfaces associated with such storm water treatment areas and other BMPs would serve to reduce overall site runoff such that the amount of surface runoff leaving the site post-construction would be less than current runoff volumes, and no increase in stormwater flows entering the City's storm drainage system would occur. However, since the City's storm drain system is aged and often unable to accommodate storm water flows, this alternative would also be subject to the general recommendation of the City's *Storm Drainage Design Guidelines* to achieve a net reduction of 25 percent in the site's peak stormwater runoff rate, to the extent possible, in an effort to better address City-wide storm drainage capacity. This alternative would provide similar opportunities as the Project for low-impact development passive approaches to on-site stormwater management.

Erosion and Sedimentation (LTS with SCA)

Similar to the Project, site preparation and construction activity associated with this alternative could result in soil erosion, which could have adverse effects on water quality. During site preparation and construction activity, potentially significant soil erosion impacts could occur by exposing underlying soils. If left unprotected during construction, such exposed soils could be carried via stormwater runoff into the storm drain system and/or into adjacent surface water, resulting in increased sedimentation. Like the Project, this alternative would be subject to SCA Hydro-1, and required to obtain a grading permit, including an approved Erosion and Sedimentation Control Plan, from the Building Services Division. The Erosion and Sediment Control Plan would 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. Such measures will include but will not be limited to 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. Effective implementation of SCA Hydro-1 and SCA Geo-1 during site preparation and construction activity at the site would ensure that potentially significant soil erosion and sedimentation impacts remain at a level of less than significant.

Degradation of Water Quality during Construction (LTS with SCA)

Site preparation and construction activity associated with this alternative could result in degradation of stormwater quality. Potential pollutants associated with construction activities are likely to include minor quantities of paint, solvents, oil and grease, and petroleum hydrocarbons. If such pollutants were allowed to enter into the storm water runoff from the site, they would contribute to the potential degradation of downstream receiving waters. Like the Project, this alternative would be subject to the provisions of Standard Conditions of Approval Hydro-2, requiring coverage under a General Construction Activity Storm Water Permit issued by the State Water Resources Control Board. Coverage under this permit requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) for review and approval by the Planning and Zoning Division and the Building Services Division of the City of Oakland, and evidence of

approval of the SWPPP by the SWRCB. At a minimum, the SWPPP would need to include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Effective implementation of SCA Hydro-1 during site preparation and construction activity would ensure that potentially significant water quality impacts during construction of this alternative remain at a level of less than significant.

Degradation of Water Quality during Operations (LTS with SCA)

Operational activities such as vehicular use, landscaping maintenance and other operational activities pursuant to this alternative could potentially introduce pollutants into stormwater runoff, resulting in degradation of downstream water quality. Like the Project, this alternative would be subject to the provisions of Standard Conditions of Approval Hydro-3, requiring demonstrated compliance with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES). These provisions require preparation and approval of a Stormwater Pollution Management Plan (SMP) to limit the discharge of pollutants in stormwater after construction of the Project to the maximum extent practicable. Additionally, this alternative would be subject to SCA Hydro-3, requiring a maintenance agreement for accepting responsibility for the adequate installation/construction, operation, maintenance, inspection and reporting of all stormwater treatment measures. Effective implementation of SCA Hydro-3 would ensure that potentially significant water quality impacts during operations of this alternative remain less than significant.

Conflict with Oakland Creek Protection Ordinance (LTS)

Under the Reduced Project alternative no development or work would be conducted within the day-lighted section of the Rockridge branch of Glen Echo Creek or on the downside slope of the quarry pond. However, the area adjacent to the pond would be improved with new landscaping and a public access trail, similar to that proposed by the Project. Portions of this landscaping and trail would qualify for a Category IV Creek Protection Permit. However, as with the Project, there is nothing about this alternative that would fundamentally conflict with elements of the ordinance intended to protect hydrologic resources. This alternative would not discharge a substantial amount of pollutants into the creek or watercourse, it would not significantly modify the natural flow of water, it would not deposit substantial amounts of new material into a creek or cause substantial bank erosion or instability, nor would it substantially endanger public or private property or threaten public health or safety.

Land Use

Physically Divide an Established Community (No Impact)

Like the Project, the design of this alternative would not further divide or limit connections to the surrounding community either to or through the site, but would instead create improved connections from the site to the surrounding community.

Land Use Compatibility (No Impact)

This alternative would not be incompatible with surrounding land uses and would not conflict with applicable land use plans and policies adopted for the purpose of avoiding or mitigating an environmental effect. The land uses provided under this alternative would be consistent with the General Plan designations and applicable zoning on the site, and would not exceed the maximum development intensity allowed under the General Plan or zoning. All building setbacks, parking design requirements, etc. would be consistent with the applicable zoning. As a result of lowering the height of new buildings under this alternative, it would not be taller than the zoning regulations currently prescribe, and the new buildings would not result in significant adverse physical impacts such as shadowing off-site locations or

substantially blocking important view sheds or vistas. No significant land use impacts related to this alternative's consistency with land use policies would occur.

Habitat and Natural Community Conservation Plans (No Impact)

This alternative would not result in a fundamental conflict with any applicable habitat conservation plan or natural community conservation plan. The site is not located within or near an area guided by a Habitat Conservation Plan or Natural Community Conservation Plan.

Noise and Vibration

Construction Noise (LTS with SCA)

Similar to the Project, construction activities associated with this alternative would occur in several phases over an approximate two year period, including demolition of the existing CVS store and adjacent retail buildings, construction of a new Safeway store and adjacent retail space, redesign and construction of the surface parking lot, landscaping improvements, demolition of all other retail and commercial buildings, internal access improvements, construction of new retail space, and the construction of additional parking throughout the site.

As evaluated in Chapter 4.7 of this EIR, noise generated by these construction activities would not be expected to violate the City of Oakland Noise Ordinance regarding nuisance of persistent construction-related noise, provided that standard construction noise controls are implemented at the site. This alternative would be subject to implementation of SCA Noise-1 which provides reasonable regulations of the hours of construction, and SCA Noise-2 which requires preparation of a Noise Reduction Plan including restrictions on the arrival and operation of heavy equipment and the delivery of construction materials. With the incorporation of the City of Oakland's Standard Conditions of Approval the noise impact resulting from construction of this alternative would be less than significant.

Permanent Increase in Ambient Traffic Noise (LTS)

The Reduced Project alternative would not result in a substantial increase in the permanent outdoor ambient noise levels in the vicinity above existing noise levels. As indicated in Chapter 4.7 of this EIR, vehicular traffic generated by the Project would not increase noise levels substantially because Project-generated traffic makes up a small percentage of the total traffic along area roadways. As indicated above, traffic generated under this alternative would be less that generated by the Project, and thus traffic noise generated by this alternative would be similarly less than the Project. Vehicular traffic noise levels with this alternative would not increase measurably above existing levels or future baseline levels, and the increased vehicular noise along nearby roadways attributable to this alternative would be an imperceptible increase of 0 to 2 dBA L_{dn}.

Conflict with Land Use Compatibility Guidelines (No Impact)

This alternative would not result in a conflict with land use compatibility guidelines used to determine the acceptability of noise for a commercial land use.

Operational Noise in Excess of Oakland Noise Ordinance Standards (LTS)

Commercial and retail operations under this alternative will not result in new or exacerbated operational noise levels that would exceed the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding operational noise. Even though there would be less developed new commercial space, the Reduced Project alternative would have similar operational noise associated with roof-top mechanical equipment, trash compactors and loading docks as the operational noise associated with the Project. As analyzed for the Project in Chapter 4.7 of this EIR, roof-top mechanical noise levels at the

nearest noise-sensitive receptors would not exceed the daytime and night-time noise standards set forth in the City of Oakland Noise Ordinance, the operation of trash compactors would not normally be audible or measurably increase day-night average noise levels at nearby sensitive land uses (particularly assuming that trash compactors would be contained within commercial structures), and the arrival and departure of heavy trucks and vendor trucks during the day or night day-night would not result in an increase in noise at the nearest receiving residences that would exceed the thresholds set forth in the City's Noise Ordinance.

Transportation, Circulation and Parking

Trip Generation

As indicated in **Table 5-4**, the Reduced Project alternative would result in an increase in both weekday peak and Saturday peak hour traffic as compared to existing conditions. The total number of trips generated under this alternative would increase relative to the baseline (or existing conditions) by approximately 279 trips during the weekday pm peak, and by approximately 411 trips during the Saturday peak hour. This increase in vehicle trips is attributable to the larger Safeway store as well as the addition of other retail space.

Compared to the Project, the Reduced Project alternative would result in a decrease of approximately 157 trips during the weekday pm peak (approximately 64% of the trips generated by the Project), and a decrease of 222 trips during the Saturday peak hour (approximately 65% of the trips generated by the Project).

Roadway Network

Similar to the Project, this alternative is also assumed to implement a number of modifications to street configurations and signal operations on Broadway and Pleasant Valley Avenue adjacent to the site.

Table 5-4: Trip Generation Estimates
Alternative 3 – Reduced Project

Land Use	ITE Code	Units[1]	Weekday PM Peak Hour In	Weekday PM Peak Hour Out	Weekday PM Peak Hour Total	Saturday Peak Hour In	Saturday Peak Hour Out	Saturday Peak Hour Total
Proposed Safeway[2]	850	65.0 KSF	338	325	663	360	345	705
- Existing Safeway[2]	850	48.0 KSF	-281	-270	-551	-266	-255	-521
Net New Safeway Trips			*57*	*55*	*112*	*94*	*90*	*184*
Proposed Net New Retail[3]	820	110.2 KSF	333	346	679	475	438	913
- Existing CVS[4]	n/a	-87.2 KSF	-156	-178	-334	-211	-263	-474
New Project Trips			234	223	457	358	265	623
- Pass-By Vehicles[5]			-77	-77	-154	-81	-81	-162
- Internalized Trips[6]			-12	-12	-24	-25	-25	-50
Alternative 3 Trip Generation			***145***	***133***	***279***	***252***	***159***	***411***
Project Trip Generation			211	225	436	369	264	633
Net Difference Compared to Project (%)					***64%***			***65%***

KSF = 1,000-square feet
Trip generation based on Institute of Transportation Engineers (ITE), *Trip Generation*, (8th Edition) regression equation and average for Supermarket (Land Use Code 850) :
Weekday PM: Ln(T) = 0.61 Ln(X) + 3.95; Enter = 51%, Exit = 49%
Saturday: T = 10.85 (X); Enter = 51%, Exit = 49%
Where: T = trips generated, X = 1,000 square feet, Ln = natural log
Trip generation based on Institute of Transportation Engineers (ITE), *Trip Generation*, (8th Edition) regression equations for Shopping Center (Land Use Code 820) :
Weekday PM: Ln(T) = 0.67 Ln(X) + 3.37; Enter = 49%, Exit = 51%
Saturday: Ln(T) = 0.65 Ln(X) + 3.76; Enter = 52%, Exit = 48%
Where: T = trips generated, X = 1,000 square feet, Ln = natural log
Data based on peak hour counts collected on June 6 and June 7, 2008.
Trip pass-by rate based on Institute of Transportation Engineers (ITE), *Trip Generation Handbook* average pass-by for Shopping Center (Land Use Code 820). Average Weekday pass-by rate: 34%; average Saturday pass-by rate: 26%.
Based on intercept survey results, average internalization rates were 5% for weekday and 8% for Saturday
Source: Trip Generation (8th Edition), ITE, 2008; and Fehr & Peers, 2012.

Intersection Impacts (SU)

This alternative would generate about 65% of the increase in net new vehicle trips as compared to the Project.

- This reduction in trips would be sufficient to reduce the impact at Broadway/51st Street/Pleasant Valley Avenue (intersection #7) under 2015 plus Project conditions from significant and unavoidable to a less-than-significant level.
- However, it will not be sufficient to avoid the significant and unavoidable traffic impacts at Howe Street/Pleasant Valley Avenue (intersection #19) under Existing plus Project, 2015 plus Project, and 2035 plus Project conditions, and at Broadway/51st Street/Pleasant Valley Avenue (intersection #7) and Piedmont Avenue/Pleasant Valley Avenue (intersection #20) under 2035 plus Project conditions.

Congestion Management Program Evaluation (LTS)

With less traffic than the Project, the Reduced Project alternative would also not cause congestion of regional significance on a roadway segment on the Metropolitan Transportation System (MTS).

Transportation Hazards (LTS)

The design of the Project and the adjacent roadways seeks to minimize potential conflicts between various modes of transportation and to provide safe and efficient pedestrian, bicycle, and vehicle circulation within the site and between the site and the surrounding circulation systems. It is likely (though not proposed) that similar improvements would be included as part of the Reduced Project alternative. These improvements would include modifications to the Broadway/College Avenue intersection (which reduce conflicts between pedestrians crossing College Avenue and vehicles turning left from northbound Broadway into Wendy's Restaurant); two inbound and two outbound travel lanes on the driveway at Pleasant Valley Avenue, and those other modifications to pedestrian access, transit access, bicycle access and circulation in and around the site as proposed under the Project (i.e., providing signalized access across Broadway at Coronado Avenue, providing median refuges at several intersections, widening sidewalks along Broadway and Pleasant Valley Avenue adjacent to the site, installing Class 2 bicycle lanes on Broadway and a Class 3A arterial bicycle route on Pleasant Valley Avenue along the site's frontage, and moving bus stop locations). However, even without these improvements as proposed and recommended for the Project, the Reduced Project alternative would not directly or indirectly result in a permanent substantial decrease in vehicular, pedestrian, bus rider or bicyclist safety.

Transit Travel Time (LTS)

With less traffic than the Project, traffic generated by the alternative would not substantially increase travel times for AC Transit buses travelling east and west along Pleasant Valley Avenue and 51st Street, nor for buses travelling north and south along Broadway and College Avenue.

At-Grade Railroad Crossings (LTS)

This alternative is not located near any at-grade railroad crossings and, like the Project, this alternative would not generate substantial multi-modal traffic traveling across at-grade railroad crossings that cause or expose roadway users to a permanent and substantial transportation hazard.

Change in Air Traffic Patterns (LTS)

Similar to the Project, this alternative would not 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.

Consistency with Adopted Policies Supporting Alternative Transportation (LTS)

About 15 percent of existing Safeway customers currently use non-auto travel modes, due to the site's proximity to residential neighborhoods and AC Transit's Route 51A, one of the busiest AC Transit bus routes. Since the Safeway store would remain within the same center, the Reduced Project alternative is expected to have similar travel mode characteristics as the existing Safeway store. Pursuant to SCA Trans-2, this alternative would also be required to implement a TDM program to encourage more employees and customers to shift from driving alone to other modes of travel. This alternative would not 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.

Construction-Period Impacts (LTS with SCA)

During the construction activities associated with this alternative, temporary and intermittent transportation impacts may result from truck movements as well as construction worker vehicles to and from the site. The construction-related traffic may result in a temporary adverse effect on the circulation system. The City of Oakland SCA Trans-1 requires that a Construction Traffic Management Plan be developed as part of a larger Construction Management Plan to address potentially significant impacts during construction, and implementation of such a plan would ensure that construction-period impacts remain less than significant.

Utilities and Public Services

Stormwater (LTS with SCA)

Like the Project, the Reduced Project alternative would likely need to construct new on-site storm drains under the parking lot and driveways to collect storm runoff and convey that runoff to the City's existing storm drain system. Construction of the storm drain improvements would occur in areas that are currently part of the existing shopping center's parking lots and driveways, areas with minimal to no environmental sensitivity, and compliance with all City of Oakland standard conditions of approval for infrastructure construction would ensure standard construction effects remain less than significant. Like the Project, this alternative would also be subject to the general recommendation of the City's *Storm Drainage Design Guidelines* to achieve a net reduction of 25 percent in the site's peak stormwater runoff rate, to the extent possible, in an effort to better address City-wide storm drainage capacity. Additionally, this alternative would be subject to SCA Util-2, requiring confirmation of the capacity of the City's surrounding stormwater system and state of repair, and acceptance of the responsibility for any necessary stormwater infrastructure improvements to accommodate the runoff form the site. Implementation of these Standard Conditions of Approval would ensure that potential impacts remain less than significant.

Wastewater (LTS with SCA)

The Reduced Project alternative would generate an increase in wastewater flows over baseline conditions, but similar to the Project, this increase would not be so substantial as to exceed the capacity of existing wastewater treatment facilities or necessitate the expansion of existing wastewater treatment or collection facilities. Given that the Reduced Project alternative represents approximately half the net increase in development as compared to the Project, this alternative would generate approximately half the increase in projected wastewater flows, an estimated increase of 8,300 gallons per day (gpd) over baseline flows. This projected increase in wastewater flows would not be substantial in the context of the entire volume of wastewater processed by EBMUD's wastewater treatment plant and would be less than significant, the same as for the Project.

Similar to the Project, this alternative would require construction of new on-site wastewater collection infrastructure, including a number of on-site wastewater collection lines to connect new buildings to the existing wastewater infrastructure. Construction of these new sewer lateral lines would occur in areas that are currently part of the existing shopping center, either in areas currently occupied by buildings, parking lots or driveways, areas with minimal to no environmental sensitivity. Compliance with all City of Oakland Standard Conditions of Approval for infrastructure construction would ensure that standard construction effects remain less than significant. Furthermore, this alternative would be subject to SCA Util-2 which would require confirmation that the capacity of the City's surrounding sanitary sewer system is adequate to accommodate the sewer discharge from this alternative as well as the responsibility for undertaking any necessary sewer infrastructure improvements. Development of this alternative would also require payment of fees to improve sanitary sewer infrastructure if required by the Sewer and Stormwater Division, and payment of all required installation or hook-up fees to the affected service provider.

Similar to the Project, with implementation of City of Oakland Standard Conditions of Approval, this alternative's effects on wastewater infrastructure would be less than significant.

Water Supply (LTS with SCA)

The Reduced Project alternative would generate an increase in water demand over baseline conditions, but this increase would not exceed water supplies available from existing entitlements and resources. Given that the Reduced Project alternative represents approximately one-half of the net increase in development as compared to the Project, this alternative would generate approximately one-half of the increase in water demands projected for the Project, or approximately an increase of 9,300 gpd over the current baseline demand. This increased water demand would represent a marginal increase in overall water demands from throughout the EBMUD service area and would not result in a new significant increase in water use and would not, by itself, require new or expanded water entitlements. However, EBMUD's current water supply is insufficient to meet customer needs in multiple year drought conditions and this alternative would contribute to this drought-period water supply deficiency. As part of standard development practices within the City of Oakland, the Project applicant would be required to comply with the Oakland Water Efficient Landscape Requirements found in Title 10, Chapter 7 of the Municipal Code. With implementation of these standard municipal code requirements, the impact of this alternative on water supply would be less than significant.

Similar to the Project, this alternative would require construction of new on-site water distribution infrastructure. Construction of this new infrastructure would occur in areas that are currently part of the existing shopping center in areas with minimal to no environmental sensitivity. Compliance with all City of Oakland Standard Conditions of Approval for infrastructure construction would ensure that standard construction effects remain at levels of less than significant.

Solid Waste (LTS with SCA)

Given that the Reduced Project alternative would result in approximately half the net increase in development as the Project, this alternative would generate approximately half the increase in solid waste projected for the Project, an increase of approximately 140 pounds of waste per day over existing conditions. This amount of increased solid waste would not exceed the capacity of the Davis Street Transfer Station or the Altamont Landfill, and would not require the construction or expansion of landfill facilities. As such, operation of this alternative would have a less than significant impact on solid waste facilities.

Demolition activities associated with the removal of the existing building space, paved asphalt areas and utilities would be subject to City of Oakland waste reduction and recycling requirements. Compliance with SCA Util-3, the City's Waste Reduction and Recycling Standard, and Oakland Municipal Code Chapter 15.34 would ensure that the amount of waste generated during the construction phases of this alternative remain less than significant.

Energy Demands (LTS)

Like the Project, this alternative would be subject to Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings, and would not violate applicable regulations related to energy standards. The site is located in an area that currently receives electrical and natural gas services from PG&E. Connecting new buildings to existing lines would involve relatively minor improvements to the existing energy infrastructure. Energy consumption would primarily be associated with the new commercial uses at the site. This alternative would not require or result in the construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects. Therefore, this alternative would have a less than significant impact on the provision of electricity and natural gas, and on energy consumption.

Alternative 4: Concept with Commercial Emphasis (RCPC Plan)

Description of Alternative 4

Individuals and community groups have expressed their desire for a different design and mix of land uses which they believe to be more pedestrian, bicycle and transit-friendly, and more urban in character. Alternative 4: presents a concept plan put forth by the Rockridge Community Planning Council (RCPC), which can be viewed on the RCPC website[2].

In its July 26, 2009 letter responding to the NOP (**Appendix 1B)**, the RCPC identified a number of alternatives that it believed would result in reduced impacts and better use of the site. These alternatives included a community amenities alternative, mixed use with residential alternative, continued street grid alternative, and transit-oriented development alternative. In communications with the City, the RCPC Land Use Committee recommended the following principles intended to create a pedestrian and transit-friendly urban shopping area that it wished to be addressed in the project's final design. Alternative 4 reflects most of these principles.

1. Safe, convenient, and pleasant pedestrian access to the Safeway store and other shopping from both Broadway and Pleasant Valley Avenue shopping center entrances;
2. Extend the city street grid into the center so that extensions of Coronado Avenue and Gilbert Streets connect within the center and extend to the quarry pond and all parking structures;
3. Replace most of the surface parking areas with structured parking so that the land is used efficiently and appropriately for an urban area;
4. Activate the quarry pond frontage with restaurants or another activity center;
5. Better AC Transit access to the shopping center, including a possible onsite station;
6. Direct pedestrian access to shopping from Pleasant Valley Avenue;
7. Better landscaping and sidewalk amenities on the Pleasant Valley Avenue frontage, in surface parking areas, and on the "shopping street;"
8. Prominent pedestrian crossings (e.g., speed tables) across access roads on the site; and
9. Provide space for a future phase to include housing.

Alternative 4 would involve redevelopment of the existing Rockridge Shopping Center, including the demolition of all of the existing buildings on the site and the construction of a new Safeway store along with other retail, office and restaurant space. Alternative 4 is illustrated in **Figure 5-4,** and development assumptions are presented in **Table 5-5**. Alternative 4 would include a total of 320,000 square feet of commercial space, including a 65,000 square foot Safeway store, 35,000 square feet of major retail, 160,000 square feet of other retail, 10,000 square feet of restaurant uses, 10,000 square feet of office uses, and a 10,000 square foot bank.[3] The existing CVS Pharmacy building would be demolished and replaced by a new Safeway store. Subsequently, the existing Safeway and all of the other existing buildings on the site would be demolished and replaced with new 2- to 4-story buildings containing retail uses on the ground floor and office uses on the second floor. A total of 1,000 off-street parking spaces would be

[2] http://www.rockridge.org/ludocs/Safeway/RockridgeCenterSafeway/rcpc_plans.pdf

[3] Since Alternative 4 represents a site layout put forth by RCPC that is substantially similar to the Project but the RCPC concept plan did not specify the amount of space occupied by various uses, this analysis assumes a mix of uses that is substantially similar to the Project.

located in surface parking lots, along a new internal "shopping street," on a rooftop parking lot over the new Safeway store, and in a three level parking garage located over retail space.

Table 5-5 Alternative 4 Development Assumptions (square feet)

Safeway	65,000
Major Retail	35,000
Other Retail	160,000
Restaurant	10,000
Office	10,000
Bank/Finance	10,000
Auxiliary Space	30,000
TOTAL	320,000

Alternative 4 includes a mix of land uses and a site layout that is very similar to the Project evaluated in this EIR. Unlike the Project, Alternative 4 would retain the Chase Bank in its present location, and place more retail space where the Project proposes a new freestanding bank with a drive-thru. Alternative 4 would include more office space, and more restaurant space and outdoor dining adjacent to the quarry pond, as compared to the Project. Alternative 4 would connect the new entry on Broadway to the center of the site through the internal "shopping street," whereas the Project would continue the city street grid as an extension of Coronado Avenue along the northerly boundary of the site through to the quarry pond.

Comparative Environmental Analysis

Alternative 4 includes a mix of land uses and site layout that are essentially the same as the Project evaluated in this EIR. As a result, the environmental impacts of Alternative 4 would be essentially the same as those of the Project.

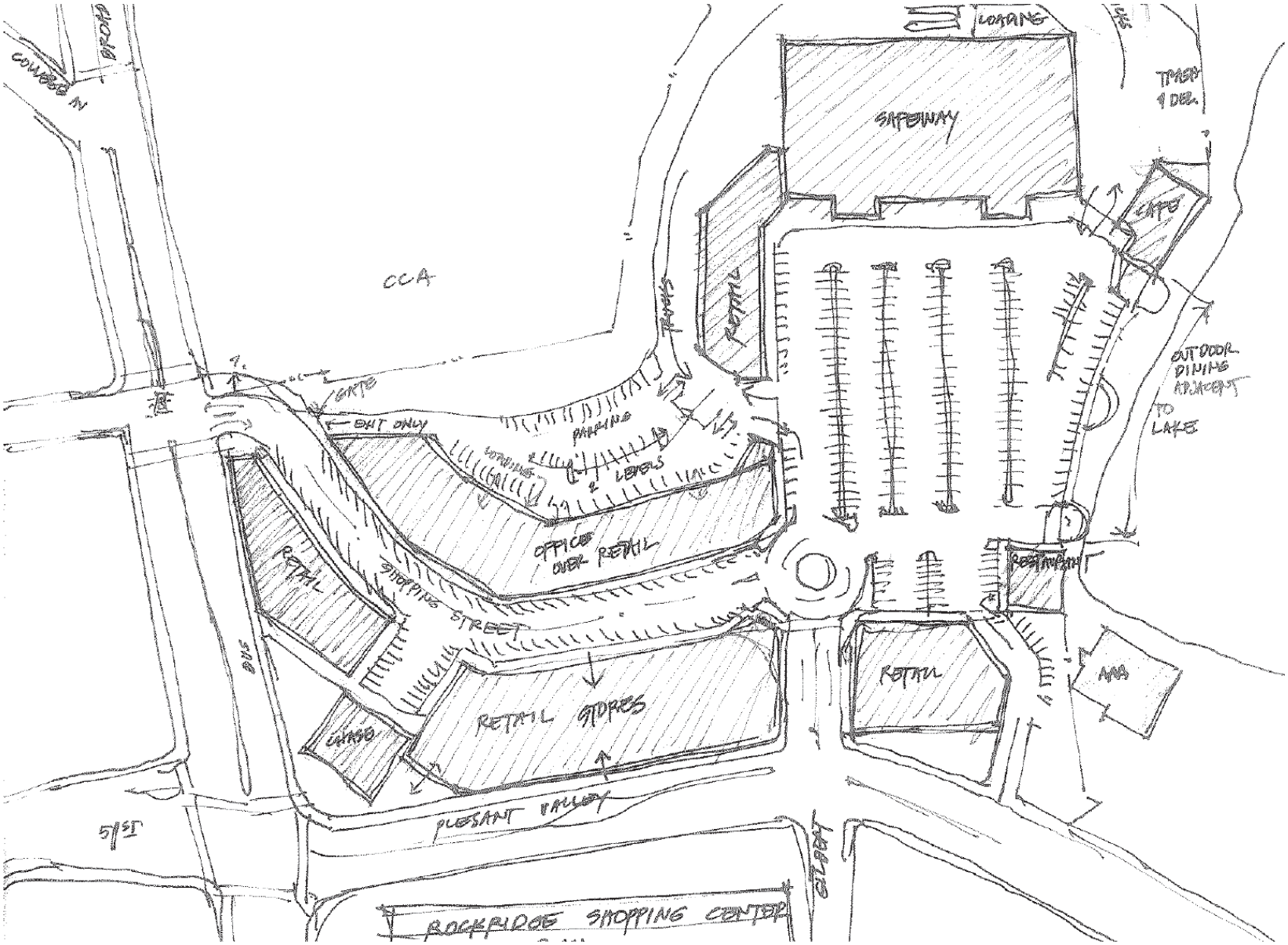

Figure 5-4
Rockridge Community Planning Council (RCPC)
Alternative Concept Plan

http://www.rockridge.org/ludocs/Safeway/Rockridge-CenterSafeway/rcpc_plans.pdf

Alternative 5: Concept with Residential Emphasis (ULTRA Plan)

Description of Alternative 5

During the scoping process for this EIR, individuals and community groups expressed their desire for a different design and mix of land uses which they believed to be more pedestrian, bicycle and transit-friendly, more urban in character, and that also includes mixed-use development with housing. Alternative 5: Concept with Residential Emphasis, presents a concept plan put forth by Urbanists for a Livable Temescal-Rockridge Area (ULTRA) in their July 27, 2009 letter responding to the NOP (see **Appendix 1B**).

Alternative 5 would involve redevelopment of the existing Rockridge Shopping Center, including the demolition of all of existing buildings on the site. New construction would include a new, 62,000 square foot Safeway store, 38,500 square feet of other retail space, and 21,500 square feet of office space. This total of 121,000 square feet of commercial space would represent a reduction of approximately 64,500 square feet as compared to the existing 185,500 square feet currently existing within the shopping center. New construction would also include a total of up to 349 residential units in a mix of townhomes, flats, apartments and dorms, in both residential-only and mixed-use buildings. A total of 804 off-street parking spaces would be located in two parking structures. Alternative 5 would include a mix of housing types, and would integrate and provide for pedestrian, transit, and bicycling access. Its design is intended to "knit together" the neighborhoods that adjoin the Project site with walkable streetscapes and varied, neighborhood-serving retail uses. Alternative 5 is illustrated in **Figure 5-5** and development assumptions are presented in **Table 5-6**.

Alternative 5 would result in a reduction in the total amount of retail space on the site as compared to the existing center, but would include a new Safeway store to be located along Broadway next to the proposed transit plaza. Safeway's "boutique" shops (deli, bakery, butcher shop, pharmacy, floral, specialty drinks, banking, etc.) would front onto Broadway and the transit plaza, with access from both the main store as well as the street. Prominent retail architecture would visually connect the project to College Avenue. Grand staircases would lead from street levels up to a shopping level. A shopping level pedestrian passage would provide a pedestrian link from the transit plaza through the site.

Alternative 5 would provide a diversity of unit types, from one-bedroom apartments and 1-2 bedroom flats, to 2-3 bedroom townhouses, as well as a dormitory for California College of the Arts (CCA) should CCA be interested in developing a residential project with direct linkage to the campus. Alternatively, the dormitory could be another apartment building or a senior independent living project. Townhouses and flats would line the parking garage, fill the upper stories above the Safeway and other retail, and occupy the area by the quarry pond. Three-story townhouses with garages on alleys would occupy the rear portion of the site where the CVS Pharmacy building now stands, organized around a central park. Combined homes/offices would front on Pleasant Valley Avenue. Units above would front onto a shopping level pedestrian passage containing specialty retail storefronts. The residential portion of the buildings would step up from Pleasant Valley Avenue.

A transit plaza at sidewalk level would serve busses along Broadway and 51st Street/Pleasant Valley Avenue, as well as a future Broadway streetcar (not proposed as part of this Project or Alternative). Gilbert Street would be extended into the site, with housing and offices over neighborhood retail. Pedestrian and vehicular entry would be provided at the second parking level from the upslope portion of Pleasant Valley Avenue. This second vehicular entrance would take some pressure off of the Gilbert Street entrance. A second level bridge would connect the two upper level parking garages across the Gilbert Street extension. A new left-turn lane would be provided on Broadway into the site.

Development under Alternative 5 would top out at around the height of the adjacent bluffs. The quarry pond is integrated into the site, creating an urban park-like setting at the junction of three neighborhoods. A restaurant/café and a lake view plaza would overlook the quarry pond.

Table 5-6 Alternative 5 Development Assumptions

	Units	Square Feet
Residential (units)		
Flex (homes/offices)	19	
Apartments	46	
BR Flats	54	
Liner Flats	32	
Townhouses (2 story and over flats)	70	
Townhouses (3 story with garage)	70	
Dorm Rooms	58	
Residential, Total	**349**	
Commercial (square feet)		
Safeway		65,000
Other Retail		38,500
Office		21500
Commercial, Total		**121,000**
TOTAL	**349**	**121,000**

Figure 5-5
Urbanists for a Livable Temescal-Rockridge Area (ULTRA) Alternative Concept Plan

http://www.rockridge.org/ludocs/Safeway/Rockridge-CenterSafeway/ultra_plans.pdf

Comparative Environmental Analysis

Aesthetics

Scenic Vistas (No Impact)

Views from and through the site of the surrounding area are generally limited to the immediate developed area adjacent to the site. Views from the site have not been identified as scenic vistas or important visual resources in the Oakland General Plan or by a regulatory agency with jurisdiction over the site. Development under Alternative 5 would top out at around the height of the adjacent bluffs. As a result, development of Alternative 5 would not significantly alter scenic vistas.

Scenic Resources (No Impact)

No scenic resources have been formally identified at the site, and development of this alternative would have no adverse effects on any formally-identified scenic resources. Certain trees located on the site would likely be removed, but these trees are ornamental landscape species with minor scenic value, and their loss would be compensated by replacement plantings. The prominent rock outcroppings and geologic features which remain from prior quarrying activities at the site would not be disturbed by this alternative. The site contains no historic resources or other potentially significant scenic resources.

Visual Character (No Impact)

The visual character of the site would undergo a major change with development of Alternative 5, but this alternative would not substantially degrade the visual quality of the site and its surroundings. Instead, like the Project, Alternative 5 would improve the visual quality of the site. The existing surface parking that currently occupies much of the site and the street frontage of Broadway and Pleasant Valley Avenue would be replaced with new buildings built to the public right-of-way, "activated" with shops and homes/offices that open to the street. Alternative 5 would have taller building heights than the Project, making it somewhat more urban in character than the Project. Alternative 5 would visually integrate development on the site with the surrounding neighborhoods by mixing commercial and residential uses to create a neighborhood, enclosing all of the on-site parking within parking garages lined with active uses, extending the street grid (Gilbert Street and Coronado Avenue) onto the site and defining it through building placement and form, and enlivening the Broadway and Pleasant Valley Avenue frontages with a transit plaza and active uses that open to the street.

Light and Glare (LTS with SCA)

Lighting at the site would be modified under this alternative but stores, homes and parking areas at the site would still be illuminated in a manner similar to what is currently observed at the site. This alternative would be subject to implementation of SCA Aesth-1: Lighting Plan, which would require that proposed lighting fixtures be adequately shielded to a point below the light bulb and reflector to prevent unnecessary glare onto adjacent properties, ensuring that light and glare impacts would be less than significant.

Landscape Shadows, Shadows on Solar Collectors, Historic Resources and Public Space (No Impact)

Since Alternative 5 would be taller than the Project in certain portions of the site, shadows with this alternative would be greater. However, shadows of the Project were shown as not extending substantially beyond the boundaries of the site, and this alternative's additional building height would not significantly change the length of these shadows such that they would adversely affect off-site locations.

Urban Decay (LTS)

With a new, larger "Lifestyle" Safeway store there could be diverted sales in the food and beverage category to the site, but not so much sales diversion as to result in urban decay. Additionally, the new residences provided under this alternative would result in associated increases in market demand for these products. Alternative 5 would not result in business closures, long term vacancies or associated physical deterioration of properties. The potential urban decay impacts of Alternative 5 would be less than significant.

Air Quality

Construction Period Fugitive Dust Emissions (LTS with SCA)

Like the Project, Alternative 5 would generate fugitive dust from demolition, grading, hauling and construction activities. The fugitive dust emissions associated with these construction activities would be effectively reduced to a level of less than significant with implementation of SCA Air-1. Additionally, this alternative would be required to implement SCA Air-3 which would require certified asbestos removal, encapsulation, or enclosure of any identified asbestos containing materials in accordance with all applicable laws and regulations, the same as the Project.

Construction Period Criteria Air Pollutants and Precursor Emissions (LTS)

During construction, Alternative 5 would generate regional ozone precursor emissions and regional particulate matter emissions from construction equipment exhaust. This alternative would have similar construction-period criteria air pollutant emissions as the Project, and it would also be subject to implementation of the City's Standard Conditions of Approval SCA Air-1 and SCA Air-2, ensuring that construction period criteria air pollutants and precursor emissions would be less than significant, same as the Project.

Construction Period Health Risks to Adjacent Sensitive Receptors (LTS with SCA)

Construction of this alternative would use traditional diesel-powered equipment such as bulldozers, generators, pavers and lifters, all of which would contribute to both cancer and non-cancer health risks. With implementation of SCA Air-2 the construction-period health risks associated with the Project were found to not expose nearby sensitive receptors to levels of diesel emissions that would exceed thresholds of significance for inhalation cancer risk, chronic exposure or $PM_{2.5}$ exposure. This alternative would be subject to implementation of the City's Standard Conditions of Approval SCA Air-2, including its diesel reduction measures, ensuring that construction period health risks to adjacent sensitive receptors would be less than significant, same as the Project.

Operational Related Criteria Air Pollutants (LTS)

Once complete and occupied, this alternative would generate emissions of criteria pollutants, primarily as a result of increased motor vehicle traffic as well as new area source emissions. With only 19% of the weekday peak hour trips as compared to the Project, and no increase in the number of Saturday peak hour trips as compared to the current baseline, the operational related criteria air pollutant emissions impacts of Alternative 5 would be less than significant.

Carbon Monoxide Concentrations (LTS)

Alternative 5 would be consistent with the 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. Alternative 5 would also not contribute a substantial number of vehicle trips to any intersection experiencing more than 44,000 vehicles per hour,

or to any intersection experiencing more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited. Peak hour traffic volumes at all surrounding intersections are well below the 44,000 vehicle-per-hour criteria and are projected to remain below that level in 2015 and 2030. Since Alternative 5 would not exceed these conditions, like the Project, this alternative would be expected to result in a less-than-significant impact to air quality from CO concentrations.

Biological Resources

Special Status Species (LTS with Mitigation)

The large trees and existing buildings within the site and its immediate vicinity provide potential nesting habitat, and the adjacent detention pond and surrounding vegetation provides some habitat value to water birds, nesting birds, roosting bats and potentially western pond turtle. These habitats could be disturbed during construction of this alternative. Implementation of City of Oakland Standard Conditions of Approval and mitigation measures as recommended for the Project, would ensure that any adverse effects to these habitats would be reduced to a level of less than significant.

Wetlands, Riparian Habitat and Sensitive Natural Communities (LTS with SCA)

With landscaping and access improvements along the quarry pond similar to the Project, Alternative 5 would have similar permitting needs related to regulated wetlands associated with the quarry pond as required under Standard City of Oakland Conditions of Approval.. With implementation of construction period and long-term operational Standard Conditions of Approval related to water quality, including any conditions imposed through the required Creek Protection Permit for proposed improvements within 20 feet of the top of bank of the adjacent quarry pond, Alternative 5 would not result in indirect sedimentation or water quality degradation affecting the quarry pond.

Wildlife Movement/Nursery Sites (No Impact)

The site is located in an urbanized area that has supported commercial uses for more than 40 years. There are no wildlife movement corridors passing through the site, and the site is not used as a wildlife nursery. Like the Project, Alternative 5 would not adversely affect wildlife movement or nursery sites.

Habitat Conservation Plans (No Impact)

No habitat conservation plans or natural community conservation plans are currently in force at the site or in the vicinity of the site. Alternative 5 would not fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.

Compliance with Oakland Tree Protection Ordinance (LTS with SCA)

Similar to the Project, construction of Alternative 5 would likely result in the removal of "protected trees" and Monterey pines in order to accommodate new buildings, improved parking areas, and improved pedestrian access adjacent to the quarry pond. Compliance with City of Oakland Standard Conditions of Approval to obtain a tree removal permit prior to removal of any "protected trees" (SCA Aesth-2), requirements for the provision of replacement trees (SCA Aesth-3) and provisions for the protection of trees to remain during construction activities (SCA Aesth-4) would ensure that any potential tree removal necessary for construction of this alternative would be conducted in compliance with City ordinances and regulations, thereby ensuring this impact remains at a level of less than significant, same as with the Project.

Compliance with Oakland Creek Protection Ordinance (LTS with SCA)

Similar to the Project, no development or work would occur within the daylighted section of the Rockridge branch of Glen Echo Creek or on the downside slope of the quarry pond. However, new landscaping and pedestrian paths would be provided in the area adjacent to the pond that may require a Category IV Creek Protection permit pursuant to City of Oakland Standard Conditions of Approval Hydro-6 through -9. Although this alternative would likely be subject to the provisions of the City of Oakland Creek Protection Ordinance, there is nothing about this alternative that would fundamentally conflict with elements of the ordinance intended to protect biological resources. Alternative 5 would not discharge a substantial amount of pollutants into the creek or watercourse, it would not significantly modify the natural flow of water, it would not deposit substantial amounts of new material into a creek or cause substantial bank erosion or instability, nor would it adversely impact a riparian corridor by significantly altering vegetation or wildlife habitat.

Cultural Resources

Materially Impair an On-site Historic Resource (No Impact)

The site is not considered a significant historic property, and therefore development of Alternative 5 would not result in a substantial adverse change in the significance of an on-site historical resource.

Materially Impair an Adjacent Historic Resource (LTS)

This alternative would not directly or indirectly result in a substantial adverse change in the significance of a nearby historical resource. It is unlikely that demolition or construction activity associated with this alternative would produce vibrations that could damage adjacent historic structures, similar to the Project.

Archaeological or Paleontological Resources, and Human Remains (LTS with SCA)

Construction of this alternative would not cause a substantial adverse change in the significance of a known archaeological resource, nor would it directly or indirectly destroy a known unique paleontological resource or site, or unique geologic feature. It is possible that currently unknown archaeological or paleontological resources could be damaged during site grading and construction. Implementation of City of Oakland Standard Conditions of Approval Cultural-1 through-3, including the same site-specific conditions as recommended for the Project, would ensure that such potential impacts remain at a level of less than significant.

Geology and Soils

Seismic Ground Shaking and Ground Failure (LTS with SCA)

The potential geology, soils and seismic impacts of Alternative 5 would be similar to the Project, and Alternative 5 would be subject to similar Standard Conditions of Approval. The site is not located within an Alquist-Priolo Special Studies zone, but the City of Oakland Safety Element indicates that the easterly portions of the site are located in a Potential Liquefaction Area and subject to seismic-induced ground failure. Alternative 5 would be subject to the City's Standard Conditions of Approval, including SCA Geo-2, which requires submittal of a detailed soils report along with detailed engineering drawings to ensure that buildings are designed and constructed in conformance with the requirements of applicable building code regulations. With implementation of City of Oakland Standard Conditions of Approval and compliance with Uniform Building Code standards in the design and construction of new buildings, the effects of ground shaking and seismic-induced ground failure would be less than significant.

Landslides (LTS with SCA)

According to the City of Oakland Safety Element, the existing off-site cut slope extending along the site's northern boundary (averaging approximately 50 feet in height) is identified as a Potential Landslide Area. There are areas of erosion on this slope and there is evidence of fallen debris at the toe of the slope. Alternative 5, like the Project, would not involve any grading, tree removal or alteration to this cut slope and would not exacerbate or further increase slope instability. In addition, this alternative would be subject to implementation of City Standard Condition of Approval Geo-2, which would require that site stability issues be addressed and corrective actions be prescribed at locations where land stability problems exist. With implementation of this Standard Condition of Approval, including the 2007 geotechnical investigation's recommendation for reconstruction of on-site catchment structures at the toe of the cut slope, the risks of injury and structural damage from slope failure under Alternative 5 would be less than significant.

Geologic Fill (LTS with SCA)

A detailed engineering study and soils report would be required for Alternative 5 to determine what type of foundation and building supports would be necessary for the taller buildings with residences on the upper floors. Alternative 5 would be subject to the City's Standard Conditions of Approval, including SCA Geo-2 as well as the associated recommendations of the 2007 geotechnical investigation prepared for the site, which include that if unsuitable soil is encountered during the construction phase, such soils should be excavated to a firm bottom and the resulting hole should be backfilled with engineered fill or lean mix concrete. With implementation of SCA Geo-2 and the associated recommendations of the 2007 geotechnical investigation, the potential risk of structural damage from unstable soils would be less than significant, the same as for the Project.

Greenhouse Gas Emissions

GHG Emissions (LTS)

Similar to the Project, the GHG emissions of construction and operation of Alternative 5 would not exceed City thresholds of significance. With fewer weekday peak hour trips, this Alternative would result in a reduction in vehicular GHG emissions as compared to the Project. Construction emissions would be similar to the Project. The new Safeway store under Alternative 5 would result in the same substantial reductions in GHG emissions as the Project with respect to refrigerants, which have a particularly high global warming potential. Overall, the GHG emissions impacts of Alternative 5 would be less than significant.

Conflict with an Applicable Plan, Policy or Regulation Adopted for the Purpose of Reducing GHG Emissions (LTS)

Because the estimated GHG emissions of the Alternative 5 would not exceed the City's numeric significance threshold, like the Project, Alternative 5 would also comply with applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions.

Hazards and Hazardous Materials

Cortese List/Presence of Hazardous Materials Contamination (LTS with SCA)

No portion of the site is included on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Environmental Site Assessments prepared for the site do not indicate the presence of on-site soil or groundwater contamination at significant levels, nor do they indicate that off-site contamination of soil or groundwater presents a concern to construction or operation of a shopping center. The primary contamination issue at the site is the presence of soil and groundwater

contaminants from a former dry cleaning business. However, the Environmental Site Assessments prepared for the site do not address the suitability of the site for residential use, which is subject to higher standards for contamination. Pursuant to SCA Haz-1 and SCA Haz-2, subsequent Phase I and/or Phase II reports would be required and additional remediation may be necessary for Alternative 5 to enable the site to be used for residential use.

Disposal, Transport, Upset or Use of Hazardous Materials (LTS with SCA)

Construction workers, future commercial tenants, shoppers and residents at the site could be exposed to hazardous materials during construction activities. Under this alternative the existing shopping center, portions of which have asbestos-containing materials and lead-based paint, would be removed. The handling and disposal of such material could potentially result in release of asbestos fibers into the air, potentially exposing those nearby to increased risk.

Like the Project, Alternative 5 would be subject to implementation of City of Oakland Standard Condition of Approval SCA Air-3, Haz-4, Haz-10 and Haz-11 pertaining to asbestos removal and lead-based paint remediation, including the recommendations from the Phase II Environmental Site Assessment and subsequent Addendum prepared for the Project site. With implementation of these Standard Conditions of Approval and the associated recommendations of the Phase II Environmental Site Assessment and subsequent Addendum, the potential risk from asbestos and lead-based paint under Alternative 5 would be less than significant.

Hazardous Materials near Schools, Hazards near Airports, Interference with Emergency Response, and Wildfire Hazards (No Impact)

Although the site is located within one-quarter mile of Oakland Technical High School and Emerson Elementary School, there are no known components of this alternative that would emit hazardous emissions or result in the need to handle hazardous or acutely hazardous materials, substances or waste. The site is not located near any public airport, within an airport plan area or near a private airstrip. This alternative would not impair implementation of, or physically interfere with any adopted emergency response plan or emergency evacuation plan. The Project site is located in an urbanized area of Oakland more than ½ mile outside of the Fire Prevention and Assessment District boundary, which indicates that it is not subject to significant wildfire hazard.

Hydrology and Water Quality

Depletion of or Interference with Groundwater Supplies (No Impact)

The site is already fully developed and/or paved, and is served with water from the East Bay Municipal Utility District. Alternative 5 would not result in any change in existing groundwater recharge and would not deplete groundwater resources.

Flooding (No Impact)

No portion of the site is within the 100-year or 500-year flood hazard area as mapped on Federal Flood Hazard Boundary or Flood Insurance Rate Maps or other flood hazard delineation maps. This alternative would not place any structures within a 100-year flood hazard area that might impede or redirect flood flows, or expose people or structures to a substantial risk of loss, injury or death involving flooding, seiche, tsunami, or mudflow.

Increased Runoff Exceeding Stormwater Drainage System Capacity (LTS)

The site currently has very little impervious surface and is almost entirely covered by buildings and paved areas. Virtually all stormwater falling onto the site results in surface runoff. No retention or detention of

runoff currently occurs prior to entering into the City's storm drain system. Alternative 5 would not increase impervious surface area and thus would not increase stormwater runoff. This alternative would be subject to City of Oakland Standard Conditions of Approval which require new construction projects to apply for and obtain approval of a Stormwater Management Plan pursuant to NPDES water quality treatment requirements. As such, this alternative would be required to implement on-site storm water treatment areas and other best management practices to capture and treat storm water runoff from all building rooftops and parking area, similar to that proposed under the Project. Additionally, the pervious surfaces associated with such storm water treatment areas and other BMPs would serve to reduce overall site runoff such that the amount of surface runoff leaving the site post-construction would be less than current runoff volumes, and no increase in stormwater flows entering the City's storm drainage system would occur. However, since the City's storm drain system is aged and often unable to accommodate storm water flows, this alternative would also be subject to the general recommendation of the City's *Storm Drainage Design Guidelines* to achieve a net reduction of 25 percent in the site's peak stormwater runoff rate, to the extent possible, in an effort to better address City-wide storm drainage capacity. The proposed site layout of Alternative 5 would provide similar opportunities as the Project for low-impact, passive approaches to on-site stormwater management.

Erosion and Sedimentation (LTS with SCA)

Similar to the Project, site preparation and construction activity associated with this alternative could result in soil erosion, which could have adverse effects on water quality. During site preparation and construction activity, potentially significant soil erosion impacts could occur by exposing underlying soils. If left unprotected during construction, such exposed soils could be carried via stormwater runoff into the storm drain system and/or into adjacent surface water, resulting in increased sedimentation. Like the Project, this alternative would be subject to SCA Hydro-1, and be required to obtain a grading permit, including an approved Erosion and Sedimentation Control Plan, from the Building Services Division. The Erosion and Sediment Control Plan would 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. Such measures will include but will not be limited to 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. Effective implementation of SCA Hydro-1, SCA Hydro-4 and SCA Geo-1 during site preparation and construction activity at the site would ensure soil erosion and sedimentation impacts remain at a level of less than significant.

Degradation of Water Quality during Construction (LTS with SCA)

Site preparation and construction activity associated with this alternative could result in degradation of stormwater quality. Potential pollutants associated with construction activities are likely to include minor quantities of paint, solvents, oil and grease, and petroleum hydrocarbons. If such pollutants were allowed to enter into the storm water runoff from the site, they would contribute to the potential degradation of downstream receiving waters. Like the Project, this alternative would be subject to the provisions of Standard Conditions of Approval Hydro-2, requiring coverage under a General Construction Activity Storm Water Permit issued by the State Water Resources Control Board. Coverage under this permit requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) for review and approval by the Planning and Zoning Division and the Building Services Division of the City of Oakland, and evidence of approval of the SWPPP by the SWRCB. At a minimum, the SWPPP would need to include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Effective implementation of SCA Hydro-1, SCA Hydro-4 and SCA-Geo1 during site preparation and construction activity would

ensure that water quality impacts during construction of this alternative remain at a level of less than significant.

Degradation of Water Quality during Operations (No Impact with SCA)

Operational activities such as vehicular use, landscaping maintenance, normal residential uses and other operational activities pursuant to this alternative could potentially introduce pollutants into stormwater runoff, resulting in degradation of downstream water quality. Like the Project, this alternative would be subject to the provisions of SCA Hydro-2, requiring demonstrated compliance with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES). These provisions require preparation and approval of a Stormwater Pollution Management Plan (SMP) to limit the discharge of pollutants in stormwater after construction of the Project to the maximum extent practicable. Additionally, this alternative would be subject to SCA Hydro-4, requiring a maintenance agreement for accepting responsibility for the adequate installation/ construction, operation, maintenance, inspection and reporting of all stormwater treatment measures. Effective implementation of SCA Hydro-2 and Hydro-3 would ensure water quality impacts during operations of this alternative remain less than significant.

Conflict with Oakland Creek Protection Ordinance (LTS with SCA)

Under Alternative 5, no development or work would be conducted within the day-lighted section of the Rockridge branch of Glen Echo Creek or on the downside slope of the quarry pond. However, the area adjacent to the pond would be improved with new landscaping similar to the Project. Portions of these improvements within 20 feet of the top of bank of the adjacent quarry pond would require a Category IV Creek Protection Permit pursuant to City of Oakland Standard Conditions of Approval. However, as with the Project, there is nothing about this alternative that would fundamentally conflict with elements of the ordinance intended to protect hydrologic resources. This alternative would not discharge a substantial amount of pollutants into the creek or watercourse, it would not significantly modify the natural flow of water, it would not deposit substantial amounts of new material into a creek or cause substantial bank erosion or instability, nor would it substantially endanger public or private property or threaten public health or safety.

Land Use

Physically Divide an Established Community (No Impact)

Like the Project, Alternative 5 would not divide an established community or limit connections to the surrounding community, but would instead enhance connectivity. As a mixed-use development, with a pedestrian- and transit-friendly design, and with a form and character resembling that of surrounding mixed-use neighborhoods, Alternative 5 would enhance connectivity and integrate the site with its surroundings.

Land Use Compatibility (No Impact)

Like the Project, this alternative would not be incompatible with surrounding land uses and would not conflict with applicable land use plans and policies adopted for the purpose of avoiding or mitigating an environmental effect. The land uses provided under this alternative would be consistent with the site's current General Plan land use designation.

The mixed-use character of this alternative could result in internal land use incompatibilities between on-site commercial and residential uses. However, with implementation of existing City Municipal Code, zoning, building code, development review and design review provisions, significant on-site land use incompatibilities could be avoided.

Habitat and Natural Community Conservation Plans (No Impact)

This alternative would not result in a fundamental conflict with any applicable habitat conservation plan or natural community conservation plan. The site is not located within or near an area guided by a Habitat Conservation Plan or Natural Community Conservation Plan.

Noise and Vibration

Construction Noise (LTS with SCA)

Similar to the Project, noise generated by construction activities would not be expected to violate the City of Oakland Noise Ordinance regarding nuisance of persistent construction-related noise, provided that standard construction noise controls are implemented. This alternative would be subject to implementation of SCA Noise-1 which provides reasonable regulations of the hours of construction, and SCA Noise-2 which requires preparation of a Noise Reduction Plan, including restrictions on operation of heavy equipment and the delivery of construction materials. These Standard Conditions of Approval would ensure that noise impact resulting from construction of this alternative would remain less than significant.

Permanent Increase in Ambient Traffic Noise (LTS)

Alternative 5 would not result in a substantial increase in the permanent outdoor ambient noise levels in the vicinity above existing noise levels. Vehicular traffic generated by Alternative 5 would represent such a small percentage of the total traffic along area roadways that it would not result in a perceptible permanent increase in ambient traffic noise.

Conflict with Land Use Compatibility Guidelines (LTS)

Although residential uses would make Alternative 5 less compatible with ambient noise levels than the Project, potential impacts related to conflicts with land use compatibility guidelines would still be less than significant with implementation of Standard Conditions of Approval. Existing ambient noise levels are approximately 69 dB L_{dn} along Pleasant Valley Avenue and 72 dB L_{dn} along Broadway. These existing ambient noise levels are within the conditionally acceptable range for commercial uses but exceed the acceptable range for residential uses (normally acceptable at 60 dB L_{dn} and conditionally acceptable at 70 dB L_{dn}). To achieve an acceptable interior noise level for residential uses, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls) would need to be incorporated into the residential buildings proposed under Alternative 5, consistent with City of Oakland Standard Condition of Approval SCA Noise-4.

Operational Noise in Excess of Oakland Noise Ordinance Standards (LTS)

The proposed mixed-use buildings under Alternative 5 would be subject to greater operational noise impacts, but this would still be less than significant with implementation of Standard Conditions of Approval. The mix of commercial and residential uses under this alternative could expose new residents to operational noise levels exceeding the City of Oakland Noise Ordinance limits (Oakland Planning Code Section 17.120.050). Operational noises such as roof-top coolers, external mechanical systems, trash compactors, loading dock operations and delivery trucks would occur within the immediate context of the new residential homes above the ground floor retail space. There would be no noise attenuation due to distance from the noise source (such as that provided to the nearest off-site neighbors) for mixed-use buildings. In order to comply with the interior noise requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable interior noise level within new residences, noise reduction in the form of sound-rated assemblies and other detailed site planning and building design considerations

would be necessary. The specific building designs and layout of buildings on the site would require more detailed investigation during the design phase, as required pursuant to City of Oakland SCA Noise-4.

Transportation, Circulation and Parking

Trip Generation

As indicated in **Table 5-7**, Alternative 5 would result in an increase in weekday peak hour traffic and no overall change in Saturday peak hour trip generation as compared to existing conditions. The total number of trips generated under this alternative would increase relative to the baseline (or existing conditions) by approximately 85 trips during the weekday PM peak and would be the same during the Saturday peak hour. (Although the total trip generation would remain the same during the Saturday peak hour, the inbound traffic would increase by 28 trips and the outbound traffic would decrease by 28 trips). This net change in vehicle trips is attributable to the net reduction of approximately 64,500 square feet of total retail space on the site and the addition of up to 349 residential units.

Roadway Network

Similar to the Project, this alternative is also assumed to implement a number of modifications to street configurations and signal operations on Broadway and Pleasant Valley Avenue adjacent to the site.

Table 5-7: Trip Generation Estimates
Alternative 5 – Concept with Residential Emphasis (ULTRA Plan)

Land Use	ITE Code	Units[1]	Weekday PM Peak Hour In	Weekday PM Peak Hour Out	Weekday PM Peak Hour Total	Saturday Peak Hour In	Saturday Peak Hour Out	Saturday Peak Hour Total
Proposed Safeway[2]	850	62.0 KSF	328	316	644	343	330	673
- Existing Safeway[2]	850	48.0 KSF	-281	-270	-551	-266	-255	-521
Net New Safeway Trips[2]			*47*	*46*	*93*	*77*	*75*	*152*
Proposed New Retail[3]	820	9.7 KSF	18	18	36	24	23	47
- Existing CVS[4]	n/a	-87.2 KSF	-156	-178	-334	-211	-263	-474
Net New Non-Residential Trips			-91	-114	-205	-110	-165	-275
- Pass-By Vehicles[5]			35	35	70	36	36	72
- Internalized Trips[6]			5	5	10	11	11	22
Residential[7]	220	349 DU	137	73	210	91	91	181
Alternative 5 Trip Generation			**86**	**-1**	**85**	**28**	**-28**	**0**
Project Trip Generation			211	225	436	369	264	633
Net Difference Compared to Project (%)					***19%***			***0%***

KSF = 1,000-square feet, DU = Dwelling unit

Trip generation based on Institute of Transportation Engineers (ITE), *Trip Generation*, (8th Edition) regression equation and average for Supermarket (Land Use Code 850) :

Weekday PM: Ln(T) = 0.61 Ln(X) + 3.95; Enter = 51%, Exit = 49%

Saturday: T = 10.85 (X); Enter = 51%, Exit = 49%

Where: T = trips generated, X = 1,000 square feet, Ln = natural log

Trip generation based on Institute of Transportation Engineers (ITE), *Trip Generation*, (8th Edition) regression equations for Shopping Center (Land Use Code 820) :

Weekday PM: T = 3.73 (X); Enter = 49%, Exit = 51%

Saturday: T = 4.89 (X); Enter = 52%, Exit = 48%
Where: T = trips generated, X = 1,000 square feet
Data based on peak hour counts collected on June 6 and June 7, 2008.
Trip pass-by rate based on Institute of Transportation Engineers (ITE), *Trip Generation Handbook* average pass-by for Shopping Center (Land Use Code 820). Average Weekday pass-by rate: 34%; average Saturday pass-by rate: 26%.
Based on intercept survey results, average internalization rates were 5% for weekday and 8% for Saturday between the commercial components of the Project. The analysis conservatively does not assume any internalization between the commercial and residential components of the Project.
Trip generation based on Institute of Transportation Engineers (ITE), *Trip Generation*, (8th Edition) regression equation and average rate for Apartments (Land Use Code 220) :
Weekday PM: T = 0.55 (X) + 17.65; Enter = 65%, Exit = 35%
Saturday PM: T = 0.52 (X); Enter = 50%, Exit = 50%
Where: T = trips generated, X = 1,000 square feet, Ln = natural log

Source: Trip Generation (8th Edition), ITE, 2008; and Fehr & Peers, 2012.

Intersection Impacts (SU)

Given that Alternative 5 would generate so few weekday trips and the same number of weekend peak hour trips as compared to existing conditions:

- this alternative would reduce the impacts at Broadway/51st Street/Pleasant Valley Avenue (intersection #7) under 2015 plus Project conditions from significant and unavoidable (under the Project) to less-than-significant levels
- this alternative would reduce the impacts at Piedmont Avenue/Pleasant Valley Avenue (intersection #20) under 2035 plus Project conditions from significant and unavoidable (under the Project) to less-than-significant levels.
- However, even this much of a reduction in trips would not be sufficient to avoid the significant and unavoidable traffic impacts at Howe Street/Pleasant Valley Avenue (intersection #19) under Existing plus Project, 2015 plus Project, and 2035 plus Project conditions, and at Broadway/51st Street/Pleasant Valley Avenue (intersection #7) under 2035 plus Project conditions.

Congestion Management Program Evaluation (LTS)

Like the Project, Alternative 5 would not cause congestion of regional significance on a roadway segment on the Metropolitan Transportation System (MTS).

Transportation Hazards (LTS)

The design of Alternative 5 minimizes potential conflicts between various modes of travel and provides safe and efficient pedestrian, bicycle, and vehicle circulation within the site, and between the site and the surrounding circulation systems. Alternative 5 would not directly or indirectly result in a permanent substantial decrease in vehicular, pedestrian, bus rider or bicyclist safety.

Transit Travel Time (LTS)

Traffic generated by this alternative would not substantially increase travel times for AC Transit buses travelling east and west along Pleasant Valley Avenue and 51st Street, nor for buses travelling north and south along Broadway and College Avenue.

At-Grade Railroad Crossings (LTS)

This alternative is not located near any at-grade railroad crossings and, like the Project, this alternative would not generate substantial multi-modal traffic traveling across at-grade railroad crossings that cause or expose roadway users to a permanent and substantial transportation hazard.

Change in Air Traffic Patterns (LTS)

Similar to the Project, this alternative would not 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.

Consistency with Adopted Policies Supporting Alternative Transportation (LTS)

This alternative would not 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. Rather, this alternative would foster implementation of plans and policies which require new development, rebuilding, or retrofit projects to incorporate design features that encourage use of alternative modes of transportation such as transit, bicycling, and walking. As a mixed-use project this alternative would increase opportunities to remain on-site (i.e., not have to use a vehicle at all) for many types of typical home-to-shopping trips including those to grocery and convenience retail stores. The greater diversity of on-site activities could capture a larger share of trips internally, the placement of a large number of residential units within a walkable distance from relatively good transit access could increase rates of walking and transit use, and the centralized location of this site along Broadway could further reduce average trip lengths as compared to other locations.

Construction-Period Impacts (LTS with SCA)

During construction activities associated with this alternative, temporary and intermittent transportation impacts would result from truck movements as well as construction worker vehicles to and from the site. The construction-related traffic may result in a temporary adverse effect on the circulation system. The City of Oakland SCA Trans-1 requires that a Construction Traffic Management Plan be developed as part of a larger Construction Management Plan to address potentially significant impacts during construction, and implementation of such a plan would ensure that construction-period impacts remain less than significant, similar to the Project.

Public Services and Utilities

Stormwater (LTS with SCA)

Like the Project, Alternative 5 would need to construct new on-site storm drains under parking lots and driveways to collect storm runoff and convey that runoff to the City's existing storm drain system. Construction of the storm drain improvements would occur in areas that are currently part of the existing shopping center's parking lots and driveways, areas with minimal to no environmental sensitivity. Compliance with all City of Oakland standard conditions of approval for infrastructure construction would ensure that standard construction effects remain less than significant. Like the Project, this alternative would also be subject to the City's *Storm Drainage Design Guidelines*, which require a net reduction of 25 percent in the peak stormwater runoff rate from new projects, to the extent possible, in an effort to better address City-wide storm drainage capacity. Additionally, similar to the Project, this alternative would be subject to SCA Util-2, requiring confirmation of the capacity of the City's surrounding stormwater system and state of repair, and acceptance of the responsible for any necessary stormwater infrastructure improvements to accommodate the runoff form the site. Implementation of these Standard Conditions of Approval would ensure potential impacts remain less than significant, the same as with the Project.

Wastewater (LTS with SCA)

Alternative 5 would result in estimated wastewater flows of approximately 94,300 gpd, or a net increase in wastewater flows from the site over existing conditions of approximately 63,600 gpd.[4] This represents more than double the wastewater flow as compared to the Project. However, this projected increase in wastewater flows would still not be substantial in the context of the entire volume of wastewater processed by EBMUD's wastewater treatment plant and would not exceed the capacity of existing wastewater treatment facilities or necessitate the expansion of existing wastewater treatment or collection facilities.

This alternative would require construction of new on-site wastewater collection infrastructure, including a number of on-site wastewater collection lines to connect new buildings to the existing wastewater infrastructure. Construction of these new sewer lateral lines would occur in areas that are currently part of the existing shopping center, either in areas currently occupied by buildings, parking lots or driveways, areas with minimal to no environmental sensitivity. Compliance with City of Oakland standard conditions of approval for infrastructure construction would ensure that standard construction impacts remain less than significant. Furthermore, this alternative would be subject to SCA Util-2 which would require confirmation that the capacity of the City's surrounding sanitary sewer system is adequate to accommodate the sewer discharge from this alternative as well as the responsibility for any sewer infrastructure improvements necessary. Development of this alternative would also require payment of fees to improve sanitary sewer infrastructure if required by the Sewer and Stormwater Division, and payment of all required installation or hook-up fees to the affected service provider. Similar to the Project, with implementation of City of Oakland standard conditions of approval, this alternative's effects on wastewater infrastructure would remain less than significant.

Water Supply (LTS with SCA)

Despite a substantial reduction in commercial space from existing conditions and as compared to the Project, Alternative 5 would nonetheless generate a greater increase in water demand over that projected for the Project due to the addition of up to approximately 349 residential units. This alternative would result in an estimated water demand of approximately 84,900 gpd, or a net increase in water demand over existing conditions of approximately 50,800 gpd.[5] This increased water demand would represent a marginal increase in overall water demands from throughout the EBMUD service area and would not result in a new significant increase in water use that would, by itself, require new or expanded water entitlements. However, EBMUD's current water supply is insufficient to meet customer needs in multiple year drought conditions and this alternative would contribute to this drought-period water supply deficiency. As part of standard development practices within the City of Oakland, the Project applicant would be required to comply with the Oakland Water Efficient Landscape Requirements found in Title 10, Chapter 7 of the Municipal Code. Although Alternative 5 would generate more than double the water demand of the Project, with implementation of these standard municipal code requirements, the impact of this alternative on water supply would remain less than significant.

Similar to the Project, this alternative would require construction of new on-site water distribution infrastructure. Construction of this new infrastructure would occur in areas that are currently part of the existing shopping center in areas with minimal to no environmental sensitivity. Similar to the Project,

[4] Based on a wastewater generation rate of 200 gpd per residential unit (per City of Oakland Public Works Agency *Standards for Sanitary Sewer Design Guidleines*), 250 gpd for Safeway based on Project applicant data from existing Safeway adjusted for water conservation measures proposed for the Project, and 150 gpd for other retail uses.

[5] Assumes wastewater flows equal 90 percent of water use.

Compliance with all City of Oakland standard conditions of approval for infrastructure construction would ensure that standard construction effects remain less than significant.

Solid Waste (LTS with SCA)

Operation and occupancy of development under Alternative 5 would generate approximately 1,600 pounds per day of solid waste (1,300 pounds per day for the residential uses and 300 pounds per day for the commercial uses[6]), more than double the solid waste generated by the Project. Demolition and construction activities under this alternative would also generate solid waste requiring disposal. Demolition activities associated with the removal of the existing building space, paved asphalt areas and utilities would be subject to SCA Util-1, the City's Waste Reduction and Recycling Standard, and Oakland Municipal Code Chapter 15.34. The amount of increased solid waste would not exceed the capacity of the Altamont Landfill, and would not require the construction or expansion of landfill facilities. Therefore, similar to the Project, this alternative would have a less than significant impact on solid waste facilities.

Energy Demands (LTS with SCA)

Like the Project, this alternative would be subject to Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings, and would not violate applicable regulations related to energy standards. The site is located in an area that currently receives electrical and natural gas services from PG&E. Connecting new buildings to existing lines would involve relatively minor improvements to the existing energy infrastructure. Energy consumption would primarily be associated with the new commercial uses at the site. This alternative would not require or result in the construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects. As such, the proposed project would have a less than significant impact on the provision of electricity and natural gas, and on energy consumption.

Schools and Parks (LTS with SCA)

Alternative 5 would include up to 349 residential units, generating an increase in student enrollment within the Oakland Unified School District. Pursuant to Senate Bill 50 (SB 50), the project sponsor would be required to pay school impact fees established to offset potential impacts from new development on school facilities. Therefore, although Alternative 5 would result in an increase in resident population and student enrollment, payment of fees mandated under SB 50 would be deemed full and complete mitigation.

Alternative 5 would also increase demands on existing parks and recreation facilities to serve the 349 residential units. Public parks in the vicinity of the site include Frog Park (approximately ¾ mile from the site), Rockridge Park (approximately 1 mile from the site), Ostrander Park (approximately 1.5 mile from the site) and the Lake Temescal Regional Recreation Area (approximately 2 miles from the site). These existing parks have sufficient capacity for the increased use that could potentially result from residential development under this alternative, and no significant impacts would be anticipated. Construction of Alternative 5 would also need to adequately address the City's requirements for adequate on-site open space, which could likely be met through some combination of dedicated land area, and public and private open space as part of this alternative's design plan. Alternative 5 includes a central park in the portion of the site currently occupied by the CVS Pharmacy building, a greenway along the quarry pond, and a large rooftop terrace open space above the Safeway and the adjacent parking garage.

[6] Based on average Waste Management of Alameda County annual average disposal rates for residential uses in 2000 of 548 pounds per person and 2.5 persons per unit, and California Integrated Waste Management Board estimated disposal rates of 2.5 pounds per day per 1,000 square feet of retail uses.

Environmentally Superior Alternative

CEQA requires the identification of the environmentally superior alternative in an EIR. Where a no project alternative has been identified as the environmentally superior alternative, CEQA requires the EIR to identify another alternative that would be considered environmentally superior in the absence of the no project alternative.

Summary Comparisons of No Project Alternatives

Alternative 1: No Project would be the environmentally superior alternative. Under Alternative 1 there would be no change in existing conditions at the Project site, and none of the potential environmental impacts associated with the Project would occur. Maintaining the site in its current condition would avoid each of the potential environmental impacts of the Project. However, Alternative 1 would meet none of the basic Project objectives.

Alternative 2: Safeway Relocation would represent a comparatively minor change from existing conditions, and could potentially be implemented without additional discretionary decisions by the City of Oakland (and thus could be considered another "no project" alternative"). It would avoid or reduce many of the environmental impacts of the Project. While Alternative 2 would result in reduced traffic impacts relative to the Project, the significant unavoidable impacts related to operations at Howe Street/Pleasant Valley Avenue (intersection #19) under Existing plus Project, 2015 plus Project, and 2035 plus Project conditions, and at the Piedmont Avenue/Pleasant Valley Avenue and Broadway/51st Street/Pleasant Valley Avenue intersections under 2035 plus Project conditions identified for the Project would still occur.

Summary Comparisons of Other Alternatives

Alternative 3: Reduced Project would generate about 65% of the total peak hour vehicle trips as compared to the Project, and would thus result in less substantial traffic impacts than would the Project. This reduction in trips would be sufficient to reduce the impact at Broadway/51st Street/Pleasant Valley Avenue (intersection #7) under 2015 plus Project conditions from significant and unavoidable to a less-than-significant level. However, this reduction in trips would not be sufficient to avoid the significant and unavoidable traffic impacts at Howe Street/Pleasant Valley Avenue (intersection #19) under Existing plus Project, 2015 plus Project, and 2035 plus Project conditions, and at Broadway/51st Street/Pleasant Valley Avenue intersection (intersection #7) and Piedmont Avenue/Pleasant Valley Avenue (intersection #20) under 2035 plus Project conditions.

Alternative 4: Commercial Emphasis Alternative would be so similar to the Project that its environmental effects would be nearly identical to those of the proposed Project.

Alternative 5 would generate about 20% of the total weekday peak hour vehicle trips as compared to the Project, and virtually no increase in weekend peak hour trips over the existing, baseline condition. Alternative 5 would reduce traffic impacts at Broadway/51st Street/Pleasant Valley Avenue (intersection #7) under 2015 conditions, and at Piedmont Avenue/Pleasant Valley Avenue (intersection #20) under 2035 conditions. Impacts at these intersections would change from significant and unavoidable under the Project, to less than significant under Alternative 5. However, even this much of a reduction in trips would not be sufficient to avoid the significant and unavoidable traffic impacts at Howe Street/Pleasant Valley Avenue (intersection #19) under Existing plus Project, 2015 plus Project, and 2035 plus Project conditions, and at Broadway/51st Street/Pleasant Valley Avenue (intersection #7) under 2035 conditions.

Environmentally Superior Alternative

Alternative 5: Concept with Residential Emphasis (ULTRA Plan) would be considered environmentally superior in the absence of the No Project alternative. This alternative would generate fewer vehicle trips as compared to all other alternatives (other than "no project" alternatives) as evaluated in this EIR. However, Alternative 5 would not achieve many of the basic Project objectives. Of the remaining alternatives, Alternative 3 would be the next environmentally superior alternative and, unlike Alternative 5, would achieve many of the Project objectives.

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CEQA Required Assessment Conclusions

As required by the California Environmental Quality Act (CEQA), this chapter discusses the following types of impacts that could result from implementation of the Project: growth-inducing impacts; significant irreversible changes; significant unavoidable impacts; and effects found not to be significant.

Growth-Inducing Impacts

A project is considered growth-inducing if it would directly or indirectly foster economic or population growth or the construction of additional housing.[1] Examples of projects likely to have significant growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or industrial parks in areas that are currently only sparsely developed or undeveloped. Typically, redevelopment projects on infill sites that are surrounded by existing urban uses are not considered growth-inducing because redevelopment by itself usually does not facilitate development intensification on adjacent sites.

The Project would not have any growth inducement effects. The Project site is in a developed area fully served by public utilities. There are no significant areas that are undeveloped adjacent to the Project site. Additionally, the Project would not remove any obstacles that would help facilitate growth that could significantly affect the physical environment.

Indirect population growth associated with the Project could also occur in association with job creation. The economic stimulus generated by construction of the proposed project could result in the creation of new construction-related jobs. In addition, commercial square footage that would be built as part of the Project could generate a number of employees. However, the jobs created during both the construction and operation phases of the Project would not be substantial in the context of job growth in Oakland and the region in the next 10 years. Although some of the employees generated by the Project may decide to live in Oakland, the migration of these employees into the City would not result in a substantial population increase.

In addition, the Project would occur on an infill site in an existing urbanized neighborhood in Oakland. It would not result in the extension of utilities or roads into exurban areas, and would not directly or indirectly lead to the development of greenfield sites in the East Bay. Therefore, any population growth that would occur as a result of Project implementation would be largely beneficial, and not considered substantial and adverse.

Significant Irreversible Changes

An EIR must identify any significant irreversible environmental changes that could result from implementation of a proposed project. These may include current or future uses of non-renewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses.

[1] *CEQA Guidelines*, 2005, Section 15162.2(d).

CEQA dictates that irreversible commitments of resources should be evaluated to assure that such current consumption is justified.[2] The *CEQA Guidelines* describe three distinct categories of significant irreversible changes: (1) changes in land use that would commit future generations; (2) irreversible changes from environmental accidents; and (3) consumption of non-renewable resources.

Changes in Land Use That Would Commit Future Generations

Because the Project would occur on an infill site on land designated for commercial uses, it would not commit future generations to a significant change in land use.

Irreversible Changes from Environmental Accidents

No significant environmental damage, such as what could occur as a result of an accidental spill or explosion of hazardous materials, is anticipated due to implementation of the proposed project. Furthermore, compliance with federal, State and local regulations, the City of Oakland's Standard Conditions of Approval, would reduce to a less-than-significant level the possibility that hazardous substances within the Project site would cause significant environmental damage.

Consumption of Non-Renewable Resources

Consumption of non-renewable resources includes conversion of agricultural lands, loss of access to mining reserves, and use of non-renewable energy resources. The Project site is located within an urban area of Oakland; no agricultural land would be converted to non-agricultural uses. The Project site does not contain known mineral resources, and does not serve as a mining reserve.

Construction of the Project would require the use of energy, including energy produced from non-renewable sources. Energy consumption would also occur during the operational period of the Project due to the use of automobiles and appliances. However, the Project would incorporate energy-conserving features, as required by the Uniform Building Code and the California Energy Code Title 24. Additionally, the location of the Project site near transit facilities would facilitate the increased use of public transit, further reducing non-renewable energy consumption associated with single-occupant vehicles.

Significant Unavoidable Impacts

CEOA Guidelines section 15126.2(b) requires that the EIR discuss "significant environmental effects which cannot be avoided if the proposed project is implemented." Unavoidable significant impacts are those that could not be reduced to less-than-significant levels by mitigation measures, as part of the Project, or other mitigation measures that could be implemented. The Project would result in the following unavoidable significant impacts.

Traffic

Broadway/51st Street/Pleasant Valley Avenue - Intersection #7

The proposed Project would degrade intersection operations from LOS D to LOS E during the weekday PM peak hour at the Broadway/51st Street/Pleasant Valley Avenue intersection under 2015 Conditions. The proposed Project would also add traffic that would increase delay for the critical eastbound through

[2] *CEQA Guidelines*, 2003, 15126.2(c).

movement by more than six seconds during the Saturday midday peak hour, during which the intersection would operate at LOS E regardless of the proposed Project. (**Impact Trans-5**)

The Project would also increase the volume-to-capacity (v/c) ratio for the intersection by 0.01 or more, and the critical movement v/c ratio for the eastbound left, eastbound through, westbound left, northbound through, and the southbound left movements by 0.02 or more during the weekday PM peak hour, and it would increase v/c ratio for the intersection by 0.01 or more and the critical movement v/c ratio for the eastbound left, eastbound through, and, northbound through movements by 0.02 or more during the Saturday midday peak hour at the Broadway/51st Street/Pleasant Valley Avenue (#7) intersection under 2035 Conditions, which would operate at LOS F regardless of the Project. (**Impact Trans-10**)

A mitigation measure is identified that would require widening both 51st Street and Pleasant Valley Avenue, which would introduce an additional vehicle lane and increase the pedestrian distance crossing both 51st Street and Pleasant Valley Avenue. The intersection signal cycle length would also need to be increased to accommodate the increased pedestrian crossing distance. These modifications would conflict with City policy concerning pedestrian safety and comfort, therefore resulting in secondary unmitigated impacts. Due to the secondary significant impacts on pedestrians, the mitigation is considered infeasible. No other feasible mitigation measures are available that would mitigate the Project impacts at the Broadway/51st Street/Pleasant Valley Avenue intersection. Traffic operations at the intersection can be further improved by providing additional automobile travel lanes, such as a third through travel along northbound Broadway. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of bicycle lanes, on-street parking, or medians and are considered to be infeasible. Thus, the mitigation measure is considered infeasible and the impact would remain significant and unavoidable.

Howe Street/Pleasant Valley Avenue - Intersection #19

The proposed Project would add more than 10 trips to the Howe Street/Pleasant Valley Avenue intersection during the weekday PM and Saturday midday peak hours under Existing plus Project conditions, 2015 Plus Project conditions, and 2035 Plus Project conditions. The intersection would meet the peak hour signal warrant during both time periods, and the traffic impact would be considered significant. (**Impact Trans-3, -8 and -13**)

Although mitigation measures are identified that would improve traffic operations at this intersection and mitigate the significant impact, the mitigation measures would result in significant and unavoidable secondary impacts (i.e., loss of on-street parking and diverting traffic from Howe Street to other streets such as Piedmont Avenue or Montgomery Street). Because of the secondary significant impacts associated with the identified mitigation measures, these measures are considered infeasible and impacts at the Howe Street/Pleasant Valley Avenue intersection are considered **significant and unavoidable.**

Piedmont Avenue/Pleasant Valley Avenue – Intersection #20

The Project would increase the volume-to-capacity (v/c) ratio for the intersection by more than 0.01 or more, and the critical movement v/c ratio for the eastbound, westbound, and northbound movements by more than 0.02 or more during both the weekday PM, Saturday midday, and Saturday PM peak hours at the Piedmont Avenue/Pleasant Valley Avenue intersection under 2035 Conditions, which would operate at LOS F regardless of the Project and the traffic impact would be considered significant. (**Impact Trans-14**)

Although intersection improvements are identified which are capable of improving traffic operations to acceptable levels at this intersection during the interim period prior to 2035, the mitigation measure would not be capable of reducing v/c ration for critical westbound and northbound movements under 2035 plus Project conditions. The impact can be reduced to a less than significant level by installing a left-turn lane on the northbound Piedmont Avenue approach, but this improvement would result in elimination of

planned bicycle lanes on Piedmont Avenue and loss of on-street parking. Because of these secondary significant impacts, these improvements are considered infeasible and traffic impacts at the Piedmont Avenue/Pleasant Valley Avenue intersection are considered **significant and unavoidable**.

Effects Found Not to be Significant

Meetings with representatives of the City of Oakland departments involved in the planning and review of development projects, and consultants from the City were held to determine the preliminary scope of the EIR. In addition to these meetings, a Notice of Preparation (NOP) was circulated on Thursday, June 25, 2009, and a public scoping session was held in July 15, 2009, to solicit comments from the public about the scope of the EIR. Written comments received on the NOP were considered in the preparation of the final scope for this EIR and in the evaluation of the Project.

Section 15128 of the CEQA Guidelines requires that the EIR "contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR." Environmental topics that were found not to be significant in the EIR scoping process and were not addressed further in this EIR are discussed in Section 4.13, Other Less-than-Significant Effects.

7

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