Curtis Park Village Project

Project# P04-109

State Clearing House # 2004082020

Draft Environmental Impact Report

PREPARED FOR THE
CITY OF SACRAMENTO

MARCH 2009

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DRAFT ENVIRONMENTAL IMPACT REPORT
Curtis Park Village Project (P04-109)

State Clearing House # 2004082020

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1. INTRODUCTION

1 INTRODUCTION AND SCOPE OF THE EIR

1.0 INTRODUCTION

The Curtis Park Village Environmental Impact Report (EIR) is prepared in accordance with the California Environmental Quality Act of 1970 (CEQA) (Pub. Res. Code §§ 21000-21178) as amended (CEQA) and the Guidelines for Implementation of the California Environmental Quality Act (Cal. Code Regs. title 14, §§ 15000-15387) (CEQA Guidelines). The City of Sacramento is the lead agency for the environmental review of the Curtis Park Village project and has the principal responsibility for approving the project. As required by CEQA Guidelines section 15121, this Draft EIR assesses the potential environmental impacts resulting from approval, construction, and operation of the proposed project, and identifies feasible means of minimizing potential adverse environmental impacts.

1.1 PROJECT BACKGROUND

In the 1850s, several families, including the Curtis family, set up homesteads in what today is referred to as the Curtis Park neighborhood. In the late 1800s through the early 1900s, Curtis Park consisted primarily of farmland and ranches. William Curtis, for whom the neighborhood is named, obtained title to the property from the United States government, and the Curtis family resided in Curtis Park until the 20th century.

Prior to the proposal for the Curtis Park Village project, the project site was owned by Western Pacific Railroad (WPRR) and was used as a railyard and operations center. During the early 1900s, WPRR established the railyard for maintenance of steam locomotives and railcars, and in the 1950's diesel engine repair and maintenance began at the proposed project location. Sothern Pacific Railroad acquired the WPRR in 1982, and discontinued maintenance yard operations at the Curtis Park Village site (Southern Pacific was subsequently acquired by the Union Pacific Railroad). Prior to discontinuing the railyard operations, the maintenance and refurbishing work conducted at the site involved the use of dangerous and toxic chemicals and substances. Cleanup procedures on the site started in 1986, and in the mid 1990s the California Department of Toxic Substances Control (DTSC) determined that the site was contaminated and more extensive clean up would be necessary.

In 2004, Union Pacific Railroad sold 72 acres of the railyard to the applicant (Curtis Park Village, LLC). The application for development of the Curtis Park Village project was submitted to the City of Sacramento in early 2004.

1.2 PROJECT DESCRIPTION

The proposed project would covert the existing 72-acre project site into a mixed-use, urban infill development. Curtis Park Village, as proposed, would be one of Sacramento City's largest infill projects. The intent of the project is to create a neighborhood consisting of single-family home sites, multi-family and senior multi-family residential complexes, a neighborhood park area, and neighborhood-serving retail and commercial development areas. The proposed project includes approximately 260,000 square feet of commercial retail, 178 single-family home sites, an 80-unit senior multi-family housing complex, a 212-unit multi-family residential housing complex, and an 8.7-acre (6.8 net acres) park.

The proposed project site is currently contaminated with hazardous wastes from the railyard era and remediation of the site is continuing to occur, pursuant to a Remedial Action Plan (RAP) approved by the DTSC in 1995. However, subsequent discovery of additional volumes of contaminants in 2008 resulted in the need to update the approved 1995 RAP. Therefore, the EIR will analyze potential environmental impacts that may be associated with proposed remedies that will be contained in the update to the previously approved RAP. All potential remedies that could be used to address the additional volume of contaminants on-site will be examined in this EIR for use by DTSC in their approval process. The remediation of the site, pursuant to the updated RAP, will be complete prior to development of the proposed project. It should be noted that although remediation would be complete, ongoing groundwater monitoring, as required by the current RAP, would still be performed. Once cleanup of the site is determined to be complete, to DTSC standards, development of the proposed project could begin.

1.3 PURPOSE OF EIR

As provided in the CEQA Guidelines section 15021, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social issues.

The City of Sacramento is responsible for reviewing site plans for the Curtis Park Village project for compliance with applicable land use regulations and design guidelines. Additionally, the city will be responsible for issuing any necessary permits and project approvals for all project construction. The City also will be responsible for certification of the EIR.

The EIR is an informational document that informs decision-makers and the general public of the potential significant environmental effects of a proposed project. An EIR must identify possible means to minimize the significant effects and describe a reasonable range of feasible alternatives to the project. The City of Sacramento, as lead agency for this project, is required to consider the information in the EIR along with any other available information in deciding whether to approve the project. The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, alternatives, growth inducing impacts, and cumulative impacts. Pursuant to CEQA Guidelines section 15096, the DTSC will use the EIR in its capacity as Responsible Agency to review the potential environmental impacts of the proposed update to the 1995 RAP.

1.4 TYPE OF DOCUMENT

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a *project-level EIR* pursuant to CEQA guidelines section 15161. This type of analysis examines the environmental impacts of a specific development project. A *project-level EIR* focuses primarily on the changes in the environment that would result from the development of the project, and examines all phases of the project including planning, construction, and operation.

1.5 USE OF PREVIOUSLY PREPARED ENVIRONMENTAL DOCUMENTATION

The Curtis Park Village EIR relies in part on data, environmental evaluations, mitigation measures and other components of EIRs and Plans prepared by the City for areas within the project vicinity. City of Sacramento documents are listed here and used as source documents for this EIR. In accordance with CEQA Guidelines section 15150(b), all listed documents are available for public review and inspection at the City of Sacramento Development Services Department, Environmental Planning Services, 300 Richards Boulevard, Sacramento, California 95811.

1. *Sacramento 2030 General Plan*, City of Sacramento, March 2009.
2. *Sacramento 2030 General Plan Master EIR*, City of Sacramento, March 2009.
3. *City of Sacramento Zoning Code*, City of Sacramento, amended through November 2008.
4. *Guide to Air Quality Assessment in Sacramento County*, Sacramento Metropolitan Air Quality Management District, July 2004.

The Curtis Park Village EIR also relies on the information contained in the technical reports prepared by subconsultants for the project. Refer to Chapter 8, References, of this DEIR for a complete listing of all technical reports. Upon request, these technical reports are also available for review at the address provided above.

1.6 EIR PROCESS

The EIR process begins with the decision by the lead agency to prepare an EIR, either during a preliminary review of a project or at the conclusion of an initial study. Once the decision is made to prepare an EIR, the lead agency sends a Notice of Preparation (NOP) to appropriate government agencies, interested parties, libraries, service providers, and when required, to the State Clearinghouse (SCH) in the Office of Planning and Research (OPR). Public agencies have 30 days to respond to the NOP. These agencies may suggest reasonable alternatives to the proposed project and mitigation measures they wish to have explored in the Draft EIR. Responsible and trustee agencies for the project must identify their regulatory role to the lead agency.

As soon as the Draft EIR is completed, a notice of completion is filed with the OPR and a public notice is published to inform interested parties that a Draft EIR is available for review. The public notice also provides information regarding the location of Draft EIR documents and any public meetings or hearings that are scheduled. The Draft EIR is circulated for a specified period,

typically 45 days, during which time reviewers may make comments. The lead agency must evaluate and respond to comments in writing, describing the disposition of any significant environmental issues raised and explaining in detail the reasons for not accepting any specific comments concerning major environmental issues. Should comments received result in the addition of significant new information to an EIR, after public notice is given, the revised EIR or affected chapters must be recirculated for another public review period with related comments and responses.

Once the lead agency is satisfied that the EIR has adequately addressed the pertinent issues in compliance with CEQA, a Final EIR will be prepared comprised of the Draft EIR, comments, responses to comments, and any errata and/or changes to the Draft EIR. The Final EIR is a public document, and is available for review by the public or commenting agencies. Before approving a project, the lead agency must certify that the Final EIR has been completed in compliance with CEQA; has been presented to the decision-making body of the lead agency; has been reviewed and considered by that body, and that the Final EIR reflects the lead agency's independent judgment and analysis.

An NOP for the Curtis Park Village Draft EIR was previously released for a 30-day review on August 4, 2004; a revised NOP was released for a 30-day review on May 12, 2008, due to changes in the project description; a second revised NOP was released on November 13, 2008 due to additional project description changes. (See Appendix A for copies of the NOP, revised NOP, and second revised NOP). NOP scoping meetings were held following the release of each NOP. Comments provided by the public and public agencies in response to both the original NOP and the two revised NOPs were received by the City of Sacramento and are provided in Appendix B. In addition, an Initial Study was prepared to focus the scope of the Curtis Park Village EIR (See Appendix C).

The Draft EIR will be circulated for a 45-day public review period. All interested persons and/or agencies wishing to comment on the information contained in the EIR must do so within the 45-day public review period. Comments received during the comment period will be addressed in the Final EIR. The City of Sacramento Planning Commission and/or City Council, in accordance with CEQA, will review the Draft and Final EIR prior to certification.

Pursuant to CEQA Guidelines section 15091(a), before approving a project for which a certified Final EIR has identified significant environmental effects, the lead agency must make one or more specific written findings for each of the identified significant impacts. These findings are limited to the following:

- Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

- Such changes or alterations are within the responsibility and jurisdiction of other public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such another agency.

- Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

If significant environmental effects remain, even with the adoption of all feasible mitigation measures or alternatives, the agency must adopt a "statement of overriding considerations" before the agency can proceed with the project. The statement of overriding consideration must be supported by substantial evidence in the record (CEQA Guidelines sections 15092, 15093).

These overriding considerations include the economic, legal, social, technological, or other benefits of the proposed project. The lead agency must balance these potential benefits against the project's unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the lead agency may consider the adverse environmental impacts to be "acceptable" (CEQA Guidelines section 15093[a]). These benefits should be set forth in the statement of overriding considerations, and may be based on the Final EIR and/or other information in the record of proceedings (CEQA Guidelines section 15093[b]).

1.7 SCOPE OF THE DRAFT EIR

Pursuant to the State CEQA Guidelines, the scope of this Draft EIR includes specific issues and concerns identified in the Initial Study as potentially significant. The Initial Study concluded that potential impacts related to several environmental issues would be less than significant; the less than significant impacts are summarized in Chapter 5.0, Introduction to the Analysis.

The City of Sacramento determined that the preparation of an EIR was appropriate due to potentially significant environmental impacts that could be caused by the proposed remedies contained in the update to the previously approved RAP (for use by the DTSC in their approval process) and/or implementation of the Curtis Park Village. This Draft EIR evaluates the existing environmental resources in the vicinity of the project site, analyzes potential impacts on those resources that would result from the proposed project, identifies mitigation measures that could avoid or reduce the magnitude of those impacts, and considers feasible alternatives to the proposed project. Environmental issues identified for study in this Draft EIR include:

- Land Use;
- Aesthetics;
- Transportation and Circulation;
- Air Quality;
- Noise and Vibration;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Public Health and Hazards;
- Hydrology, Water Quality, and Drainage;

- Population, Employment, and Housing;
- Public Services and Utilities; and
- Parks and Recreation.

The evaluation of effects is presented on an issue-by-issue basis in Chapters 5.1 through 5.12. Each chapter is divided into four sections: Introduction, Existing Environmental Setting, Regulatory Background, and Impacts and Mitigation Measures. Chapter 4 includes a discussion of the land use impacts that may occur due to implementation of the proposed project. The land use discussion addresses the consistency of the proposed project with adopted plans and the compatibility with adjacent land uses.

Impacts that are determined to be significant and for which feasible mitigation measures are not available to reduce those impacts to a less than significant level are identified as *significant and unavoidable.* Chapter 6 in the Draft EIR presents a discussion and comprehensive list of all identified significant and unavoidable impacts.

1.8 LEAD AGENCY, PROJECT SPONSOR, AND CONTACT PERSONS

The City of Sacramento is the lead agency for preparation of the Curtis Park Village EIR. Sections 15050 and 15367 of the CEQA Guidelines define the lead agency as the public agency, which has the principal responsibility for carrying out or approving a project. In addition, DTSC, which is identified as a Responsible Agency under CEQA, will utilize this EIR for their approval of the updated RAP.

The environmental consultants to the City are: Raney Planning and Management, Inc., Dowling Transportation Consultants for the transportation and circulation analysis, Don Ballanti for the air quality analysis, Bollard Acoustical Consultants for the noise analysis, Peak & Associates for the cultural resources analysis, and North Fork Associates for the arborist's report. Preparers and contributors to this report are listed in Chapter 9 of this EIR. The key contact person is as follows:

Jennifer Hageman, Senior Planner
Development Services Department
City of Sacramento
300 Richards Blvd.
Sacramento, CA 95811
Phone: 916-808-5538

1.9 COMMENTS RECEIVED ON THE ORIGINAL NOTICE OF PREPARATION

The City of Sacramento received numerous comment letters on the original NOP for the Curtis Park Village EIR, released on August 4, 2004. A copy of each letter is provided in Appendix B of this EIR. The letters are authored by representatives of State and local agencies, as well as the project area residents identified below. The following is a list of the persons and agencies that commented on the NOP:

- Gonzalez, Will – President, Sierra Curtis Neighborhood Association
- Curtis Oaks Preservationists (COPs) Neighborhood Petition "A"
- Curtis Oaks Preservationists (COPs) Neighborhood Petition "B"
- Tse, Thomas – California Department of Toxic Substances Control
- Arnett, Arnett – Utilities Engineer, California Public Utilities Commission
- Eastham, Katherine – Chief Office of Transportation and Planning, State of California
- Jaiyeoba, Taiwo – Real Estate Administrator, Sacramento Regional Transit
- Borkenhagen, Jeane – Associate Air Quality Planner Analyst, Air Quality Management District
- Mathews, John and Anselmo, Nicoletta – Curtis Park Residents
- Spurgin, Bill – Curtis Park Resident
- Halligan, Jack – Curtis Park Resident
- Mr. and Mrs. Martin – Curtis Park Residents
- Stevenson, George – Curtis Park Resident
- Westerfield, William – Curtis Park Resident
- Wade, Alan and White, Lynda – Curtis Park Resident
- Harvey, Alison – Coordinator, Western Pacific Addition Neighborhood Association
- Mundt, Lenus and Dodgen/Mundt, Betty – Curtis Park Residents
- DeMello, Jen – Curtis Park Resident
- Barbaccia, Holly and Stephen – Curtis Park Residents
- DaVigo, Anna – Curtis Park Resident
- Allen, George F. – Curtis Park Resident
- Davis, William – Curtis Park Resident
- Prud'homme, Perry – Curtis Park Resident, Member of the Curtis Oak Preservationists
- Iskow, Rachel – Curtis Park Resident
- Johnson, Heather – Curtis Park Resident
- Banes, D.E. – Curtis Park Resident
- Backus, Kris – Curtis Park Resident
- Backus, Dave – Curtis Park Resident
- Zito, Michael – Curtis Park Resident
- Ave´, Kathleen – Sacramento Resident
- Rosen, Andrea – Curtis Park Resident
- Traversi, Joanne – Curtis Park Resident
- Maben, R.C – Curtis Park Resident
- Arzbaecher, William & Cecilia – Curtis Park Resident
- Barly, Larry – Curtis Park Resident
- Moses, James – Curtis Park Resident
- Pierini, Bruce and Anderson, Wayne – Curtis Park Residents
- Bell, Linda – Curtis Park Resident
- Johnston, Renner – Curtis Park Resident
- Withycombe, Earl – Curtis Park Resident
- Blanke, Jim – Curtis Park Resident
- Steinberg, Alan – Curtis Park Resident

- Keith, Nancy – Curtis Park Resident
- Worley, Holley – Curtis Park Resident
- Hodges, Holley – Curtis Park Resident
- Tom Pace – Curtis Park Resident
- Brown, Doris - Curtis Park Resident
- Winn, Amy – Curtis Park Resident
- Shaw, Gail – Curtis Park Resident
- Neuman, Michael – Curtis Park Resident
- Fay, Erik and Anne – Curtis Park Resident
- Pritchard, Amelia and Ron – Curtis Park Resident
- Maredyth, Joan – Curtis Park Resident
- Takagi, Sandra – Curtis Park Resident
- D' Andrea, Gabrielle – Curtis Park Resident
- Harworth, Melissa – Curtis Park Resident
- Montijo, Teresa – Curtis Park Resident
- McCrary, Dwane – Curtis Park Resident
- Shaw, Gail – Curtis Park Resident
- Whaley, Susan - Curtis Park Resident
- Dutton, Chris – Curtis Park Resident
- Mausina, Kate – Curtis Park Resident
- Senack, Margaret – Curtis Park Resident
- Dauman, Jim and Lynn – Curtis Park Residents
- Cook, Alan – Curtis Park Resident
- Noble, Helen – Curtis Park Resident
- Vanderhurst, Jerry Lee – Curtis Park Resident
- Jackson, Ms. M. – Curtis Park Resident
- Buehler, Gerre – Curtis Park Resident
- Teed, Cassandra – Curtis Park Resident
- Castillo, Mark – Curtis Park Resident
- O'Hare, Joan – Curtis Park Resident
- Swanson, Mark – Curtis Park Resident
- Saunders, Wendy – Curtis Park Resident
- Multiple Signatures – 51 Curtis Park Residents
- MacLeary, Cynthia and 24th St. Residents – Curtis Park Residents

1.10 COMMENTS RECEIVED ON THE REVISED NOTICE OF PREPARATION

The City of Sacramento received nine comment letters on the revised NOP for the Curtis Park Village EIR. A copy of each letter is provided in Appendix B of this EIR. The letters are authored by representatives of State and local agencies, as well as the project area residents identified below. The following is a list of the persons and agencies that commented on the NOP:

- Kevin, Daniel, Regulatory Analyst – California Public Utilities Commission
- Marx, Paul, Planning Director – Regional Transit

- Abrahams, Mark, President – South of Sutterville Improvement Association
- Herber, Rosanna, and Kathleen Ave Co-Chairs – Sierra Curtis Neighborhood Association
- Jennings, Jennifer, Co-Chair of Neighborhood Concerns Committee – Sierra Curtis Neighborhood Association
- Cable, Frank, President – Franklin Boulevard Business Association
- Borkenhagen, Jeane, Associate Air Quality Planner Analyst – Sacramento Metropolitan Air Quality Management District
- Unsigned – Sacramento Area Bicycle Advocates
- Unsigned – Sierra Curtis Neighborhood Association

1.11 COMMENTS RECEIVED ON THE SECOND REVISED NOTICE OF PREPARATION

The City of Sacramento received five comment letters on the second revised NOP for the Curtis Park Village EIR. A copy of each letter is provided in Appendix B of this EIR. The letters are authored by representatives of State and local agencies, as well as the project area residents identified below. The following is a list of the persons and agencies that commented on the NOP:

- (2) Begley, Alyssa, Chief, Office of Transportation Planning-South – Department of Transportation-District 3
- Hurley, Joseph James, Assistant Air Quality Planner Analyst – Sacramento Metropolitan Air Quality Management District
- Fields, Don – Sacramento Resident
- Morgan, Scott, Assistant Deputy Director & Senior Planner, State Clearinghouse – Governor's Office Of Planning and Research

1.12 SUMMARY OF COMMENTS RECEIVED ON THE NOTICES OF PREPARATION

The following list is a summary of concerns taken from comments made at the scoping meetings and received on the NOPs. All of the environmental issues raised by the commenters are included in the summary below and are addressed in the EIR where appropriate. However, commenter's comments are not re-stated verbatim in the below summary, and comments that appear more than once in similar forms have been condensed into a single entry.

Land Use: (See Chapter 4)	Concerns related to the following issues: • Adequate description of surrounding land uses and environmental conditions. • The EIR should analyze the compatibility of the proposed project with surrounding uses. • The EIR should consider the proposed project's potential to limit anticipated expansion of City College. • The EIR should analyze the potential indirect physical impacts that may be caused by economic impacts caused by competition between existing businesses and the commercial uses of the proposed project.

Aesthetics: (See Chapter 5.1)	Concerns related to the following issues: • The preservation Heritage Oak trees. • The placement green belt along 24th Street to separate the neighborhoods and opposition for removal of trees along 24th Street. • Aesthetics compatibility with housing in the Curtis Park area. • Potential increase of streetlight glare onto Portola Way second story windows.
Transportation and Circulation: (See Chapter 5.2)	Concerns related to the following issues: • Analysis of the overall traffic distribution plan and impacts for each land use alternative studied. • Neighborhood Thresholds of Significance should be used to assess traffic impacts on residential streets. • The EIR should include traffic analysis using existing conditions without the project, existing conditions plus the project, cumulative conditions (without the project), and cumulative conditions (with project buildout). • Developer should work with RT planning staff to provide or improve bus stops as needed and establish a pedestrian access to the nearby light rail stations and other transit stops. • The EIR should address the project's proposed rezoning impacts to transit service. • The EIR should analyze how the project can be designed for efficient and effective pedestrian circulation with an emphasis on providing maximum access to streets with transit routes and to nearby light rail stations. • The emergency access connecting to the Curtis Park Area should be gated. • Include an automatic emergency entrance for fire, police, and other emergency vehicles near Donner Way and 24th Street, which could also serve as a pedestrian and bike path. • Concern regarding the high density of housing, mixed used, and multi-family units would generate increased traffic impacts. • The EIR should study all options for minimizing parking impacts including options for parking behind the retail centers. • Study options for encouraging pedestrian access to the retail using walkways that connect storefronts and using recessed parking. • Concerns related to the use of Donner Way as a project access route. • A pedestrian bridge should be developed to connect to the light rail station. • The limited access to the project site.

	• Concerns regarding internal circulation between the commercial and residential portions of the proposed project. • Potential for traffic impacts to State Route 99, Franklin Boulevard, Sutterville Road, Donner Way, 5th Avenue, and other roads in the project area. • Adequate provision of bicycle access and facilities. • A four-way intersection should be placed at the intersection of Sutterville Road with the proposed project. • Concerns related to pass-by and transit trip reductions in the traffic study. • The alternatives to and impacts of the proposed stoplight in front of Taylor's Market should be assessed. • The EIR should study the traffic impacts that would result from opening the gated alley at 24th Street.
Air Quality: (See Chapter 5.3)	Concerns related to the following issues: • Air quality impacts, including nearby idling diesel locomotives, and implementation of a Dust Plan. • Operational impacts to air quality. • The need for a mitigation plan achieving at least a 15 percent reduction in emissions. • Implement green building measures. • Greenhouse gas emissions. • Toxic Air Contaminant impacts. • SMAQMD Rules and Regulations.
Noise and Vibration: (See Chapter 5.4)	Concerns related to the following issues: • Noise impacts from increased commercial/truck or construction blasts. • Several of the older homes on 5th Street with brick and mortar foundations may become stressed and weakened due to vibration from increased traffic and heavy construction traffic. • A soundwall should be constructed to reduce noise impacts on neighboring communities.
Biological Resources: (See Chapter 5.5)	Concerns related to the following issues: • The preservation of Heritage Oak trees.
Cultural Resources: (See Chapter 5.6)	Concerns related to the following issues: • Historical significance of the adjacent properties as well as the historic significance of the Land Park area and Sacramento City College's architectural heritage. • An archaeological study performed due to Native Americans that inhabited this area in past centuries.

Public Health and Hazards: (See Chapter 5.8)	Concerns related to the following issues: • Exposure of residents to the toxic contaminants that are not remedied to an unrestricted level. • Impacts to residents from toxins during construction, particularly from air-borne contaminants and dust. • Potential for hazardous materials remaining at the proposed project area, and its effect on the proposed development. • The revised RAP must satisfy the requirements of SB 120. • Development projects planned adjacent to or near any railroad should be planned with the safety of the rail corridors in mind.
Hydrology, Water Quality and Drainage: (See Chapter 5.9)	Concerns related to the following issues: • Surface and groundwater quality. • Flooding hazards. • The proposed regional detention basin. • The increased demand for water and sewers.
Population, Employment, and Housing: (See Chapter 5.10)	Concerns related to the following issues: • Provision of multi-family housing. • Low jobs to housing ratio. • The ratio of single-family housing to multi-family housing.
Public Services and Utilities: (See Chapter 5.11)	Concerns related to the following issues: • Impacts to local schools. • Increased demand for fire, police and other services and utilities. • Increased electricity service demands. • Sewage retention at the development. • Potential litter impacts.
Parks and Recreation: (See Chapter 5.12)	Concerns related to the following issues: • Park needs. • A regional detention basin doubling as a park. • A public swimming pool should be considered for the project. • Payment of in lieu fees in place of providing park space.
Alternatives (See Chapter 7)	Concerns related to the following issues: • An alternative that includes expansion of Sacramento City College instead of the proposed commercial and residential land use in this area. • An alternative that would develop the site for a public purpose pursuant to the 1909 Drecher deed. • A reduced commercial density alternative. • An alternative with a lower density residential units and larger lots. • Addition of a vehicular access points to the west alternative.

	• Additional vehicular access points to the east alternative. • Provision of affordable housing under each alternative. • A school site should be explored. • An Urban Village Mixed Use Alternative is proposed: reduce plan by 50,000 square feet, add pedestrian bridge connecting to City College light rail station, shift Main Street one block, expand mixed-use zone, add five plus acres of mixed-use designation, add bike path from planned park to large block commercial area, reduce large area of parking into smaller areas, and add pavilion structure along 24th Street. • A greenbelt should be located between the project and the existing Curtis Park neighborhood. • The proposed shops are distributed within the northern portion of the proposed project to reduce traffic impacts. • An alternative that provides oak trees and a park along the northern edge of the proposed project, landscaped roundabouts at the intersection of 24th Street and Marshall Way and the intersection of Freeport Boulevard and Sutterville Road, a pedestrian island at the south side of Castro Way and 24th Street, and a median pedestrian island between DMV buildings on 24th Street. • All alternatives should be studied in significant detail. • The traffic-calming alternative should include more calming measures, such as the addition of stop signs or synchronized signals. • An alternative with higher residential density and less commercial square footage should be considered. • Incorporate traditional neighborhood design into the project. • The Neighborhood connection alternative should include all possible connections.

1.13 AREAS OF KNOWN CONTROVERSY

Pursuant to CEQA Guidelines section 15123 (b)(2) and based on the comments received on the NOP, the revised NOP, and the second revised NOP for the proposed project, the following areas of known controversy have been identified for the project:

- Aesthetics;
- Transportation and Circulation;
- Air Quality;
- Noise;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;

- Public Health and Hazards;
- Flooding and Water Quality;
- Population and Housing;
- Public Services and Utilities; and
- Parks and Recreation.

1.14 ORGANIZATION OF THE DRAFT EIR

The Draft EIR is organized into the following chapters:

Chapter 1 - Introduction
Provides an introduction and overview describing the intended use of the Draft EIR and the review and certification process. Provides the NOP comment summary.

Chapter 2 - Executive Summary
Summarizes the elements of the proposed project and the environmental impacts that could result from implementation of the proposed project. Provides a table that lists impacts, describes proposed mitigation measures, and indicates the level of significance of impacts after mitigation.

Chapter 3 - Project Description
Provides a detailed description of the proposed project, including the project's location, background information, major objectives, and technical characteristics.

Chapter 4 - Land Use
Describes the existing land use setting for the project, including the proposed project's relationship to adopted plans and policies. Provides a discussion regarding the proposed project's compatibility with surrounding land uses and consistency with the City's General Plan and Zoning Ordinance.

Chapter 5 – Introduction to the Analysis, Environmental Impact Analyses (Chapters 5.0 – 5.12)
Provides an analysis to the potential impacts of buildout of the proposed project on a range of environmental issues and proposes feasible mitigation measures to address each potentially significant impact.

Chapter 6 - CEQA Considerations
Provides discussions required by CEQA regarding impacts that would result from the proposed project, including a summary of cumulative impacts, potential growth-inducing impacts, secondary impacts, and significant irreversible changes to the environment.

Chapter 7 - Project Alternatives
Describes the alternatives to the proposed project and identifies the Environmentally Superior Alternative.

Chapter 8 - References
Provides bibliographic information for all references and resources cited.

Chapter 9 - Authors
Lists report authors who provided technical assistance in the preparation and review of the Draft EIR.

Appendices
Include the NOPs, responses to the NOPs, the Initial Study and Environmental Checklist, Traffic Assessment, Air Quality Analysis, Noise Analysis, Arborist Report, Cultural Resources Report, Inclusionary Housing Plan, and additional technical information.

2. EXECUTIVE SUMMARY

2 EXECUTIVE SUMMARY

2.0 INTRODUCTION

The Executive Summary chapter provides an overview of the Curtis Park Village project (proposed project) and the conclusions of the environmental analysis. Chapter 3 provides a detailed description of the project, Chapters 4 analyzes the projects consistency with applicable land use regulations, and Chapters 5.1 through 5.12 provide the environmental analysis. The analyses sections also summarize the impacts of the alternatives to the proposed project that are described in Chapter 7, Project Alternatives.

2.1 PROJECT DESCRIPTION

The proposed project is located within the City limits, south of downtown Sacramento, and is surrounded by the established neighborhoods of Curtis Park on the north and east, Western Pacific Addition and Hollywood Park to the south, and Land Park to the west. Additionally, Sacramento City College and the Regional Transit (RT) South light rail line are located to the west; Sutterville Road is to the south; Portola Way is to the north; and 24th Street is to the east The project site encompasses approximately 72 acres. The project site is identified by Sacramento County Assessor's Parcel Numbers (APNs) 013-0010-008, -009, -027, and a portion of -028

The project site once housed the railyard and operations center for the Western Pacific Railroad (WPRR). When the WPRR was purchased by Southern Pacific Railroad in the early 1980s, the yard was declared surplus and closed. Southern Pacific was subsequently acquired by the Union Pacific Railroad (UPRR), which owned the property until 2003, when the applicant (Curtis Park Village, LLC) purchased the land. Railroad operations, including freight and passenger (light rail) service, will continue for the foreseeable future on land still owned by UPRR to the immediate west of the project property. The remaining railroad operations that occur on this property consist of north/south rail mainlines and a switch area operated by the UPRR, as well as a dual track light rail transit facility and two stations operated by Sacramento Regional Transit. All of these facilities run along the entire west property line of the project site and separate the Curtis Park Village area from the Land Park neighborhood.

The project site is currently contaminated with hazardous wastes from the railyard era (See Chapter 5.8, Public Health and Hazards, of this Draft EIR for further detail). Remediation of the site is occurring pursuant to a Remedial Action Plan (RAP) approved by Department of Toxic Substances Control (DTSC) in 1995. However, additional volumes of contaminants were encountered in 2008 which requires an update of the approved 1995 RAP. Since previous RAP activities underwent environmental review before approval as required by the California Environmental Quality Act (CEQA), the analysis in this EIR focuses on potential impacts

associated with additional proposed remedies that will be required pursuant to the update to the previously approved RAP. All potential remedies that could be used to address the additional volume of contaminants on-site will be examined in this EIR for use by DTSC in their approval process as a Responsible Agency under CEQA. The remediation of the site, pursuant to the updated RAP, will be complete prior to development of the Curtis Park Village project.

The subject property will be vacant when the remediation is complete. The proposed project would covert the existing 72-acre project site into a mixed-use, urban infill development. The intent of the project is to create a neighborhood consisting of single-family home sites, multi-family and senior multi-family residential complexes, a large park/open space site, and neighborhood-serving retail and commercial development areas. The proposed project includes approximately 260,000 square feet of commercial retail, 178 single-family home sites, an 80-unit senior multi-family housing complex, a 212-unit multi-family residential housing complex, and an 8.7 acre park. The subject property has a current General Plan land use designation of "Transportation, Utilities" and zoning designation of Heavy Industrial (M-2). Surrounding land uses include Low Density Residential; Heavy Commercial or Warehouse; Schools; Community/Neighborhood Commercial and Offices; Parks, Recreation, and Open Space. Surrounding zoning designations include Single-Family Residential (R-1), General Commercial (C-2), Heavy Commercial (C-4), and Light Industrial (M-1).

2.2 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION

Under California Environmental Quality Act (CEQA), a "significant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." (CEQA Guidelines, section 15382.) For these areas, this Draft EIR discusses the potentially significant impacts and mitigation measures that could be implemented by the City of Sacramento to reduce such impacts to a level that is considered less than significant. The impacts and mitigation measures are also summarized in Table 2-1 at the end of this chapter. An impact that remains significant after mitigation is considered an unavoidable adverse impact of the proposed project. The mitigation measures presented in the Draft EIR will form the basis of the required Mitigation Monitoring Program that the City of Sacramento will adopt upon certification of the EIR and project approval.

Land Use

The Land Use chapter analyzes the compatibility of the proposed project with surrounding land uses and the consistency of the proposed project with adopted plans and policies. Environmental impacts resulting from the proposed project or alternatives are discussed in the respective environmental categories. This section differs from the analyses in other chapters of the EIR in that plan consistencies and land use compatibilities are addressed instead of environmental impacts. This discussion complies with Section 15125(d) of CEQA Guidelines, which requires that EIRs discuss inconsistencies to local plans as part of the environmental setting.

The proposed project is examined for potential inconsistencies between the proposed project and the recently adopted Sacramento 2030 General Plan and the City of Sacramento Zoning Ordinance, compatibility with existing adjacent land uses, and the increases in the intensity of land uses in the region due to the proposed project and all other projects in the Sacramento area.

Aesthetics

The Aesthetics chapter of the EIR describes existing visual and aesthetic resources for the project site and the region, and evaluates potential impacts of the project with respect to urbanization of the area. In addition, the Sacramento 2030 General Plan goals and policies pertaining to aesthetics are described. The CEQA describes the concept of aesthetic resources in terms of scenic vistas, scenic resources (such as trees, rock outcroppings, and historic buildings within a state scenic highway), the existing visual character or quality of the project site, and light and glare impacts.

The proposed project would have less than significant impacts related to visual consistency between proposed uses and adjacent existing uses, scenic vistas and visual resources, light and glare, and cumulative impacts to the long-term effects on visual character of the region from the proposed project in combination with existing and future developments in the Sacramento area. The proposed project would have less-than significant aesthetic impacts related to the update of the RAP.

Transportation and Circulation

The Transportation and Circulation chapter of the EIR summarizes the effects on the near-term and future (2027) transportation and circulation system resulting from vehicle trips associated with the proposed development of the project site. On-site alternatives to the proposed project were analyzed in the same detail as the proposed project so any feasible alternative could be selected without additional study.

The proposed project would have less than significant impacts related to the transit system under baseline plus project conditions, and to one roundabout for on-site traffic circulation and safety under baseline plus project conditions. The proposed project would have less than significant impacts with the implementation of mitigation measures to studied intersections, the transit system, and one roundabout for on-site traffic circulation and safety under baseline plus project conditions.

With the implementation of mitigation measures included in the chapter, impacts to study intersections, freeway ramps, and on-site traffic circulation and safety under baseline plus project conditions would be reduced to a less than significant level, as well as impacts related to construction, on-site vehicle and bicycle parking capacities, and cumulative impacts to study intersections. Even with the implementation of mitigation measures, however, impacts related to study roadway segments under baseline plus project conditions would remain significant and unavoidable. In addition, after implementing all feasible mitigation measures, cumulative impacts to one intersection, roadway segments, and freeway ramps would remain significant and

unavoidable. Mitigation would not be required for the proposed project or any of the access scenarios for baseline plus project or cumulative impacts to bicycle o pedestrian circulation.

Air Quality

The Air Quality chapter of the EIR describes the impacts of the proposed project on local and regional air quality. The chapter was prepared using methodologies and assumptions recommended within the indirect source review guidelines of the Sacramento Metropolitan Air Quality Management District (SMAQMD). The project includes amending both the RAP and the Curtis Park Village. In keeping with these guidelines, the chapter describes existing air quality, construction-related impacts, direct and indirect emissions associated with the project, the cumulative impacts of these emissions on both the local and regional scale, and mitigation measures warranted to reduce or eliminate any identified significant impacts. In addition, the chapter includes discussion of the project's contribution to the cumulative impact of global climate change.

The proposed project would result in less than significant impacts related to increases in emission of carbon monoxide, and placement of new sensitive receptors in proximity to sources of toxic air contaminants. In addition, the project and cumulative impacts of greenhouse gas emissions were found to be less than significant. With the implementation of mitigation measures, impacts related to the update of the RAP, exhaust emissions and fugitive particulate matter emissions from project-associated construction activities and a temporary increase in NO_X emissions would be reduced to less than significant. Significant impacts related to long-term increase of criteria air pollutants and the proposed project's cumulative contribution to adverse regional air quality conditions, even with mitigation measures, would remain significant and unavoidable.

Noise and Vibration

The Noise chapter of the EIR describes the existing noise environment in the project vicinity, and identifies potential impacts and mitigation measures related to the construction and operation of the proposed Curtis Park Village project. This chapter describes the method by which the potential impacts are analyzed, followed by the identification of any potential noise impacts and the recommended mitigation measures designed to reduce significant impacts to levels that are less than significant.

The proposed project would have less than significant impacts related to baseline plus project traffic noise levels, internal roadway traffic noise levels at proposed residences within the project site, railroad related vibration at proposed residences, project's contribution to cumulative traffic noise levels, and cumulative roadway traffic noise on project residences. The following impacts would be reduced to a less than significant level following the implementation of mitigation measures: impacts related to construction noise, construction and operation-related impacts to surrounding existing uses, exterior roadway traffic noise impacts on project residences, impacts from railroad noise on proposed residences, impacts from proposed commercial uses, and impacts from park generated noise at residential uses.

Biological Resources

The Biological Resources chapter of the EIR evaluates the proposed project's potentially significant impacts to biological resources that occur in the Curtis Park Village project area. The chapter first describes any existing plant communities, wetlands, wildlife habitats, and potential for special-status species and communities. The analysis then identifies potential impacts and mitigation measures related to the proposed project.

The proposed project would have less than significant impacts with the implementation of mitigation measures regarding impacts to burrowing owl, Swainson's hawk nesting and foraging habitat, and raptors and migratory birds. The impacts to heritage trees, cumulative loss of biological resources in the City of Sacramento and the effects of ongoing urbanization in the region and biological resources related to the update of the RAP would be considered a less than significant impact.

Cultural Resources

The Cultural Resources chapter of the EIR addresses known historic and prehistoric resources in the project vicinity and the potential for unknown resources to exist. The analysis summarizes the existing setting, identifies the thresholds of significance of impacts, and describes the potential effects to historical, archaeological, and paleontological resources. The analysis then identifies feasible mitigation measures that would be necessary to reduce impacts to a less than significant level.

The proposed project would have less than significant direct or indirect impacts in regards to archaeological resources, the historical character of the Curtis Park neighborhood and possible destruction of historic structures. The proposed project would have a less than significant contribution to the cumulative disturbance or destruction of previously unknown archaeological resources and historic resources in combination with other development in the Sacramento area. With the implementation of mitigation measures, impacts related to the update of the RAP would be reduced to a less than significant level.

Geology and Soils

The Geology and Soils chapter of the EIR analyzes the effects of the proposed Curtis Park Village project upon soils and geology within the project area. Much of the analysis focuses on the potential for erosion of topsoil during construction and the effect that expansive soils would have on the proposed development.

The proposed project would have less than significant impacts in regards to the effects of seismic activity on the proposed development, loss of structural support due to potential liquefaction, substantial erosion or unstable slope or soil conditions through alteration of topographic features, dewatering, or changes in drainage pattern, and damage to foundations, pavements, and other structures from expansive soils. In addition, the cumulative contribution to the continuing buildout of Sacramento and surrounding areas, which would combine with existing and future

developments to increase the potential for related geological impacts and hazards, would have a less than significant impact on the proposed project. With the implementation of mitigation measures, impacts related to the update of the RAP would be reduced to a less than significant level.

Public Health and Hazards

The Public Health and Hazards chapter of the EIR assesses the potential for hazards and hazardous materials to exist on or near the Curtis Park Village project site. This chapter provides general information on hazardous materials and reviews existing information about such materials in the project area. Additionally, potential impacts and mitigation measures are identified.

The proposed revisions to the RAP would not result in any significant impacts to public health and hazards. In addition, construction of the proposed project would have less than significant impacts in regards to the exposure of existing and future residents and construction workers to contaminated soil during project construction and operation, exposure of construction workers and residents in surrounding neighborhoods to rail line-associated hazards (including loss of service) during construction and operation, and long-term hazards-related cumulative impacts from the proposed project in combination with existing and future developments in the Sacramento area. In addition, impacts related to asbestos-containing materials (ACMs) on the project site would be less than significant.

Hydrology, Water Quality, and Drainage

The Hydrology, Water Quality, and Drainage chapter of the EIR describes existing drainage and water resources for the project site, and evaluates potential impacts of the project with respect to flooding, surface water resources, and groundwater resources. Additionally, potential impacts and mitigation measures are identified.

The proposed project would have less than significant impacts in regards to hydrology, water quality, and drainage related to the update of the RAP, to the exposure of people and structures to flood hazards on the project site and project impacts to existing drainage facilities. In addition, water quality impacts associated with construction and operation of the proposed project would be less than significant. Furthermore, operational water quality degradation associated with urban runoff from the project site, cumulative long-term increases in peak stormwater runoff flows from the proposed project in combination with existing and future developments in the Sacramento area, and cumulative impacts related to degradation of water quality would less than significant.

Population, Employment, and Housing

The Population, Employment, and Housing chapter of the EIR provides a description of existing population, employment, and housing conditions in the City of Sacramento and analyzes the proposed project's effects on the population, employment base, and housing stock in the City.

Particular attention is given to the balance between the number of residents and the number of jobs in the area. Cumulative effects of the proposed project are also evaluated in conjunction with other planned development with the City.

The proposed project would have less than significant impacts in regard to the update of the RAP, consistency with City of Sacramento housing policies, and the Mixed-Income Housing Ordinance, as well as population and employment. The proposed project's contribution to cumulative impacts to population, housing, and employment in combination with existing and future developments in the Sacramento area would be less than significant.

Public Services and Utilities

The Public Services and Utilities chapter of the EIR describes the public service systems and facilities within the project area and the associated potential impacts resulting from the proposed project. Utilities and services considered in the analysis include water supply, stormwater drainage and wastewater treatment and collection, law enforcement, fire protection, schools, libraries, solid waste collection and disposal, electric power, natural gas, and communications systems. Recreational facilities are discussed separately in Chapter 5.12. The Public Services and Utilities chapter also discusses thresholds of significance for such impacts, and develops mitigation measures and monitoring strategies. Consideration is given to on-site as well as off-site infrastructure facilities.

The proposed project would have less than significant impacts in regards to the update of the RAP, increased demand for water supply, treatment and conveyance, increased demand for stormwater and wastewater collection and treatment, and increased demand for solid waste disposal services. In addition the proposed project would have less than significant impacts in regards to construction of new energy production and/or transmission facilities or the expansion of existing facilities, telecommunication facilities, demand for law enforcement services, demand for fire protection services, including emergency medical personnel, demand for school resources, demand for library services and a cumulative impact to the long-term impacts to public services and utilities from the proposed project in combination with existing and future developments in the Sacramento area.

Parks and Recreation

The Recreation chapter of the EIR describes the recreation facilities within the project area and the associated potential impacts to the facilities that would result from the proposed project. This chapter also discusses thresholds of significance for such impacts, and develops mitigation measures and monitoring strategies, if necessary.

The proposed project would have less than significant impacts in regard to the update of the RAP, the need for construction or expansion of recreational facilities beyond what was anticipated in the General Plan, and cumulative impacts related to the provision of adequate recreational facilities on the project site in combination with existing and future development in the Sacramento area.

2.3 SUMMARY OF PROJECT ALTERNATIVES

The following summary describes the alternatives to the proposed project that are evaluated for environmental impacts in this Draft EIR. For a complete discussion of project alternatives, see Chapter 7, Project Alternatives and Chapter 6, CEQA Considerations, Impacts, and Mitigation Measures.

Alternatives Considered and Dismissed

Pursuant to CEQA Guidelines section 15126.6, the EIR studies a reasonable range of alternatives to the proposed project that meet most of the objectives of the project and avoid or substantially lessen the identified likely environmental impacts. Aside from the proposed project, the six alternatives evaluated in this EIR are based upon the Initial Study analysis, past and current studies of the concept, EIR analysis, public community meetings, and public comments received on the NOP. In addition to the alternatives listed below, three alternatives were considered, but dismissed. The first was an off-site alternative, which was dismissed due to lack of an alternate location. The second was a Village Green Alternative with the purpose to create a more human scale environment with activities centered on a village green as a means of reducing the emphasis on the automobile and the visual impacts of parking lots. However, this alternative was dismissed as the alternative would not meet the basic project objectives, would increase some environmental impacts, and would not reduce any impacts. In addition, the Village Green Alternative components are essentially represented, to varying degrees, in the six alternatives evaluated. The third was an Existing Zoning Alternative, which was dismissed due to that lack of consistency between the proposed projects requirements under the General Plan Amendment with the Zoning of M-2 Heavy Industrial.

Project Objectives

The following project objectives have been established and will aid in the review of the proposed project and evaluation of project alternatives:

1. Complete environmental cleanup of the property as required by DTSC to levels commensurate with the proposed uses of the property.

2. Plan and locate new single-family residences in areas immediately adjacent to existing single-family residences in an effort to enhance the historic fabric of the neighborhood.

3. Minimize traffic and circulation impacts from development to the existing neighborhoods by routing vehicles through the interior of the site and creating additional pedestrian and alternative access to transit.

4. Define other uses including single and multi-family housing, neighborhood serving commercial and retail uses, entertainment opportunities, and park space that are

consistent with the mission statement to add vibrant, supportive components to the existing neighborhood structure.

Alternatives Evaluated

The following alternatives are evaluated in Chapter 7. It should be noted that all of the alternatives would include the same revisions to the RAP as the proposed project.

Alternative 1: No Project/No Build Alternative

The No Project/No Build Alternative would allow the project site to continue in the existing undeveloped vacant state and would not meet any of the project objectives.

Alternative 2: Reduced Commercial Alternative A

The Reduced Commercial Alternative A would include a reduction in the commercial land use area from approximately 260,000 square feet to 100,000 square feet. The reduction in square footage in the commercial land-use area from the amount contemplated in the proposed project would instead be developed as single-family residential lots at a density of nine dwelling units per acre.

Alternative 3: Reduced Commercial Alternative B

The Reduced Commercial Alternative B would include a reduction of square footage in the commercial land use area from the proposed plan of 260,000 square feet to 100,000 square feet. The reduction in square footage in the commercial land-use area from the amount contemplated in the proposed project would instead be developed as single-family residential lots at a density of nine dwelling units per acre.

Alternative 4: Single-Family Alternative

The Single-Family Alternative would include development of single-family homes over the entire 72-acre site at a density of nine dwelling units per acre.

Alternative 5: Multi-Family Alternative (2004 Proposed Project)

The Multi-Family Alternative would include a reduction of the total commercial land use area of the proposed project from approximately 314,000 square feet to 194,400 square feet. The reduction in square footage in the commercial land-use area from the amount contemplated in the proposed project would instead be developed as multi-family residential lots at a density of 30 dwelling units per acre.

Environmentally Superior Alternative

In addition to the discussion and comparison of impacts of the alternatives to the proposed project, CEQA requires that an "environmentally superior" alternative be selected and the reasons for selection disclosed. In general, the environmentally superior alternative is the alternative that would be expected to generate the least adverse impacts. CEQA requires that if the No Project Alternative is the environmentally superior alternative, an additional alternative that is environmentally superior must be identified.

Environmental considerations are among other factors that must be considered by the decision makers in deliberations on the proposed project and the project alternatives. Other factors of importance include urban design, economics, social factors, and fiscal considerations.

The environmentally superior alternative must reduce the overall impact of the proposed project on the project site. The No Project/No Build Alternative would reduce impacts to aesthetics; transportation and circulation; air quality; noise; biological resources; cultural resources; geology and soils; public health and hazards; hydrology and water quality; population and housing, and public services. However, Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "[…] if the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Of the alternatives analyzed, the Single-Family Alternative provides the greatest reduction in the level of environmental impacts while meeting most of the overall objectives of the project, such as completing the environmental cleanup the project site, locating new single-family residences adjacent to existing single-family residences, and minimizing traffic impacts. By eliminating the commercial uses, the Single-Family Alternative would reduce impacts to aesthetics, transportation and circulation, air quality, noise, hydrology, water quality and utilities. Although impacts to hazards and public services would increase under this Alternative, the Single-Family Alternative does meet most of the projects' objectives while reducing some environmental impacts. Therefore, the Single-Family Alternative is the Environmentally Superior Alternative.

2.4 SUMMARY OF IMPACTS AND MITIGATION MEASURES

The following table (Table 2-1) summarizes the impacts identified in the environmental section of this Draft EIR. The proposed project impacts are identified for each technical chapter (5.1-5.12) in the Draft EIR in Table 2-1. Pursuant to CEQA Guidelines section 15123(a)(1), the level of significance of each impact, any mitigation measures required for each impact, and the resultant level of significance after implementation of mitigation measures are given within the table.

Table 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.1 Aesthetics			
5.1-1 Impacts related to the update of the Remedial Action Plan.	LS	*None required.*	N/A
5.1-2 Impacts related to visual inconsistency between proposed uses and adjacent existing uses.	LS	*None required.*	N/A
5.1-3 Impacts related to scenic vistas and visual resources.	LS	*None required.*	N/A
5.1-4 Impacts related to light and glare.	LS	*None required.*	N/A
Cumulative Impacts			
5.1-5 Long-term impacts to the visual character of the region from the proposed project in combination with existing and future developments in the Sacramento area.	LS	*None required.*	N/A
5.2 Transportation and Circulation			
5.2-1 Impacts to study intersections under baseline plus project conditions.	S	*5.2-1(a) At the Freeport Boulevard / 2nd Avenue intersection, provide protected left-turn phasing for the northbound and southbound approaches. This mitigation measure would reduce the impact of the Proposed Project and Access Scenarios 2 and 3 to a* ***less-than-significant*** *level.*	LS

NI = *No Impact*; N/A = *Not Applicable*; LS = *Less than Significant*; PS = *Potentially Significant;* S = *Significant*; SU = *Significant and Unavoidable*

Table 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		5.2-1(b) *At the Sutterville Road / Road A intersection, provide overlap signal phasing to allow the southbound Road A right turning traffic to proceed on a green arrow simultaneously with the eastbound left turning movement, and prohibit U-turns for the eastbound left turning movement; and add a southbound left-right lane to provide one left-turn lane, one left-right lane, and one right turn lane. This mitigation measure would reduce the impact of the Proposed Project and Access Scenarios 2 and 3 to a* ***less-than-significant*** *level.* *5.2-1(c)* *Modify the southbound approach to the Sutterville Road / SR99 SB Ramps intersection to provide a left-turn lane, a combination left-through-right lane, and a right-turn lane. This change would consist of adding right-turning movements to the existing combination left-through lane and allow that movement to occur under signal control. This mitigation measure is required at five percent of development based on trip generation. The design of the mitigation is subject to the approval of the City Transportation Department and Caltrans. This mitigation measure would reduce the impact of the Proposed Project and all access scenarios to a* ***less-than-significant*** *level during the p.m. and Saturday peak hours.*	

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Table 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		*5.2-1(d) At the Road A / Area 3 intersection, provide separate right-turn and left-turn lanes on the eastbound approach. This mitigation measure would reduce the impact of the Proposed Project and Access Scenarios 2 and 3 to a **less-than-significant** level.*	
5.2-2 Impacts to study roadway segments under baseline plus project conditions.	S	*5.2-2(a) The project developer shall work with the Regional Transit District to provide bus service or provide private shuttle service from 6:00 to 9:00 a.m. and from 4:00 to 7:00 p.m. between the commercial areas of the project site and the City College light rail station. As an alternative, the project developer shall coordinate with the City to reserve the required right of way needed to construct a pedestrian and bicycle bridge to provide access to the City College Station.*	SU
5.2-3 Impacts to freeway ramps under baseline plus project conditions.	S	*None feasible.*	SU
5.2-4 Impacts to bicycle system under baseline plus project conditions.	LS	*None required.*	N/A
5.2-5 Impacts to pedestrian circulation under baseline plus project conditions.	LS	*None required.*	N/A
5.2-6 Impacts to transit system under baseline plus project conditions.	LS	*None required.*	N/A

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Table 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.2-7 Impacts to on-site traffic circulation and safety under baseline plus project conditions.	LS/PS	*5.2-7(a) The design plans for the project shall be consistent with City standards. Any deviations are subject to the approval of the City Department of Transportation, Traffic Engineering Division. The horizontal curvatures shall be realigned or design elements such as "knuckles" shall be installed in compliance with City standards.* *5.2-7(b) The project applicant shall modify the design at the intersection of the Road J extension/Portola Way, 4th Avenue, and Marshall Way to physically prohibit the northbound left-turning movement from the Road J extension/Portola Way.* *5.2-7(c) The site design shall be modified to reduce the potential for vehicles leaving parking stalls to back across pedestrian crosswalks. This change may require the elimination of some angle parking spaces.*	N/A /LS
5.2-8 Impacts to on-site vehicle and bicycle parking capacities.	LS	*None required.*	N/A
5.2-9 Impacts during construction.	PS	*5.2-9(a) Before issuance of grading permits for the project site, the project applicant shall prepare a detailed Traffic Management Plan that will be subject to review and approval by the City Department of Transportation, Regional Transit, and local emergency service providers, including the City of Sacramento fire and police departments. The plan shall ensure maintenance of acceptable operating conditions on local roadways and*	LS

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Table 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		transit routes. At a minimum, the plan shall include: • *The number of truck trips, time, and day of street closures* • *Time of day of arrival and departure of trucks* • *Limitations on the size and type of trucks; provision of a staging area with a limitation on the number of trucks that can be waiting* • *Provision of a truck circulation pattern* • *Provision of a driveway access plan to maintain safe vehicular, pedestrian, and bicycle movements (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas)* • *Safe and efficient access routes for emergency vehicles* • *Efficient and convenient transit routes* • *Manual traffic control when necessary* • *Proper advance warning and posted signage concerning street closures* • *Provisions for pedestrian safety* • *Provisions for temporary bus stops, if necessary* *A copy of the construction traffic management plan shall be submitted to local emergency response agencies and these agencies shall be notified at least 14 days before the commencement of construction that would partially or*	

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Table 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		fully obstruct roadways.	
Cumulative Impacts			
5.2-10 Cumulative impacts to study intersections.	S	*5.2-10(a) 24th Street / 2nd Avenue – The project applicant shall pay a fair share contribution to install a traffic signal at this intersection. This mitigation measure would reduce the impact of the Proposed Project and all access scenarios to a* ***less-than-significant*** *level.* *5.2-10(b) 24th Street / Portola Way – The project applicant shall pay a fair share contribution to convert the intersection from all-way stop control to two-way stop control with stop signs only for the Portola Way approaches to the intersection. This mitigation measure would reduce the impact of the Proposed Project and all access scenarios to a* ***less-than-significant*** *level.* *5.2-10(c) Sutterville Road / Freeport Boulevard (north) – the applicant shall pay a fair share contribution to provide protected-permitted left turn phasing and install proper signage for southbound Freeport Boulevard. This mitigation measure would reduce the impact of the Proposed Project, Access Scenario 2 and Access Scenario 3 to a* ***less-than-significant*** *level.* *5.2-10(d) Sutterville Road / City College Drive – The applicant shall pay a fair share contribution to provide overlap signal phasing to allow the northbound right turn traffic*	LS/SU

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Table 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		on City College Drive to proceed on a green arrow simultaneously with the westbound left turning movement, and prohibit U-turns for the westbound Sutterville Road approach to the intersection. This mitigation measure would reduce the impact of the Proposed Project and Access Scenario 2 and 3 to a ***less-than-significant*** *level.* *5.2-10(e) Sutterville Road / Road A – apply Mitigation Measure 4.2-1(a) which would provide overlap signal phasing to allow the southbound Road A Right turning traffic to proceed on a green arrow simultaneously with the eastbound left turning movement, and prohibit U-turns for the eastbound left turning movement and provide one left-turn lane, one left-right lane, and one right-turn lane on the southbound approach. Also, provide a dedicated right turn lane for the westbound Sutterville Road approach to the intersection. This mitigation measure would reduce the impact of the Proposed Project and Access Scenarios 2 and 3 to a* ***less-than-significant*** *level.* *5.2-10(f) Sutterville Road / Curtis Drive West - No feasible mitigation measure was identified for the Sutterville Road / Curtis Drive West intersection. Adding a southbound right turn lane to the intersection would mitigate the impact but was not considered to be feasible because of*	

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Table 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the need for demolishing several existing buildings to provide additional right-of-way. The cumulative impact for the Proposed Project and all access scenarios would remain ***significant and unavoidable****.* *5.2-10(g) Sutterville Road / Franklin Boulevard –The project applicant shall pay a fair share contribution to add an eastbound right-turn lane would mitigate the Saturday peak hour impact of the Proposed Project and Access Scenario 2 and Access Scenario 3 to a* ***less-than-significant*** *level. For a.m. and p.m. peak hour impacts, also increase the cycle length to 110 seconds. These mitigation measures would reduce the impact of the Proposed Project and Access Scenario 2 and Access Scenario 3 to a* ***less-than-significant*** *level.* *5.2-10(h) Sutterville Road / SR 99 Northbound Ramps – The project applicant shall pay a fair share contribution to modify signal timing to provide split phase for all approaches and re-strip the eastbound lanes to provide one left-turn, one left-through, and one through lane. This mitigation measure would reduce the impact of the Proposed Project and Access Scenario 2 and 3 to a* ***less-than-significant*** *level.*	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES

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		5.2-10(i) Road A / Area 1 – The project applicant shall pay a fair share contribution to modify the signal phasing to provide overlaps for the eastbound right-turn movement; provide protected-permitted phasing for the northbound left-turn movement; prohibit U-turn movement at this intersection; and increase the cycle length to 95 seconds. This mitigation measure would reduce the impact of the Proposed Project and Access Scenario 2 and 3 to a ***less-than-significant*** *level.*	
5.2-11 Cumulative impacts to study roadway segments.	S	*None feasible.*	SU
5.2-12 Cumulative impacts to freeway ramps	S	*None feasible.*	SU
5.3 Air Quality			
5.3-1 Impacts related to the update of the Remedial Action Plan.	PS	*5.3-1(a) Prior to import of clean soil associated with the ongoing remediation activities in excess of the volume anticipated in the existing RAP, contracts for soil hauling shall specify that all haul trucks shall be model year 2007 or newer, or be retrofitted to meet model year 2007 emission standards, for the review and approval of the DTSC and the SMAQMD.*	LS
5.3-2 Impacts related to exhaust emissions and fugitive particulate matter emissions from project-associated	PS	*5.3-2(a) The project applicant shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40*	LS

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construction activities.		*percent opacity (or Ringelmann 2.0) shall be repaired immediately, and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supercede other SMAQMD or state rules or regulations.* *5.3-2(b)Prior to the approval of any grading permit, the project proponent shall submit a dust-control plan to the City of Sacramento Development Services Department. The dust-control plan shall stipulate grading schedules associated with the project phase, as well as the dust-control measures to be implemented. Grading of proposed project phases shall be scheduled so that the total area of disturbance would not exceed 15 acres on any given day. The dust control plan shall be incorporated into all construction contracts issued as part of the proposed project*	

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		development. The dust-control plan shall, at a minimum, incorporate the following measures: • *Apply water, chemical stabilizer/suppressant, or vegetative cover to disturbed areas, including storage piles that are not being actively used for construction purposes, as well as any portions of the construction site that remain inactive for longer than 3 months;* • *Water exposed surfaces sufficient to control fugitive dust emissions during demolition, clearing, grading, earth-moving, or excavation operations. Actively disturbed areas should be kept moist at all times;* • *Cover all vehicles hauling dirt, sand, soil or other loose material or maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114;* • *Limit or expeditiously remove the accumulation of project-generated mud or dirt from adjacent public streets at least once every 24 hours when construction operations are occurring; and* • *Limit onsite vehicle speeds on unpaved surfaces to 15 mph, or less.*	
5.3-3 Impacts related to a temporary increase in NO_X emissions.	PS	*5.3-3(a)Prior to issuance of a grading permit, the applicant shall submit a SMAQMD-approved plan, which demonstrates that the heavy-duty (>50 horsepower) off-road vehicles to be used during construction of the project (including*	LS

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		owned, leased, and subcontracted vehicles) will achieve a project-wide average of 20 percent NO_X reduction and 45 percent particulate matter reduction, based on the most recent CARB fleet average at the time of construction. In addition, the applicant shall submit to SMAQMD a comprehensive inventory of all off-road construction equipment (>50 horsepower) that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and project hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project. Inventory shall not be required for any 30-day period in which construction activities do not occur. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the applicant shall provide SMAQMD with the anticipated construction timeline, including the start date and the name and phone number of the project manager and on-site foreman. *5.3-3(b)Prior to issuance of a grading permit, the applicant shall provide a construction mitigation fee to the SMAQMD sufficient to offset project emissions of NO_X above 85 pounds per day. The amount of the fee shall be based on*	

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		updated construction scheduling and equipment lists, and shall be calculated using the SMAQMD method of estimating excess emissions. The current price of NO_X construction offsets calculated by SMAQMD is $16,000 per ton.	
5.3-4 Development of the project would result in increases in emission of carbon monoxide.	LS	*None required.*	N/A
5.3-5 Impacts related to long-term increases of criteria air pollutants.	S	*5.3-5(a)Prior to the issuance of any grading permit, the project applicant shall coordinate with the SMAQMD and the City of Sacramento Development Services Department to develop a project Air Quality Mitigation Plan (AQMP). In accordance with SMAQMD recommendations, the AQMP shall achieve a minimum overall reduction of 15 percent in the project's anticipated operational emissions. SMAQMD-recommended measures and corresponding emissions-reduction benefits are identified in SMAQMD's Guidance for Land Use Emission Reductions, which can be found in Appendix E of the SMAQMD document. The AQMP shall be reviewed and endorsed by SMAQMD staff prior to project implementation. Available measures to be included in the AQMP include, but are not limited to, the following:*	SU

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		• *Prohibit the installation of wood-burning fireplaces and stoves.* • *Provide onsite bicycle storage and showers for employees that bike to work sufficient to meet peak season maximum demand.* • *Provide preferential parking (e.g., near building entrance, sheltered area, etc.) for carpool and vanpool vehicles.* • *Provide transit enhancing infrastructure that includes: transit shelters, benches, etc.; street lighting; route signs and displays; and/or bus turnouts/bulbs* • *Incorporate onsite transit facility improvements (e.g., pedestrian shelters, route information, benches, lighting) to coincide with existing or planned transit service.* • *Incorporate landscaping and sun screens to reduce energy use. Deciduous trees should be utilized for building shading to increase solar heating during the winter months. Install sun-shading devices (e.g., screens) or recessed windows on newly proposed buildings.* • *Install efficient lighting and lighting control systems.* • *Install energy-efficient heating and cooling systems,*	

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		appliances and equipment. • *Install light colored "cool" roofs and pavements (i.e., high reflectance, high emittance roof surfaces, or exceptionally high reflectance and low emittance surfaces) and strategically placed shade trees to the extent practical.* • *Limit hours of operation of outdoor lighting to the extent practical.* • *Provide shade (within 5 years) and/or use light-colored/high-albedo materials (reflectance of at least 0.3) and/or open grid pavement for at least 30 percent of the site's non-roof impervious surfaces, including parking lots, walkways, plazas, etc.; or, place a minimum of 50 percent of parking spaces underground or covered by structured parking; or, use an open-grid pavement system (less than 50 percent impervious) for a minimum of 50 percent of the parking lot area.* *5.3-5(b) Documentation confirming implementation of the Air Quality Mitigation Plan shall be provided to the SMAQMD and City prior to issuance of occupancy permits.*	
5.3-6 Development of the project could place new sensitive receptors in proximity of a rail line, a source of diesel	LS	*None required.*	N/A

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
particulate emissions.			
5.3-7 Impacts related to the project's production of greenhouse gas emissions.	LS	*None required.*	N/A
Cumulative Impacts			
5.3-8 Cumulative contribution to regional air quality conditions.	S	*5.3-8 Implement Mitigation Measures 5.3-2(a) and (b) and 5.3-4(a) and (b).*	SU
5.3-9 Cumulative impacts related to greenhouse gas emissions.	LS	*None required.*	N/A
5.4 Noise and Vibration			
5.4-1 Impacts related to the update of the Remedial Action Plan.	LS	*None required.*	N/A
5.4-2 Construction noise impacts to surrounding existing uses.	PS	*5.4-2 Construction activities shall be limited to the hours set forth below (unless an exception is granted by the Development Services Department):* *Monday through Saturday 7:00 a.m. to 6:00 p.m.* *Sunday 9:00 a.m. to 6:00 p.m.* *These restricted hours shall be included on all grading and construction plans submitted for the review and approval of the Development Services Department prior to grading and construction permits.*	LS
5.4-3 Project-related increase in	LS	*None required.*	N/A

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
existing traffic noise levels.			
5.4-4 Exterior roadway traffic noise impacts on project residences.	LS	*None required.*	N/A
5.4-5 Internal roadway traffic noise levels at proposed residences within the project site.	LS	*None required.*	N/A
5.4-6 Railroad related vibration at proposed residences.	LS	*None required.*	N/A
5.4-7 Railroad noise levels at exterior noise spaces of proposed project residences.	PS	*5.4-7 Prior to the issuance of building permits, a noise barrier shall be shown on the plans along the western boundary of the project site from the northern boundary to the southern end of the multi-family parcel, at the location shown in Figure 5.4-2, for the review and approval of the City Engineer. A barrier 10 feet in height (relative to nearest outdoor activity elevations) would intercept line of sight to railroad pass-bys, thereby reducing future UPRR noise levels to 70 dB Ldn or less at the nearest outdoor activity areas proposed adjacent to the tracks* *Barriers can take the form of earthen berms, solid walls, or a combination of the two. Appropriate materials for noise walls include precast concrete or masonry block. Other materials may be acceptable provide they have a density of approximately four pounds per square foot.*	LS

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5.4-8 Railroad noise levels at interior spaces of proposed residences on the project site.	PS	*5.4-8(a)Prior to the issuance of building permits, all residential lots located within the 70 dB Ldn contour shall include noise insulation features such as the following:* • *Sound-rated windows and doors with STC rating of 35; and* • *Stucco exterior siding.* *5.4-8(b)Prior to sale of any residential lots, statements shall be included in the title for all properties within the 65 dB Ldn contour that informs the buyer of elevated noise levels during train passages, and that train passages routinely occur during nighttime hours.*	LS
5.4-9 Noise-producing commercial uses proposed within the project site.	PS	*5.4-9(a)Unshielded (i.e., loading dock locations with a clear line of sight to adjacent residential uses) nighttime truck unloading shall be prohibited within 200 feet of any residential unit.* *5.4-9(b)Prior to issuance of a building permit, the site plans shall indicate that a parapet wall shall be constructed along the edge of the roofs of the commercial buildings of sufficient height to intercept line of sight from rooftop mechanical equipment at the nearest residences to reduce noise levels at those nearby residences.*	LS

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5.4-10 Park generated noise at residential uses proposed within the project site.	PS	*5.4-10 Park activities shall be restricted to daytime hours, with exceptions allowed on a case-by-case basis subject to the approval of the Director of the Parks and Recreation.*	LS
Cumulative Impacts			
5.4-11 Project-related increase in cumulative traffic noise levels.	LS	*None required.*	N/A
5.4-12 Cumulative exterior roadway traffic noise impacts on project residences.	LS	*None required.*	N/A
5.5 Biological Resources			
5.5-1 Impacts to biological resources related to the update of the Remedial Action Plan.	LS	*None required.*	N/A
5.5-2 Impacts to burrowing owl.	PS	*5.5-2 Prior to any ground disturbance associated with grading or construction, the applicant shall initiate a burrowing owl consultation with the CDFG and shall implement the following mitigation measures or equivalents, based on the results of the consultation.* *The developer shall arrange for burrowing owl surveys to be performed consistent with the CDFG's 1995 Staff Report on Burrowing Owl and the California Burrowing Owl Consortium's (CBOC) Survey Protocol (1997) not less than 30 days prior to ground disturbance for each phase of*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		project grading. If burrowing owls are not detected, further mitigation is not necessary. However, if burrowing owls are detected the following steps shall be taken: *If site disturbance commences during the nesting season (between February 1 and August 31) and burrowing owls are detected, a fenced buffer shall be erected on the project site by the developer not less than 250 feet between the nest burrow(s) and construction activities. The 250-foot buffer shall be observed and the fence left intact until a qualified raptor biologist determines that the young are foraging independently, the nest has failed, or the owls are not using any burrows within the buffer.* *If ground disturbance associated with grading or construction commences outside of the nesting season, and burrowing owl(s) are present on-site or within 160 feet of site disturbance, passive relocation consistent with the CDFG Staff Report (1995) and the CBOC Survey Protocol (1997) shall be performed. At least one or more weeks will be necessary to accomplish this and allow the owls to acclimate to off-site burrows. The pre-construction surveys shall be repeated if more than 30 days elapse between the last survey and the start of construction activities.*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.5-3 Impacts to Swainson's hawk nesting and foraging habitat.	PS	*5.5-3 If site disturbance associated with grading or construction activities is proposed by the developer during breeding season (February to August), a pre-construction survey for Swainson's hawk nests shall be conducted within 30 days prior to site disturbance/construction activities by a qualified biologist in order to identify active nests in the project site vicinity. The results of the survey shall be submitted to CDFG and the Development Services Department. If active nests are not found during the pre-construction survey, further mitigation is not required. If active nests are found, pursuant to consultation with CDFG, a fenced buffer shall be erected by the developer on the project site not less than one-quarter mile (approximately 1,300 feet) around the active nest. Site disturbance associated with grading or construction activities that may cause nest abandonment or forced fledging shall not be initiated within this buffer zone between March 1 and September 1. Any trees containing nests that must be removed as a result of project implementation shall be removed during the non-breeding season (September to January).*	LS
5.5-4 Impacts to raptors and migratory birds.	PS	*5.5-4 Prior to any grading or construction activities during the nesting season (February 1 to August 15), a preconstruction survey shall be conducted by a qualified*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		wildlife biologist within 15 days of the start of project-related activities. If nests of migratory birds are detected on site, or within 75 feet (for migratory passerine birds) or 250 feet (for birds of prey) of the site, the developer shall consult with the CDFG to determine the size of a suitable buffer in which new site grading or construction disturbance is not permitted until August 15, or the qualified biologist determines that the young are foraging independently, or the nest has been abandoned.	
5.5-5 Impacts to Heritage Trees.	LS	*None required.*	N/A
Cumulative Impacts			
5.5-6 Cumulative loss of biological resources in the City of Sacramento and the effects of ongoing urbanization in the region.	LS	*None required.*	N/A
5.6 Cultural Resources			
5.6-1 Impacts related to the update of the Remedial Action Plan	PS	*5.6-1(a)In the event that any prehistoric subsurface archeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, animal bone, obsidian and/or mortars are discovered during earth-moving activities, all work within 100 feet of the resource shall be halted, and the City shall consult with a qualified*	LS

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		archeologist, representatives of the City and a qualified archeologist shall coordinate to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis and professional museum curation. *5.6-1(b) If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives.* *If a Native American archeologist, ethnographic, or spiritual resources are discovered, all identification and treatment shall be conducted by qualified archeologists, who are certified by the Society of Professional Archeologists (SOPA) and/or meet the federal standards as stated in the Code of Federal Regulations (36 CFR 61), and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions.* *In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out*	

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		qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements. *5.6-1(c)If a human bone or bone of unknown origin is found during earth-moving activities, all work shall stop within 100 feet of the find, and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have taken place.*	
5.6-2 Project grading could unearth previously unknown archaeological resources.	LS	*None required.*	N/A
5.6-3 Impacts to the historical character of the Curtis Park neighborhood and possible destruction of historic structures.	LS	*None required.*	N/A

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts			
5.6-4 Disturbance or destruction of previously unknown archaeological resources in combination with other development in the Sacramento area.	LS	*None required.*	N/A
5.7 Geology and Soils			
5.7-1 Impacts related to the update of the Remedial Action Plan.	PS	*5.7-1(a)At least 72 hours prior to the placement of imported fill, the applicant shall have the potential fill inspected by a qualified geotechnical consultant to ensure that all fill being used for fills less than five feet below design grade have a plasticity index of less than or equal to 12, and that all soils are clean and free of deleterious materials, organic materials, and shall not contain particles greater than six inches in size. The results of the geotechnical analysis shall be submitted to the City Engineer prior to placement of fill.* *5.7-1(b)Prior to placement of imported fill, the applicant shall have the excavation surface inspected by a qualified geotechnical consultant to ensure the stability of the excavation bottom. Should the site be found to be unstable or contain loose or deleterious materials, the applicant shall perform required mitigation as identified by the geotechnical consultants and approved by the City Engineer. Mitigation for unstable fill could include, but is*	LS

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		not limited to the following: • *Restrict fill activities to occur when the excavation bottom is dry and stable during warm weather; or* • *Require that the placement of geotextile fabric be placed prior to granular import fill. The geotextile fabric would be required to be Mirafi 600X or equivalent. Granular fill would consist of well-graded crushed materials, such as Class 2 aggregate base of Caltrans Standard Specifications, but may also consist of other granular imported materials. Uniform crushed rock may be used as a stabilizing layer provided that the crushed rock is completely wrapped in the geotextile fabric.*	
5.7-2 Impact of seismic activity on the proposed Curtis Park Village development.	LS	*None required.*	N/A
5.7-3 Impacts related to loss of structural support due to potential liquefaction.	LS	*None required.*	N/A
5.7-4 Impacts related to substantial erosion or unstable slope or soil conditions through alteration of topographic features, dewatering, or changes in drainage pattern.	LS	*None required.*	N/A
5.7-5 Damage to foundations,	LS	*None required.*	N/A

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	Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
	pavements, and other structures from expansive soils.			
	Cumulative Impacts			
5.7-6	**The proposed project would contribute to the continuing buildout of Sacramento and surrounding areas, and would combine with existing and future developments to increase the potential for related geological impacts and hazards.**	LS	*None required.*	N/A
	5.8 Public Health and Hazards			
5.8-1	**Impacts related to the update of the Remedial Action Plan.**	LS	*None required.*	N/A
5.8-2	**Exposure of future residents and construction workers to contaminated soil.**	LS	*None required.*	N/A
5.8-3	**Exposure of construction workers and future residents to rail line-associated hazards (including loss of service) during construction.**	LS	*None required.*	N/A
5.8-4	**Impacts related to exposure to asbestos and lead-based paint.**	LS	*None required.*	N/A

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5.8-5 Impacts related to inadvertent or accidental releases of hazardous substances.	LS	*None required.*	N/A
Cumulative Impacts			
5.8-6 Long-term hazards-related impacts from the proposed project in combination with existing and future developments in the Sacramento area.	LS	*None required.*	N/A
5.9 Hydrology, Water Quality, and Drainage			
5.9-1 Impacts to hydrology, water quality, and drainage related to the update of the Remedial Action Plan.	LS	*None required.*	N/A
5.9-2 Exposure of people and structures to 100-year flood event on the project site.	LS	*None required.*	N/A
5.9-3 Project impacts to existing drainage facilities.	LS	*None required.*	N/A
5.9-4 Construction-related impacts to surface water quality.	LS	*None required.*	N/A
5.9-5 Operational water quality degradation associated with	LS	*None required.*	N/A

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urban runoff from the project site.			
Cumulative Impacts			
5.9-6 Long-term increases in peak stormwater runoff flows from the proposed project in combination with existing and future developments in the Sacramento area.	LS	*None required.*	N/A
5.9-7 Cumulative impacts related to degradation of water quality.	LS	*None required.*	N/A
5.10 Population and Housing			
5.10-1 Impacts related to the update of the Remedial Action Plan.	LS	*None required.*	N/A
5.10-2 Inconsistency with City of Sacramento housing policies and Mixed-Income Housing Ordinance.	LS	*None required.*	N/A
5.10-3 Impacts to population and employment.	LS	*None required.*	N/A
Cumulative Impacts			
5.10-4 Long-term impacts to population, housing,	LS	*None required.*	N/A

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
employment, and jobs-to-housing ratio from the proposed project in combination with existing and future developments in the Sacramento area.			
5.11 Public Services and Utilities			
5.11-1 Impacts to public services and utilities associated with the update of the Remedial Action Plan.	LS	*None required.*	N/A
5.11-2 Impacts related to increased demand for water supply, treatment, and/or conveyance.	LS	*None required.*	N/A
5.11-3 Increased demand for stormwater and wastewater collection and treatment.	LS	*None required.*	N/A
5.11-4 Increased demand for solid waste disposal services.	LS	*None required.*	N/A
5.11-5 Impacts related to gas and electric facilities.	LS	*None required.*	N/A
5.11-6 Impacts to telecommunication facilities.	LS	*None required.*	N/A
5.11-7 Increased demand for law	LS	*None required.*	N/A

NI = *No Impact*; N/A = *Not Applicable*; LS = *Less than Significant*; PS = *Potentially Significant;* S = *Significant*; SU = *Significant and Unavoidable*

Table 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
enforcement services.			
5.11-8 Increased demand for fire protection services, including emergency medical personnel.	LS	*None required.*	N/A
5.11-9 Increased demand for school resources.	LS	*None required.*	N/A
5.11-10 Increased demand for library services.	LS	*None required.*	N/A
Cumulative Impacts			
5.11-11 Long-term impacts to public services and utilities from the proposed project in combination with existing and future developments in the Sacramento area.	LS	*None required.*	N/A
5.12 Parks and Recreation			
5.12-1 Impacts related to the update of the Remedial Action Plan.	LS	*None required.*	N/A
5.12-2 Impacts related to the project creating the need for construction or expansion of recreational facilities beyond what was anticipated in the General Plan.	LS	*None required*	N/A

NI = *No Impact*; N/A = *Not Applicable*; LS = *Less than Significant*; PS = *Potentially Significant;* S = *Significant*; SU = *Significant and Unavoidable*

Table 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts			
5.12-3 Impacts related to the provision of adequate recreational facilities on the project site in combination with existing and future development in the Sacramento area.	LS	*None required*	N/A

NI = *No Impact*; N/A = *Not Applicable*; LS = *Less than Significant*; PS = *Potentially Significant;* S = *Significant*; SU = *Significant and Unavoidable*

3. PROJECT DESCRIPTION

3 PROJECT DESCRIPTION

3.0 INTRODUCTION

The Project Description chapter describes the location, setting, surrounding land uses, and components of the proposed Curtis Park Village project, as well as the background, project objectives, and required entitlements.

3.1 PROJECT LOCATION

The proposed project is located within the City limits, south of downtown Sacramento (See Figure 3-1, Regional Location Map), and is surrounded by the established neighborhoods of Curtis Park on the north and east, Western Pacific Addition and Hollywood Park to the south, and Land Park to the west. In addition, Sacramento City College and the Regional Transit (RT) South light rail line are located to the west; Sutterville Road is to the south; Portola Way is to the north; and 24th Street is to the east (See Figure 3-2, Project Location Map). The project site encompasses approximately 72 acres. The project site is identified by Sacramento County Assessor's Parcel Numbers (APNs) 013-0010-008 and -009, 013-0010-021 through -028, and 013-0062-001 and -002.

3.2 PROJECT SETTING AND SURROUNDING LAND USES

Limited vegetation on the project site consists of ruderal forbs and grasses with native young cottonwoods and willows interspersed throughout the site, as well as large stands of native oak trees in the north and northeast. Piles of excavated soil, miscellaneous railroad waste materials, concrete chunks, storage sheds, and an old switching station covered in weeds characterize the current nature of the project site.

The subject property is currently undergoing remediation due to soils contaminated by the site's past use as a railyard, pursuant to a Remedial Action Plan (RAP) approved by the California Department of Toxic Substances Control (DTSC) in 1995. The subject property has current General Plan land use designations of Traditional Neighborhood Low Density, Traditional Neighborhood High Density, and Traditional Center and a zoning designation of Heavy Industrial (M-2). Surrounding land uses include Low Density Residential; Heavy Commercial or Warehouse; Schools; Community/Neighborhood Commercial and Offices; and Parks, Recreation, and Open Space. Surrounding zoning designations include Single-Family Residential (R-1), General Commercial (C-2), Heavy Commercial (C-4), and Light Industrial (M-1).

Figure 3-1
Regional Location Map

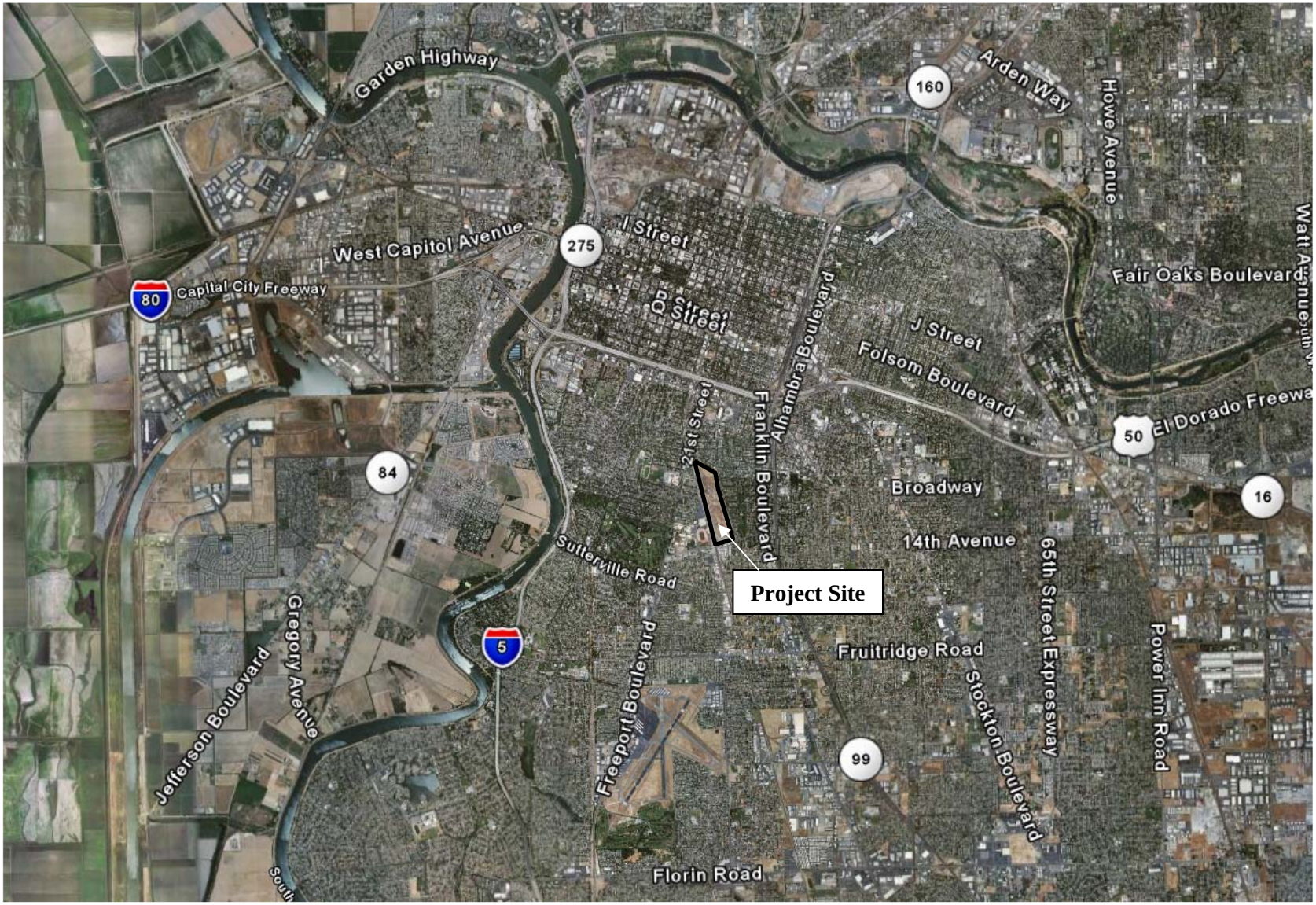
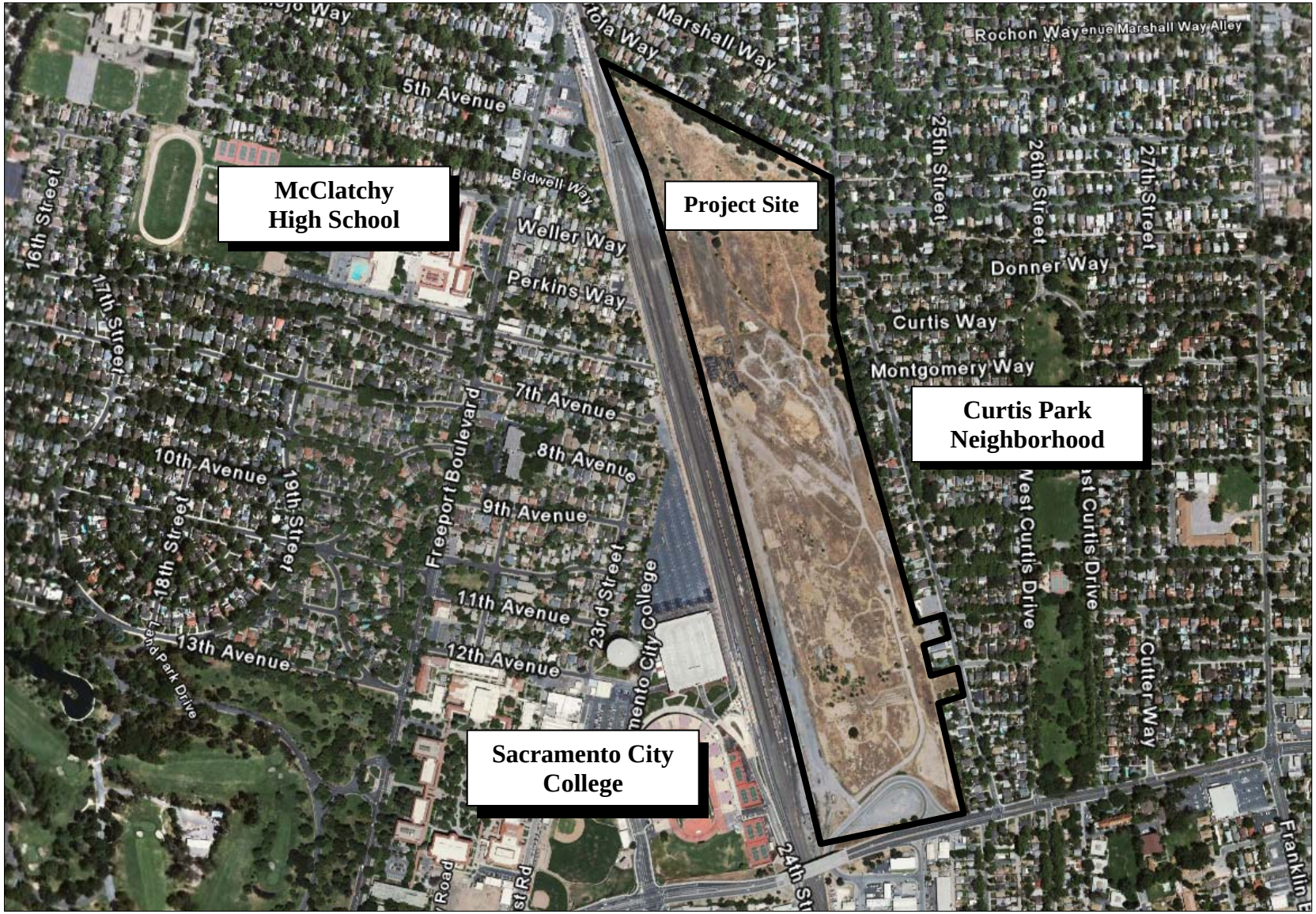


Figure 3-2
Project Location



3.3 PROJECT BACKGROUND

The project site once housed the railyard and operations center for the Western Pacific Railroad (WPR). When the Western Pacific was purchased by Southern Pacific Railroad in the early 1980s, the yard was declared surplus and closed. Southern Pacific was subsequently acquired by the Union Pacific Railroad (UPRR), which owned the property until 2003, when the applicant (Curtis Park Village, LLC) purchased the land. Railroad operations, including freight and passenger (light rail) service, will continue for the foreseeable future on land still owned by UPRR to the immediate west of the project property.

The remaining railroad operations that occur on the railroad-owned property consist of north/south rail mainlines and a switch area operated by the UPRR, as well as a dual track light rail transit facility and two stations operated by Sacramento Regional Transit. All of these facilities run along the entire west property line of the project site and separate the Curtis Park Village area from the Land Park neighborhood.

The project site is currently contaminated with hazardous wastes from the railyard era. Remediation of the site is occurring pursuant to a Remedial Action Plan (RAP) approved by DTSC in 1995. The RAP included removal of contaminated soils resulting from the previous uses of the site as a railyard. Due to these remediation activities, much of the site has been or will be graded or excavated. The approved 1995 RAP for Curtis Park includes cleanup goals for the constituents of concern. The RAP distinguishes restricted and unrestricted land use cleanup goals for arsenic, lead, and petroleum hydrocarbons. The approved RAP indicates that, as part of the remediation, all contaminated soil will be removed from the site via rail or trucks.

Additional volumes of contaminants were encountered in 2008, which necessitates an update of the approved 1995 RAP. Because previous RAP activities underwent environmental review before approval, as required by the California Environmental Quality Act (CEQA), the analysis in this EIR focuses on potential impacts associated with proposed remedies contained in the update to the previously approved RAP. All potential remedies that could be used to address the additional volume of contaminants on-site will be contemplated in this EIR for use by DTSC in their approval process as a Responsible Agency under CEQA. The remediation of the site, pursuant to the updated RAP, will be complete prior to development of the Curtis Park Village project. It should be noted, however, that ongoing groundwater monitoring would occur on the project site, post-remediation, per the current RAP.

Revised Remediation Remedies

As noted above, additional volumes of contaminants have been identified on the project site. Excavation and transportation of the contaminated soils to a permitted disposal facility may not be economically feasible. Furthermore, the heavy metals and high molecular weight polycyclic aromatic hydrocarbons (PAHs), which are the primary onsite pollutants, are relatively immobile and typically are found in the top few feet of soil. Therefore, the application of multiple remedies may be the best solution for cleaning the site to a level that allows development in an economically feasible manner. The applicable remediation methods that would potentially be utilized on the project site include the following:

- Removing the impacted soil from the site by excavation;
- Hauling impacted soil by truck to an offsite disposal location;
- Treatment of the excavated soil;
- Encapsulation, by creating a barrier to prevent human contact by construction of a barrier or cap (provided groundwater is adequately protected and direct access is not possible, potential encapsulation locations include the proposed commercial areas and park); and
- In-situ treatment (chemical fixation/stabilization) or biodegradation.

3.4 PROJECT OBJECTIVES

In a series of project meetings with community leaders and neighborhood groups, the applicant identified planning issues that are relevant to the master planning and development of the Curtis Park Village site. These were established as the following Goals and Objectives that guide the design and development of the project:

1. Complete environmental cleanup of the property as required by DTSC to levels commensurate with the proposed uses of the property.

2. Plan and locate new single-family residences in areas immediately adjacent to existing single-family residences in an effort to enhance the historic fabric of the neighborhood.

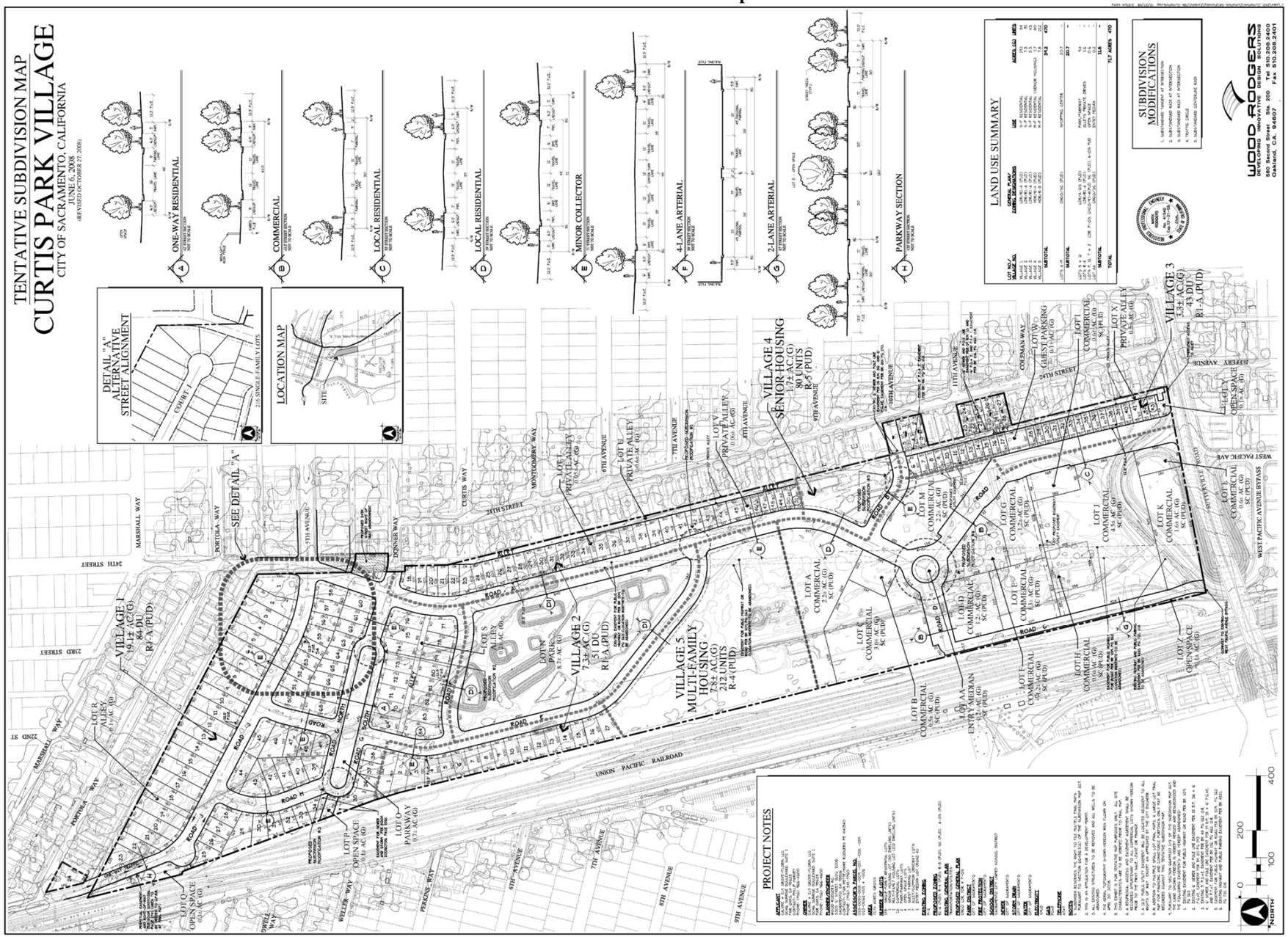
3. Minimize traffic and circulation impacts from development to the existing neighborhoods by routing vehicles through the interior of the site and creating additional pedestrian and alternative access to transit.

4. Define other uses including single and multi-family housing, neighborhood serving commercial and retail uses, entertainment opportunities, and park space that are consistent with the mission statement to add vibrant, supportive components to the existing neighborhood structure.

3.5 PROJECT COMPONENTS

The project applicant has submitted a Tentative Subdivision Map for the project to the City for review (See Figure 3-3, Tentative Subdivision Map). The Tentative Subdivision Map depicts Option 1 for the proposed project. In addition, another potential option that would eliminate a project access point has been proposed (Option 2). Both options identify a mixed-use, urban infill neighborhood consisting of single-family home sites, multi-family homes, an affordable senior housing apartment site, a neighborhood park area, and neighborhood-serving retail and commercial development areas. The substantial difference between the two options is the points at which the interior roads of the project would connect to the adjacent existing roads.

Figure 3-3
Tentative Subdivision Map



It should be noted that the project would be phased such that the "backbone infrastructure" for the project would be the first phase constructed. The backbone infrastructure would include Road "A" and utilities for the project including, but not limited to, sewer, water, storm drain, and street lights. The backbone infrastructure would also include the site drainage solution and the signalized intersection at Sutterville Road and Road "A." Completion of the backbone infrastructure enables any other portion of the site to be developed; however, after the infrastructure improvements are installed, market conditions would determine in what order the remaining portions of the proposed project – single-family residential, multi-family residential, senior housing, or commercial – are developed next.

Option 1 – Neighborhood Connection Option

Option 1, or the "neighborhood connection option," provides two vehicular connections from the east into Curtis Park Village from the site: the first via a traffic roundabout connection at Donner Way and 24th Street; and the second, a connection via the extension of 5th Avenue from the existing neighborhood, across 24th Street, and into the Curtis Park Village site. These two pedestrian, bicycle, and vehicular connections are in addition to circulation routes connecting Curtis Park Village to surrounding neighborhoods, as described below, under the Common Elements section. Figure 3-4 illustrates Option 1.

Option 2 – Neighborhood Limited Connection Option

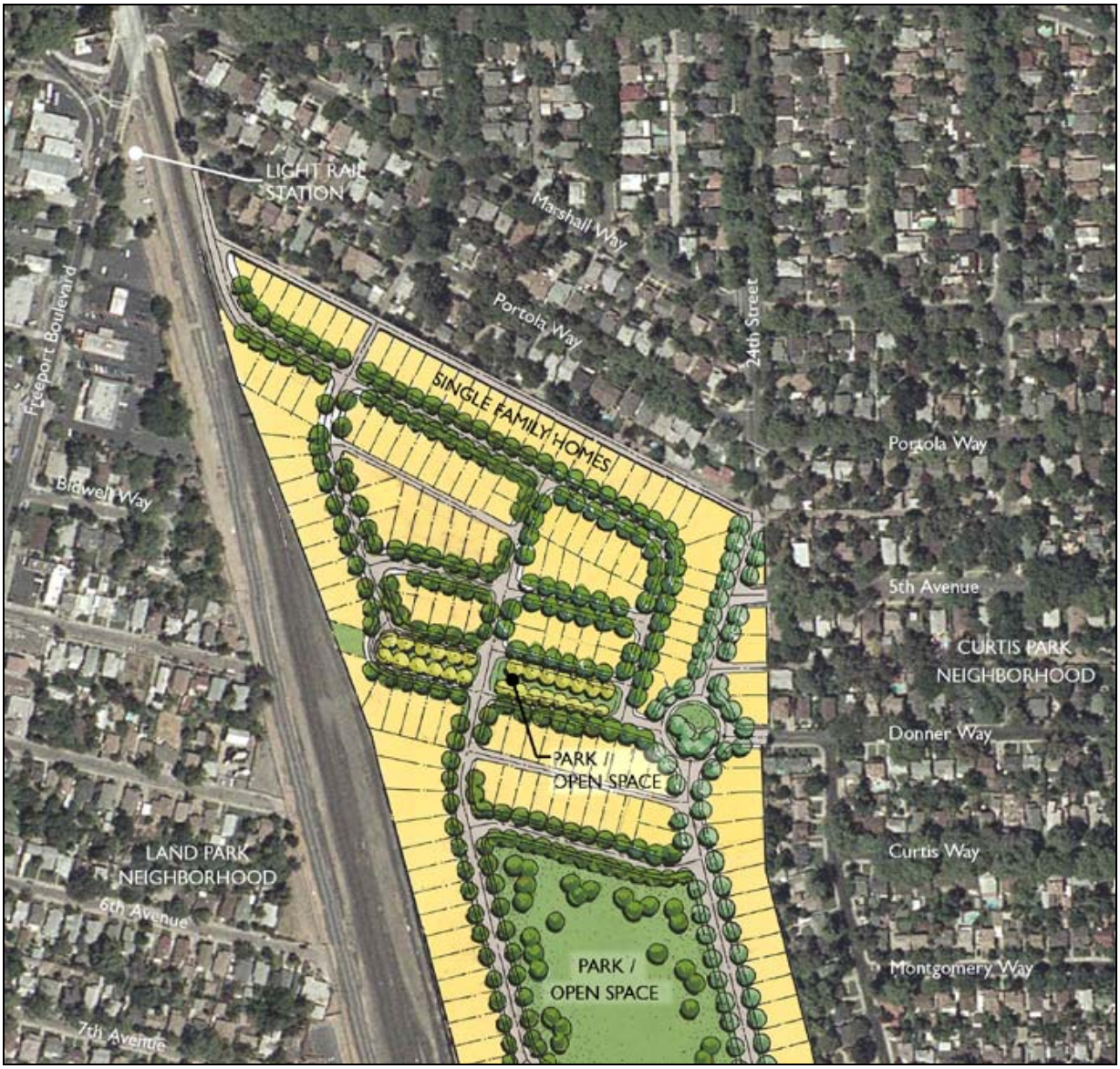
Option 2, or the "neighborhood limited connection option," provides for one roadway connection from Curtis Park Village to the east surrounding neighborhood via an intersection and a connection at Donner Way. Unlike Option 1, Option 2 would not include a connection directly into the north area of the project from 5th Avenue; nor is any other eastern vehicular access from the north area of the site into the existing Curtis Park neighborhood provided. Figure 3-5 illustrates Option 2.

Common Elements

The Curtis Park Village project would be a Planned Unit Development (PUD) under the requirements of the City of Sacramento Zoning Ordinance, Chapter 5, Section 4. The PUD requires the submittal of a Schematic Plan that generally lays out the project. The PUD would include Design Guidelines that establish style, quality and general design requirements of the projects within the PUD. Additionally, the adoption of the PUD would provide the assurances required by the City of Sacramento and the surrounding neighborhood residents that the project would be developed in accordance with the required levels of quality and design standards and would be consistent with established neighborhoods. A "Pattern Book for Housing for Curtis Park Village PUD" would be provided in the Design Guidelines to provide homebuilders with specific design standards and direction for single-family residences within Curtis Park Village. In addition, the Design Guidelines require that the proposed non-single-family uses comply with the City's *Multi-Family Residential Design Principles*, except where noted differently within the Design Guidelines.

Figure 3-4
Option 1

Figure 3-5
Option 2



Land Use Areas

The following narrative and Figure 3-3 provide a description of the land use areas as identified on the Curtis Park Village site master plans, tentative map, and circulation plan. The description of the proposed land uses begins at the southern portion of the project and moves to the north. The southern area of the Curtis Park Village plan would be comprised of commercial, retail, multi-family housing, affordable senior housing, and single-family housing opportunities in Area 1, Area 2, and Area 3. Further north in the plan is the neighborhood park area and the majority of the single-family home lots although single-family home "brownstone" lots would primarily compose the uses down the east property line in the south areas of Curtis Park Village all the way to the project entrance off Sutterville Road.

This extension of single-family home lots along the eastern property line is in keeping with the applicant's project objective of locating single-family uses adjacent to existing single-family homes the Curtis Park neighborhood. It should be noted that the affordable senior apartment complex would also be located along the eastern property line adjacent to existing single-family homes in the Curtis Park neighborhood.

The proposed land uses are described as follows (See Table 3-1 for a summary of development for the project site):

- **Area 1: Commercial Area:** Area 1, as identified on the site plan, can best be described as a predominately retail use zone. Located in the southern most area of the Curtis Park Village Master Plan, Area 1 contains 11.9 net acres allowing for the development of approximately 160,000 square feet of retail uses. The current vision for uses in Area 1 include neighborhood serving retail tenants that would be supportive of Curtis Park Village residents and the surrounding existing neighborhoods of Curtis Park, Land Park, Western Pacific Addition, and Hollywood Park.

- **Area 2: Commercial Area:** Area 2 of the Curtis Park Village plan would be primarily composed of a commercial and retail area, with some single-family homes and a site for an affordable senior housing apartment complex. The senior complex site would be located in the northern portion of Area 2, on the north side of the extension of 10th Avenue on Road "A." Located in the south area of the plan along Road "A" on the east side of the roundabout that forms the center of the community, Area 2 is planned to provide retail and commercial users across the street from retail users in Area 1 and across the street from commercial users in Area 3. Area 2 forms the eastern edge of the "village center," which could include neighborhood serving retail, commercial, and restaurant uses. This area would work with Area 1 to serve as an urban center for Curtis Park Village and the surrounding residential neighborhoods. Area 2 would include approximately 16,000 square feet of retail and commercial uses, five single-family "brownstone" type residential units, and 63 off-street parking spaces. The wide pedestrian sidewalks in Area 2, located within the commercial/retail areas, are designed to accommodate outdoor dining and neighborhood activities.

Table 3-1
Curtis Park Village Proposed Land Uses

Lot/Village Number	General Plan/Zoning Designations	Land Use	Acres	Units
Village 1	TNL[1]/R1-A (PUD)	Single-Family Residential	19.1 acres	84 units
Village 2	TNL/R1-A (PUD)	Single-Family Residential	7.3 acres	51 units
Village 3	TNL/R1-A (PUD)	Single-Family Residential	3.3 acres	43 units
Village 4	TNH[2]/R-4 (PUD)	Multi-Family Residential (Senior Housing)	1.7 acres	80 units
Village 5	TNH /R-5 (PUD)	Multi-Family Residential	7.8 acres	212 units
Subtotal			**39.2 acres**	**470 units**
Lots A through M	TC[3]/SC (PUD)	Shopping Center	20.7 acres	--
Subtotal			**20.7 acres**	**--**
Lots N and O	TNL/A-OS (PUD)	Park/Parkway	9.4 acres	--
Lots R through X	TNL/R1-A (PUD)	Alleys/Private Drives	1.6 acres	--
Lots P, Q, Y, and Z	TNL, TC/R1-A (PUD), SC (PUD), A-OS (PUD), TC/SC (PUD)	Open Space	0.6 acre	--
Lot AA	TC/SC (PUD)	Entry Median	0.2 acre	--
Subtotal			**11.8 acres**	**--**
Total			**71.7 acres**	**470 units**

1 TNL = Traditional Neighborhood Low Density
2 TNH = Traditional Neighborhood High Density
3 TC = Traditional Center

The affordable senior housing site in Area 2 would include a four-story building providing 80 independent living apartment units and a community room for seniors within the Curtis Park Village community representing a net density of approximately 62 units per acre on the 1.4 acre site. The senior living site would be located central to the Curtis Park Village plan in order to provide the senior residents with easy access to the retail, commercial, entertainment, and recreation opportunities provided by the development. The senior living site would be immediately adjacent to the bus stops on Road "A," just north of the roundabout in the commercial area to allow senior residents to access the City of Sacramento and the region.

- **Area 3: Commercial Area:** This area provides for commercial, entertainment, and multi-family housing used on the northern edge of the traffic roundabout along Roads A and C of the Curtis Park Village master plan. Area 3 of the Curtis Park Village master plan is immediately north of the roundabout on Road A and includes the potential for an approximately 38,000-square-foot dinner theater on the second floor of an entertainment use building. Other commercial uses would include an additional 38,000 square feet of entertainment uses on the first floor of the same building housing the dinner theater and two restaurant pads of approximately 6,500 square feet each along Road "A," which would be capable of accommodating approximately 250 diners each. In addition, 212 multi-family housing units would be located on the north portion of Area 3 on the south side of the Curtis Park Village neighborhood park. The net density of the multi-family housing area is approximately 31 units per acre.

- **Neighborhood Park Area**: The current master plan for Curtis Park Village includes a park site of approximately 8.7 gross acres (6.8 net acres due to the planned adjacent roadways) that would be located in the middle of the site, with accessibility provided by public streets that border four sides of the park area. The park would be a neighborhood park area and could include such uses as a turf area, a tot lot area, an adventure area, unlighted sport fields or sports courts, and/or a group picnic area. Parking would be limited to on-street.

  The park is designed as a joint-use facility to help the City of Sacramento with retention/detention on the City's existing combined storm/sewer system in the Curtis Park neighborhood. The Curtis Park Village storm drainage system would also include a retention/detention facility under a portion of the park. Both the City and the Curtis Park Village facilities are shown on the utility plans that have been submitted to the City. As a separate project proceeding forward under its own design and review process, the City project may be further refined and changed by the City as that project continues. Further descriptions of these facilities include:

  - A depressed area for stormwater detention from Curtis Park Village storm water runoff in an event exceeding a 10-year storm.
  - City of Sacramento Department of Utilities detention/retention facility for the "Donner Main" combined storm/sewer water pipe that currently operates at capacity at almost any storm event.

- The City's new detention/retention facility would be located completely underground in the northwest area of the park.
- A similar underground detention/retention facility that is designed to hold up to the Curtis Park Village 10 year storm event runoff would be contained completely underground in the southeast area of the park.
- The design of the storm water detention/retention facility would proceed with the project application working with the City of Sacramento Department of Utilities.
- Both of these detention/retention facilities are shown on the park plan and the utility plan that was submitted to the City of Sacramento Development Services Department.

Please refer to the "Infrastructure" section below for further discussion regarding these facilities. It should be noted that locating encapsulated contaminated soils within the park area would necessitate relocation of the City underground detention/retention facility. The project's stormwater detention/retention facility would be relocated as described in the infrastructure discussion, below. The park uses could remain the same as currently proposed.

- **Single-Family Lots**: The Curtis Park Village plan includes a total of 178 single-family lots. The single-family lots would include "traditional" sized single-family lots of a variety of sizes, "brownstone" lots, and "cottage" home lots. Both the brownstone and cottage home lots are parcels that provide the opportunity for home ownership for single-family homes that are smaller in size than the standard home lot allowed per the City of Sacramento Zoning Ordinance. The brownstone and cottage home lots would be located in the southeastern portion of the project site. The traditional single-family home sites are located in the northern area of the Curtis Park Village site and include both front garage access and alley garage access lots. The brownstone lots are alley garage access lots and the cottage lots are both front garage access lots with shared driveways and alley garage access lots. The Design Guidelines for the project provide further design requirements for each lot type and definition for access options.

  In addition to the housing sites available on the main Curtis Park Village site, the project application includes four existing lots owned by the applicant surrounding the project site: two of these parcels are on Portola Way on the north side and two of the parcels are on 24th Street on the east side of the project (See Figures 3-2 and 3-6). The resultant lots are included in the overall total of 178 single-family lots proposed for Curtis Park Village. The two large 24th Street parcels are proposed to be subdivided and developed for fifteen "cottage" housing parcels with the connection of 10th Avenue to Road A within the Curtis Park Village site. These two existing lots once provided parking and access to the Western Pacific Railyards from 24th Street. The 15 new home sites for "cottage" houses would include six lots facing 24th Street with shared driveways off of 24th Street with each shared driveway serving two homes. The nine "alley access" lots would have vehicular access to the garages via the new alley that parallels 24th Street between the existing neighborhood and Curtis Park Village. The subdivision of these two lots into 15 would include the area necessary for the right-of-way for the connection of 10th Avenue between Road "A" within Curtis Park Village and 24th Street in the existing

Curtis Park neighborhood, which would be established as an easement. At Portola Way and 21st Street, on the northwest corner of the project site, the project applicant owns two residential parcels that front Portola Way. These parcels would be modified as the result of the new access on the north end of the project area by the extension of 21st Street into Curtis Park Village. The changes to these two lots would result in one remainder lot (See Lot #24 on Figure 3-3, Tentative Subdivision Map).

Infrastructure

The primary infrastructure systems installed as part of the proposed project would be sized to meet demands created by buildout of the project area. Project infrastructure proposed by the applicant includes roadways, water supply, wastewater systems, storm drain systems, as well as accommodating the City's proposed combined sewer/storm drain detention system (See Figure 3-6, Utility Plan).

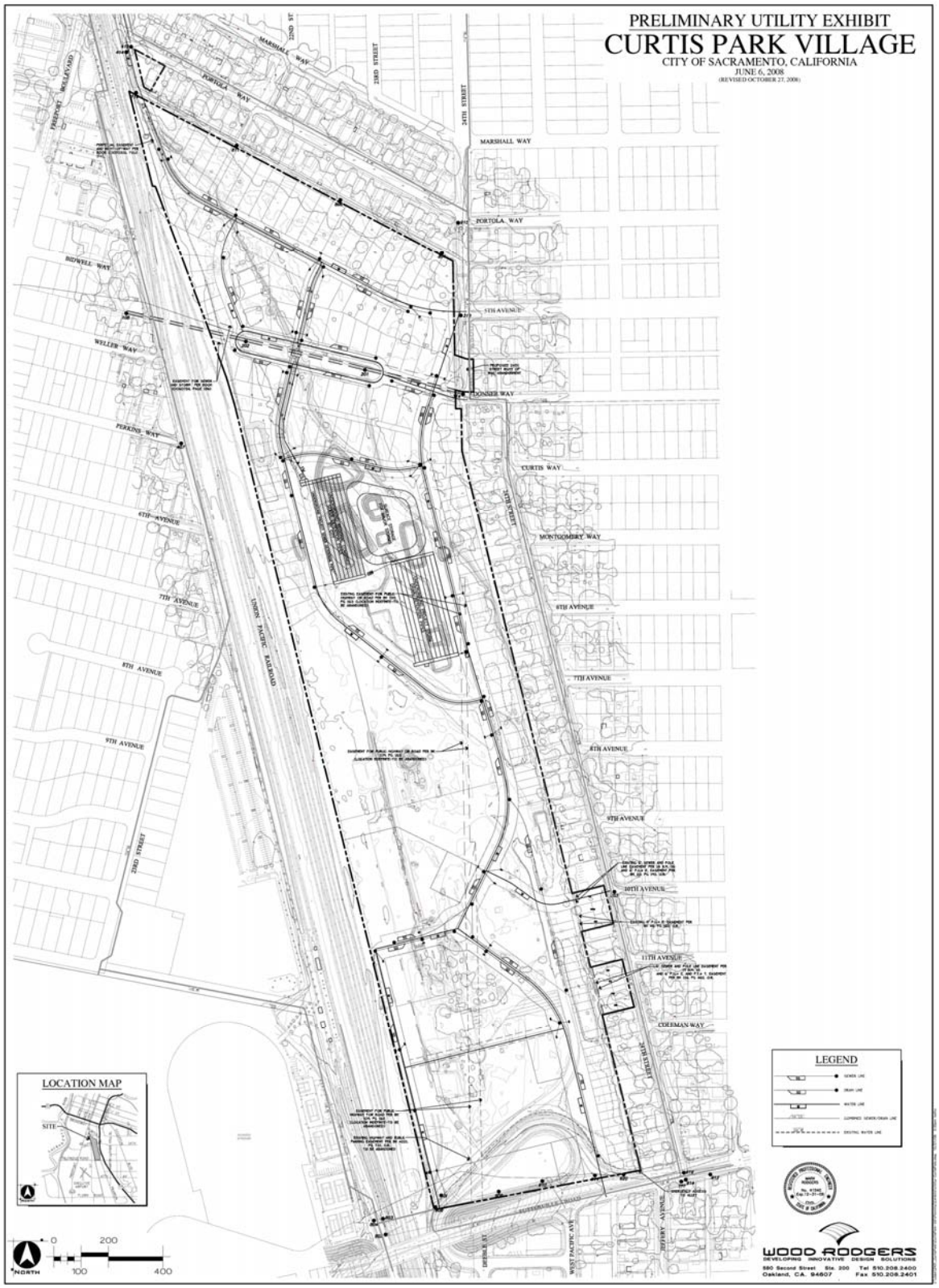
Roadways

The project application includes two alternative development plans, which differ primarily in their circulation systems. Option 1 provides two roadway connections from the site east into Curtis Park: one at Donner Way and 24th Street in the form of a traffic roundabout, and the other an extension of 5th Avenue east across 24th Street. Option 2 includes only the traffic roundabout at Donner Way. The same density and intensity of land uses are proposed in each development plan, and both circulation plans incorporate traffic-calming measures and appropriate street sections to facilitate pedestrian and alternative forms of transportation. The circulation system would allow for access to the commercial area in the southern portion of the site from surrounding residential areas, without disrupting the new Curtis Park Village residential areas or the existing Curtis Park neighborhood.

Consistent with its location on the south end of the Curtis Park Village property, Area 1 would have immediate access to the City's street circulation system via Sutterville Road and the new access road (Road "A") into the site. The new Road "A" and Sutterville Road intersection would provide full turn movements into Curtis Park Village and would be signalized. In addition to Road "A," circulation to and from Area 1 for service and general vehicles would be facilitated via the existing Western Pacific Road underpass. For Area 2, a bicycle and pedestrian connection from Area 2 to the existing Curtis Park neighborhood on 24th Street at 10th Avenue to the east would be included as part of the project.

Western Pacific would be reconfigured to continue to allow movements to Curtis Park Village from below the Sutterville Road Bridge at the southwest corner of the project site. The Western Pacific Road connection is designed to provide connectivity to Area 1 for service trucks while keeping the movement of the trucks out of Curtis Park Village and surrounding established residential neighborhoods. The location of the commercial uses in Area 1 would also provide access for users of the retail establishments from existing neighborhoods from Sutterville Road without disrupting the new Curtis Park Village residential areas or the established Curtis Park neighborhood to the east or north of the project site.

Figure 3-6
Utility Plan



Water Supply

Water supply would be provided through new connections to the existing water infrastructure surrounding the project site. Pipes would range in diameter from eight to 12 inches, and would be arrayed in a typical grid pattern to ensure adequate flow to all portions of the project for both domestic use and fire protection.

Wastewater

Wastewater from the proposed project would be conveyed via a system of 8- to 10-inch pipelines which would serve the project site alone. Flows originating off-site would not be accepted. Effluent generated north of the existing 114-inch Donner Sewer Line would flow directly to this line, while sewage generated south of the Donner Line would flow to directly to the Donner Interceptor only in times of moderate flow. In times of heavy flow, effluent would be temporarily stored in the site's detention facilities (described below under "Combined Detention System") prior to release into the Donner Interceptor.

Stormwater Detention/Retention

As shown in Figure 3-4 and discussed in the park/open space section included above, the park area would include a surface storage area to retain stormwater during major storm events. The surface storage would then convey the stormwater to the adjacent underground storm drain detention pipes. The storm drain detention pipes would detain/retain stormwater collected from the entire project site for eventual conveyance to the City's Combined Detention System, which would also be located within the park. Should encapsulated soils be placed underneath the park area, the detention system would instead be composed of larger detention pipes located underneath the commercial parking lot areas.

Combined Detention System

The City of Sacramento owns and operates a combined sewer system (CSS), which consists of both pipelines and facilities. In 1997, the CSS Rehabilitation and Improvement Plan and associated EIR were approved. The purpose of the CSS Rehabilitation and Improvement Plan was to ensure that these necessary improvements to the City's CSS would be constructed and the CSS would be rehabilitated to the level necessary to adequately accommodate stormwater flows in the area. As part of the CSS Rehabilitation and Improvement Plan, a storage facility and potential pumping station would be integrated with facilities being designed and constructed by the developer of the Curtis Park Village project to the extent feasible; however, the storage facility will be constructed whether or not the proposed Curtis Park Village project is approved. The storage facility would store up to approximately 300,000 cubic feet of combined wastewater during heavy rainfall periods in order to lower the hydraulic grade line, thus reducing the potential for flooding in the Curtis Park neighborhood and other surrounding areas. While the detention facility would be connected to the proposed project, the facility is not part of the project and environmental review of the storage facility has already occurred (see *Curtis Park Village Combined Sewer Regional Storage Initial Study*, October 2008). The environmental document analyzed the following three options for the location of the storage facility: (1)

underground installation of seven 12-foot diameter concrete pipes, 380 linear feet in length, within the park area; (2) underground installation of pipes or vaults on one or both sides of the Donner Interceptor located in the 0.7-acre parkway included in the proposed extension of Donner Way; or (3) a combination of Options 1 and 2. Encapsulation of soils underneath the park area would require the adoption of Option 2.

Rezone

As shown in Figure 3-7, a rezone is required to redesignate the site from Heavy Industrial (M-2) to Single Family Alternative PUD (R-1A-PUD), Agricultural-Open Space PUD (A-OS-PUD), Multi-Family PUD (R-4-PUD and R-5-PUD), and Shopping Center PUD (SC-PUD).

Planned Unit Development and Special Permit

The Curtis Park Village Planned Unit Development with Schematic Plan and Guidelines must be approved by the City Council as part of the proposed project. Future development within the PUD requires the approval of additional entitlements for development of the non-single-family residential portions of the project.

Tentative Map

A Tentative Map is proposed in order to subdivide the site to facilitate development consistent with the PUD. The Tentative Map would include 178 single-family lots, one senior housing lot with 80 dwelling units, one multi-family lot with 212 dwelling units, 13 commercial lots, two park/parkway lots, four open space lots, one guest parking lot, seven alley/common driveway lots, and one entry median lot (See Figure 3-3).

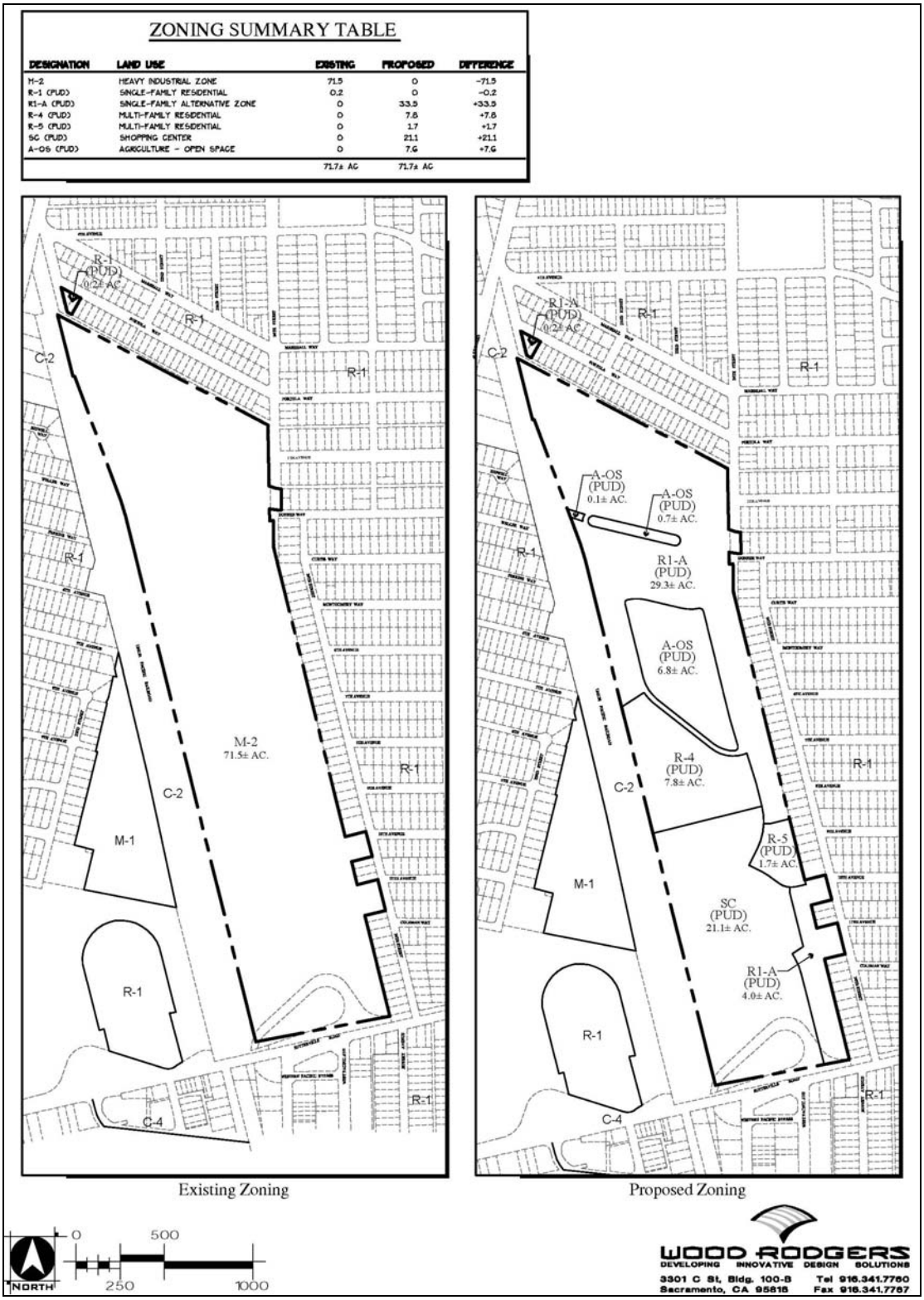
Inclusionary Housing Plan

In order to comply with the City's affordable housing ordinance, an Inclusionary Housing Plan is required. The total buildout of residential units in the proposed project would be 470 units. Therefore, the 15 percent inclusionary requirement would require the provision of 71 affordable units. To comply with the Inclusionary Ordinance, the proposed project would include dedication of 1.32 acres to the Sacramento Housing and Redevelopment Agency so that the property could be developed with 80 units of Senior Housing. The following requirements would be included in the Inclusionary Housing Plan (IHP):

- The senior facility will exceed Title 24 requirements; and
- All inclusionary units will be income-restricted rental units that will be subject to a recorded covenant that ensures affordability for at least 55 years.

The IHP would be recorded prior to recordation of the first residential Final Map. The Senior Facility site would be developed as part of the initial phase of the project. In order to insure the buildout of the Senior Facility prior to buildout of the market rate units, the building permit for the Senior Facility must be pulled prior to the issuance of 60 percent of the market rate building permits.

Figure 3-7
Rezone Exhibit



Pedestrian Overcrossing Landing

A pedestrian overcrossing is currently being planned by the City to connect Sacramento City College and the college's Regional Transit light rail station to the commercial portion of the proposed project site. The pedestrian overcrossing is currently undergoing a feasibility study and separate environmental review. The proposed project includes an easement that would accommodate a landing located adjacent to the commercial portion of the site, in anticipation of the City's future construction of the pedestrian overcrossing.

3.6 REQUIRED PUBLIC APPROVALS

The City of Sacramento has discretionary authority and is the lead agency for the proposed project.

The proposed project requires the following discretionary actions by the City of Sacramento:

- Certification of the Curtis Park Village EIR and adoption of findings of fact and a statement of overriding considerations;
- Certification of a Mitigation Monitoring Plan;
- Approval of a Rezone from Heavy Industrial (M-2) to Shopping Center (SC-PUD), Single-Family Alternative (R-1A-PUD), Multi-Family (R-4-PUD and R-5-PUD), and Agriculture-Open Space (A-OS-PUD);
- Approval of an Inclusionary Housing Plan;
- Establishment of the Curtis Park Village Planned Unit Development (PUD) with Schematic Plan and Design Guidelines;
- Approval of a Tentative Map to subdivide 72 acres into commercial/office, single-family residential, multi-family residential, and park/open space parcels;
- Approval of Subdivision Modifications to allow non-standard street sections and create a traffic circle; and
- General Plan consistency review for the abandonment of right-of-way (65402 Review).

The proposed project would require the following additional City of Sacramento approvals:

- Approval of Special Permits for non-residential development in the PUD;
- Acquisition of right-of-way and easements;
- Approval of Tree Removal Permit;
- Approval of Grading Permit;
- Approval of Building Permits; and
- Approval of pending cost-sharing agreement between the City and the developers of the proposed project and other nearby projects.

The following are actions required by other agencies:

- NPDES general construction stormwater permit from the State Water Resources Control Board;

- Inclusion into the CCWD's contractual service area for CVP water; and
- Approval of the proposed revisions to the RAP by the DTSC.

4. LAND USE

4 LAND USE

4.0 INTRODUCTION

The Land Use chapter of the EIR is intended to provide the reader with information regarding current General Plan land use and zoning designations; as well as land use policies in the City of Sacramento and in the vicinity of the proposed project. Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines states, "[…] the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans."

The proposed Curtis Park Village project is analyzed in this chapter with the *Sacramento 2030 General Plan*[1] and the City's Comprehensive Zoning Ordinance.[2]

Pertinent comments received in response to the original Notice of Preparation (NOP), the revised NOP, the second revised NOP, and the associated NOP scoping meetings for the proposed project have been integrated into the analysis. Concerns expressed in comment letters on the NOPs related to the compatibility of the proposed project with adjacent uses are addressed in the Consistency Analysis below.

4.1 EXISTING LAND USE SETTING

The following provides the existing land uses on the project site, as well as the proposed land use designations and zoning.

Existing Land Uses

The proposed project site consists of approximately 72 acres located south of downtown Sacramento.. The project site is identified as Sacramento County Assessor's Parcel Numbers (APNs) 013-0010-008 and -009, 013-0010-021 through -028, and 013-0062-001 and -002. The project site is east of Sacramento City College, the Regional Transit light rail line, and the Union Pacific heavy rail line; north of Sutterville Road; south of Portola Way; and west of 24th Street (See Figure 3-2, Project Location, in Chapter 3 of this Draft EIR). Roadways in the area are generally tree-lined residential streets within well-established residential communities. Sutterville Road, 24th Street, and Freeport Boulevard serve as important corridors for commuter traffic and through traffic to areas outside of the immediate residential vicinity (e.g., shopping centers and regional destinations and attractions).

The proposed project would be served by two Sacramento Regional Transit light rail stations. The 4th Avenue/Wayne Hultgren station is located at the northern end of the project site, on the east side of Freeport Boulevard just south of 4th Avenue. The City College station is located at the south end of the project site directly adjacent to the Sacramento City College campus and parking lot, and Hughes Stadium.

Until the early 1980s, the project site was the location of the Western Pacific Railroad rail yard and operations center. Subsequently, the yard was abandoned; however, railroad operations, including freight and passenger (light rail) service, will continue for the foreseeable future on land still owned by UPRR to the immediate west of the project property.

Proposed Land Uses

The proposed project would covert the existing 72-acre project site into a mixed-use, urban infill development. The intent of the project is to create a neighborhood consisting of single-family home sites, multi-family and senior multi-family residential complexes, a neighborhood park site, and neighborhood serving retail and commercial development areas. The proposed project includes approximately 260,000 square feet of commercial retail, 178 single-family home sites, an 80-unit senior multi-family housing complex, a 212-unit multi-family residential housing complex, and an 8.7 acre park.

Sacramento 2030 General Plan Land Use Designations

On March 3, 2009, the City of Sacramento adopted the Sacramento 2030 General Plan. The Sacramento 2030 General Plan designates the northern and eastern portions of the project site as Traditional Neighborhood Low Density, Traditional Neighborhood High Density in the middle portion, and the southern portion of the site as Traditional Center (See Figure 4-1). The Sacramento 2030 General Plan also recognizes the project site as an Opportunity Area that falls within the Land Park Community Plan Area.

Traditional Neighborhood Low Density

The Traditional Neighborhood Low Density designation allows for densities of 3 to 8 dwelling units per acre (du/ac) and a maximum floor-to-area ratio (FAR) of 1.5. This designation provides for moderate-intensity housing and neighborhood-support uses, including the following:

- Single-family detached dwellings;
- Single-family attached dwellings (e.g., duplexes, triplexes, townhomes);
- Accessory second units;
- Limited neighborhood-serving commercial on lots two acres or less; and
- Compatible public, quasi-public, and special uses.
-

Traditional Neighborhood High Density

The Traditional Neighborhood High Density designation allows for densities of 18 to 36 du/ac and a FAR of 0.5 to 1.5. This designation provides for single-use multi-family housing and predominantly residential mixed-use development in areas served by major transportation routes and facilities, and near shopping areas, including the following:

- Multi-family dwellings (e.g., apartments and condominiums);
- Mixed-use neighborhood-serving commercial uses; and
- Compatible public, quasi-public, and special uses.

Figure 4-1
Sacramento 2030 General Plan Land Use Map Designations

Traditional Center

The Traditional Center designation allows for densities of 15 to 36 du/ac and a FAR of 0.3 to 2.0. This designation provides for predominantly nonresidential, moderate intensity, single-use commercial development or horizontal and vertical mixed-use development that includes the following:

- Retail, service, office, and/or residential uses;
- Central public gathering places; and
- Compatible public, quasi-public, and special uses.

The proposed project is consistent with the Sacramento 2030 General Plan land use designations.

Existing Zoning Designations

The project site currently has a zoning designation of Heavy Industrial (M-2). The City of Sacramento Zoning Code (Title 17) defines this zoning designation as follows:

Heavy Industrial (M-2)

This zone permits the manufacture or treatment of goods from raw materials.

Proposed Zoning Designations

The project application includes a request to rezone the project site from Heavy Industrial to Shopping Center (SC-PUD), Single-Family Alternative (R-1A-PUD), Multi-Family (R-4-PUD), Multi-Family (R-5-PUD), and Agriculture-Open Space (A-OS-PUD) in order to be consistent with the Sacramento 2030 General Plan designations (See Figure 3-6 in Chapter 3, Project Description). The Sacramento Zoning Code (Title 17) defines the proposed zoning designation as follows:

Shopping Center

This is a general shopping center zone which provides a wide range of goods and services to the community. This zone, however, prohibits general commercial uses which are not compatible with a retail shopping center.

Single-Family Alternative

This is a low to medium density residential zone intended to permit the establishment of single-family, individually owned, attached or detached residences where lot sizes, height, area and/or setback requirements vary from standard single-family. This zone is intended to accommodate alternative single-family designs which are determined to be compatible with standard single-family areas and which might include single-family attached or detached units, townhouses, cluster housing, condominiums, cooperatives or other similar projects. Approximate density for the R-1A zone is 10 du/ac. Maximum density in this zone is 15 du/ac.

Multi-Family

The following two (R-4 and R-5) multi-family zoning designations are proposed for the project:

R-4—Multi-Family Zone

This is a multi-family residential zone located generally adjacent to R-5 zoning. Minimum land area per unit is 750 square feet. Maximum density for the R-4 zone is 50 to 58 du/ac.

R-5—Multi-Family Zone

This is a multi-family residential zone bordering the central business district. This is not entirely a residential zone and may include institutional, office and commercial uses subject to special permit review. The minimum land area per unit depends upon the percentage of lot coverage. Maximum density in the R-5 zone ranges from 70 to 150 du/ac.

Agriculture-Open Space

This is an exclusive agricultural zone designed for the long term preservation of agricultural and open space land. This zone is designated to prevent the premature development of land in this category to urban uses. Dedicated agriculture-open space in the Curtis Park Village would include a park site of approximately 8.7 gross acres that would be located in the middle of the site. The agriculture-open space is designed as a joint-use facility to help the City with retention/detention on the City's existing combined storm/sewer system as well as a neighborhood park.

Planned Unit Development (PUD)

It is the intent of this chapter [describing Planned Unit Developments] to encourage the design of well-planned facilities which offer a variety of housing or other land uses through creative and imaginative planning, among them the following types of developments:

A. Residential. Residential subdivision developments which may include a variety of housing types and site plans, accessible open "green spaces," or common recreational areas, an attractive and well-oriented community meeting place or recreational facility, and other features of substantial benefit to a viable and balanced community.

B. Residential-Business Development. Mixed residential-business developments combining apartments, convenience shopping facilities, motel-hotel combinations, offices, commercial recreation facilities, and/or other compatible uses grouped in a well-designed and coordinated site development.

Adjacent Land Use Designations and Zoning

The City of Sacramento has adopted the following land use and zoning designations for the surrounding areas:

2030 General Plan:	Traditional Neighborhood Low Density (3-8 du/ac) Urban Center Low Density (20-150 du/ac and 0.4-4.0 FAR) Public/Quasi-Public	
Zoning:	R-1	Standard Single-Family Zone
	C-2	General Commercial Zone
	C-4	Heavy Commercial Zone
	M-1	Light Industrial Zone

Current land use designations surrounding the project site include Low Density Residential and Parks, and Recreation, and Open Space to the east; Heavy Commercial or Warehouse and Low Density Residential to the south; the Union Pacific heavy rail line to the west, and Community/Neighborhood Commercial and Low Density Residential to the north.

The purpose of the City's Zoning Ordinance is to regulate the use of land, buildings, or other structures for residences, commerce, industry, and other uses required by the community. Additionally, the Zoning Ordinance regulates the location, height, and size of buildings or structures, yards, courts, and open spaces, amount of building coverage permitted in each zone, and population density. The Ordinance also divides the City of Sacramento into zones of such shape, size, and number best suited to carry out these regulations, provide for their enforcement, and ensure the provision of adequate open space for aesthetic and environmental amenities.

4.2 REGULATORY BACKGROUND

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The following policies from the Sacramento 2030 General Plan are applicable to land use:

Citywide Land Use and Urban Design

Policy LU 2.1.2	Protect Established Neighborhoods. The City shall preserve, protect, and enhance established neighborhoods by providing sensitive transitions between these neighborhoods and adjoining areas, and requiring new development, both private and public, to respect and respond to those existing physical characteristics buildings, streetscapes, open spaces, and urban form that contribute to the overall character and livability of the neighborhood.

Policy LU 2.1.3 Complete and Well-Structured Neighborhoods. The City shall promote the design of complete and well structured neighborhoods whose physical layout and land use mix promote walking to services, biking, and transit use; foster community pride; enhance neighborhood identity; ensure public safety; are family-friendly and address the needs of all ages and abilities.

Policy LU 2.1.5 Neighborhood Enhancement. The City shall promote infill development, redevelopment, rehabilitation, and reuse efforts that contribute positively (e.g., architectural design) to existing neighborhoods and surrounding areas.

Neighborhoods

Policy LU 4.1.2 Neighborhood Amenities. The City shall encourage appropriately scaled community-supportive facilities and services within all neighborhoods to enhance neighborhood identity and provide convenient access within walking and biking distance of city residents.

Policy LU 4.1.6 Neighborhood Transitions. The City shall provide for appropriate transitions between different land use and urban form designations along the alignment of alleys or rear lot lines and along street centerlines, in order to maintain consistent scale, form, and character on both sides of public streetscapes.

Policy LU 4.1.7 Connections to Open Space. The City shall ensure that new and existing neighborhoods contain a diverse mix of parks and open spaces that are connected by trails, bikeways, and other open space networks and are within easy walking distance of residents.

Policy LU 4.1.11 Senior Housing Development. The City shall encourage the development of senior housing in neighborhoods that are accessible to public transit, commercial services, and health and community facilities.

Policy LU 4.3.2 Traditional Neighborhood Densities. The City shall preserve the existing diversity of housing types and densities on each block of Traditional Neighborhoods. Where proposed residential development on a parcel within a Traditional Neighborhood block would exceed the maximum allowed density, the City may allow the development if it would not cause the overall density for the block to be exceeded. Where existing development on a Traditional Neighborhood block does not conform to the standards for Traditional Neighborhoods, deviations from those standards may be allowed if replacement of existing housing units does not result in a net increase or decrease in density on the parcel.

Centers

Policy LU 5.1.2 Centers Served by Transit. The City shall promote the development of commercial mixed-use centers that are located on existing or planned transit lines in order to facilitate and take advantage of transit service, reduce vehicle trips, and enhance community access.

Goal LU 5.3 Traditional Centers. Promote traditional centers where people can shop and socialize within walking distance of surrounding neighborhoods.

Housing Element Update

The following policies from the 2008-2013 Housing Element Update are applicable to land use:

Housing Diversity (H-1.2)

Goal H 1.2 Provide a variety of quality housing types to encourage neighborhood stability.

Policy H 1.2.1 The City shall encourage the development and redevelopment of neighborhoods that include a variety of housing tenure, size and types, such as second units, carriage homes, lofts, live-work spaces, cottages, and manufactured/modular housing.

Policy H 1.2.4 The City shall actively support and encourage mixed-use retail, employment and residential

development around existing and future transit stations, centers and corridors.

City of Sacramento Mixed-Income Housing Ordinance

Section 17.190 of the City of Sacramento Zoning Code ("Mixed Income Housing") is intended to provide that residential projects in new growth areas contain a defined percentage of housing affordable to low income and very low income households; to provide for a program of incentives and local public subsidy to assist in this effort; and to implement the mixed income policies of the Housing Element of the 2030 General Plan.

The Curtis Park Village Site is identified as a "new growth area" in the Mixed Income Housing Code (referred to as the Curtis Park West railyards site). Section 17.190.030 ("Standard inclusionary housing component") states that in new growth areas, ten (10) percent of the dwelling units shall be affordable to very low income households, and five (5) percent of the dwelling units shall be affordable to low income households. The inclusionary ("affordable") units are to be visually compatible with the market rate units, and shall accommodate diverse family sizes by including a mix of studio, one-, two-, and three-bedroom units as determined by the planning director. Development of the inclusionary units is to proceed concurrently with that of the market rate units; however, the timing may be adjusted as necessary in order to account for different funding and financing environments, economies of scale, and infrastructure needs.

Sacramento Region Blueprint

The Sacramento Area Council of Governments (SACOG) adopted the Sacramento Region Blueprint Transportation and Land Use Study Preferred Blueprint Scenario (Blueprint) in December 2004. The Blueprint is a vision for long-term land uses within the Sacramento region that promotes compact, mixed use development over the type of lower density, sprawling land uses emblematic of past regional growth and development. The overall goal of the Blueprint is to advocate more efficient land use planning that provides compact urban development and reduces vehicle miles travelled. An added benefit of the Blueprint is that it also minimizes greenhouse gas emissions and thereby addresses local contributions to global warming.

4.3 LAND USE EVALUATION

Method of Analysis

The Land Use chapter analyzes the compatibility of the proposed project with surrounding land uses and the consistency of the proposed project with adopted plans and policies. Physical environmental impacts resulting from the proposed project or alternatives are discussed in the respective environmental categories. This section differs from the analyses in other chapters of the EIR in that plan consistencies and land use compatibilities are addressed instead of environmental impacts. This discussion complies with Section 15125(d) of CEQA Guidelines, which requires that EIRs discuss inconsistencies to local plans as part of the environmental setting.

Compatibility with Existing Uses

The proposed project is evaluated for its compatibility with the existing land uses adjacent to the project site. The evaluation considers the existing and planned type and intensity of uses in the project vicinity and those proposed for the project site. The analysis assumes the construction and implementation of the proposed project within the existing and planned environment to determine if it is compatible with those existing and planned uses surrounding the project site.

Consistency with the Sacramento 2030 General Plan

The proposed project is examined for potential inconsistencies between the proposed project and the Sacramento 2030 General Plan, based on the goals and policies of the Sacramento 2030 General Plan. Any inconsistencies may be considered in the determination of physical environmental impacts identified in other chapters of the EIR. The ultimate determination of consistency rests with the City Council.

Consistency with the Zoning Ordinance

The proposed project is analyzed for potential inconsistencies between the proposed project and the adopted zoning designations of the site. The sole purpose of this analysis is to disclose the inconsistencies of the current zoning to the proposed zoning. Any inconsistencies may be considered in the determination of physical environmental impacts identified in other chapters of the EIR.

Consistency with the Mixed-Income Ordinance, Chapter 17.190

The City's Mixed-Income Housing Ordinance requires 10 percent of residential units in the new residential developments to be affordable to households with "very low income" and five percent of residential units to be affordable to "low income" households. The proposed project is examined for potential inconsistencies between the proposed affordable housing with the Mixed-Income Ordinance.

Consistency Analysis

Consistency with the Sacramento 2030 General Plan

As shown in Policies LU 2.1.2, 2.13, and 2.5, the Sacramento 2030 General Plan promotes protecting established neighborhoods, complete and well-structured neighborhoods, and neighborhood enhancement in the City of Sacramento. The proposed project is an infill development that would make use of a largely vacant industrial site to create a mixed-use development that would provide for pedestrians, bicyclists, and transit users while providing a diversity of housing choices in compliance with Policy H 1.2.4. Furthermore, the proposed project is designed in such a way as to protect and enhance the existing Curtis Park neighborhood within which the project would be developed. The proposed project would contribute to the overall character and livability of the existing neighborhoods and surrounding areas.

A mixture of single-family attached, single-family detached, and a senior apartment complex would provide a transition from the existing neighborhoods north and east of the project site from the commercial component of the project in compliance with Policy LU 4.1.6. Curtis Park Village includes an affordable senior housing development with accessibility to public transit, commercial services, and health and community facilities in compliance with Policies LU 4.1.11 and H-2.2.5. The proposed project and surrounding land uses provide accessibility to diverse services and facilities as well as connecting the individual to open space in compliance with Policy LU 4.1.7. Curtis Park Village would include a park site of approximately 8.7 gross acres, located in the middle of the site. This open space is designed as a joint-use facility to help the City with retention/detention on the City's existing combined storm/sewer system and perform as a neighborhood park. The development of this neighborhood park would provide the necessary infrastructure for the storm and sewer system as well as promote a walkable pedestrian friendly neighborhood to connect residents to open space.

The commercial component would in turn provide necessary services and shopping opportunities for nearby residents as directed in Policy 4.1.2.

As shown in Figure 4-1, the Land Use Map for the Sacramento 2030 General Plan designates the project site as a combination of Traditional Neighborhood Low Density, Traditional Neighborhood High Density, and Traditional Center.
Analysis of the proposed project's compliance with the designations is more easily accomplished by evaluating the residential and commercial portions separately.

The proposed project would contain a mixture of single-family lots, including "traditional" sized single-family lots of a variety of sizes, and "brownstone" lots and "cottage" home lots, and would be consistent with Policy H 1.2.1. The single-family, multi-family, and senior complex would be developed at densities of 4.4 to 13.0, 27, and 47 du/ac, respectively. The senior complex would exceed the maximum density of 36 du/ac established for both the Traditional Neighborhood High Density and Traditional Center designation. However, as stated in the Sacramento 2030 General Plan, page H 8-24, State law requires cities to allow developers to qualify for a density bonus of up to 35 percent for very low, low, and moderate-income, or senior households. The proposed multi-family senior uses would be consistent with a 35 percent density bonus, with a maximum allowable density of 48 du/ac. The project would construct 470 units on 39.2 acres, an average of 12 du/ac. Given the mixture of low and high density designations, the overall density of the proposed project is consistent with the General Plan.

The area located within the Traditional Center designation would include a mixture of single-family "brownstones," multi-family housing, senior apartments, and commercial uses. As proposed, the commercial portion would include a diversity of uses, would be served by transit, and include multiple cultural and entertainment options. In compliance with Goal LU 5.3 the proposed project would provide a center for shopping and socialization within walking distance of the surrounding neighborhoods. Furthermore, application of the proposed *PUD Design Guidelines* would ensure that the project would fit into the established neighborhoods (explained in the Consistency with the City of Sacramento Zoning Ordinance).

The proposed uses would be consistent with Sacramento 2030 General Plan land use designations of Traditional Center, Traditional Neighborhood Low Density, and Traditional Neighborhood High Density, for the project site. In addition, the project would comply with all goals and polices in the 2030 related to land use. Therefore, the proposed project would be consistent with the Sacramento 2030 General Plan.

Consistency with the City of Sacramento Zoning Ordinance.

A zoning designation applied to the subject property must be consistent with the General Plan and the anticipated uses of the project site. The proposed project is inconsistent with the current Heavy Industrial zoning designation of the project site. The project applicant has therefore requested a rezone to a mixture of Shopping Center, Single-Family Alternative, Multi-Family (R-4 and R-5), and Agriculture-Open Space. All of the designations would also include the application of the Planned Unit Development (PUD) designation to bring the project into consistency with the requested General Plan designation and anticipated mixed residential and commercial uses of the project site.

The PUD requires the submittal of a Schematic Plan that generally lays out the project; and the PUD includes Design Guidelines that establish the style, quality, and general design requirements of projects within the PUD. The PUD documentation and adoption would provide the assurances required by the City of Sacramento and the surrounding neighborhood residents that the project would be developed in accordance with the quality and level of planning and design consistent with, and an asset to, the surrounding established neighborhoods. A "Pattern Book for Housing for Curtis Park Village PUD" would be provided as a part of the project Design Guidelines to provide homebuilders with design direction for the design of single-family residences within Curtis Park Village. Should the home builder be consistent with the design principles identified in the pattern book, the Curtis Park Village PUD would require a planning director plan review for the construction of single-family homes.

As required by the City of Sacramento Zoning Ordinance for Planned Unit Developments, to ensure consistency with the adopted schematic plan and development guidelines, a development in a PUD is subject to a Planning Director Review unless the proposed project otherwise requires a Special Permit. This plan review would ensure the proposed project would comply with the City's Zoning Ordinance and PUD Guidelines. Therefore, the project would be consistent with the Zoning Ordinance.

Consistency with the Mixed-Income Housing Ordinance.

The Mixed-Income Housing Ordinance requires that ten percent of the dwelling units within new residential developments be affordable to very low-income households, and five percent of the dwelling units be affordable to low income households. These low and very low-income housing units must be visually compatible with the market rate units, and accommodate diverse family sizes as determined by the Planning Director. In compliance with the Mixed-Income Housing Ordinance, the proposed project would include the dedication of 1.32 acres of land to SHRA for the development of an 80-unit senior complex. The senior facility would have at least 47 units with very low-income and 24 units with low-income. A minimum of 71 units would have income

restrictions applied for a period of at least 55 years. Therefore, the proposed affordable housing would be consistent with the Mixed-Income Housing Ordinance.

Consistency with the Sacramento Regional Blueprint

The proposed project is mixed-use infill development and is adjacent to the Sacramento Regional Transit light rail. The project's mix of residential and shopping center is consistent with the Blueprint's mixed use designation. The project would be consistent with the smart growth principle identified in the Blueprint by focusing on compact development to maximize use of existing land, offering a range of mixed land uses; using existing assets by infilling or intensifying the use of parcels in urbanized area; and providing transportation choices to encourage people to walk, ride bicycles, bus, light rail, train, or car pool.

Compatibility with existing adjacent land uses.

The determination of compatibility of land uses typically relies on a general discussion of the types of adjacent land uses to a proposed project and whether any sensitive receptors exist on the adjacent properties or are associated with the proposed project. Incompatibilities typically exist when uses such as residences, parks, churches, and schools are located adjacent to more disruptive uses such as heavy industrial, major transportation corridors, and regional commercial centers where traffic levels and attendant noise may be high. The identification of incompatible uses occurs if one land use is anticipated to be disruptive of the existing or planned use of an adjacent property.

The northern portion and most of the eastern boundary of the project site, lining the existing Curtis Park neighborhood, would consist of single-family homes. The exception would be the senior multi-family complex located north of the 10th Avenue access point. The north-central portion of the project area would consist of park/open space, and multi-family housing would lie south of the park. Existing adjacent land use includes traditional neighborhood low and public/quasi public surrounding the proposed residential land use and open space. A commercial development would be situated south of the multi-family housing; and as noted above, the senior multi-family complex and single-family housing would be located between the commercial area and the existing residences to the east (See Figure 3-3, Tentative Subdivision Map in Chapter 3, Project Description, of this Draft EIR). The commercial development would be compatible to existing uses, situated adjacent to an urban center low.

The commercial portion of the site would be composed of three areas:

- **Area 1: Commercial Area:** Area 1 would be a predominately retail use zone. Located in the southern most area of the Curtis Park Village plan, Area 1 contains 11.9 net acres allowing for the development of approximately 160,000 square feet of retail uses. Area 1 would include neighborhood serving retail tenants that would serve the surrounding established neighborhoods.

- **Area 2: Commercial Area:** Area 2 of the Curtis Park Village plan would be a commercial and retail area with single-family homes and a site for an affordable senior

housing apartment site on the northern portion of Area 2 on the north side of the extension of 10th Avenue onto Road A within the project site. Located in the south area of the plan along Street "A" on the east side of the roundabout that forms the center of the community, Area 2 is planned to provide retail and commercial users across the street from retail users in Area 1 and across the street from commercial users in Area 3. Area 2 forms the eastern edge of the "village center" where opportunities may be presented for neighborhood serving retail, commercial, and restaurant uses. Area 2 includes approximately 16,000 square feet of retail and commercial uses and five single-family "brownstone" type residential units, and 63 off-street parking spaces.

The affordable senior housing site in Area 2 would include a four story building providing 80 independent living apartment units and a community room. The 1.4-acre site would be developed at an approximate density of 62 du/ac. The senior living site would be centrally located, thereby providing senior residents with access to the retail, commercial, entertainment, and recreation opportunities located in the proposed project.

- **Area 3: Commercial Area:** Area 3 of the Curtis Park Village plan would include opportunities for an approximately 76,000 square foot entertainment oriented building, with a 38,000 square foot dinner-theater on the second floor. In addition, the area would contain two restaurant pads of approximately 6,500 square feet each, which could accommodate approximately 250 diners each, and 212 multi-family housing units on the northern portion of Area 3. The net density of the multi-family housing would be approximately 31 du/ac.

Commercial uses would likely include neighborhood-serving retail and commercial tenants that would be supportive of the existing Curtis Park neighborhood as well as the proposed project. The project's addition of commercial uses will complement the existing urban center low land use adjacent to the project site. As stated above, the project is designed to protect and enhance the existing Curtis Park neighborhood within which the project would be developed. The proposed project would contribute to the overall character and livability of the existing neighborhoods and surrounding areas. In addition, the project site was anticipated for development in the Sacramento 2030 General Plan and is consistent with land use designations. Therefore, the project would be compatible with surrounding land uses.

The project site is currently an undeveloped parcel that is located adjacent to the established community of Curtis Park. The proposed project is an infill development that includes the development of roadways that connect to the surrounding community. Therefore, the proposed project would not divide an established community and is considered to be consistent with the existing land uses in the surrounding neighborhoods.

Endnotes

[1] City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
[2] City of Sacramento, *Zoning Ordinance, Ordinance No. 2550, Fourth Series*, Revised January 1, 1997.

5 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

5.0 INTRODUCTION TO THE ANALYSIS

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5.0.0 INTRODUCTION

The Introduction to the Analysis chapter briefly describes the methodology employed for analysis of the potential impacts on a range of environmental issue areas and consideration of feasible mitigation measures to address identified potentially significant impacts of buildout of the Curtis Park Village project (proposed project) and all potential remedies in the update to the Remedial Action Plan (RAP). It should be noted that the remediation of the site, pursuant to the updated RAP, would be complete prior to development of the proposed project. Chapters 4 and 5.1 through 5.12 describe the focus of the respective analysis, references and other data sources for the analysis, the environmental setting as related to the specific issue, project-specific impacts and mitigation measures, and cumulative impacts of the proposed project for each issue area. The format of each of these chapters is described below.

5.0.1 DETERMINATION OF SIGNIFICANCE

Under CEQA, a significant effect is defined as a substantial or potentially substantial adverse change in the environment (Public Resources Code § 21068). The Guidelines implementing CEQA direct that this determination be based on scientific and factual data. The specific criteria for determining the significance of a particular impact, as adopted by the City of Sacramento or other regulatory agency where appropriate, are identified within the impact discussion in each section, and are consistent with significance criteria set forth in the CEQA Guidelines.

5.0.2 INITIAL STUDY

The Initial Study (See Appendix C) prepared for the proposed project as part of this EIR includes a detailed environmental checklist addressing a range of technical environmental issues. For each technical environmental issue, the Initial Study identifies the level of impact for the proposed project. The Initial Study identifies the environmental effects as either "less than significant," "potentially significant unless mitigation incorporated," or "potentially significant." The Initial Study determined that the following less than significant impacts did not require mitigation:

- *Agriculture*: Changes within the project area would not result in a loss of agriculture land.
- *Mineral Resources*: Mineral resources were not identified within the project area.

All other impacts were determined to be potentially significant and are addressed in this EIR.

Issues Addressed in this Draft EIR

The Initial Study, included as Appendix C in this DEIR, identified environmental impacts as potentially significant requiring further analysis. The Initial Study includes a full and complete analysis of those issues found to have less than significant impacts. This Draft EIR provides the additional analysis necessary to address the potentially significant environmental impacts not fully resolved in the Initial Study. Consistent with the conclusions of the Initial Study, the following environmental issues are addressed in the Draft EIR:

- Land Use;
- Aesthetics;
- Transportation and Circulation;
- Air Quality;
- Noise and Vibration;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Public Health and Hazards;
- Hydrology, Water Quality and Drainage;
- Population, Employment, and Housing;
- Public Services and Utilities; and
- Recreation.

5.0.3 CHAPTER/SECTION FORMAT

Each technical chapter begins with an **introduction** describing the purpose of the section. The introduction is followed by a description of the project's **environmental setting** as the description pertains to that particular issue. The setting description is followed by the **regulatory background** and the **impacts and mitigation measures** discussion. The *impacts and mitigation measures* discussion contains the **significance criteria**, followed by the **methods of analysis**. The *impact and mitigation measures* discussion includes impact statements prefaced, by a number in bold-faced type. An explanation of each impact and an analysis of the impact's significance follow each impact statement. All mitigation measures pertinent to each individual impact follow directly after the impact statement. The degree of relief provided by identified mitigation measures is also evaluated. An example of the format is shown below:

5.x-1 Statement of Impact

Discussion of impact in paragraph format.

Statement of *level of significance* of impact prior to mitigation is included at the end of each impact discussion.

Mitigation Measure(s)
Statement of ***level of significance*** after the mitigation is included immediately preceding mitigation measures.

5.x-1(a) *Recommended mitigation measure(s) presented in italics and numbered/lettered in consecutive order.*

5.x-1(b) *etc. etc.*

5.1 AESTHETICS

5.1 AESTHETICS

5.1.0 INTRODUCTION

The Aesthetics chapter describes existing visual and aesthetic resources for the project site and the region, and evaluates potential impacts of the project with respect to aesthetic resources. In addition, the Sacramento 2030 General Plan and Municipal Code goals, policies and regulations pertaining to aesthetics are described. The California Environmental Quality Act (CEQA) describes the concept of aesthetic resources in terms of scenic vistas, scenic resources (such as trees, rock outcroppings, and historic buildings within a state scenic highway), the existing visual character or quality of the project site, and light and glare impacts.

The following impact analysis is based on information drawn from the *Sacramento 2030 General Plan*[1] and the *Sacramento 2030 General Plan Master EIR*.[2] A site survey was also conducted by Raney in May 2008. Pertinent comments received in response to the original Notice of Preparation (NOP), the revised NOP, the second revised NOP, and the associated NOP scoping meetings for the proposed project have been integrated into the analysis. Comments related to visual inconsistencies with existing neighborhoods are addressed in Impact Statement 5.1-1, comments related to visual impacts associated with the loss of trees are addressed in Impact Statement 5.1-3, and comments related to the creation of light and glare are addressed in Impact Statement 5.1-4.

5.1.1 EXISTING ENVIRONMENTAL SETTING

The following setting information provides an overview of the existing condition of visual resources in the Curtis Park Village project area, located within the City of Sacramento limits, south of downtown Sacramento.

Regional Setting

While the Sacramento region has significant high quality open space areas devoted to agriculture and recreational uses, the City of Sacramento is predominantly an urbanized area. The *City of Sacramento 2030 General Plan* City of Trees and Open Spaces goal is to "Maintain multi-functional "green infrastructure" consisting of natural areas, open space, urban forest, and parkland, which serves as a defining physical feature of Sacramento, provides visitors and residents with access to open space and recreation, and is designed for environmental sustainability" (p.2-16). A wide variety of plant life, both native and non-native, exists within the urbanized areas of Sacramento, the most predominant of which is the large number of street trees throughout the City. The Sacramento Tree Foundation's *State of the Trees Report* (2000) identifies approximately 1.74 million trees within the City of Sacramento with 155,000 publicly managed in park and street settings.

In addition to the vegetative aesthetic resources of the Sacramento region, the Sacramento area also contains numerous historic structures listed on both the National Register of Historic Places and the list of State Historical Landmarks, not only for historical significance, but also as representative examples of various periods of architecture. Many of these historic resources can be considered aesthetic resources because of their visually significant architecture.

Project Area Setting

The proposed project is located within the City limits, south of downtown Sacramento. The project site is located between Sacramento City College and the Land Park neighborhood to the west, and the Curtis Park neighborhood to the east. Land Park and Curtis Park are tree-lined, shady, older neighborhoods very close to downtown Sacramento. According to the Sacramento Bee's description,

> "Most of the homes in Curtis Park date back to the 1920s. Many have been remodeled and updated. Curtis Park has a large neighborhood park with tennis courts, a baseball diamond and basketball court. A footpath borders the park, providing room for joggers, walkers and dog fanciers. The neighborhood is served by a community center that includes a small auditorium, where live entertainment is performed. Land Park is nearby and has access to an even larger park with a nine-hole golf course, the Sacramento Zoo and Fairytale Town, a facility aimed at younger children.
>
> Homes in Land Park were built from the 1920s through the 1940s and offer some fine examples of architecture of those decades. Both neighborhoods have good access to freeways, although there are a number of residents who bicycle, walk or take public transit to work downtown. Shopping is handy, with regional shopping centers nearby. Typical commute time for Land Park and Curtis Park residents is about 10 minutes." [3]

Sacramento City College is the oldest institution of higher learning in Sacramento, and the seventh oldest public community college in California. Although begun in 1916, the college was transferred to its current location in 1926. Sacramento City College, also known as Sacramento Junior College Annex and Extensions or Sacramento City College Historic District, is listed on the National Register of Historic Places for its architecture and engineering, and as a representative example of the Modern Movement from 1925 to 1949.

Unique Visual Features of the Project Site

Currently, the predominantly vacant project site is generally level with small to large pits throughout the site where contaminated soil has been removed. During rainy weather, water collects in these pits, and numerous native willow and cottonwood trees, as well as cattails, are now growing in them. The majority of the project consists primarily of ruderal forbs and grasses, with some non-native trees such as tree-of-heaven and silk tree. However, stands of large native oak trees are located along the northern property line and the northeastern property line on the project site. The site also contains some storage buildings; residences or historic structures do not occur on the site.

Raney staff conducted a site visit in January 2009 and observed several large piles of contaminated soil in the northwest area of the site. These piles were covered with black plastic in

order to prevent the soil from migrating to surrounding areas. Numerous other large piles of concrete scraps and railroad waste materials were observed on the project site.

External views from the site vary depending on location. Views to the north end of site include existing heritage trees and the surrounding neighborhood. Filtered views exist into the existing Curtis Park neighborhood to the east, as well as unobstructed views of rail activity to the west. From the Sutterville Road overpass looking north, distant views of downtown Sacramento are afforded (See Figure 5.1-1).

Project Features

The proposed project includes the development of approximately 72 acres with a mixed-use, urban infill development. The project would create a neighborhood consisting of single-family home sites, multi-family residential complexes, a neighborhood park/open space site, and neighborhood serving retail and commercial development areas. The project would include approximately 260,000 square feet of commercial retail, 178 single-family home sites, an 80-unit senior multi-family housing complex, a 212-unit multi-family residential housing complex, and a park totaling 8.7 gross acres (6.8 net acres) (See Figures 3-3 and 3-4 in Chapter 3, Project Description). The project would include the necessary roadway and utilities infrastructure, which would tie into existing off-site infrastructure.

The applicant is proposing Design Guidelines for the Curtis Park Village Planned Unit Development. The *PUD Design Guidelines* include two principles: the creation of an urban forest and passive environmental design. The applicant proposes to extend the existing urban forest of trees within the surrounding Curtis Park and Land Park neighborhoods into the project site. Although the goal of passive environmental design is to encourage energy saving and conservation strategies, passive environmental design would also affect the aesthetic resources on the project site.

5.1.2 REGULATORY BACKGROUND

Specific federal or State regulations do not directly pertain to the visual quality of an area. However, applicable policies and regulations established in the City of Sacramento 2030 General Plan, City of Sacramento 2030 General Plan Draft Master EIR, and Municipal Code listed below.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The City of Sacramento adopted the new Sacramento 2030 General Plan in March 2009. The following 2030 General Plan goals and policies are applicable to aesthetics:

Land Use and Urban Design Element

Goal LU 2.3 City of Trees and Open Spaces. Maintain a multi-functional "green infrastructure" consisting of natural areas, open space, urban forest, and parkland, which serves as a defining physical feature of Sacramento, provides visitors and residents with access to open space and recreation, and is designed for environmental sustainability.

Policy LU 2.3.1 Multi-functional Green Infrastructure. The City shall strive to create a comprehensive and integrated system of parks, open space, and urban forests that frames and complements the city's urbanized areas.

Policy LU 2.3.2 Adjacent Development. The City shall require that development adjacent to parks and open spaces complements and benefits from this proximity by:

- Preserving physical and visual access;
- Requiring development to front, rather than back, onto these areas;
- Using single-loaded streets along the edge to define and accommodate public access;
- Providing pedestrian and multi-use trails;
- Augmenting non-accessible habitat areas with adjoining functional parkland; and
- Extending streets perpendicular to parks and open space and not closing off visual and/or physical access with development.

Goal LU 2.4 City of Distinctive and Memorable Places. Promote community design that produces a distinctive, high-quality built environment whose forms and character reflect Sacramento's unique historic, environmental, and architectural context, and create memorable places that enrich community life.

Policy LU 2.4.1 Unique Sense of Place. The City shall promote quality site, architectural and landscape design that incorporates those qualities and characteristics that make Sacramento desirable and memorable including walkable blocks, distinctive parks and open spaces, tree-lined streets, and varied architectural styles.

Policy LU 2.4.2 Responsiveness to Context. The City shall promote building design that respects and responds to the local context, including use of local materials, responsiveness to Sacramento's climate, and consideration of cultural and

historic context of Sacramento's neighborhoods and centers.

Policy LU 2.4.4 Iconic Buildings. The City shall encourage the development of iconic public and private buildings in key locations to create new landmarks and focal features that contribute to the city's structure and identity.

Policy LU 2.4.5 Distinctive Urban Skyline. The City shall encourage the development of a distinctive urban skyline that reflects the vision of Sacramento with a prominent central core that contains the city's tallest buildings, complemented by smaller urban centers with lower-scale mid- and high-rise development.

Goal LU 2.7 City Form and Structure. Require excellence in the design of the city's form and structure through development standards and clear design direction.

Policy LU 2.7.1 Development Regulations. The City shall promote design excellence by ensuring City development regulations clearly express intended rather than prohibited outcomes and reinforce rather than inhibit quality design.

Policy LU 2.7.2 Design Review. The City shall require design review that focuses on achieving appropriate form and function for new and redevelopment projects to promote creativity, innovation, and design quality.

Policy LU 2.7.3 Transitions in Scale. The City shall require that the scale and massing of new development in higher-density centers and corridors provide appropriate transitions in building height and bulk that are sensitive to the physical and visual character of adjoining neighborhoods that have lower development intensities and building heights.

Policy LU 2.7.4 Public Safety and Community Design. The City shall promote design of neighborhoods, centers, streets, and public spaces that enhances public safety and discourages crime by providing street-fronting uses ("eyes on the street"), adequate lighting and sight lines, and features that cultivate a sense of community 'ownership.'

Policy LU 2.7.5 Development Along Freeways. The City shall promote high quality development character of buildings along freeway corridors and protect the public from the adverse effects of

vehicle-generated air emissions, noise, and vibration, using such techniques as:

- Requiring extensive landscaping and trees along the freeway fronting elevation;
- Establish a consistent building line, articulating and modulating building elevations and heights to create visual interest; and
- Include design elements that reduce noise and provide for proper filtering, ventilation, and exhaust of vehicle air emissions.

Policy LU 2.7.6 Walkable Blocks. The City shall require new development and redevelopment projects to create walkable, pedestrian-scaled blocks, publicly-accessible mid-block pedestrian routes where appropriate, and sidewalks appropriately-scaled for the anticipated pedestrian use.

Policy LU 2.7.7 Buildings that Engage the Street. The City shall require buildings to be oriented to and actively engage and complete the public realm through such features as building orientation, build-to and setback lines, façade articulation, ground-floor transparency, and location of parking.

Policy LU 2.7.8 Screening of Off-street Parking. The City shall reduce the visual prominence of parking within the public realm by requiring most off-street parking to be located behind or within structures or otherwise fully or partially screened from public view.

Goal LU 5.1 Centers. Promote the development throughout the city of distinct, well-designed mixed-use centers that are efficiently served by transit, provide higher-density, urban housing opportunities; and serve as centers of civic, cultural, and economic life for Sacramento's neighborhoods and the region.

LU 5.1.5 Vertical and Horizontal Mixed-use. The City shall encourage the vertical and horizontal integration of uses within commercial centers and mixed-use centers, particularly residential and office uses over ground floor retail.

Goal LU 5.4 Regional Commercial Centers. Establish major mixed use activity centers through development and reinvestment in regional commercial centers that are vibrant, regionally-accessible destinations where people live, work, shop, and congregate in a mix of retail, employment, entertainment, and residential uses.

LU 5.4.2 Enhanced Design Character. The City shall encourage redevelopment of existing regional commercial centers into dynamic mixed-use centers by replacing surface parking with structured parking, replacing parking area drive aisles with pedestrian-friendly shopping streets, infilling parking areas with multi-story mixed-use buildings, and creating attractive, well-appointed streetscapes and plazas.

Environmental Resources Element

Goal ER 7.1 Visual Resource Preservation. Maintain and protect significant visual resources and aesthetics that define Sacramento.

Policy ER 7.1.1 Protect and Enhance Scenic Views. The City shall protect and enhance views from public places to the Sacramento and American rivers, adjacent greenways, landmarks, and urban views of the downtown skyline and the State Capitol along Capitol Mall.

Policy ER 7.1.3 Minimize Removal of Existing Resources. The City shall require new commercial, industrial, and residential development to minimize the removal of mature trees, and other significant visual resources present on the site.

Policy ER 7.1.4 Standards for New Development. The City shall seek to ensure that new development does not significantly impact Sacramento's natural and urban landscapes.

Policy ER 7.1.5 Lighting. The City shall minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary.

Policy ER 7.1.6 Glare. The City shall require that new development avoid the creation of incompatible glare through development design features.

<u>City of Sacramento 2030 General Plan Master EIR</u>

In addition, the Sacramento 2030 General Plan Master EIR identifies the following aesthetic features within the City as having the potential for positive or negative aesthetic impacts:

- Scenic Resources (natural open spaces, topographic formations, and landscapes);
- Views and Vistas (foothills and mountains, Central City: State Capitol Building, Old Sacramento, Tower Bridge, the Sacramento River, the Downtown Railyards, and Interstate [I-5]);
- Natural Elements (Trees, rivers);

- Open Space (conserved lands, parks, agricultural land, and vacant lands);
- Manmade Elements (buildings and structures, historic buildings and landmarks, freeways and scenic highways, and city neighborhoods);
- Sensitive Receptors (lighting, shadows, or surrounding visual character);
- Light and Glare (spill light and glare);
- Evolution of City Form; and
- Community Building Blocks (neighborhoods, centers, districts, and corridors).

City of Sacramento Zoning Ordinance

The Zoning Ordinance includes aesthetic review mechanism used by the City to maintain or improve aesthetics qualities within the City. Established codes regulate location, height, and size of buildings or structures, as well as signs, parking, and landscaping.

Planned Unit Development Designation

The Planned Unit Development (PUD) concept, a sub-section of the Zoning Ordinance, encourages the design of well-planned facilities through creative and imaginative planning. The PUD designation is intended to be utilized for large acreage development capable of achieving distinct environmental characteristics.

Multi-Family Residential Design Criteria

In addition, the City has design criteria that apply to large multi-family residential projects (100+ units). These criteria cover general building design and orientation, off-street parking design, on-site circulation, bicycle storage, landscaping and open space, trash enclosures, signage, and personal safety. The 2030 General Plan design objective is to keep the sense of uniqueness and individuality of the traditional neighborhood by protecting and enhancing features such as scale and quality of housing, neighborhood character, and housing choice. However, the traditional neighborhood does allow diverse developments with attributes that emulate the neighborhood form and character. Design elements that achieve this objective include separate landscape buffering between projects; variation in building elevations and configurations between projects; variation in building heights; use of different building materials or a combination of different materials; and contrasting color schemes between projects.

5.1.3 IMPACTS AND MITIGATION MEASURES

This section provides the standards of significance and method of analysis used to determine aesthetic impacts.

Standards of Significance

For the purposes of this EIR, an impact to aesthetic resources would be considered significant if the proposed project would:

- Substantially alter or degrade the existing visual character or quality of the project site and its surroundings;
- Creation of glare that is cast in such a way as to cause public hazard or annoyance for a sustained period of time; or
- Conflict with design guidelines applicable to the project site.

Method of Analysis

The section below gives full consideration to the development of the project site and acknowledges the physical changes to the existing setting. Impacts to the existing environment of the project site are to be determined by the contrast between the site's visual setting before and after proposed development. In this analysis, emphasis has been placed on the transformation of the existing vacant setting into a landscape characterized by proposed surface grading and residential and commercial buildout. Although few standards exist to singularly define the various individual perceptions of aesthetic value from person to person, the degree of visual change can be measured and described in a reasonably objective manner in terms of visibility and visual contrast, dominance, and magnitude. Current residents adjacent to the project site and travelers along Sutterville Road and the Regional Transit Light Rail tracks would be considered sensitive to the visual and aesthetic alteration of the Curtis Park Village area.

It should be noted that Option 1, "neighborhood connection option," provides two vehicular connections from the east into Curtis Park Village on 24th Street and 5th Avenue and Option 2, "neighborhood limited connection option" provides one roadway connection to Curtis Park Village from the east on 5th Avenue. Both options would essentially have the same visual impacts. Therefore, all the impact discussions include both options.

Project-Specific Impacts and Mitigation Measures

5.1-1 Impacts related to the update of the Remedial Action Plan.

Under the current Remedial Action Plan (RAP), contaminated soils would be excavated, disposed of at an appropriately certified landfill, and clean fill dirt would be introduced to return the site to the current grade. Currently the site is undergoing remediation activities, and updates to the RAP to allow other potential remedies would not change the existing visual character of the site. It should be noted that the updates to the RAP remedies could result in more stockpiles of soil on the site, but the soil stockpiles would not be any larger than the stockpiles currently on-site (due to implementation of the existing RAP), and these stockpiles would eventually be removed from the site and hauled to an appropriate landfill. In addition, the inclusion of the potential remedies in the updated RAP would not create new sources of light and glare, nor conflict with any design guidelines associated with the site. Therefore, updating the RAP would result in a ***less than significant*** impact on aesthetics.

Mitigation Measure(s)
None required.

5.1-2 Impacts related to visual inconsistency between proposed uses and adjacent existing uses.

Currently, the proposed project site is surrounded by existing development. The site is surrounded by the established residential neighborhoods of Curtis Park to the north and east, and Western Pacific Addition and Hollywood Park to the south. In addition, Sacramento City College, heavy rail tracks, and the Regional Transit (RT) South light rail line are located to the west; Sutterville Road is to the south; Portola Way is to the north; and 24th Street is to the east. Existing land uses to the north, east, and south include residential development in the near vicinity of the project site. The proposed project would include a mixture of single-family units along the northern and eastern project boundaries to serve as a transition zone between the existing residential uses and the proposed commercial uses in the southern portion of the site. In addition, a senior residential apartment complex would also be located along the eastern boundary. Views from Sutterville Road looking north into the project site would consist of commercial uses, and views from adjacent single-family residential uses would consist largely of single-family residential uses. Therefore, with application of the PUD Design Guidelines, views from the existing sensitive uses would not be expected to experience substantial visual impacts with implementation of the proposed project.

Existing views from the site to the north include existing heritage trees and a residential neighborhood. In addition, the site includes filtered views into the existing Curtis Park neighborhood to the east, and unobstructed views of rail activity to the west. From the Sutterville Road overpass looking north are distant views of downtown Sacramento (See Figure 5.1-1).

The proposed *PUD Design Guidelines: Pattern Book* would govern architecture and landscape features within Curtis Park Village, with a goal to provide consistency between the proposed project and existing adjacent uses: "[The] guidelines attempt to evoke the same sense of attraction and desire as the earlier phases of Curtis Park evoke for us today" (p. 4). The *Design Guidelines* would achieve this objective by recommending the typical landscape treatments that occur in the existing Curtis Park neighborhood (*Pattern Book*, p. 8), residence styles that "complement the massing, scale, proportion, material, texture, and level of craft that distinguishes the architectural character of Curtis Park" (*Pattern Book*, p. 8), and shared drives that reduce curb cuts and "are consistent with existing planning in Curtis Park" (*Pattern Book*, p. 10).

Because the proposed project site plans place proposed uses adjacent to existing compatible uses, and because the *Design Guidelines* promote consistency between the architecture and landscaping of specific uses within the site and surrounding adjacent uses, the proposed project is expected to have ***less than significant*** impacts related to visual consistency and compatibility.

Mitigation Measure(s)
None required.

5.1-3 Impacts related to scenic vistas and visual resources.

Limited vegetation on the project site consists of ruderal forbs and grasses with native young cottonwoods and willows interspersed throughout the site, as well as large stands of native oak trees in the north and northeast. Piles of excavated soil, miscellaneous railroad waste materials, concrete chunks, storage sheds, and an old switching station covered in weeds characterize the current nature of the project site. The proposed project would not substantially alter or degrade the existing visual character or quality but improve the aesthetic value of the project site, eliminating the current brownfield and provide a mixed-use infill development visually consistent with the surrounding neighborhood.

The Sacramento 2030 General Plan Draft Master EIR lists aesthetic features as the following: scenic resources, views and vistas (natural open spaces, topographic formations, and landscapes), views and vistas (American River, Morrison Creek, and other local drainages, foothills, mountains, city skyline), natural elements (trees, American and Sacramento River), open space, manmade elements (buildings and structures, landmarks, scenic highways, freeways, and railroads), sensitive receptors, light and glare, evolution of city form, and community building blocks. Aesthetic features that are located within the immediate vicinity include the Sacramento City College, to the west of the project site, is on the National Register of Historic Places for the building's architecture and engineering, and as a representative example of the Modern Movement. In addition, Land Park and Curtis Park are generally considered neighborhoods with substantial aesthetic resources due to the shady, tree-lined streets and sizeable parks within these communities.

The proposed Curtis Park Village project would not obstruct views of Sacramento City College. From the Sutterville Road overpass and residences to the northwest, views of City College and the stadium would remain the same. From a portion of the Curtis Park neighborhood to the east, views of the college and stadium would be disrupted by the Curtis Park Village project; however, the immediate views from the north and east consist of undeveloped land with railroad waste materials and vegetation largely characterized by weeds.

The removal of trees was covered in the approved RAP; in particular, the cleanup of the site under the approved RAP or the revised RAP would require removal of many of the trees on site, and this cleanup must occur regardless of whether the City approves the proposed project. After remediation of the site is complete, the development of the Curtis Park Village project could occur. All tree removal necessary is required to comply with the City of Sacramento Municipal Code, Chapter 12.56.080, which requires review and a permit for tree removal.

For these reasons, impacts to views and the existing visual character of the site would be considered ***less than significant***.

Mitigation Measure(s)
None required.

5.1-4 Impacts related to light and glare.

The project site consists predominantly of vacant land; therefore, very little light or glare is currently emitted from the project site. The change from an undeveloped property to a mixed-use development would generate new sources of light and glare such as parking lots, building lighting, and streetlights. While the types of lighting and their specific locations are not specified at this point, the proposed project could increase the amount of light and glare into adjacent areas.

Section 7 of the *PUD Guidelines* addresses the design and quality of the proposed lighting in the Curtis Park Village. In particular, lighting is required to be designed in such a way as "to provide ambiance, safety, and security without unnecessary spillover or glare onto adjacent properties (p. 56), and security lighting is to be designed "to prevent offsite glare and light trespass" (p. 56). In addition, language is included to guide the heights of lighting placed on poles and buildings to ensure that illumination is not excessive or out of scale. Therefore, compliance with the PUD Guidelines would ensure that adverse light and glare impacts would not occur as a result of the project, resulting in a ***less than significant*** impact.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

5.1-5 Long-term impacts to the visual character of the region from the proposed project in combination with existing and future developments in the Sacramento area.

The proposed project is not expected to contribute to a cumulative change in the visual character of the Sacramento region. Due to the existing urban setting of the project area and the continued urban uses planned for the project area, the larger context of the visual impact of the proposed project would not be considered cumulatively significant. The areas surrounding the project site are currently developed for a wide range of uses, including residential, commercial, and school uses. Because one of the purposes of the Curtis Park Village *PUD Design Guidelines* is to maintain consistency in the visual appearance of the project area and surrounding uses, the project would not conflict with existing adjacent uses, but would instead support those uses. Development in the project area would be guided by the development regulations provided in the *Design Guidelines* as well as the General Plan and Zoning Ordinance. Therefore, development of the project would not contribute to a cumulative change in the visual character of the project area, and the cumulative impact associated with the proposed project would be considered ***less than significant***.

Mitigation Measure(s)
None required.

Endnotes

[1] City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
[2] City of Sacramento, *Sacramento 2030 General Plan Master EIR*, March 2009.
[3] Sacramento Bee, *Land Park/Curtis Park: Close by downtown, two neighborhoods full of fine old homes*, http://www.sacbee.com/968/story/179633.html, accessed May 2008.

5.2 TRANSPORTATION AND CIRCULATION

5.2 TRANSPORTATION AND CIRCULATION

INTRODUCTION

This section summarizes the effects on the near-term and future (2027) transportation and circulation system resulting from vehicle trips associated with the proposed development of the project site. On-site alternatives to the Proposed Project were analyzed in the same detail as the Proposed Project so any alternative could be selected without additional study.

This transportation discussion, prepared by Dowling Associates, Inc., addresses impacts identified in the analysis.

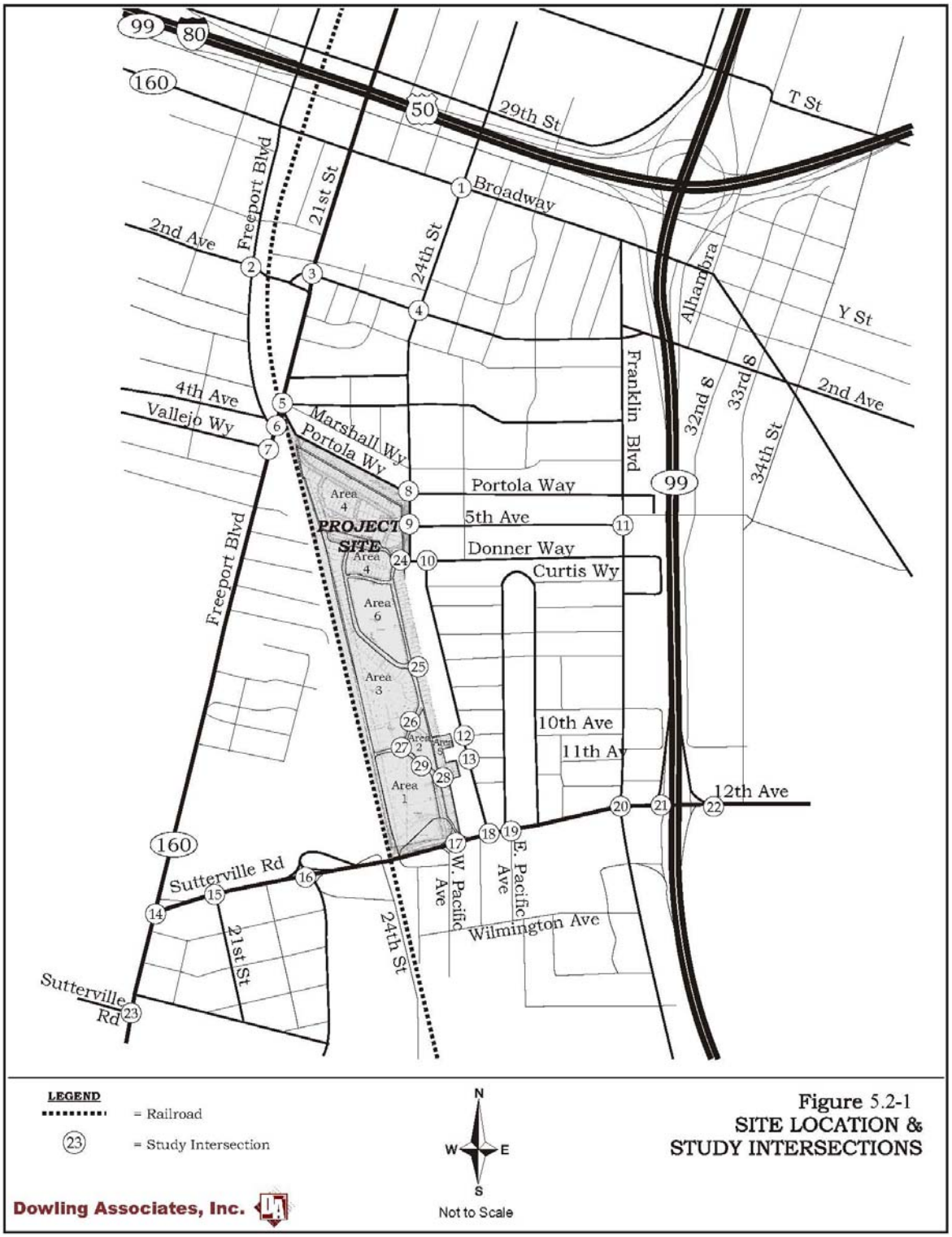
PROJECT DESCRIPTION

The proposed Curtis Park Village project consists of a mixed-use commercial and residential in-fill development with 183 single family residential units, an 80-unit senior independent living apartment, 212 multi-family housing units, 216 single family residential units, 171,000square feet of retail commercial area, two restaurants and one dinner theater on a 72-acre site. The site is bounded on the north by Portola Way, on the south by Sutterville Road, and on the west by the Western Pacific railway (Figure 5.2-1). Sacramento City College is located to the west of the railroad tracks. The traffic analysis assumes build-out of 216 single family residential units, 176,000 square feet of retail commercial area, two restaurants, one dinner theater, a health spa, and a hotel. The assumed land uses are estimated to generate higher number of vehicle trips, thereby provided more conservative approach in determining traffic impact[1].

The Proposed Project site has been split into six subareas. Area 1, located in the southernmost portion of the site, would contain a 53,500 square-foot grocery store, a 25,000 square-foot bookstore, and 76,300 square feet of other retail commercial space. Area 2, located between Area 1 and Area 3 to the east of the new access road, would consist of 15,800 square feet of retail commercial space. Area 3, located north of Area 1 and Area 2, would consist of ten single family units, two 6,500 square-foot restaurants, one 42,435 square-foot dinner theater, one 85,000 square-foot health spa, and a 150-room hotel. Area 4, concentrated mainly on the north portion of the site but also covering areas around the park/open space and to the east of the new access road, would contain 146 single family units (Single Family Area) of which 39 would have vehicle access only via a new alley way between the new access road and 24th Street. Area 5, located east and north of Area 2, would contain 60 single-family units, six of which would have vehicle access only via 24th Street and the remaining via the alley way. Area 6, located in the center of the site, would be 7.2 acres of park/open space area (Park/Open Space).

[1] See Dowling Associates Memorandum dated December 9, 2008 in Appendix D for trip generation comparison of the different land uses.

Figure 5.2-1
Study Intersections and Site Location



The main access to the site would be provided from Sutterville Road at a new signalized intersection between West Pacific Avenue and Jefferey Avenue. A second access to the south would be located at the southwest corner of the site, through the Sutterville Road Under passing. A northern access would be located at the northwest corner of the site, providing a connection to Portola Way. Access to the east would be provided from the new access road at Donner Way.

ENVIRONMENTAL SETTING

The existing roadway, transit, bicycle and pedestrian components of the transportation system within the study area are described below.

Existing Roadway Network

Regional vehicular access to the site is provided primarily by the freeway system that serves the central areas of Sacramento. State Route 99 (SR-99) is a north-south facility that is located less than one mile east of the site. Access to SR-99 is provided via Sutterville Road (12th Ave) near Franklin Boulevard. The east-west bound Interstate 80 (I-80) and State Route 50 (SR-50) coexist approximately 1.5 miles north of the site. Access to I-80/SR-50 West is provided at W Street and 16th Street and access to I-80/SR-50 East is provided at Broadway and 16th Street. The two facilities split at their intersection with SR-99.

24th Street is a four-lane arterial road from Sutterville Road south through Sacramento Executive Airport and the Florin Area of Sacramento to terminate near Meadowview Park in southern Sacramento. At Sutterville Road, the roadway is off-set about 1,000 feet to the east and travels north near the project vicinity. It operates primarily as a two-lane collector road until around Castro Street where it widens to four-lanes and continues through Midtown Sacramento to the Southern Pacific railroad tracks just south of the American River.

Sutterville Road is a two-mile long east-west roadway that runs from I-5 near Riverside Boulevard east along the southern edge of Land Park to Freeport Boulevard; then resumes about 1,200 feet north as a four-lane arterial road to Franklin Boulevard where it continues as 12th Avenue. It has an overpass construction over the Western Pacific railroad tracks. The eastern bypass onramp is located in the Proposed Project site and would be reconfigured as part of the Project.

21st Street is a discontinuous roadway that extends from the American River to the north to Meadowview Road to the south. It operates as a one-way northbound arterial roadway from G Street to just south of 4th Avenue. A portion of the one-way segment was recently converted to two-way traffic operations as part of the Freeport Boulevard/21st Street Two-Way Conversion. 21st Street provides a potential route to I-80/I-50 from the project site.

Freeport Boulevard extends from I-80/I-50 south to the city limit. To the north, it continues as 19th Street and to the south, it becomes River Road. Between G Street and just south of 4th Avenue, it operates as a one-way southbound arterial roadway. As with 21st Street, a portion of Freeport Boulevard was recently converted to two-way traffic operations. It serves as an alternative route to I-80/I-50.

Franklin Boulevard extends from Broadway on the north to just south of the City of Elk Grove primarily as a four-lane arterial. It provides freeway access to southbound SR-99 at 15th Avenue.

Broadway is a major four-lane arterial road that runs from the American River just to the west of I-5 to 65th Street to the east. It provides a northern freeway access alternative to southbound SR-99 and from northbound SR-99.

2nd Avenue is a discontinuous local street that extends eastward from Riverside Boulevard. In the project vicinity, it connects west to Freeport Boulevard, and east to Franklin Boulevard, under SR-99, to Broadway and beyond.

4thAvenue is a discontinuous local street that extends eastward from I-5 to just beyond 65th Street. It lies just north of the project site and offers an alternative connection to 21st Street. Access to 21st Street from 4th Street is restricted to right turning movements, only.

Portola Way extends from 21st Street to the west to just beyond Franklin Boulevard. It is a two-lane local street that borders the northern edge of the project site.

Donner Way is a two-lane local street that extends from 24th Street east to 31st Avenue; then again between 32nd Avenue to 33rd Avenue to the east of SR-99. It provides a through connection to Franklin Boulevard from the project site.

5th Avenue is a discontinuous local street that spans from I-5 on the west to Broadway on the east. In the project vicinity, it connects the northern portion of the site to Franklin Boulevard, where the an offset connection continues east over SR99 to Broadway.

10th Avenue is an east-west discontinuous local road that spans from I-5 on the west to east Sacramento. In the project vicinity, it extends from 24th Street to the western edge of Curtis Park; then continues from the eastern edge of Curtis Park to Franklin Boulevard.

11h Avenue is an east-west discontinuous local street that spans from I-5 on the west to east Sacramento. In the project vicinity, it extends from 24th Street to the western edge of Curtis Park; then continues from Cutter Way to Franklin Boulevard.

Vallejo Way, a two-lane local street, runs from I-5 east past Riverside Boulevard to it termination at Freeport Boulevard.

West Curtis Drive is a two-lane local street that runs along the western edge of Curtis Park, one block east of the project.

Existing Transit System

The Sacramento Regional Transit District (RT) provides bus and light rail services near the project site. Four bus routes operates in the project area: Routes 62 (Freeport), 63 (24th Street-Hogan), 64 (24th Street-City College), and 83 (14th Avenue). Route 62 provides daily service between Rush River Drive and the downtown area in 30 minute intervals. It operates from about 6:00 am to 11:00 pm on weekdays, 7:00 am to 10:00 pm on Saturdays, and 9:00 am to 10:00 pm on Sundays. Route 63 and Route 64 provide service between Meadowview Road and the downtown area. While both routes converge on 24th Street near the project site, Route 63 travels up Franklin Boulevard and Route 64 up 24th Street for much of their routes. Service on both routes is provided on 60- to 75-minute intervals from about 5:30 a.m. to 8:00 p.m. during weekdays. Route 64 operates from about 7:00 a.m. to 6:30 p.m. on Saturdays. Route 63 has no Saturday service and neither routes have Sunday and holidays service. Route 83 provides service between Riverside Boulevard and University/65th Street. In the project vicinity, it operates along Sutterville Boulevard at 30 minute intervals between 6:20 am to 8:00 pm on weekdays. There is no service on weekends and holidays.

The nearest light rail stations to the project site are the 4th Avenue/Wayne Hultgren station and the City College station, located at opposite ends of the west side of the site. Service begins at 4:30 am, 5:30 am, and 6:00 am on weekdays, Saturdays, and Sundays, respectively, and runs until 1:00 am. Trains operate in 15 minute intervals during peak and midday hours and in 30 minutes intervals during the evening and night periods. Figure 5.2-2 shows the existing transit routes.

Existing and Planned Pedestrian and Bicycle Facilities

According to the Bikeway Master Plan map contained in the City of Sacramento Parks and Recreation Master Plan 2005-2010, existing bikeways may be found along the following roadways in the project area:

- Freeport Boulevard south of Sutterville Road (North)
- Sutterville Road between Freeport Boulevard and just east of Riverside Boulevard
- 2nd Avenue between 34th Street and Riverside Boulevard
- 5th Avenue east of Franklin Boulevard

An extensive bikeway network was proposed that would connect the project site to the rest of the city. Proposed bikeways located adjacent to the project site include on-street bike lanes along Sutterville Road and 24th Street and an off-street bike path along the Western Pacific railroad tracks. Figure 5.2-3 shows the existing and planned bikeways under the Bikeway Master Plan.

Sidewalks are provided along almost all of the streets in the project area except for the elevated section of Sutterville Road.

Figure 5.2-2
Existing Transit Service and Facilities

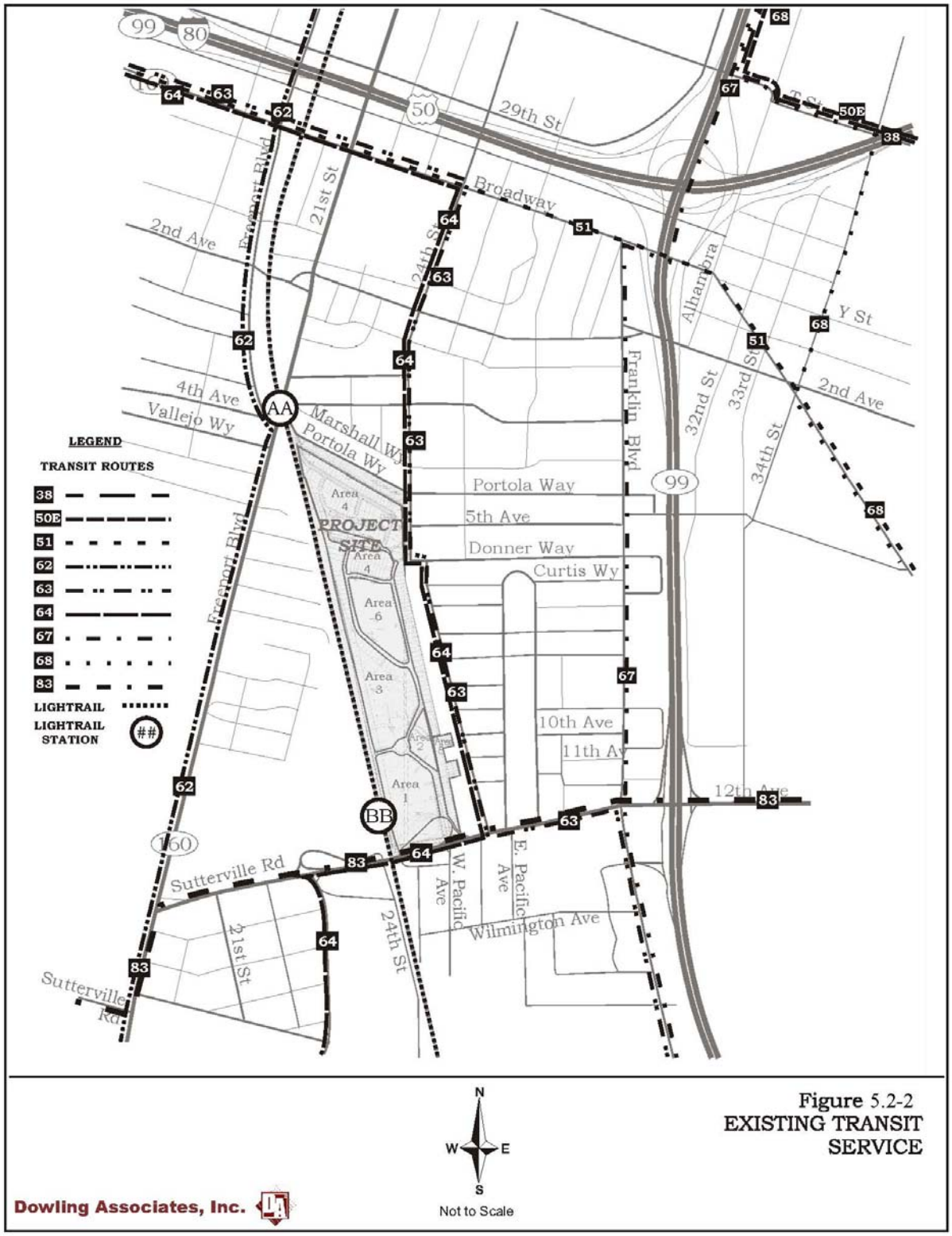
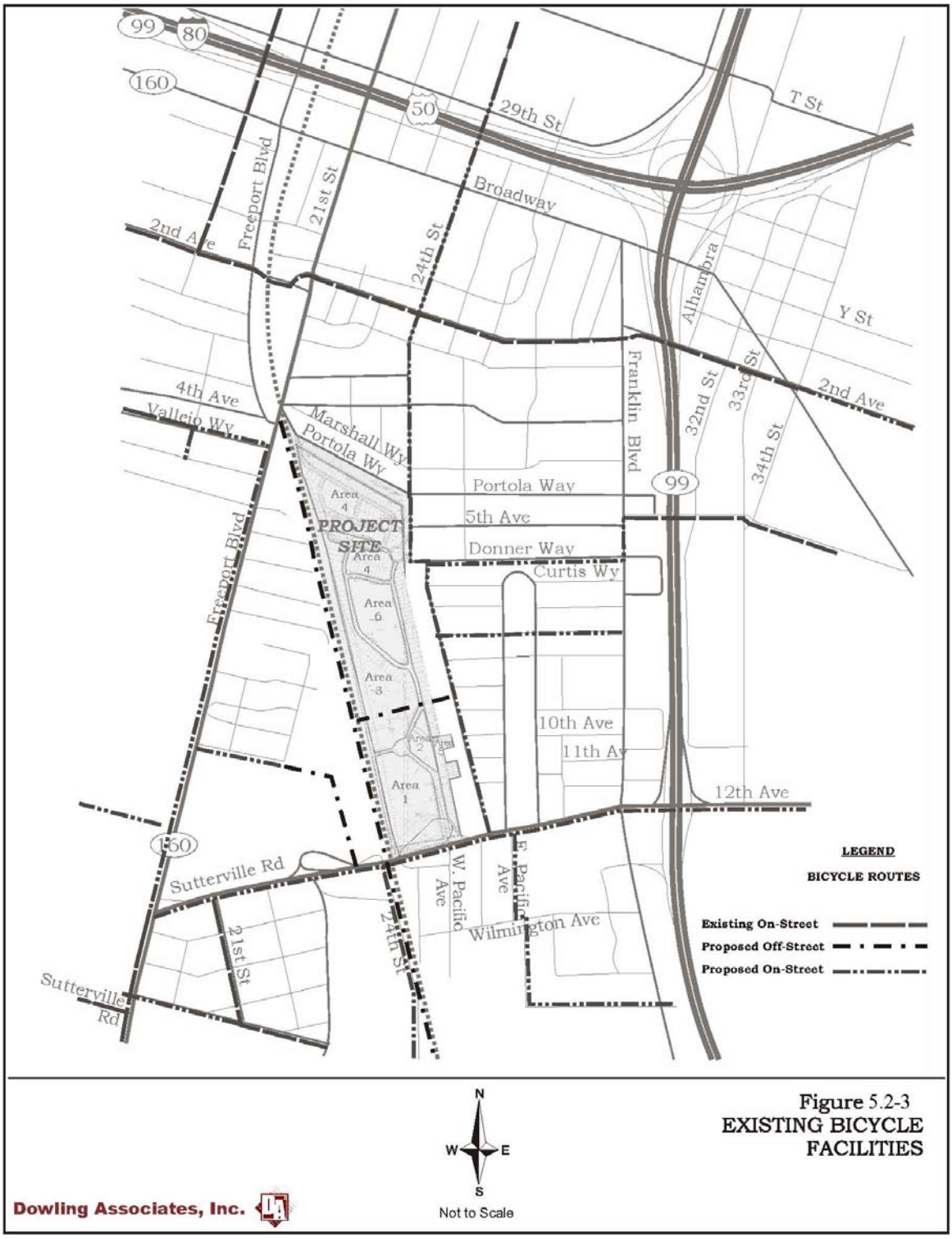


Figure 5.2-3
Existing Bicycle Facilities



Study Area

A set of intersections, street segments, freeway ramps, and freeway merge/diverge were selected for study based upon the anticipated volume and distributional patterns of project traffic and known locations of operational difficulty. This selection was made in collaboration with the City of Sacramento Department of Transportation, Traffic Engineering Division staff. The following locations, shown in Figure 5.2-1, were studied:

- Intersections

1. 24th Street / Broadway
2. Freeport Boulevard / 2nd Avenue*
3. 21st Street / 2nd Avenue
4. 24th Street / 2nd Avenue*
5. 21st Street / 4th Avenue
6. Freeport Boulevard / 21st St*
7. Freeport Boulevard / Vallejo Way
8. 24th Street / Portola Way*
9. 24th Street / 5th Avenue
10. 24th Street / Donner Way
11. Franklin Boulevard / 5th Avenue (North)
12. 24th Street / 10th Avenue
13. 24th Street / 11th Avenue
14. Sutterville Road / Freeport Boulevard (North)*
15. Sutterville Road / 21st Street
16. Sutterville Road / Sutterville Bypass Ramps West*
17. Sutterville Road / Sutterville Bypass Ramps East
18. Sutterville Road / 24th Street*
19. Sutterville Road / Curtis Drive West*
20. Sutterville Road / Franklin Boulevard*
21. Sutterville Road / SR 99 SB Ramp*
22. Sutterville Road / SR 99 NB Ramp*
23. Sutterville Road / Freeport Boulevard (South)*
30. Franklin Boulevard / 5th Avenue (South)

- Street Segments

1. Sutterville Road Overcrossing*
2. Sutterville Road between East Curtis Drive and West Curtis Drive*
3. 24th Street between 9th Street and 10th Street
4. 24th Street between Portola Way and Marshall Way*
5. Donner Way between 24th Street and 25th Street
6. Freeport Boulevard north of 4th Avenue*
7. 21st Street north of 4th Avenue
8. Portola Way between 21st Street and 24th Street
9. Marshall Way between 21st Street and 24 Street

10. 4th Avenue between 21st Street and 24th Street
11. 3rd Avenue between 21st Street and 24 Street
12. 24th Street just south of Donner Way
13. 10th Avenue just east of 24th Street
14. 11th Avenue just east of 24th Street
15. 5th Avenue just east of 24th Street
16. E. Pacific Avenue north of Wilmington Avenue
17. W. Pacific Avenue just north of Wilmington Avenue

- Freeway Ramps

1. SR 99 Southbound Off-Ramp
2. SR 99 Northbound Off-Ramp

- Freeway Merge/Diverge

1. SR 99 On-Ramp merges (two ramps)
2. SR 99 Off-Ramp diverges (two ramps)

Existing Traffic Volumes

Turning traffic volumes were counted at the study intersections during the a.m. and p.m. commuter periods (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) and on Saturday between 1:00 a.m. and 3:00 p.m. in March, April and October 2005. Selected locations, denoted by "*" above, were recounted on weekdays in September 2007 in order to capture changes in traffic patterns since the initial counts. The turning traffic volumes shown in Figure 5.2-4 and Figure 5.2-5 and daily traffic volumes shown in Table 5.2-7 reflect existing Year 2007 counts where available. At locations where Year 2007 counts are not available, Year 2005 traffic volumes were adjusted based on Year 2007 counts at adjacent locations if the approach volumes are projected to be higher than Year 2005 counts.

REGULATORY PROVISIONS

Roadway operations are regulated by agencies with jurisdiction of a particular roadway. In the study area, the interstate freeways are under the jurisdiction of the California Department of Transportation (Caltrans). The non-freeway roadways are under the jurisdiction of the City of Sacramento.

Figure 5.2-4
Existing Traffic Volumes AM (PM)

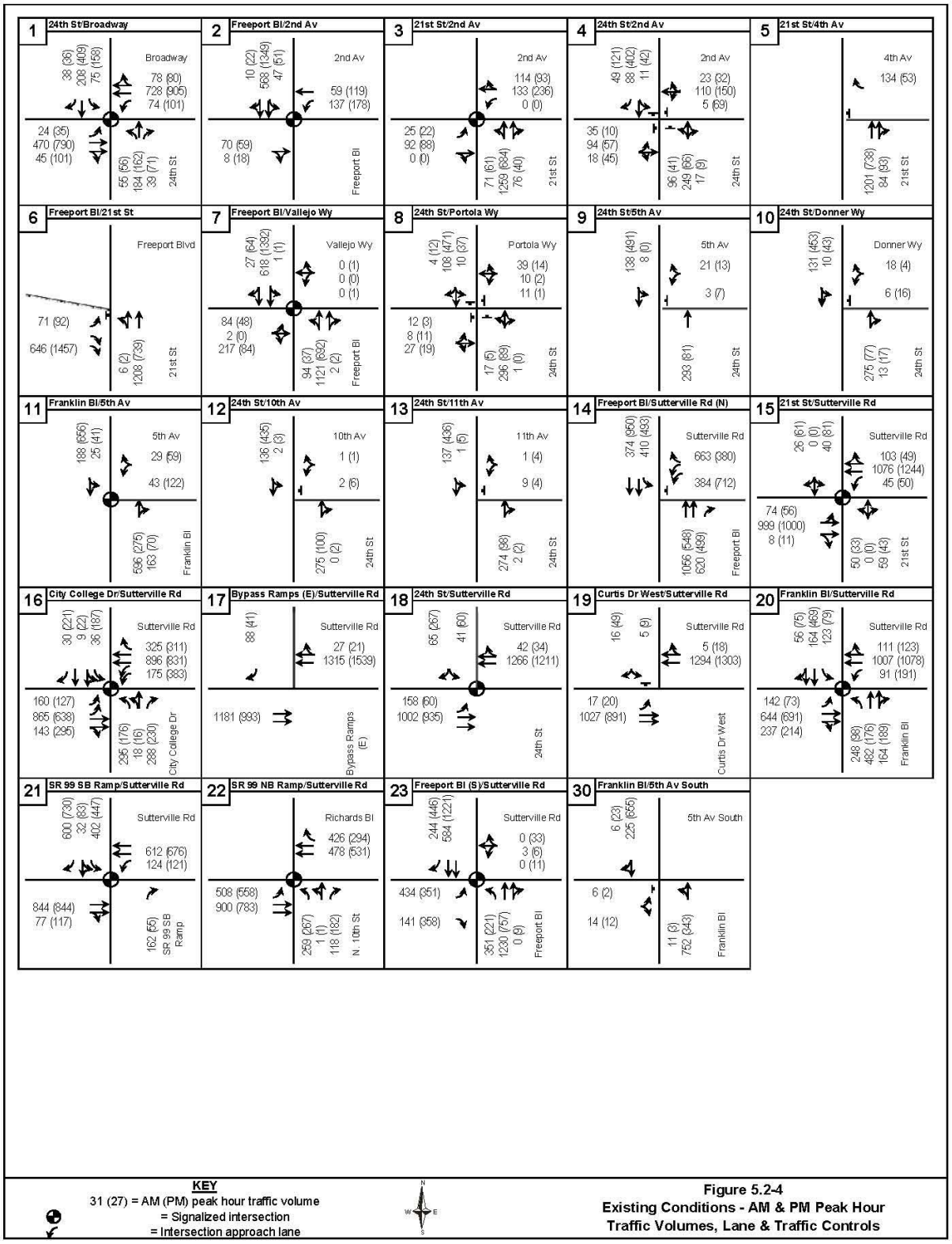
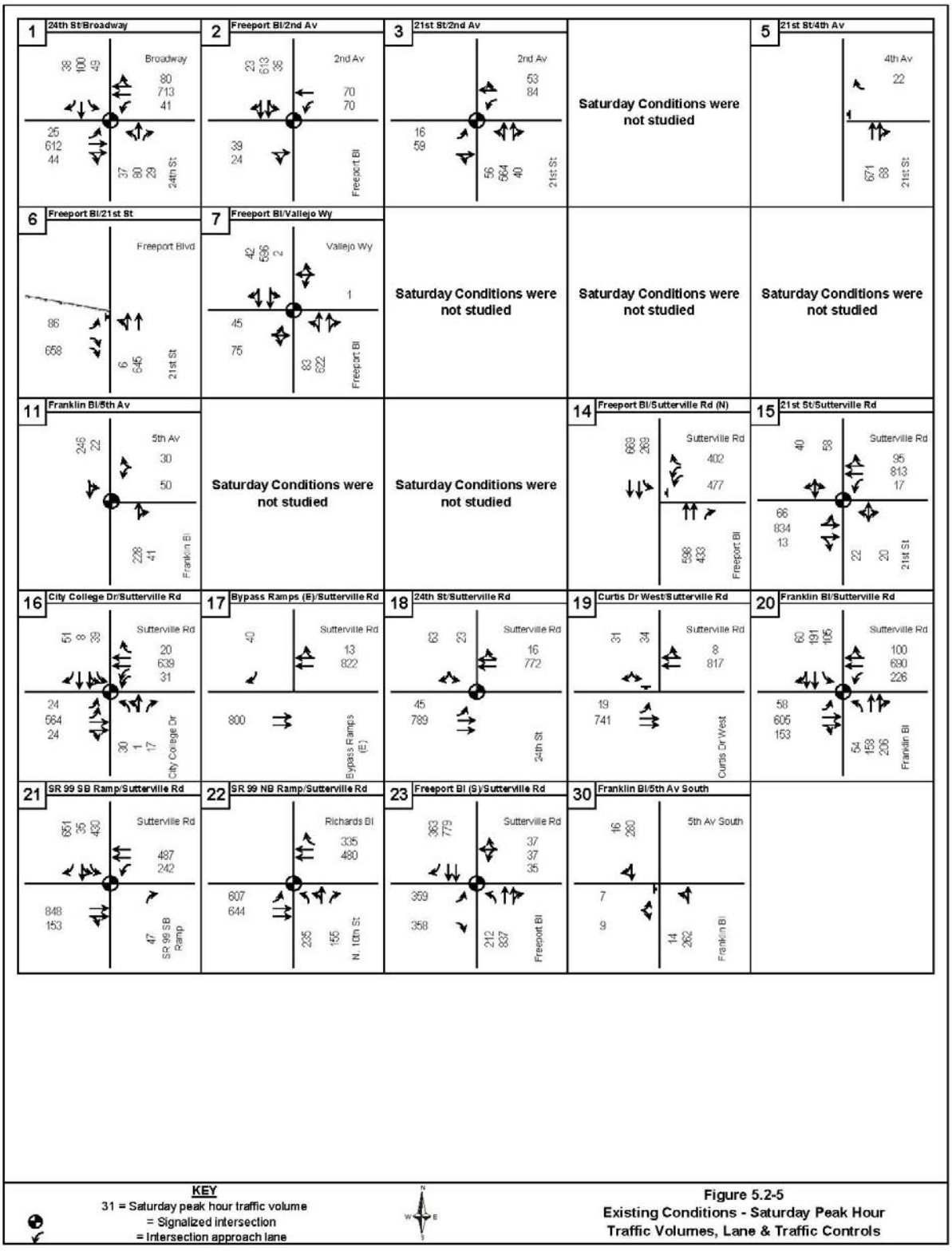


Figure 5.2-5
Existing Traffic Volumes (Saturday)



Levels of Service

"Levels of service" describe the operating conditions experienced by motorists. Level of service is a qualitative measure of the effect of a number of factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort and convenience. Levels of service are designated "A" through "F" from best to worst, which cover the entire range of traffic operations that might occur. Level of Service (LOS) "A" through "E" generally represents traffic volumes at less than roadway capacity, while LOS "F" represents over capacity and/or forced flow conditions.

The *City of Sacramento General Plan* (October 1987) outlines the goals and policies that coordinate the transportation and circulation system with planned land uses. The General Plan (Goal D, Street and Road section) identifies LOS C as the goal for City's local and major street system except at freeway ramp intersections, where the goal is LOS D. In addition, the General Plan smart growth principles identify the need for a balanced transportation system, including walkability and improved bicycle infrastructure.

While the 1988 General Plan was in place at the time this study was initiated, the City is currently working on updating the General Plan, with adoption expected in early 2009. In general, the *Draft 2030 General Plan* (City of Sacramento, May 2008) update includes similar goals with respect to the transportation system that were described in the 1988 General Plan. However, the goal related to roadway LOS is significantly different under the Draft 2030 General Plan update:

- The City shall allow for flexible LOS standards, which will permit increased densities and mix of uses to increase transit ridership, biking, and walking, which decreases auto travel, thereby reducing air pollution, energy consumption, and greenhouse gas emissions.
    - o Level of Service Standards for Multi-Modal Districts – The City shall seek to maintain the following standards in multi-modal districts including the Central Business District, areas within ½ mile walking distance of light rail stations, and mixed-use corridors characterized by frequent transit service, enhanced pedestrian and bicycle systems, a mix of uses, and higher-density development:
    - o Maintain operations on all roadways and intersections at LOS E or better at all times, including peak travel times, unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. Congestion in excess of LOS E may be acceptable, provided that provisions are made to improve the overall system and/or promote non-vehicular transportation as part of a development project or City-initiated project.
    - o Base Level of Service Standard – The City shall seek to maintain the following standards for all areas outside of multi-modal districts:
    - o Maintain operations on all roadways and intersections at LOS D or better at all times unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. Congestion in excess of LOS D may be acceptable, provided that provisions are made to improve the overall system and/or promote non-vehicular transportation as part of a development project or City-initiated project.

The City's pedestrian friendly Street Standards (adopted in February 2004) provide guidelines on conceptual street standards to enhance and improve the pedestrian environment and encourage alternate mode use in the City of Sacramento. The key elements of the standards are listed below:

- Eliminate rolled curb
- Provide separated sidewalks on all streets
- Reduce widths of collector and arterial streets
- Reduce travel lane widths
- Add bike lanes to all new collector and arterial streets

Signalized Intersections Analysis

Signalized intersection analyses were conducted using the operational methodology outlined in the *Highway Capacity Manual* (Transportation Research Board, Washington, D.C., 2000, Chapters 10 and 16). This procedure calculates an average stopped delay per vehicle at a signalized intersection, and assigns a level of service designation based upon the delay. The method also provides a calculation of the volume-to-capacity (v/c) ratio of the critical movements at the intersection. Table 5.2-1 shows level of service criteria for signalized intersections.

Unsignalized Intersections Analysis

Stop sign controlled intersections were analyzed utilizing the methodology outlined in the *Highway Capacity Manual* (Transportation Research Board, Washington, D.C., 2000, Chapters 10 and 17). This methodology determines the Level of Service by calculating an average total delay per vehicle for each controlled movement and for the intersection as a whole. A LOS designation is assigned based upon the average control delay of all movements. Table 5.2-2 presents the relationship of total delay to level of service for stop controlled intersections.

Street Segment Analysis

Selected street segments were evaluated by comparing annual daily traffic volumes to the level of service criteria set forth in the City's Traffic Impact Guidelines. Table 5.2-3 shows level of service criteria for arterial roadways, local streets, and collector streets. The criteria for local and collector streets were based on the maximum daily traffic for those types of facilities listed in the Sacramento City Code. The maximum daily traffic in the Code was set as the threshold for LOS C traffic operations. The thresholds for other levels of service were based on volume-to-capacity ratios of 0.60 for LOS A, 0.70 for LOS B, 0.80 for LOS C, 0.90 for LOS D, and 1.00 for LOS E.

Table 5.2-1
Level Of Service Criteria – Signalized Intersections

Level of Service (LOS)	Average Delay (seconds/vehicle)	Description
A	≤ 10	Very Low Delay: This level of service occurs when progression is extremely favorable and most vehicles arrive during a green phase. Most vehicles do not stop at all.
B	>10 and ≤ 20	Minimal Delays: This level of service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than at LOS A, causing higher levels of average delay.
C	> 20 and ≤ 35	Acceptable Delay: Delay increases due to only fair progression, longer cycle lengths, or both. Individual cycle failures (to service all waiting vehicles) may begin to appear at this level of service. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	> 35 and ≤ 55	Approaching Unstable Operation/Significant Delays: The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume / capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55 and ≤ 80	Unstable Operation/Substantial Delays: These high delay values generally indicate poor progression, long cycle lengths, and high volume / capacity ratios. Individual cycle failures are frequent occurrences.
F	> 80	Excessive Delays: This level, considered unacceptable to most drivers, often occurs with oversaturation (that is, when arrival traffic volumes exceed the capacity of the intersection). It may also occur at nearly saturated conditions with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

Source: Transportation Research Board, *Highway Capacity Manual*, Washington, D.C., 2000, pages 10-16 and 16-2.

Table 5.2-2
Level of Service Criteria Unsignalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)
A	0 - 10
B	>10 - 15
C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50

Source: Transportation Research Board, *Highway Capacity Manual*, Washington, D.C., 2000, pages 10-16 and 16-2.

Table 5.2-3
Level of Service Criteria – Roadways

Facility Type	Number of Lanes	Maximum Volume for Given Service Level				
		A	B	C	D	E
Arterial, low access control	2	9,000	10,500	12,000	13,500	15,000
	4	18,000	21,000	24,000	27,000	30,000
	6	27,000	31,500	36,000	40,500	45,000
Arterial, moderate access control	2	10,800	12,600	14,400	16,200	18,000
	4	21,600	25,200	28,800	32,400	36,000
	6	32,400	37,800	43,200	48,600	540,000
Arterial, high access control	2	12,000	14,000	16,000	18,000	20,000
	4	24,000	28,000	32,000	36,000	40,000
	6	36,000	43,000	48,000	54,000	60,000
Local Street	2	3,000	3,500	4,000	4,500	5,000
Collector Street	2	5,250	6,125	7,000	7,875	8,750

Facility Type	Stops/Mile	Driveways	Speed
Arterial, low access control	4+	Frequent	25-35 MPH
Arterial, moderate access control	2-4	Limited	35-45 MPH
Arterial, high access control	1-2	None	45-55 MPH

Sources: Arterial volumes from City of Sacramento, *Traffic Impact Analysis Guidelines*, 1996.
Local and Collector Street volumes based on City of Sacramento *Design and Procedures Manual*, Section 15.

Neighborhood Traffic Management Program

The City of Sacramento has a Neighborhood Traffic Management Program (NTMP) where neighborhoods can petition the City to install traffic calming devices to address residents' concerns about traffic. There are two phases of an NTMP—Phase I involves less restrictive modifications such as the installation of high visibility speed limit sings, striping of bike lanes, and the installation of speed humps. Phase II involves more restrictive measures including half- and full-street closures, diverters, and one-way/two-way street conversions. Phase II modifications are implemented if the Phase I modifications do not adequately address neighborhood concerns.

Freeway Ramp and Merge / Diverge Analysis

Freeway ramps and merge / diverge areas were analyzed using a methodology outlined in the *Highway Capacity Manual* (Transportation Research Board, Washington, D.C., 2000, Chapters 13 and 25). Freeway ramp operating conditions are dependent upon traffic volumes and the ramp characteristics. These characteristics include the length and type of acceleration / deceleration lanes; free-flow speed of the ramps; number of lanes; grade; and types of facilities that the ramps interconnect. Table 5.2-4 shows the relationship of level of service to freeway density.

Table 5.2-4 Level Of Service Criteria – Freeway Ramp Merge / Diverge Areas	
Level of Service	**Maximum Density (passenger vehicles per mile per lane)**
A	10
B	20
C	28
D	35
E	> 35
F	Demand exceeds capacity
Source: Transportation Research Board, *Highway Capacity Manual*, Washington, D.C., 2000, page 25-5.	

As shown in Table 5.2-4, the basic criterion used to determine Freeway Ramp LOS is vehicle density in the merge or diverge area. Note that the 2000 Highway Capacity Manual[2] requires that several additional criteria be considered so that LOS F is automatically attained for a ramp if:

At an on-ramp, volume exceeds capacity (V>C) in:

1. The segment of a freeway downstream, or
2. The merge-area defined by the on-ramp and the two adjacent freeway lanes,

At an off-ramp, volume exceeds capacity (V>C) in:

1. The segment of a freeway upstream OR downstream,
2. The off-ramp itself, or
3. The diverge-area defined by the two adjacent freeway lanes approaching the ramp

Table 5.2-5 shows maximum service flow rates for freeway ramps, based upon information presented in the *Highway Capacity Manual* (Transportation Research Board, Washington, D.C., 2000, Chapters 13 and 25; 1985, Chapter 5). This methodology is used in cases where the freeway ramp configuration governs the operating condition.

[2] See *Highway Capacity Manual*, Transportation Research Board, Washington, D.C., 2000, pages 13-22 and 13-23.

Table 5.2-5
Level of Service Definitions – Freeway Ramps

Level of Service (LOS)	Service Flow Rates for Single Lane / Two Lane Ramps Ramp Design Speed (Mph)					Definition
	< 20	21-30	31-40	41-50	> 51	
A	(1)	(1)	(1)	(1)	800/ 1,550	Conditions of free flow; speed is controlled by driver's desires, speed limits, or physical conditions.
B	(1)	(1)	(1)	1,150/ 2,250	1,150/ 2,350	Conditions of stable flow; operating speeds beginning to be restricted; little or no restrictions on maneuverability from other vehicles.
C	(1)	(1)	1,400/ 2,600	1,600/ 3,100	1,700/ 3,350	Conditions of stable flow; speeds and maneuverability more closely restricted
D	(1)	1,550/ 2,900	1,700/ 3,200	1,950/ 3,850	2,050/ 4,150	Conditions approach unstable flow; tolerable speeds can be maintained, but temporary restrictions may cause extensive delays; little freedom to maneuver; comfort and convenience low.
E	1,800/ 3,200	1,900/ 3,500	2,000/ 3,800	2,100/ 4,100	2,200/ 4,400	Conditions approach capacity; unstable flow with stoppages of momentary duration; maneuverability severely limited.
F	Widely Variable					Forced flow conditions; stoppages for long periods; low operating speeds.

(1) Level of service not attainable due to restricted design speed.
Sources: Transportation Research Board, Highway Capacity Manual, Washington, D.C., 2000, page 25-5.
Transportation Research Board, Highway Capacity Manual, Washington, D.C., 1985, page 5-15.

Existing Levels of Service

The existing weekday a.m. and p.m. peak hour and Saturday peak hour operating conditions at the study area intersections are shown in Table 5.2-6.

Table 5.2-6
Intersection Levels of Service – Existing Conditions

Intersection	Traffic Control	Peak Hour	LOS[1]	Delay[2]
1. 24th St / Broadway	Signal	AM	B	14.1
		PM	B	17.9
		Saturday	B	10.6
2. Freeport Bl / 2nd Av	Signal	AM	B	11.1
		PM	B	13.7
		Saturday	A	8.6
3. 21st St / 2nd Av	Signal	AM	B	10.1
		PM	B	12.5
		Saturday	A	9.0
4. 24th St / 2nd AV	4-Way Stop	AM	B	11.0
		PM	C	15.1
5. 21th St / 4th Av	Stop Sign	AM	A	1.5
		PM	A	0.7
		Saturday	A	0.3
6. Freeport Bl / 21st St	Stop Sign	AM	B	0.8
		PM	B	1.3
		Saturday	B	1.4
7. Freeport Bl / Vallejo Wy	Signal	AM	B	10.2
		PM	A	4.8
		Saturday	A	5.7
8. 24th St / Portola Wy	4-Way Stop	AM	A	9.1
		PM	B	11.9
9. 24th St / 5th Av	Stop Sign	AM	A	0.7
		PM	A	0.3
10. 24th St / Donner Wy	Stop Sign	AM	A	0.7
		PM	A	0.9
11. Franklin Bl / 5th Av (North)	Signal	AM	A	5.6
		PM	A	6.4
		Saturday	A	5.0
12. 24th St / 10th Av	Stop Sign	AM	A	0.1
		PM	A	0.2
13. 24th St / 11th Av	Stop Sign	AM	A	0.3
		PM	A	0.2
14. Sutterville / Freeport (North)	Signal	AM	C	21.8
		PM	B	17.8
		Saturday	B	15.2
15. Sutterville / 21st St	Signal	AM	B	13.8
		PM	B	18.5
		Saturday	B	13.6
16. Sutterville / City College Dr	Signal	AM	C	20.4
		PM	C	23.7
		Saturday	B	10.9
17. Sutterville / Bypass Ramps East	Stop Sign	AM	A	0.6
		PM	A	0.3
		Saturday	A	0.3

Table 5.2-6
Intersection Levels of Service – Existing Conditions

Intersection	Traffic Control	Peak Hour	LOS[1]	Delay[2]
18. Sutterville / 24th St	Signal	AM	A	9.7
		PM	B	14.4
		Saturday	A	6.7
19. Sutterville / Curtis Dr West	Stop Sign	AM	A	0.3
		PM	A	0.5
		Saturday	A	0.7
20. Sutterville / Franklin Bl	Signal	AM	C	28.0
		PM	C	24.9
		Saturday	C	24.2
21. Sutterville / SR 99 SB Ramp	Signal	AM	C	27.1
		PM	C	28.2
		Saturday	C	33.4
22. Sutterville / SR 99 NB Ramps	Signal	AM	B	17.3
		PM	B	19.0
		Saturday	C	20.0
23. Sutterville / Freeport (South)	Signal	AM	C	22.4
		PM	C	23.8
		Saturday	C	22.9
30. Franklin Bl / 5th Av (South)	Stop Sign	AM	B	0.3
		PM	B	0.2
		Saturday	B	0.5

Source: Dowling Associates, Inc., 2008
[1] LOS = Level of Service
[2] Weighted average control delay in seconds

Table 5.2-7 shows the existing weekday and Saturday operating conditions at the study area street segments. All the street segments meet the City's level of service "C" goal currently with the exception of Sutterville Railroad Overcrossing, which operates at LOS D on weekday.

Table 5.2-7
Roadway Levels of Service– Existing Conditions

Roadway Segment	Lanes	Weekday		
		ADT	LOS	V/C
Weekday				
Sutterville Road Railroad Overcrossing	4	28,864	D	0.80
Sutterville Rd between E. Curtis Dr and W. Curtis Dr	4	27,346	C	0.76
24th Street between 9th Street and 10th Street	2	3,690	A	0.25
24th Street between Portola Way and Marshall Way	2	3,685	A	0.25
Donner Way between 24th Street and 25th Street	2	636	A	0.04
Freeport Boulevard north of 4th Avenue	2	10,649	C	0.71
21st Street north of 4th Avenue	3	10,786	A	0.48
Portola Way between 21st Street and 24th Street	2	481	A	0.03
Marshall Way between 21st Street and 24th Street	2	778	A	0.05
4th Avenue between 21st Street and 24th Street	2	632	A	0.04
3rd Avenue between 21st Street and 24th Street	2	360	A	0.02
24th Street just south of Donner Way	2	3,322	A	0.22
10th Avenue just east of 24th Street	2	94	A	0.01
11th Avenue just east of 24th Street	2	98	A	0.01
5th Avenue just east of 24th Street	2	401	A	0.03
W Pacific Avenue north of Wilmington Avenue	2	1,311	A	0.09
E Pacific Avenue just north of Wilmington Avenue	2	633	A	0.04
Saturday				
Sutterville Road Railroad Overcrossing	4	21,692	B	0.60
Sutterville Rd between E. Curtis Dr and W. Curtis Dr	4	20,009	A	0.56
Freeport Boulevard north of 4th Avenue	2	8,165	A	0.54
21st Street north of 4th Avenue	3	8,219	A	0.37

Source: Dowling Associates, Inc., December 2007.
ADT = Averaged daily traffic
LOS = Level of service
V/C = Volume/Capacity

Neighborhood Traffic Management Program

There are four NTMP areas near the Curtis Park Village project site. The Curtis Park NTMP (along 5th Av on the north, Franklin Bl on the east, Sutterville Rd on the south, 24th St on the west) has completed Phase I improvements with all devices installed in 2008. The Heilbron Oaks NTMP Traffic Plan (along Castro Way on the north, Franklin Bl on the east, Portola Way on the south, 24th St on the west) is in process by the City's Department of Transportation. City Farms NTMP (along Sutterville Rd on the north, Franklin Bl on the east, 24th Av on the south, Deeble St on the west) has been approved by the City Council and anticipated to be implemented by the summer of 2009 and the West Curtis Oaks NTMP (along 4th Av on the north, 24th St on the east, Portola Way on the south, 21st St on the west) is on hold pending the completion of the Freeport/ 21st Conversion. Some of the proposed improvements in the Cutis Park Traffic Calming Plan include speed humps, speed lumps, stop signs installation and entry islands. The Heilbron Oaks NTMP includes traffic island, stop signs installation, speed lumps, speed legends, neighborhood signs and street name signs. The City Farms NTMP includes improvements such as raised crosswalk, crosswalk signs, speed lumps stop signs installation.

The existing weekday a.m. and p.m. peak hour and Saturday peak hour operating conditions at the SR 99 / 12th Street interchange are shown in Table 5.2-8. All the study ramp interchanges operate at LOS D or better and meet the Caltrans' level of service "E" goal.

Table 5.2-8
Existing State Route 99 Interchange Operations

Ramp	Peak Hour	LOS[1]	Density	Volume
Northbound SR 99				
12th Ave. Off-Ramp	AM	C	27.54	378
	PM	C	24.64	450
	Saturday	C	25.73	390
12th Ave. On-Ramp	AM	C	24.75	934
	PM	C	22.10	852
	Saturday	C	23.81	942
Southbound SR 99				
12th Ave. Off-Ramp	AM	C	24.55	1034
	PM	D	33.79	1260
	Saturday	D	30.97	1116
12th Ave. On-Ramp	AM	B	16.34	201
	PM	C	22.97	238
	Saturday	C	21.91	395

Source: Dowling Associates, Inc. 2007.
[1] LOS = Level of Service

Table 5.2-9 presents the existing weekday a.m. and p.m. peak hour and Saturday peak hour expected queues versus the storage capacity at the freeway off-ramps. The storage capacity of the right-turn movement of SR 99 southbound off-ramp is inadequate during the PM and Saturday peak hours. All other freeway off-ramps are operating at an acceptable level of service for all peak hours.

Table 5.2-9
SR 99 Ramp Queues - Existing Conditions

Location	Storage Capacity (ft)	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
		Queue (ft)	Adequate Capacity	Queue (ft)	Adequate Capacity	Queue (ft)	Adequate Capacity
SR99 SB Off-ramp to Sutterville Rd.	765	625	Yes	**875**	**No**	**825**	**No**
SR 99 NB Off-ramp to Sutterville Rd.	510	175	Yes	275	Yes	250	Yes

Source: Dowling Associates, Inc., 2007.

INTRODUCTION TO ANALYSIS

Project Land Use and Circulation

Land Use

The proposed Curtis Park Village project consists of a mixed-use commercial and residential in-fill development with 216 single family residential units, 170,600 square feet of retail commercial area, two restaurants, one dinner theater, a health spa, and a hotel on a 72-acre site.

Access

The main access for the proposed project site would be provided from Sutterville Road at a new signalized intersection between West Pacific Avenue and Jefferey Avenue. A second access to the south would be located at the southwest corner of the site, through the Sutterville Road Under-passing. A northern access would be located at the northwest corner of the site, providing a connection to Portola Way. Project traffic exiting the site at the Portola Way connection would be prohibited from making a left-turn onto 4th Avenue. Access to the east would be provided from the new access road at Donner Way. Five access scenarios were evaluated for the Proposed Project:

1. Proposed project access
2. Proposed project access plus eastern connection at 5th Avenue (Circulation Plan Option 2)
3. Proposed project access plus eastern connections at 10th Avenue
4. Proposed project access plus full access signalized intersection at Sutterville Road and Road A (with removal of the Sutterville Road Under passing)
5. Proposed project access plus western at-grade crossing

The last scenario was evaluated qualitatively only based on a comparison of how trips would be distributed, and the remaining scenarios were analyzed quantitatively.

Project Trip Generation

Trip generation of the proposed project and project alternatives is based upon information compiled by the Institute of Transportation Engineers (*Trip Generation, Seventh Edition*, 2003) and (*Trip Generation Handbook*, 2004). In summary, the project has the potential to generate about 25,857 trips on an average day of which 16,030 are new external vehicular trips. Of the external trips, 699 trips would occur during the weekday morning peak hour, 1,649 trips during the weekday evening peak hour, and 1,818 trips during the Saturday peak hour.

Table 5.2-10 compares the number of trips that would be generated by the project alternatives.

Table 5.2-10
Trip Generation – Proposed Project

Land Use	Amount		Trips Generated								
			Weekday	AM Peak Hour			PM Peak Hour			Saturday	
				In	Out	Total	In	Out	Total	In	Out	Total
Alternative 1: No Project/No Build Alternative												
New Trips				0	0	0	0	0	0	0	0	0
Alternative 2: Proposed Project												
Retail	92	KSF	6,439	91	58	149	285	308	593	427	394	821
Retail / Grocery Store	54	KSF	4,973	128	82	210	290	279	569	312	299	611
Retail / Bookstore	25	KSF	5,299	75	48	123	254	234	488	282	251	533
Restaurant	13	KSF	1,653	78	72	150	87	55	142	164	96	260
Dinner Theater[4]	560	Seats	1,602	9	8	17	98	48	146	124	87	211
Hotel	150	Rooms	969	41	27	68	47	42	89	35	41	75
Health Spa	85	KSF	2,799	43	60	103	175	169	344	111	111	221
Single-Family Residential	216	Units	2,112	40	121	161	135	79	214	110	93	203
Park/Open Space	7	Acres	11	0	0	0	0	0	0	1	1	2
Total Project Trips			25,857	505	476	981	1,371	1,214	2,585	1,566	1,373	2,937
Transit Adjustments [2]												
Retail (-1.8%)			-116	-2	-1	-3	-5	-6	-11	-8	-7	-15
Grocery Store (-1.8%)			-90	-2	-2	-4	-5	-5	-10	-6	-5	-11
Bookstore (-1.8%)			-95	-1	-1	-2	-5	-4	-9	-5	-5	-10
Restaurant (-1.8%)			-30	-2	-1	-3	-2	-1	-3	-3	-2	-5
Dinner Theater (-1.8%)			-29	0	0	0	-2	-1	-3	-2	-2	-4
Hotel			0	0	0	0	0	0	0	0	0	0
Health Spa (-1.8%)			-50	-1	-1	-2	-3	-3	-6	-2	-2	-4
Residential (Daily-3.1%,a.m -3.7%, p.m.-3.6%, Sat -3.1%)			-65	-1	-4	-6	-5	-3	-8	-3	-3	-6
Total Transit Adjustments			-475	-9	-10	-20	-27	-23	-50	-29	-26	-55
Internal Trips			-5,807	-78	-78	-156	-259	-259	-518	-315	-315	-630
Pass-by Trips (33% of net retail trips)[3]			-3,545	-53	-53	-106	-184	-184	-368	-217	-217	-434
New External Trips			16,030	365	335	699	901	748	1,649	1,005	815	1,818
Transit Trips												
Retail (2.2%)			501	10	7	17	24	26	50	30	28	58
Residential (Daily 3.8%, a.m. 4.5%, p.m. 4.5%, Sat. 3.8%)			80	2	5	7	6	4	10	4	4	8
Total Transit Trips			581	12	12	24	30	30	60	34	32	66

Table 5.2-10
Trip Generation

Land Use	Amount		Trips Generated								
			Weekday	AM Peak Hour			PM Peak Hour			Saturday		
				In	Out	Total	In	Out	Total	In	Out	Total
Alternative 3: Reduced Commercial Alternative A												
Retail	94	KSF	6,501	92	59	150	288	311	599	431	398	829
Retail / Grocery Store	57	KSF	5,174	140	90	230	303	291	594	324	312	636
Multi-Family Residential[1]	316	Units	2,050	32	127	159	124	67	191	91	78	169
Single-Family Residential	270	Units	2,593	50	149	198	165	97	262	136	115	251
Park/Open Space	7	Acres	11	0	0	0	0	0	0	1	1	2
Total Project Trips			16,329	314	425	737	880	766	1,646	983	904	1,887
Transit Adjustments												
Retail (-1.8%)			-117	-2	-1	-3	-5	-6	-11	-8	-7	-15
Grocery Store (-1.8%)			-93	-2	-1	-3	-5	-6	-11	-8	-7	-15
Residential (Daily -3.1%, a.m. -3.7%, p.m. -3.6%, Sat. -3.1%)			-144	-3	-10	-13	-10	-6	-16	-7	-6	-13
Total Transit Adjustments			-354	-7	-12	-19	-20	-18	-38	-23	-20	-43
Internal Trips			-3,878	-36	-36	-71	-181	-181	-362	-241	-241	-481
Pass-by Trips (40% of net retail trips)			-2,633	-53	-53	-105	-141	-141	-281	-166	-166	-331
New External Trips			9,464	218	324	542	538	426	965	553	477	1,032
Transit Trips												
Retail (2.2%)			143	2	1	3	6	7	13	9	9	18
Residential (Daily 3.8%, a.m. 4.5%, p.m. 4.5%, Sat. 3.8%)			176	4	12	16	13	7	20	9	7	16
Total Transit Trips			319	6	13	19	19	14	33	18	16	34

Table 5.2-10
Trip Generation

Land Use	Amount		Trips Generated								
			Weekday	AM Peak Hour			PM Peak Hour			Saturday		
				In	Out	Total	In	Out	Total	In	Out	Total
Alternative 4: Reduced Commercial Alternative B												
Retail	44	KSF	3,953	58	37	95	173	188	361	262	242	504
Retail / Grocery Store	57	KSF	5,174	140	90	230	303	291	594	324	312	636
Multi-Family Residential[1]	316	Units	2,050	32	127	159	124	67	191	91	78	169
Single-Family Residential	308	Units	2,927	56	169	225	186	109	295	154	131	285
Park/Open Space	7	Acres	11	0	0	0	0	0	0	1	1	2
Total Project Trips			14,115	286	423	709	786	655	1,441	832	764	1,596
Transit Adjustments												
Retail (-1.8%)			-71	-1	-1	-2	-3	-3	-6	-5	-4	-9
Residential (Daily -3.1%, a.m. -3.7%, p.m. -3.6%, Sat. -3.1%)			-154	-3	-11	-14	-11	-6	-17	-8	-6	-14
Total Transit Adjustments			-225	-4	-12	-16	-14	-9	-23	-13	-10	-23
Internal Trips			-3,053	-29	-29	-58	-144	-144	-288	-193	-193	-386
Pass-by Trips (50% of net retail trips)			-2,343	-52	-52	-103	-129	-129	-258	-146	-146	-291
New External Trips			8,494	201	330	532	499	373	872	480	415	896
Transit Trips												
Retail (2.2%)			87	1	1	2	4	4	8	6	5	11
Residential (Daily 3.8%, a.m. 4.5%, p.m. 4.5%, Sat. 3.8%)			189	4	13	17	14	8	22	9	8	17
Total Transit Trips			276	5	14	19	18	12	30	15	13	28

Table 5.2-10
Trip Generation

Land Use	Amount		Trips Generated								
			Weekday	AM Peak Hour			PM Peak Hour			Saturday		
				In	Out	Total	In	Out	Total	In	Out	Total
Alternative 5: Multi-Family Alternative C												
Retail	118.5	KSF	7,583	106	67	173	336	364	700	503	464	967
Retail / Grocery Store	56.5	KSF	5,174	140	90	230	303	291	594	324	312	636
Retail / Bookstore	25	KSF	5,286	74	47	121	254	234	488	282	251	533
Multi-Family Residential[1]	316	Units	2,050	32	127	159	124	67	191	91	78	169
Single-Family Residential	250	Units	2,416	46	138	184	154	91	245	126	107	233
Park/Open Space	7	Acres	11	0	0	0	0	0	0	1	1	2
Total Project Trips			22,520	398	469	867	1,171	1,047	2,218	1,327	1,213	2,540
Transit Adjustments												
Retail (-1.8%)			-136	-2	-1	-3	-6	-7	-13	-9	-8	-17
Grocery Store (-1.8%)			-93	-2	-2	-4	-6	-5	-11	-6	-5	-11
Bookstore (-1.8%)			-95	-1	-1	-2	-5	-4	-9	-5	-5	-10
Residential (Daily -3.1%, a.m. -3.7%, p.m. -3.6%, Sat. -3.1%)			-138	-3	-10	-13	-10	-6	-16	-7	-6	-12
Total Transit Adjustments			-462	-8	-14	-22	-27	-22	-49	-27	-24	-50
Internal Trips			-6,275	-56	-56	-111	-277	-277	-554	-332	-332	-665
Pass-by Trips (32% of net retail trips)			-3,654	-65	-65	-129	-191	-191	-382	-229	-229	-458
New External Trips			12,129	269	334	605	676	557	1,233	739	628	1,367
Transit Trips												
Retail (2.2%)			397	7	5	12	19	20	39	24	23	47
Residential (Daily 3.8%, a.m. 4.5%, p.m. 4.5%, Sat. 3.8%)			170	4	11	15	13	7	20	8	7	15
Total Transit Trips			567	11	16	27	32	27	59	32	30	62
Alternative 6: Single Family Alternative												
Single-Family Residential	411	Units	3,817	74	223	297	241	142	383	204	173	377
Park/Open Space	7	Acres	11	0	0	0	0	0	0	1	1	2
Total Project Trips			3,828	74	223	297	241	142	383	205	174	379
Transit Adjustments												
Residential (Daily -3.1%, a.m. -3.7%, p.m. -3.6%, Sat. -3.1%)			-118	-3	-8	-11	-9	-5	-14	-6	-5	-12
New External Trips			3,710	71	215	286	232	137	369	199	169	367
Transit Trips												
Residential (Daily 3.8%, a.m. 4.5%, p.m. 4.5%, Sat. 3.8%)			145	3	10	13	11	6	17	8	7	14

Table 5.2-10
Trip Generation

Land Use	Amount	Trips Generated								
		Weekday	AM Peak Hour			PM Peak Hour			Saturday		
			In	Out	Total	In	Out	Total	In	Out	Total
Alternative 7: Existing General Plan and Zoning Alternative - Industrial											
Heavy Industrial (Manufacturing)	780 KSF	3,005	476	142	618	214	381	595	109	109	218
Single-Family Residential	18 Units	215	3	10	13	14	9	23	9	8	17
Total Project Trips		3,220	479	152	631	228	390	618	118	117	235
Transit Adjustments[2]											
Industrial (-1.8%)		-54	-8	-3	-11	-4	-7	-11	-2	-2	-4
Residential (Daily -3.1%, a.m. -3.7%, p.m. -3.6%, Sat. -3.1%)		-7	0	0	0	-1	0	-1	0	0	-1
Total Transit Adjustments		-61	-8	-3	-11	-5	-7	-12	-2	-2	-5
New External Trips		3,159	471	149	620	223	383	606	116	115	230
Transit Trips[2]											
Industrial (2.2%)		66	11	3	14	5	8	13	3	3	5
Residential (Daily 3.8%, a.m. 4.5%, p.m. 4.5%, Sat. 3.8%)		8	0	0	1	1	0	1	0	0	1
Total Transit Trips		74	11	3	15	6	8	14	3	3	6

Sources: Dowling Associates, Inc. 2008

[1] The trip generation for the Saturday peak hour was based on the data for Low-Rise Apartments (ITE 221).

[2] Transit adjustments and transit trips for industrial use, restaurant, theater, and health spa are assumed to be the same percentage as for retail use.

[3] Pass-by adjustments are not made for restaurant, theater, health spa, and hotel uses

[4] The number of seats in the dinner theater was calculated based on the proposed square footage of 42,435 and data for Quality Restaurant (ITE 931).

Adjustments to the number of trips generated at the project site were made to account for transit ridership, internal trips, and pass-by trips. Because of the high level of transit service provided by the Regional Transit light rail line, with two nearby transit stations, an adjustment was made to the number of trips estimated to be made by automobile. The transit adjustment was based on information contained in the *Pre-Census Travel Behavior Report: Analysis of the 2000 SACOG Household Travel Survey* (DKS, 2001).

After the transit adjustment, an adjustment was made to account for internal trips between different types of land uses within the project site. The internal trip adjustment was performed using procedures recommended by the Institute of Transportation Engineers for multi-use developments (*Trip Generation Handbook*). Internal trips are trips that would occur between different land uses on the same site without accessing the external street system. Internal trips were included in the analysis of intersections within the project site but on the external street system. Further details on the internal trip calculations may be found in Appendix D.

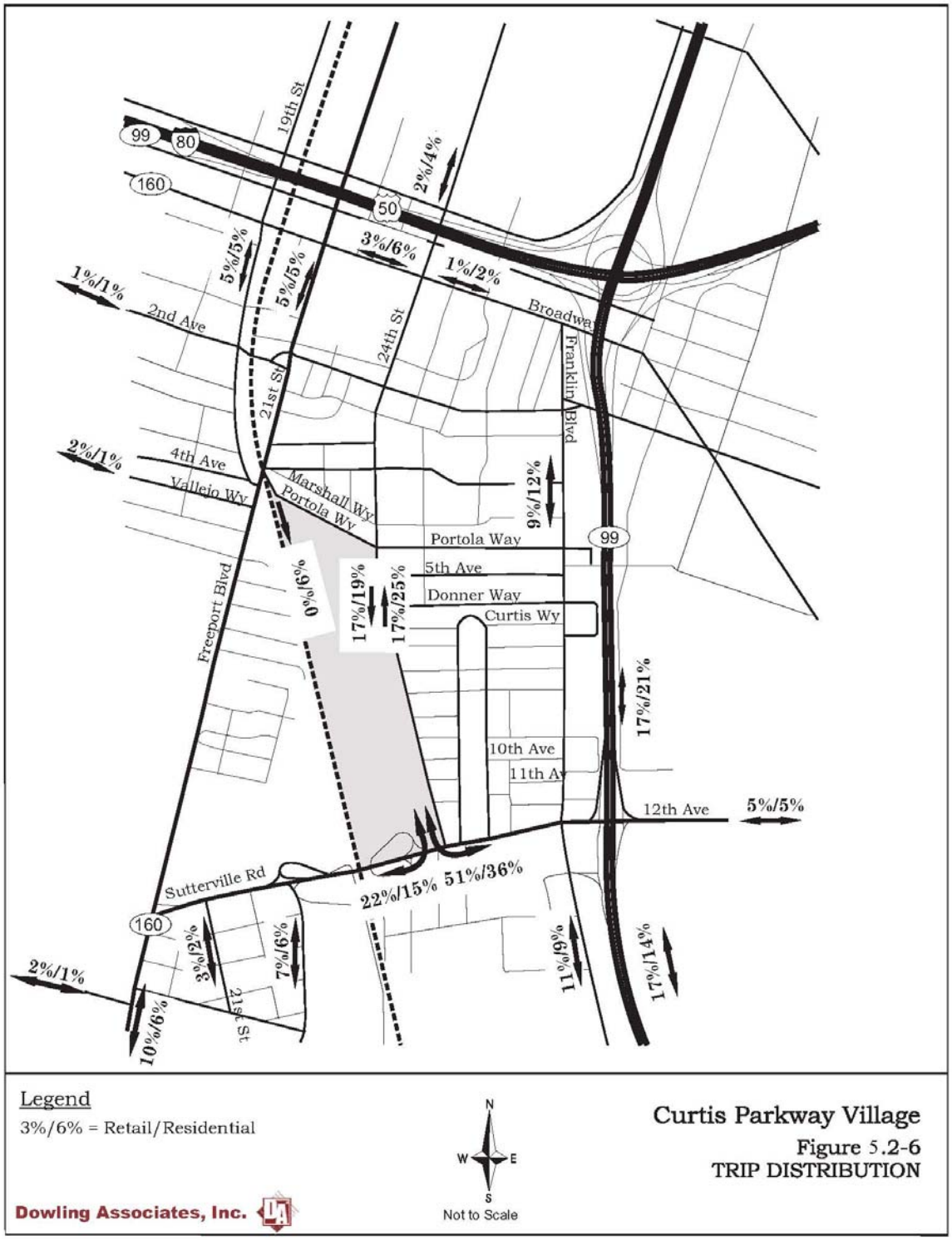
Finally, adjustments were made to account for pass-by trips to the retail commercial land uses. Pass-by trips are trips that are already in the existing traffic stream that passes by the site and that would be attracted to the project when it is completed. These trips are included in the total count of traffic generated by the project and are included in the project driveway volumes, but are not included as new trips at intersections outside of the influence of the project driveways. At the Road A and Sutterville Road intersection, some of these trips will divert from one traffic movement to another, so appropriate adjustments need to be made at that location. The amount of a project's pass-by trips varies by type of land uses and the magnitude of existing traffic on the adjacent streets. Because the intensity of retail commercial land uses differ between the proposed project and the two project alternatives, the pass-by trip percentages also vary. The pass-by trips assumptions made in this report were derived from guidelines in ITE's *Trip Generation Handbook.*

Project Trip Distribution

The distribution of trips associated with the project site was derived from the SACMET 2027 travel demand model, observations of travel patterns near the site, and knowledge of the proposed access locations associated with the Project. The model zone within which the project is located was isolated and its peak hour trips were assigned to the network. From this selected zone assignment, the distribution of inbound and outbound trips was estimated. Figure 5.2-6 shows the estimated trip distribution percentages for retail and residential uses.

The distribution of trips for the Saturday peak hour was estimated by averaging the a.m. and p.m. peak hour trips assigned to the transportation network. From the selected zone assignment, the directional distribution of trips was estimated for 2027 conditions.

Figure 5.2-6
Trip Distribution



IMPACTS AND MITIGATION MEASURES

The standards of significance, methods of analysis, and traffic impacts and mitigation measures are summarized below.

Standards of Significance

In accordance with CEQA, the effects of a project are evaluated to determine if they will result in a significant adverse impact on the environment. For the purposes of this EIR/EIS, an impact is considered significant if the proposed project would have the effects described below.

The standards of significance in this analysis are based upon the current practice of the appropriate regulatory agencies. For most areas related to transportation and circulation, the standards of the City of Sacramento have been used. For traffic flow on the US 99 freeway system and associated interchanges, the standards of Caltrans have been used.

Intersections

In the City of Sacramento, a significant traffic impact occurs at a signalized or unsignalized intersection (except for freeway ramp/arterial intersections within North Natomas) when:

- The traffic generated by the project degrades peak period level of service (LOS) from A, B, or C (without the project) to D, E, or F (with the project); or,

- The level of service (without project) is D, E, or F and project generated traffic increases the average vehicle delay by 5 seconds or more.

These standards have been developed consistent with a goal set forth in the City of Sacramento, General Plan Update (1988). Specifically, Section 5-11 - Goal D, states to "Work towards achieving a Level of Service C on the City's local and major street system."

The City adopted the 2030 General Plan on March 3, 2009. The 2030 General Plan includes a policy to allow a LOS D (as opposed to the LOS C threshold described above). However, the traffic analysis evaluated the impact of the project using the existing LOS threshold C to be conservative.

Roadway Segments

In the City of Sacramento, a significant traffic impact occurs at a roadway segment when:

- The traffic generated by the project degrades peak period level of service (LOS) from A, B, or C (without the project) to D, E, or F (with the project); or,

- The level of service (without project) is D, E, or F and project generated traffic increases the volume/capacity ratio by 0.02 or more.

Freeway Ramps and Mainline

Caltrans considers the following to be significant impacts:

- Off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway.

- Project traffic increases that cause any ramp's merge / diverge level of service to be worse than the freeway's level of service.

- Project traffic increases that cause the freeway level of service to deteriorate beyond level of service "E."

In addition, a significant ramp impact would occur if the expected queue is greater than the storage capacity.

Bikeways

For the purposes of this EIR, impacts to bikeways are considered significant if the Proposed Project or its Alternatives would:

- Hinder or eliminate an existing designated bikeway, or interfered with implementation of a proposed bikeway; or

- Result in unsafe conditions for bicyclists, including unsafe bicycle/pedestrian or bicycle/motor vehicle conflicts.

Pedestrian Circulation

For the purposes of this EIR, impacts to pedestrian circulation are considered significant if the Proposed Project or its Alternatives would:

- Result in unsafe conditions or create a hindrance for pedestrians, including unsafe pedestrian/bicycle or pedestrian/motor vehicle access.

Transit System

For the purposes of this EIR, impacts to the transit system are considered significant if the Proposed Project or its Alternatives would:

- Increase ridership, when added to the existing or future ridership, would exceed available or planned system capacity. Capacity is defined as the total number of passengers the system of buses and light rail vehicles can carry during the peak hours of operations.

Traffic Circulation and Safety

For the purposes of this EIR, impacts to traffic circulation and safety are considered significant if the Proposed Project or its Alternatives would:

- Not comply with City design standards or normal traffic engineering practices.

Baseline Conditions

An analysis of baseline plus project conditions was performed to determine the potential traffic impacts of the Proposed Project in combination with other projects that have already been approved. The Freeport Boulevard/ 21st Street Two-Way Conversion Project, which involved conversion of the one-way portion of Freeport Boulevard and 21st Street to two-way roadways, has recently been implemented. However, because traffic volumes were collected prior to the completion of the project, the Freeport Boulevard/21st Street Two-Way Conversion Project is included as a baseline project.

The Sutterville Road Bypass ramps will be reconfigured as a part of the Proposed Project. It is assumed that the existing bypass traffic will be diverted onto the project site by utilizing the Proposed Project's southern access points. The bypass traffic volumes are taken into account in the baseline conditions analysis. According to a 24-hour vehicle classification survey conducted on September 26, 2007, 476 vehicles and 378 vehicles traveled on the westbound bypass on-ramp and off-ramp, respectively, including 7 trucks entering the on-ramp and 11 trucks utilizing the off-ramp.

The City commissioned a study to assess the feasibility of providing direct connections between the north side and the south side of Sutterville Road near the project site. The study, which is included in the appendix of this report, concluded that the desirable linkage can be achieved through realignment of Pacific Avenue with the proposed Road A to form a standard four-legged intersection at Sutterville Road. The provision of direct access would eliminate the need for existing bypass traffic to divert onto the project site. The realignment of Pacific Avenue requires right-of-way acquisition and changes to the existing street network. This EIR does not assume the realignment of Pacific Avenue would occur but does address the implications of realignment.

For the baseline conditions, full development of the Proposed Project (and the alternatives) is assumed to occur "instantaneously." In this manner, the traffic and impacts associated with the project and other approved projects can be directly compared to known and measured conditions.

The analysis of baseline conditions was performed using the TRAFFIX traffic impact analysis software package. Traffic volumes from the Proposed Project were added to the baseline traffic volumes based on the trip generation and distribution procedures described above. Project traffic was assigned to the transportation network based on the shortest path. The resulting traffic volumes were used to analyze intersection and freeway interchange levels of service. Traffic volumes for baseline conditions are shown in Appendix D.

Table 5.2-11
Intersection Levels of Service for Access Scenarios – Baseline Conditions

Intersection	Traffic Control	Peak Hour	Scenario 0: No Project		Scenario 1: Proposed Project		Scenario 2: Two Northeast Connections		Scenario 3: 10th & 11th Ave. Connections	
			LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]
1. 24th St / Broadway	Signal	AM	B	14.1	B	14.4	B	14.4	B	14.4
		PM	B	17.9	B	18.3	B	18.3	B	18.3
		Saturday	B	10.6	B	11.7	B	11.7	B	11.7
2. Freeport Bl / 2nd Av	Signal	AM	B	20.0	C	20.3	C	20.3	C	20.3
		PM	D	36.2	**D**	**41.4**	**D**	**41.4**	**D**	**41.4**
		Saturday	B	16.7	B	17.3	B	17.3	B	17.3
3. 21st St / 2nd Av	Signal	AM	A	9.2	A	9.8	A	9.8	A	9.8
		PM	A	9.6	B	10.5	B	10.5	B	10.5
		Saturday	A	8.8	A	9.9	A	9.9	A	9.9
4. 24th St / 2nd Av	4-Way Stop	AM	B	11.0	B	12.4	B	12.5	B	12.4
		PM	C	15.1	C	20.5	C	20.5	C	20.5
5. 21th St / 4th Av	Stop Sign	AM	A	1.6	A	1.7	A	1.7	A	1.7
		PM	A	0.7	A	1.2	A	1.2	A	1.2
		Saturday	A	1.0	A	1.6	A	1.6	A	1.6
6. Freeport Bl / 21st St	Signal	AM	B	16.7	C	16.9	C	17.0	C	17.0
		PM	C	21.6	C	22.1	C	22.1	C	22.1
		Saturday	B	17.2	C	17.8	C	17.8	C	17.8
7. Freeport Bl / Vallejo Wy	Signal	AM	A	9.1	A	9.2	A	9.2	A	9.2
		PM	A	4.8	A	5.3	A	5.3	A	5.3
		Saturday	A	6.4	A	7.0	A	6.8	A	6.8
8. 24th St / Portola Wy	4-Way Stop	AM	A	9.1	B	10.1	B	10.1	B	10.1
		PM	B	11.9	C	18.7	C	18.8	C	18.8
9. 24th St / 5th Av	Stop Sign	AM	A	0.7	A	0.9	A	1.5	A	0.9
		PM	A	0.3	A	1.1	A	1.5	A	1.1
10. 24th St / Donner Wy	Stop Sign	AM	A	0.7	A	3.8	A	3.3	A	3.7
		PM	A	3.2	A	6.2	A	6.2	A	6.2
11. Franklin Bl / 5th Av	Signal	AM	A	5.6	A	5.7	A	5.7	A	5.7
		PM	A	6.4	A	6.6	A	6.6	A	6.6
		Saturday	A	5.0	A	4.7	A	4.7	A	4.7
12. 24th St / 10th Av	Stop Sign	AM	A	0.1	A	0.3	A	0.3	A	2.0
		PM	A	0.2	A	1.2	A	1.2	A	3.2

Table 5.2-11
Intersection Levels of Service for Access Scenarios – Baseline Conditions

Intersection	Traffic Control	Peak Hour	Scenario 0: No Project		Scenario 1: Proposed Project		Scenario 2: Two Northeast Connections		Scenario 3: 10th & 11th Ave. Connections	
			LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]
13. 24th St / 11th Av	Stop Sign	AM	A	0.3	A	0.7	A	0.7	A	0.7
		PM	A	0.2	A	1.5	A	1.4	A	1.3
14. Sutterville / Freeport (North)	Signal	AM	C	21.8	C	22.0	C	22.0	C	22.0
		PM	B	17.8	B	18.6	B	18.6	B	18.6
		Saturday	B	15.2	B	15.8	B	15.8	B	15.8
15. Sutterville / 21st St	Signal	AM	A	9.0	A	9.1	A	9.1	A	9.1
		PM	A	6.0	A	6.2	A	6.2	A	6.2
		Saturday	A	5.1	A	5.1	A	5.1	A	5.1
16. Sutterville / City College Drive	Signal	AM	C	20.4	C	21.4	C	21.4	C	21.4
		PM	C	23.7	C	27.5	C	27.5	C	27.5
		Saturday	B	10.9	B	14.8	B	14.8	B	14.8
17. Sutterville / Road A	Signal or Stop Sign[3]	AM	A	0.6	B	17.9	B	18.0	B	17.6
		PM	A	0.3	**F**	**86.9**	**F**	**86.9**	**F**	**84.6**
		Saturday	A	0.3	C	32.6	C	32.5	C	31.6
18. Sutterville / 24th St	Stop Sign or Signal[4]	AM	A	8.7	A	0.1	A	0.1	A	0.1
		PM	B	13.7	A	0.0	A	0.0	A	0.0
		Saturday	A	6.5	A	0.1	A	0.1	A	0.1
19. Sutterville / Curtis Dr West	Stop Sign	AM	A	0.3	A	0.4	A	0.4	A	1.5
		PM	A	0.5	A	0.5	A	0.5	A	0.7
		Saturday	A	0.7	A	1.0	A	1.0	A	1.5
20. Sutterville / Franklin Bl	Signal	AM	C	28.0	C	29.8	C	29.8	C	29.8
		PM	C	24.9	C	29.5	C	29.5	C	29.5
		Saturday	C	24.2	C	24.5	C	24.5	C	24.5
21. Sutterville / SR 99 SB Ramp	Signal	AM	C	27.1	C	30.2	C	30.2	C	30.2
		PM	C	28.2	**E**	**57.8**	**E**	**57.8**	**E**	**57.8**
		Saturday	C	33.4	**E**	**68.0**	**E**	**68.0**	**E**	**68.0**
22. Sutterville / SR 99 NB Ramps	Signal	AM	B	17.3	B	19.2	B	19.2	B	19.2
		PM	B	19.0	C	22.6	C	22.6	C	22.6
		Saturday	C	20.0	C	27.0	C	27.0	C	27.1

Table 5.2-11
Intersection Levels of Service for Access Scenarios – Baseline Conditions

Intersection	Traffic Control	Peak Hour	Scenario 0: No Project		Scenario 1: Proposed Project		Scenario 2: Two Northeast Connections		Scenario 3: 10th & 11th Ave. Connections	
			LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]
23. Sutterville / Freeport (South)	Signal	AM	C	22.4	C	22.7	C	22.7	C	22.7
		PM	C	23.8	C	24.7	C	24.7	C	24.7
		Saturday	C	22.9	C	23.0	C	23.0	C	23.0
24. Road A / DonnerWy / Road G	Signal	AM	na	na	A	8.3	A	8.1	A	8.2
		PM	na	na	A	4.9	A	4.8	A	4.9
		Saturday	na	na	A	4.6	A	4.3	A	4.6
25. Road A / Road E	Stop Sign	AM	na	na	A	0.4	A	0.4	A	0.4
		PM	na	na	A	0.1	A	0.1	A	0.1
		Saturday	na	na	A	0.3	A	0.3	A	0.3
26. Road A / Area 3	Stop Sign	AM	na	na	A	4.0	A	4.0	A	3.7
		PM	na	na	**D**	**28.9**	**D**	**33.3**	**D**	**32.7**
		Saturday	na	na	A	8.6	A	9.3	A	9.1
27. Road A / Road C	Round-about	AM	na	na	A	4.1	A	4.1	A	4.0
		PM	na	na	A	7.6	A	7.8	A	7.7
		Saturday	na	na	A	4.7	A	4.8	A	4.7
28. Road A / Area 1	Signal	AM	na	na	A	4.7	A	4.8	A	4.8
		PM	na	na	C	26.8	C	31.9	C	30.0
		Saturday	na	na	B	10.7	B	12.8	B	11.5
29. Road A / Area 2	Stop Sign	AM	na	na	A	0.9	A	0.9	A	0.9
		PM	na	na	A	7.2	A	7.9	A	7.5
		Saturday	na	na	A	4.2	A	4.4	A	4.3
30. Franklin Bl / 5th Av (South)	Stop Sign	AM	A	0.3	A	0.5	A	0.7	A	0.5
		PM	A	0.2	A	1.0	A	1.0	A	1.0
		Saturday	A	0.5	A	1.3	A	1.3	A	1.3

Source: Dowling Associates, 2008

[1] LOS denotes level of service.

[2] Delay represents average seconds of delay per vehicle.

[3] Existing Ramp is controlled by a yield sign; New Road A will be signalized.

[4] Existing intersection is signalized; the Project would convert the intersection to stop sign control.

Shaded and bold values indicate a potential significant impact.

A summary of intersection operations for baseline conditions is provided in Table 5.2-11 for the Proposed Project and access scenarios.

5.2-1 Impacts to study intersections under baseline plus project conditions.

The Proposed Project and all access scenarios would increase traffic volumes at study area intersections and would cause significant impacts under baseline plus project conditions at the following intersections:

(a) Freeport Boulevard / 2nd Avenue – the intersection would operate at substandard level at LOS D with and without traffic from the Proposed Project, Access Scenario 2, and Access Scenario 3 during the p.m. peak hour. However, traffic from the Proposed Project and all the access scenarios would cause the average delay to increase by more than five seconds. This is considered a ***significant impact***.

(b) Sutterville Road / Road A – traffic from the Proposed Project, Access Scenario 2, and Access Scenario 3 would degrade the level of service to LOS F during the p.m. peak hour. This is considered a ***significant impact***.

(c) Sutterville Road / SR 99 Southbound Ramps – traffic from the Proposed Project and all access scenarios would cause traffic operations to drop from LOS C to LOS E during the p.m. and Saturday peak hours. This is considered a ***significant impact***.

(d) Road A / Area 3 – the intersection would operate at LOS D under the Proposed Project and all access scenarios during the p.m. peak hour. This is considered a ***significant impact***.

If the realignment of Pacific Avenue is implemented, the Sutterville Road / Road A / Pacific Avenue intersection would operate within City standard at LOS C during both peak hours under Baseline conditions.

Mitigation Measures

5.2-1(a) *At the Freeport Boulevard / 2nd Avenue intersection, provide protected left-turn phasing for the northbound and southbound approaches. This mitigation measure would reduce the impact of the Proposed Project and Access Scenarios 2 and 3 to a* ***less than significant*** *level.*

5.2-1(b) *At the Sutterville Road / Road A intersection, provide overlap signal phasing to allow the southbound Road A right turning traffic to proceed on a green arrow simultaneously with the eastbound left turning movement, and prohibit U-turns for the eastbound left turning movement; and add a southbound left-right lane to provide one left-turn lane, one left-right lane, and one right turn lane. This mitigation measure would reduce the impact of the Proposed Project and Access Scenarios 2 and 3 to a* ***less than significant*** *level.*

5.2-1(c) Modify the southbound approach to the Sutterville Road / SR99 SB Ramps intersection to provide a left-turn lane, a combination left-through-right lane, and a right-turn lane. This change would consist of adding right-turning movements to the existing combination left-through lane and allow that movement to occur under signal control. This mitigation measure is required at five percent of development based on trip generation. The design of the mitigation is subject to the approval of the City Transportation Department and Caltrans. This mitigation measure would reduce the impact of the Proposed Project and all access scenarios to a ***less than significant*** *level during the p.m. and Saturday peak hours.*

5.2-1(d) At the Road A / Area 3 intersection, provide separate right-turn and left-turn lanes on the eastbound approach. This mitigation measure would reduce the impact of the Proposed Project and Access Scenarios 2 and 3 to a ***less than significant*** *level.*

A summary of traffic operations on roadway segments for baseline conditions is provided in Table 5.2-12 for the Proposed Project and access scenarios.

5.2-2 Impacts to study roadway segments under baseline plus project conditions.

The Proposed Project and all access scenarios would add traffic to roadway segments. During the weekday, the Sutterville overcrossing roadway segment would operate at LOS D without the project and the project would cause the v/c ratio to increase by more than 0.02. The project would also cause the level of service of the roadway segment on Sutterville Road between E. Curtis Drive and W. Curtis Drive to drop from LOS C to LOS E during the p.m. peak hour and from LOS A to LOS D during Saturday peak hour. These are considered ***significant impacts***.

Mitigation Measures

No mitigation was identified to reduce the significant impact for baseline conditions on roadway segments to less than significant. To reduce the impact to less than significant would require widening Sutterville Road. That mitigation is not considered to be feasible. The following mitigation measure is proposed to help reduce the impact on roadway segments, although the impact after mitigation would remain ***significant and unavoidable***.

5.2-2(a) The project developer shall work with the Regional Transit District to provide bus service or provide private shuttle service from 6:00 to 9:00 a.m. and from 4:00 to 7:00 p.m. between the commercial areas of the project site and the City College light rail station. As an alternative, the project developer shall coordinate with the City to reserve the required right of way needed to construct a pedestrian and bicycle bridge to provide access to the City College Station.

Table 5.2-12
Roadway Levels of Service for Project Scenarios – Baseline Conditions

Roadway Segment	Lanes	Alternative 1: No Project			Scenario 1: Proposed Project			Scenario 2: 5th Ave. Connections			Scenario 3: 10th Ave. Connections		
		ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]
Weekday													
Sutterville Rd RR Overcrossing	4	28,864	D	0.80	**31,692**	**D**	**0.88**	**31,697**	**D**	**0.88**	**31,697**	**D**	**0.88**
Sutterville Rd btw E. Curtis Dr & W. Curtis Dr	4	27,346	C	0.76	**32,967**	**E**	**0.92**	**32,991**	**E**	**0.92**	**33,009**	**E**	**0.92**
24th St north of 10th Avenue	2	3,690	A	0.42	736	A	0.08	751	A	0.09	736	A	0.08
24th St btw Portola Wy & Marshall Wy	2	3,685	A	0.42	5,288	B	0.60	5,296	B	0.61	5,296	B	0.61
Donner Wy btw 24th St & 25th St	2	636	A	0.13	1,302	A	0.26	1,217	A	0.24	1,277	A	0.26
Freeport Bl north of 21st St	2	10,654	C	0.71	10,970	C	0.73	10,970	C	0.73	10,970	C	0.73
21st St north of 4th Ave	3	12,140	A	0.54	12,632	A	0.56	12,637	A	0.56	12,642	A	0.56
Portola Wy btw 21st St & 24th St	2	481	A	0.10	485	A	0.10	485	A	0.10	485	A	0.10
Marshall Wy btw 21st St & 24th St	2	778	A	0.16	1,005	A	0.20	1,005	A	0.20	1,005	A	0.20
4th Ave btw 21st St & 24th St	2	632	A	0.13	632	A	0.13	632	A	0.13	632	A	0.13
3rd Ave btw 21st St & 24th St	2	360	A	0.07	360	A	0.07	360	A	0.07	360	A	0.07
24th St just south of Donner Wy	2	1,799	A	0.21	709	A	0.08	723	A	0.08	709	A	0.08
10th Ave just east of 24th St	2	94	A	0.02	94	A	0.02	94	A	0.02	299	A	0.06
11th Ave just east of 24th St	2	98	A	0.02	98	A	0.02	98	A	0.02	98	A	0.02
5th Ave just east of 24th St	2	401	A	0.08	1,257	A	0.25	1,373	A	0.27	1,257	A	0.25
W. Pacific Ave north of Wilmington Ave	2	1,311	A	0.26	3,034	B	0.61	3,034	B	0.61	3,034	B	0.61
E. Pacific Ave just north of Wilmington Ave	2	633	A	0.13	633	A	0.13	633	A	0.13	633	A	0.13
Road A north of Road G	2				5,057	A	0.58	5,030	A	0.57	5,060	A	0.58
Road A north of Road E	2				4,596	A	0.53	4,593	A	0.52	4,593	A	0.52
Road A north of Area 3	2				4,647	A	0.53	4,650	A	0.53	4,650	A	0.53
Road A north of Road C	2				5,612	B	0.64	5,608	B	0.64	5,450	B	0.62
Road A north of Area 2	2				6,109	B	0.70	6,109	B	0.70	5,951	B	0.68
Road A north of Area 1	2				6,288	C	0.72	6,288	C	0.72	6,126	C	0.70

Table 5.2-12
Roadway Levels of Service for Project Scenarios – Baseline Conditions

Roadway Segment	Lanes	Alternative 1: No Project			Scenario 1: Proposed Project			Scenario 2: 5th Ave. Connections			Scenario 3: 10th Ave. Connections		
		ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]
Road A north of Sutterville Road	4				8,429	A	0.48	8,460	A	0.48	8,268	A	0.47
Saturday													
Sutterville Rd RR Overcrossing	4	21,692	B	0.60	28,332	C	0.79	28,332	C	0.79	28,332	C	0.79
Sutterville Rd btw E. Curtis Dr and W. Curtis Dr	4	20,009	A	0.56	**29,245**	**D**	**0.81**	**29,270**	**D**	**0.81**	**29,270**	**D**	**0.81**
Freeport Blvd north of 21st St	2	8,073	A	0.54	8,685	A	0.58	8,685	A	0.58	8,696	A	0.58
21st St north of 4th Av	3	8,729	A	0.39	9,751	A	0.43	9,738	A	0.43	9,751	A	0.43

Source: Dowling Associates, Inc., 2008.
Note:
[1]ADT = Averaged daily traffic
[2]LOS = Level of service
[3]V/C = Volume/Capacity
Shaded values indicate a potential significant impact.

A summary of freeway ramp operations for baseline conditions is provided in Table 5.2-13 and a summary of vehicle queues at the SR 99 interchange ramps is provided in Table 5.2-14. Traffic operations and queuing on the freeway ramps for the all access scenarios would be the same as for the Proposed Project.

Table 5.2-13
State Route 99 Interchange Operations - Baseline

Ramp	Peak Hour	No Project			Proposed Project		
		LOS[1]	Density	Volume	LOS[1]	Density	Volume
Northbound SR 99							
12th Ave. Off-Ramp	AM	C	27.54	378	D	28.07	439
	PM	C	24.64	450	C	26.00	602
	Saturday	C	25.73	390	C	27.23	561
12th Ave. On-Ramp	AM	C	24.75	934	C	24.83	997
	PM	C	22.10	852	C	22.40	983
	Saturday	C	23.81	942	C	24.06	1,087
Southbound SR 99							
12th Ave. Off-Ramp	AM	C	24.55	1,034	C	25.15	1,100
	PM	D	33.79	1,260	E	35.21	1421
	Saturday	D	30.97	1,116	D	32.54	1,295
12th Ave. On-Ramp	AM	B	16.34	201	B	16.53	255
	PM	C	22.97	238	C	23.17	366
	Saturday	C	21.91	395	C	22.19	533

Source: Dowling Associates, Inc. 2008.
[1] LOS = Level of Service

Table 5.2-14
SR 99 Ramp Queues - Baseline

Location	Peak Hour	Storage Capacity (ft)	No Project		Proposed Project	
			Queue (ft) [1]	Adequate Capacity	Queue (ft) [1]	Adequate Capacity
I-5 SB Off-ramp to Sutterville Rd.	AM	765	625	Yes	**775**	**No**
	PM		875	No	**1,425**	**No**
	Saturday		825	No	**1,375**	**No**
I-5 NB Off-ramp to Sutterville Rd.	AM	510	175	Yes	250	Yes
	PM		275	Yes	325	Yes
	Saturday		250	Yes	350	Yes

Source: Dowling Associates, Inc., 2008
Note: Shaded values indicate a potential significant impact.
[1] Based on 95th percentile queue length

5.2-3 Impacts to freeway ramps under baseline plus project conditions.

The Proposed Project and all access scenarios would cause the traffic queue from the traffic signal at the southbound 12th Avenue off-ramp to exceed the right-turn storage capacity of the ramp. This is considered a ***significant impact.***

Mitigation Measure
Implementation of Mitigation Measure 5.2-1(c) would reduce the traffic queue at the southbound 12th Avenue off-ramp for baseline conditions for the Proposed Project and all access scenarios. However, the reduction would not be sufficient to fully mitigate the project impacts and no other feasible mitigation measure was identified. Therefore, the impact shall remain ***significant and unavoidable***.

5.2-4 Impacts to bicycle system under baseline plus project conditions.

The Proposed Project and all access scenarios would result in an increase in bicycle trips in the study area by residents and visitors. However, the project is not anticipated to hinder or eliminate the existing bikeways or interfere with the implementation of the planned bikeways in the study area. The development would result in enhanced bicycle connectivity between the existing Curtis Park neighborhood to the north and east of the project site. Pedestrian and bicycle connections would be provided along the eastern edge of the project at 10th Avenue, Donner Way, and 5th Avenue.

Mitigation Measure
No mitigation would be required for the Proposed Project or any of the access scenarios.

5.2-5 Impacts to pedestrian circulation under baseline plus project conditions.

The Proposed Project and all access scenarios would result in an increase in pedestrian trips in the study area by residents and visitors. However, the project is not anticipated to result in unsafe condition for pedestrians, including unsafe pedestrian/bicycle or pedestrian/motor vehicle conflict. All streets within the proposed site would be designed in accordance to the City's "Pedestrian Friendly Street Standards" that would provide for pedestrian needs and enhance connectivity with existing City streets.

Mitigation Measure
No mitigation would be required for the Proposed Project or any of the access scenarios.

5.2-6 Impacts to transit system under baseline plus project conditions.

The Proposed Project and all access scenarios would result in an increase demand for transit service. The development is anticipated to generate up to 581 daily transit trips including 24 (12 inbound and 12 outbound) in the AM peak hour, 60 (30 inbound and 30 outbound) in the PM peak hour, and 66 (34 inbound and 32 outbound) in the Saturday peak hour. This level of transit usage is not expected to exceed the capacity of the available/planned transit system in the study area. The study area is well served by four Regional Transit bus routes, Route 62, 63, 64 and 83, and a light rail line with stations at north and south ends of the project.

The 4th Avenue / Wayne Hultgren light rail station is accessible by pedestrians from the project site via the Portola connector to 4th Avenue. Pedestrian access from the project site to the City College light rail station is not readily available. Pedestrians are prohibited from using the Sutterville Road overcrossing and cannot cross the railroad tracks along the west edge of the project site.

Despite the lack of pedestrian connections to the south end of the project, the City College Station may be accessed via bus services. Regional Transit District has agreed to relocate Route 63 and 64, currently travel along 24th Street, to Road A, the main north-south street on the project site. The relocation would not only provide convenience to the Project but also improve the overall bus transit network in the area. Bus stops would be provided at 10th Avenue, Donner Way and 5th Avenue. The impact of the project and all access scenarios would be ***less than significant***.

Mitigation Measure
No mitigation would be required.

5.2-7 Impacts to on-site traffic circulation and safety under baseline plus project conditions.

The Proposed Project and all access scenarios would require development of a street system to serve motor vehicles, transit service, bicyclists, and pedestrians.

A roundabout is proposed in the project site at the Road A intersection with Road C in the retail commercial area. Although the roundabout does not have balanced traffic volumes as generally recommended for roundabout installation, it would operate well below capacity and would provide adequate functionality and comparable safety to other control options. Therefore, the roundabout would create a ***less than significant impact***.

On-site roadways would be classified in two categories, with different center line radius standards, in accordance to City of Sacramento's Street Design Guidelines. All roads in the commercial area would be minor collector streets and would be required to have a 600-foot radius according to the City's guidelines. All streets in the residential areas would be residential streets, with a 250-foot radius standard. The horizontal roadway curvatures at the following locations do not meet the City's center line radius standards:

1. Road A just north of Area 1 driveway
2. 10th Avenue connector road north of Area 2 between Road A and the Alley
3. Road A just north of Area 3 driveway
4. Bend between Road B and Road C west of Road C roundabout
5. Road G at Road H
6. Road G just west of Road A

The layout of these roadways would not comply with City design standards or normal traffic engineering practices. Therefore the sharp roadway curvatures are considered a ***potentially significant impact***.

The site plan appears to show Road J as a two-way street between Road H and the narrow alley at the north edge of the project site and the project description states that the alley will be widened to full residential street standard and extended to link with Portola Way. Northbound left-turn from Portola Way is currently prohibited at the intersection of Portola Way, Marshall Way and 4th Avenue because of potential safety issue due to its close proximity to the 21st Street intersection; however, illegal turns can still be made physically. The project would potentially add traffic to this intersection and increase the number of illegal movement. This would be considered a ***potentially significant impact***.

The site plan shows angle parking along Road A and Road C that would require vehicles leaving some of the parking stalls to back across pedestrian crosswalks. This type of design would not comply with City design standards or normal traffic engineering practices and would be considered a ***potentially significant impact***.

Mitigation Measure

The following mitigation measure would be required for the Proposed Project and all of the access scenarios to reduce the potentially significant impacts for baseline conditions to a ***less than significant*** level.

5.2-7(a) *The design plans for the project shall be consistent with City standards. Any deviations are subject to the approval of the City Department of Transportation, Traffic Engineering Division. The horizontal curvatures shall be realigned or design elements such as "knuckles" shall be installed in compliance with City standards.*

5.2-7(b) *The project applicant shall modify the design at the intersection of the Road J extension/Portola Way, 4th Avenue, and Marshall Way to physically prohibit the northbound left-turning movement from the Road J extension/Portola Way.*

5.2-7(c) *The site design shall be modified to reduce the potential for vehicles leaving parking stalls to back across pedestrian crosswalks. This change may require the elimination of some angle parking spaces.*

5.2-8 Impacts to on-site vehicle and bicycle parking capacities

Based on the generally-applicable provisions of the City's Zoning Code, the proposed project Land Use would be expected to provide a minimum of 1,075 parking spaces for the commercial area and 640 spaces for the residential units. Further, the City's Zoning Code Section 17.64.050 also typically requires new and expanded developments to

provide one bicycle parking space for every ten required vehicle parking spaces, which translate to a requirement of 172 bicycle parking spaces.

The calculation for vehicle parking space requirement considers the two restaurants as a part of the retail center as explicitly allowed in the Zoning Code. No adjustment was made to take into account internal trips that occur between land uses within the project site. For instance, the full number of required parking spaces for the restaurants is included even though the restaurants were intended to be used by non-project related patrons as well as residents of the housing units. It is reasonable to expect residents would walk to the restaurants; therefore, the parking requirement for the restaurant may exceed the likely demand.

The Zoning Code does not have a specific category for Senior Housing. Therefore, the space requirement for these residential units is considered to be the same as Multi-Family units even though seniors generally own fewer vehicles than the general population. Therefore, the analysis tends to be conservative. The City's parking requirement is summarized in Table 5.2-15.

Commercial: The Proposed Project includes a total of 983 parking spaces in the commercial areas. This results in a deficit of 92 spaces in the commercial areas. Therefore, the Proposed Project would not comply with the City's Zoning Code requirement.

Residential: Each single family unit is assumed to include a dedicated parking garage that would house a minimum of one parking space. Therefore, the proposed parking supply is expected to adequately meet the 183 space requirement for this type of land use. However, the proposed parking for both the senior housing and the multi-family units are fewer than the Code requirement. The Zoning Code requires a total of 125 spaces for the senior housing units and 332 spaces for the multi-family dwelling units; while only 53 spaces and 320 spaces are proposed for each, respectively. As such, the total shortfall of residential parking requirement is 84 spaces. Therefore, the Proposed Project would not comply with the City's Zoning Code requirement.

The Curtis Park Development Guidelines (PUD), proposed to provide parking space per 3 seats for the restaurants, one space per two units for the senior housing units and one space per 3 seats of the Dinner Theater. Therefore, the shortage in number of parking spaces according to the proposed PUD guidelines shall be 91 parking spaces

The City off-street parking requirements are intended for single-use developments and do not take into account the mixed-use nature of the proposed Curtis Park Village project, where the different uses, except for the single family homes, could share the same parking spaces because of varying parking demand during a given day. A shared parking analysis was performed to determine the maximum number of spaces required at Curtis Park Village during the peak parking demand hour on typical weekday and weekend during the year. The shared parking analysis, provided in Appendix D, was based on guidance developed by ITE and the Urban Land Institute.

Table 5.2-15
Parking Requirements

Description	Code Requirement	Amount		Required No. of Spaces	Proposed No. of Spaces	Overage/ Shortfall
Commercial/Retail Uses						
Retail (Shopping Center & Restaurants)	1 space per 250 sq ft	227,000	sq ft	**908**		
Dinner Theatre	1 space per 3 seats	502[2]	seats	**167**		
Total Commercial/Retail Uses				**1,075**	**983**	**<92>**
Residential Uses						
Single Family Dwellings	1 space per unit	183	units	**183**	**183[1]**	
Multi-Family Dwellings	1.5 spaces per unit & 1 guest space per 15 units	212	units	**332**	**320**	
Senior Adult Housing	1.5 spaces per unit & 1 guest space per 15 units	80	units	**125**	**53**	
Total Residential Uses				**640**	**556**	**<84>**
Total Parking				**1,715**	**1,539**	**<176>**

[1] Minimum number of spaces provided in individual garages
[2] Number of seats in the dinner theater is calculated based on the proposed square footage of 38,000 and data in ITE *Trip Generation*.

The findings indicate that the peak parking demand for shared parking spaces at Curtis Park Village is 1,563 spaces and would occur between 7:00 pm and 8:00 pm on a typical December weekend evening. This does not include the parking demand from the single-family homes as their requirements are assumed to be fulfilled by the individual garage provided for each unit.

Since the proposed parking supply, excluding that of the single-family homes, is 1,356 spaces, the maximum parking demand would be accommodated, resulting in a ***less than significant*** impact.

Mitigation Measure
No mitigation would be required.

5.2-9 Impacts during construction

The project would be constructed over a multi-year period. Construction would include numerous disruptions to the transportation system in and around the project area, including temporary street closures and sidewalk closures. Heavy vehicles would access the project area and would need to be staged for construction. Short-term construction activities and staging of construction vehicles and equipment would result in degraded roadway operations.

Import Clean Fill Material: Under the existing Remedial Action Plan (RAP), Curtis Park Village (CPV) has off-hauled 80,000 cubic yards of material, and 80,000 CY of clean fill material is to be imported to bring the site back to original grade. In addition, CPV will need to import approximately 120,000 cubic yards of clean fill material to address the future remediation activity considered in this environmental document.

There will likely be multiple sources for this material. Therefore, different quantities of material will be imported at different times. One likely source of clean fill material will be property currently owned by Petrovich Development Company in Yolo County (located approximately 22 miles from CPV; if necessary the full 120,000 CY of material can be excavated from this site). Clean fill material from this property would be excavated and transported via truck to Curtis Park Village. The likeliest route trucks would take to deliver the material would be Southbound 99 (or Northbound 99), exiting Sutterville Road and traveling West, then making a right onto the Western Pacific Loop and immediately entering the site to the north.

It is estimated that it will take approximately 13 weeks to move 120,000 CY of material onsite. It is likely that multiple sources of material will provide approximately 40,000 cubic yards at a time, within a 22 mile radius of the site. Therefore, it is reasonable to assume that there will be three separate hauling operations that will take approximately one month each to complete. Each hauling operation would involve approximately 2,667 truck trips over the course of a one month period. The hauling would likely occur between April and October.

Project construction activities including the import of the clean fill material could result in impacts to vehicle and pedestrian access in and around the project area, resulting in a ***potentially significant*** impact.

Mitigation Measure

The following mitigation measure would be required for the Proposed Project and all of the access scenarios to reduce the potentially significant impacts to a ***less than significant*** level.

5.2-9(a) *Before issuance of grading permits for the project site, the project applicant shall prepare a detailed Traffic Management Plan that will be subject to review and approval by the City Department of Transportation, Regional Transit, and local emergency service providers, including the*

City of Sacramento fire and police departments. The plan shall ensure maintenance of acceptable operating conditions on local roadways and transit routes. At a minimum, the plan shall include:

- *The number of truck trips, time, and day of street closures*
- *Time of day of arrival and departure of trucks*
- *Limitations on the size and type of trucks; provision of a staging area with a limitation on the number of trucks that can be waiting*
- *Provision of a truck circulation pattern*
- *Provision of a driveway access plan to maintain safe vehicular, pedestrian, and bicycle movements (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas)*
- *Safe and efficient access routes for emergency vehicles*
- *Efficient and convenient transit routes*
- *Manual traffic control when necessary*
- *Proper advance warning and posted signage concerning street closures*
- *Provisions for pedestrian safety*
- *Provisions for temporary bus stops, if necessary*

A copy of the construction traffic management plan shall be submitted to local emergency response agencies and these agencies shall be notified at least 14 days before the commencement of construction that would partially or fully obstruct roadways.

Cumulative Conditions

The analysis of transportation and circulation under cumulative conditions focuses on year 2027 conditions. The discussion below addresses project impacts that differ from the impacts previously addressed for baseline conditions with regard to intersection operations, freeway operations, and transit service. The project would not cause additional cumulative impacts beyond those already identified for baseline conditions in the areas of bikeways, pedestrian circulation, parking, and traffic circulation and safety.

Cumulative conditions were analyzed to determine the effect of the project in combination with the effects of build-out of the surrounding community. Cumulative traffic volumes were derived from the SACMET 2027 model. This model reflects approved land use changes in the project area. The traffic volume forecasts for cumulative conditions assume full build-out of the community, which is likely to be a conservative assumption.

Traffic forecasts for the 2027 a.m. and p.m. peak hours for no project conditions were produced by the SACMET model to serve as the basis for the cumulative traffic analysis. Cumulative Saturday peak hour traffic volumes were developed by applying factors to the cumulative a.m.

and p.m. peak hour turning volumes based on the relationship between a.m. and p.m. intersection approach volumes and Saturday approach volumes for existing conditions.

Traffic volumes for cumulative Proposed Project conditions were developed by adding traffic for the Proposed Project to the cumulative no project scenario. Cumulative traffic volumes for project alternatives were developed in a similar manner to the Proposed Project.

Mitigation measures identified for baseline conditions are assumed to be in place for the analysis of cumulative conditions in compliance with City of Sacramento policy. Additional mitigation measures are identified where feasible to mitigate additional cumulative impacts.

A summary of intersection operations for cumulative conditions is provided in Table 5.2-16 for the Proposed Project and access scenarios. Peak hour turning movement traffic volumes are shown in Appendix D.

5.2-10 Cumulative impacts to study intersections.

The Proposed Project would add traffic to study intersections and cause significant impacts for cumulative conditions at the following intersections:

(a) 24th Street / 2nd Avenue
(b) 24th Street / Portola Way
(c) Sutterville Road / Freeport Boulevard (north)
(d) Sutterville Road / City College Drive
(e) Sutterville Road / Road A
(f) Sutterville Road / Curtis Drive West
(g) Sutterville Road / Franklin Boulevard
(h) Sutterville Road / SR 99 Northbound Ramps
(i) Road A / Area 1

The Proposed Project would cause traffic operations at all of the intersections listed to drop from LOS C or better to LOS D or worse, or would increase the delay by 5 seconds or more for intersections that would operate below LOS C without the project. This is considered a ***significant impact***.

Access Scenario 2 (two northeast connections) and Access Scenario 3 (10th Avenue connection) would have ***significant impacts*** for cumulative conditions at the same locations as the Proposed Project.

If the realignment of Pacific Avenue is implemented, the Sutterville Road / Road A / Pacific Avenue intersection would operate within City standard at LOS C in the a.m. peak hour but would operate at LOS D (41.5 seconds of average delay) in the p.m. peak hour.

Table 5.2-16
Intersection Levels of Service for Access Scenarios – Cumulative Conditions

Intersection	Traffic Control	Peak Hour	Scenario 0: No Project		Scenario 1: Proposed Project		Scenario 2: Two Northeast Connections		Scenario 3: 10th Ave. Connection	
			LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]
1. 24th St / Broadway	Signal	AM	B	18.1	B	18.4	B	18.4	B	18.4
		PM	D	41.0	D	44.2	D	44.2	D	44.2
		Saturday	B	14.1	B	15.0	B	15.0	B	15.0
2. Freeport Bl / 2nd Av	Signal	AM	C	32.0	B	15.7	B	15.7	B	15.7
		PM	F	100.1	D	48.7	D	48.7	D	48.7
		Saturday	C	20.1	B	14.1	B	14.1	B	14.1
3. 21st St / 2nd Av	Signal	AM	B	11.9	B	12.5	B	12.6	B	12.5
		PM	B	14.6	B	15.3	B	15.4	B	15.4
		Saturday	A	9.7	B	10.5	B	10.5	B	10.5
4. 24th St / 2nd AV	4-Way Stop	AM	E	46.2	**F**	**67.8**	**F**	**67.9**	**F**	**67.8**
		PM	E	39.3	**F**	**63.8**	**F**	**63.7**	**F**	**63.6**
5. 21th St / 4th Av	Stop Sign	AM	A	1.3	A	1.4	A	1.4	A	1.4
		PM	A	0.5	A	0.9	A	0.9	A	0.9
		Saturday	A	0.8	A	1.3	A	1.3	A	1.3
6. Freeport Bl / 21st St	Signal	AM	E	62.9	F	63.8	F	64.1	F	64.1
		PM	F	84.5	F	86.1	F	86.3	F	86.3
		Saturday	C	22.4	C	23.0	C	23.0	C	23.0
7. Freeport Bl / Vallejo Wy	Signal	AM	B	19.6	C	21.0	C	20.5	C	20.5
		PM	B	12.0	B	12.9	B	12.9	B	12.9
		Saturday	A	7.1	A	7.5	A	7.5	A	7.5

Table 5.2-16
Intersection Levels of Service for Access Scenarios – Cumulative Conditions

Intersection	Traffic Control	Peak Hour	Scenario 0: No Project		Scenario 1: Proposed Project		Scenario 2: Two Northeast Connections		Scenario 3: 10th Ave. Connection	
			LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]
8. 24th St / Portola Wy	4-Way Stop	AM	D	32.6	**F**	**52.0**	**F**	**52.0**	**F**	**52.0**
		PM	C	22.4	**F**	**61.4**	**F**	**61.8**	**F**	**61.5**
9. 24th St / 5th Av	Stop Sign	AM	A	1.7	A	2.0	A	2.6	A	2.0
		PM	A	1.2	A	2.2	A	3.0	A	2.2
10. 24th St / Donner Wy	Stop Sign	AM	A	1.7	A	2.9	A	2.5	A	2.8
		PM	A	1.0	A	2.7	A	2.7	A	2.7
11. Franklin Bl / 5th Av	Signal	AM	A	5.8	A	6.0	A	6.0	A	6.0
		PM	A	6.2	A	6.3	A	6.3	A	6.3
		Saturday	A	4.8	A	4.7	A	4.7	A	4.7
12. 24th St / 10th Av	Stop Sign	AM	A	1.0	A	2.4	A	2.4	A	3.3
		PM	A	0.7	A	3.9	A	3.8	A	4.8
13. 24th St / 11th Av	Stop Sign	AM	A	1.1	A	2.6	A	2.6	A	2.5
		PM	A	1.2	A	5.2	A	5.1	A	5.0
14. Sutterville / Freeport (North)	Signal	AM	E	68.8	E	68.8	E	68.6	E	68.6
		PM	C	34.3	**D**	**38.8**	**D**	**38.8**	**D**	**38.8**
		Saturday	B	17.7	B	18.5	B	18.5	B	18.5
15. Sutterville / 21st St	Signal	AM	B	11.2	B	11.7	B	11.7	B	11.7
		PM	A	6.6	A	7.3	A	7.3	A	7.3
		Saturday	A	4.8	A	4.8	A	4.8	A	4.8

Table 5.2-16
Intersection Levels of Service for Access Scenarios – Cumulative Conditions

Intersection	Traffic Control	Peak Hour	Scenario 0: No Project		Scenario 1: Proposed Project		Scenario 2: Two Northeast Connections		Scenario 3: 10th Ave. Connection	
			LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]
16. Sutterville / City College Drive	Signal	AM	E	73.8	**F**	**82.6**	**F**	**82.7**	**F**	**82.7**
		PM	D	46.7	**E**	**67.7**	**E**	**67.7**	**E**	**67.7**
		Saturday	B	17.2	B	18.4	B	18.4	B	18.4
17. Sutterville / Road A	Signal or Stop Sign[3]	AM	A	0.5	C	22.2	C	22.3	C	21.4
		PM	A	0.3	**E**	**57.3**	**E**	**57.4**	**E**	**55.5**
		Saturday	A	0.5	C	27.8	C	27.8	C	26.9
18. Sutterville / 24th St	Stop Sign or Signal[4]	AM	B	19.9	A	2.0	A	2.0	A	2.1
		PM	C	32.9	A	0.5	A	0.5	A	0.5
		Saturday	A	6.3	A	0.2	A	0.2	A	0.2
19. Sutterville / Curtis Dr West	Stop Sign	AM	A	0.7	A	0.8	A	0.8	A	9.8
		PM	C	21.0	**F**	**54.6**	**F**	**54.9**	**F**	**62.3**
		Saturday	A	8.8	**D**	**34.2**	**D**	**34.4**	**E**	**43.0**
20. Sutterville / Franklin Bl	Signal	AM	D	46.7	**E**	**57.3**	**E**	**57.3**	**E**	**57.4**
		PM	D	43.4	**E**	**75.4**	**E**	**75.3**	**E**	**75.4**
		Saturday	C	29.3	**D**	**36.9**	**D**	**36.9**	**D**	**37.0**
21. Sutterville / SR 99 SB Ramp	Signal	AM	D	41.1	C	29.2	C	29.2	C	29.2
		PM	D	51.6	D	52.2	D	52.2	D	52.2
		Saturday	D	54.8	D	52.8	D	52.8	D	52.8
22. Sutterville / SR 99 NB Ramps	Signal	AM	C	20.4	C	23.4	C	23.4	C	23.4
		PM	C	26.4	**D**	**37.2**	**D**	**37.2**	**D**	**37.2**
		Saturday	C	23.5	**D**	**38.7**	**D**	**38.7**	**D**	**38.7**

Table 5.2-16
Intersection Levels of Service for Access Scenarios – Cumulative Conditions

Intersection	Traffic Control	Peak Hour	Scenario 0: No Project		Scenario 1: Proposed Project		Scenario 2: Two Northeast Connections		Scenario 3: 10th Ave. Connection	
			LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]
23. Sutterville / Freeport (South)	Signal	AM	D	44.9	D	48.2	D	48.2	D	48.2
		PM	E	64.2	E	69.1	E	69.1	E	69.1
		Saturday	D	45.9	D	48.4	D	48.4	D	48.4
24. Road A / Donner Wy / Road G	Signal	AM	na	na	A	8.7	A	8.6	A	8.7
		PM	na	na	A	5.7	A	5.6	A	5.7
		Saturday	na	na	A	4.5	A	4.3	A	4.5
25. Road A / Road E	Stop Sign	AM	na	na	A	0.3	A	0.3	A	0.3
		PM	na	na	A	0.1	A	0.1	A	0.1
		Saturday	na	na	A	0.3	A	0.3	A	0.3
26. Road A / Area 3	Stop Sign	AM	na	na	A	3.3	A	3.3	A	2.9
		PM	na	na	C	18.5	C	18.4	C	17.8
		Saturday	na	na	A	7.1	A	7.0	A	6.9
27. Road A / Road C	Round-about	AM	na	na	A	5.2	A	5.2	A	5.2
		PM	na	na	B	11.6	B	11.6	B	11.4
		Saturday	na	na	A	5.1	A	5.1	A	5.0
28. Road A / Area 1	Signal	AM	na	na	A	4.1	A	4.2	A	4.1
		PM	na	na	**E**	**62.4**	**E**	**63.4**	**E**	**61.8**
		Saturday	na	na	B	14.1	B	14.6	B	13.8
29. Road A / Area 2	Stop Sign	AM	na	na	A	0.8	A	0.8	A	0.8
		PM	na	na	B	14.4	B	14.4	B	13.4
		Saturday	na	na	A	4.9	A	4.9	A	4.7

Table 5.2-16
Intersection Levels of Service for Access Scenarios – Cumulative Conditions

Intersection	Traffic Control	Peak Hour	Scenario 0: No Project		Scenario 1: Proposed Project		Scenario 2: Two Northeast Connections		Scenario 3: 10th Ave. Connection	
			LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]
30. Franklin Bl / 5th Av (South)	Stop Sign	AM	A	0.9	A	1.0	A	1.2	A	1.0
		PM	A	1.1	A	2.5	A	2.3	A	2.5
		Saturday	A	1.8	A	2.6	A	2.5	A	2.6

Source: Dowling Associates, 2008

Notes:
[1] LOS denotes level of service.

[2] Delay represents average seconds of delay per vehicle.

[3] Existing Ramp is controlled by a yield sign; New Road A will be signalized.

[4] Existing intersection is signalized; the Project would convert the intersection to stop sign control.

Shaded and bold values indicate a potential significant impact.

Mitigation Measures

5.2-10(a) *24th Street / 2nd Avenue – The project applicant shall pay a fair share contribution to install a traffic signal at this intersection. This mitigation measure would reduce the impact of the Proposed Project and all access scenarios to a* ***less than significant*** *level.*

5.2-10(b) *24th Street / Portola Way – The project applicant shall pay a fair share contribution to convert the intersection from all-way stop control to two-way stop control with stop signs only for the Portola Way approaches to the intersection. This mitigation measure would reduce the impact of the Proposed Project and all access scenarios to a* ***less than significant*** *level.*

5.2-10(c) *Sutterville Road / Freeport Boulevard (north) – the applicant shall pay a fair share contribution to provide protected-permitted left turn phasing and install proper signage for southbound Freeport Boulevard. This mitigation measure would reduce the impact of the Proposed Project, Access Scenario 2 and Access Scenario 3 to a* ***less than significant*** *level.*

5.2-10(d) *Sutterville Road / City College Drive – The applicant shall pay a fair share contribution to provide overlap signal phasing to allow the northbound right turn traffic on City College Drive to proceed on a green arrow simultaneously with the westbound left turning movement, and prohibit U-turns for the westbound Sutterville Road approach to the intersection. This mitigation measure would reduce the impact of the Proposed Project and Access Scenario 2 and 3 to a* ***less than significant*** *level.*

5.2-10(e) *Sutterville Road / Road A – apply Mitigation Measure 4.2-1(a) which would provide overlap signal phasing to allow the southbound Road A Right turning traffic to proceed on a green arrow simultaneously with the eastbound left turning movement, and prohibit U-turns for the eastbound left turning movement and provide one left-turn lane, one left-right lane, and one right-turn lane on the southbound approach. Also, provide a dedicated right turn lane for the westbound Sutterville Road approach to the intersection. This mitigation measure would reduce the impact of the Proposed Project and Access Scenarios 2 and 3 to a* ***less than significant*** *level.*

5.2-10(f) *Sutterville Road / Curtis Drive West - No feasible mitigation measure was identified for the Sutterville Road / Curtis Drive West intersection. Adding a southbound right turn lane to the intersection would mitigate the impact but was not considered to be feasible because of the need for demolishing several existing buildings to provide additional right-of-way. The*

*cumulative impact for the Proposed Project and all access scenarios would remain **significant and unavoidable**.*

5.2-10(g) *Sutterville Road / Franklin Boulevard –The project applicant shall pay a fair share contribution to add an eastbound right-turn lane would mitigate the Saturday peak hour impact of the Proposed Project and Access Scenario 2 and Access Scenario 3 to a **less than significant** level. For a.m. and p.m. peak hour impacts, also increase the cycle length to 110 seconds. These mitigation measures would reduce the impact of the Proposed Project and Access Scenario 2 and Access Scenario 3 to a **less than significant** level.*

5.2-10(h) *Sutterville Road / SR 99 Northbound Ramps – The project applicant shall pay a fair share contribution to modify signal timing to provide split phase for all approaches and re-strip the eastbound lanes to provide one left-turn, one left-through, and one through lane. This mitigation measure would reduce the impact of the Proposed Project and Access Scenario 2 and 3 to a **less than significant** level.*

5.2-10(i) *Road A / Area 1 – The project applicant shall pay a fair share contribution to modify the signal phasing to provide overlaps for the eastbound right-turn movement; provide protected-permitted phasing for the northbound left-turn movement; prohibit U-turn movement at this intersection; and increase the cycle length to 95 seconds. This mitigation measure would reduce the impact of the Proposed Project and Access Scenario 2 and 3 to a **less than significant** level.*

A summary of traffic operations on roadway segments for cumulative conditions is provided in Table 5.2-17 for the access scenarios.

5.2-11 Cumulative impacts to study roadway segments.

The Proposed Project would add traffic to roadway segments in 2027 and cause significant impacts for cumulative conditions on the following roadway segments:

(a) Sutterville Railroad Overcrossing
(b) Sutterville Road between E. Curtis Drive and W. Curtis Drive
(c) 24th Street between Portola Way and Marshall Way
(d) Freeport Boulevard north of 21st Street
(e) Road A north of Road G
(f) Road A north of Road C
(g) Road A north of Area 2
(h) Road A north of Area 1

The Proposed Project would cause traffic operations at all of the roadway segments listed to drop from LOS C or better to LOS D or worse, or would increase the v/c ratio

by 0.02 or more for roadway segments that would operate below LOS C without the project. This is considered a ***significant impact***.

Access Scenario 2 (two northeast connections) would have ***significant impacts*** for cumulative conditions at the same locations as the Proposed Project.

Access Scenario 3 (10th Avenue connection) would have ***significant impacts*** for cumulative conditions at the same locations as the Proposed Project except Road A north of Road C, where it would operate at acceptable level.

Mitigation Measures

No mitigation was identified to reduce the significant impact for cumulative conditions on roadway segments to less than significant. To reduce the impact to less than significant for the Proposed Project and all access scenarios, Sutterville Road, 24th Street and Freeport Boulevard would need to be widened. No roadway widening is considered to be feasible.

While widening the on-site roadway of Road A would reduce the impact to less than significant for the Proposed Project and Access Scenarios 2 and 3, secondary impacts might arise as a result of the widening. A widened roadway would attract incremental traffic and contribute to higher speeds. Additional traffic, higher speeds, and the added roadway width would make the roadway less friendly to pedestrians and bicycles. Because Road A is located in a commercial area where high pedestrian traffic is anticipated, a safe pedestrian-friendly street is desirable.

Mitigation Measure 5.2-2(a), which requires the developer to provide a transit or pedestrian connection between the commercial areas of the project site and the City College light rail station, would reduce the impact on roadway segments; however, the impact after mitigation would remain ***significant and unavoidable***.

Table 5.2-17
Roadway Levels of Service for Project Scenarios – Cumulative Conditions

Roadway Segment	Lanes	Scenario 0: No Project			Scenario 1: Proposed Project			Scenario 2: Two 5th Ave. Connections			Scenario 3: 10th Connection		
		ADT	LOS	V/C	ADT	LOS	V/C	ADT	LOS	V/C	ADT	LOS	V/C
Weekday													
Sutterville Rd RR Overcrossing	4	40,337	F	1.12	**43,165**	**F**	**1.20**	**43,170**	**F**	**1.20**	**43,170**	**F**	**1.20**
Sutterville Rd btw E. Curtis Dr & W. Curtis Dr	4	37,709	F	1.05	**43,330**	**F**	**1.20**	**43,354**	**F**	**1.20**	**43,372**	**F**	**1.20**
24th St north of 10th Av	2	6,029	B	0.69	1,301	A	0.15	1,316	A	0.15	1,301	A	0.15
24th St btw Portola & Marshall Wy	2	6,085	B	0.70	**7,687**	**D**	**0.88**	**7,695**	**D**	**0.88**	**7,695**	**D**	**0.88**
Donner Wy btw 24th St & 25th St	2	1,197	A	0.24	1,863	A	0.37	1,778	A	0.36	1,838	A	0.37
Freeport Bl north of 21st St	2	14,375	E	0.96	**14,691**	**E**	**0.98**	**14,691**	**E**	**0.98**	**14,691**	**E**	**0.98**
21st St north of 4th Ave	3	16,024	C	0.71	16,516	C	0.73	16,521	C	0.73	16,526	C	0.73
Portola Wy btw 21st St & 24th St	2	1,897	A	0.38	1,901	A	0.38	1,901	A	0.38	1,901	A	0.38
Marshall Wy btw 21st St & 24th St	2	3,068	B	0.61	1,005	A	0.20	1,005	A	0.20	1,005	A	0.20
4th Ave btw 21st St & 24th St	2	632	A	0.13	632	A	0.13	632	A	0.13	632	A	0.13
3rd Ave btw 21st St & 24th St	2	360	A	0.07	360	A	0.07	360	A	0.07	360	A	0.07
24th St just south of Donner Wy	2	5,232	A	0.60	1,126	A	0.13	1,140	A	0.13	1,126	A	0.13
10th Ave just east of 24th St	2	686	A	0.14	686	A	0.14	686	A	0.14	890	A	0.18
11th Ave just east of 24th St	2	658	A	0.13	658	A	0.13	658	A	0.13	658	A	0.13
5th Ave just east of 24th St	2	1,858	A	0.37	2,714	A	0.54	2,830	A	0.57	2,714	A	0.54
W. Pacific Av N of Wilmington Av	2	1,311	A	0.26	3,034	B	0.61	3,034	B	0.61	3,034	B	0.61
E. Pacific Ave just N of Wilmington Av	2	931	A	0.19	931	A	0.19	931	A	0.19	931	A	0.19
Road A north of Road G	2				**7,239**	**D**	**0.83**	**7,212**	**D**	**0.82**	**7,242**	**D**	**0.83**
Road A north of Road E	2				6,089	B	0.70	6,086	B	0.70	6,086	B	0.70
Road A north of Area 3	2				6,140	C	0.70	6,143	C	0.70	6,143	C	0.70
Road A north of Road C	2				**7,105**	**D**	**0.81**	**7,101**	**D**	**0.81**	6,943	C	0.79
Road A north of Area 2	2				**7,643**	**D**	**0.87**	**7,643**	**D**	**0.87**	**7,485**	**D**	**0.86**
Road A north of Area 1	2				**7,821**	**D**	**0.89**	**7,821**	**D**	**0.89**	**7,659**	**D**	**0.88**
Road A north of Sutterville Road	4				9,979	A	0.57	10,010	A	0.57	9,818	A	0.56

Table 5.2-17
Roadway Levels of Service for Project Scenarios – Cumulative Conditions

Roadway Segment	Lanes	Scenario 0: No Project			Scenario 1: Proposed Project			Scenario 2: Two 5th Ave. Connections			Scenario 3: 10th Connection		
		ADT	LOS	V/C	ADT	LOS	V/C	ADT	LOS	V/C	ADT	LOS	V/C
Saturday													
Sutterville Rd RR Overcrossing	4	37,472	F	1.04	**44,113**	**F**	**1.23**	**44,113**	**F**	**1.23**	**44,113**	**F**	**1.23**
Sutterville Rd btw E. Curtis Dr & W. Curtis Dr	4	28,023	C	0.78	**37,259**	**F**	**1.03**	**37,284**	**F**	**1.04**	**37,284**	**F**	**1.04**
Freeport Bl north of 21st St	2	11,052	C	0.74	11,664	C	0.78	11,664	C	0.78	11,676	C	0.78
21st St north of 4th Av	3	11,357	A	0.50	12,378	A	0.55	12,366	A	0.55	12,378	A	0.55

Source: Dowling Associates, Inc., 2008.

ADT = Averaged daily traffic

LOS = Level of service

V/C = Volume/Capacity

A summary of freeway ramp operations for cumulative conditions is provided in Table 5.2-18 and vehicle queues at the SR 99 interchange ramps is provided in Table 5.2-19. Traffic operations and queuing on the freeway ramps for the all access scenarios would be the same as for the Proposed Project.

5.2-12 Cumulative Impacts to freeway ramps.

The Proposed Project and all access scenarios would add traffic to the Sutterville Road 99 freeway ramps. The southbound 12th Avenue off-ramp would operate below standard during the p.m. and Saturday peak hours without the project. The project would increase the density in the area where the ramp diverges from the freeway. The freeway operates at LOS F in the southbound direction during the p.m. peak hour and LOS E during the Saturday peak hour. The project would cause the diverge area to be worse than the freeway level of service during the Saturday peak hour and the project would add significant traffic to the freeway mainline. This is considered a ***significant impact.***

Table 5.2-18
State Route 99 Interchange Operations - Cumulative

Ramp	Peak Hour	No Project			Proposed Project		
		LOS[1]	Density	Volume	LOS[1]	Density	Volume
Northbound SR 99							
12th Ave. Off-Ramp	AM	E	35.46	516	**F**	**35.99**	**577**
	PM	D	29.18	764	D	30.51	916
	Saturday	D	30.20	536	D	31.70	707
12th Ave. On-Ramp	AM	D	30.23	1,015	D	30.19	1,078
	PM	C	24.03	1,005	C	24.25	1,136
	Saturday	C	25.72	1,031	C	25.87	1,176
Southbound SR 99							
12th Ave. Off-Ramp	AM	C	27.50	1,143	D	28.07	1,209
	PM	F	49.57	1,349	**F**	**50. 97**	**1,510**
	Saturday	F	41.43	1,193	**F**	**43.00**	**1,372**
12th Ave. On-Ramp	AM	B	19.26	322	B	19.42	376
	PM	F	38.33	449	F	37.92	577
	Saturday	D	30.58	592	D	30.47	730

NOTES:
[1] LOS = Level of Service
Source: Dowling Associates, Inc. 2008.

Table 5.2-19
SR 99 Ramp Queues - Cumulative

Location	Peak Hour	Storage Capacity (ft)	No Project		Proposed Project[2]	
			Queue[1] (ft)	Adequate Capacity	Queue[1] (ft)	Adequate Capacity
I-5 SB Off-ramp to Sutterville Rd.	AM	765	975	No	**850**	**No**
	PM		1175	No	**1500**	**No**
	Saturday		1075	No	**1300**	**No**
I-5 NB Off-ramp to Sutterville Rd.	AM	510	325	Yes	375	Yes
	PM		450	Yes	**525**	**No**
	Saturday		325	Yes	500	Yes

[1] Queue represents 95th percentile queue.
[2] Baseline mitigations are assumed to be in place for Proposed Project under cumulative conditions.
Source: Dowling Associates, Inc., 2008.

The project would increase the density in the northbound 12th Avenue off-ramp diverge area and would cause the diverge area to degrade from LOS E to LOS F during the a.m. peak hour. The diverge area of the off-ramp would operate at worse than the freeway level of service during the a.m. peak hour without the project; however, the project would add significant traffic to the freeway mainline. This is considered a ***significant impact.***

The Proposed Project and all access scenarios would also cause the traffic queue for the right-turn movement at the northbound 12th Avenue off-ramp to exceed the storage capacity by one car length during the p.m. peak hour. This is considered a ***significant impact.***

While the traffic queue from traffic signal at the southbound 12th Avenue off-ramp would exceed the storage capacity of the ramp without the project, the Proposed Project and all access scenarios would add traffic to the ramp and further extend the length of the queue during all three peak hours. This is considered a ***significant impact.***

Mitigation Measure

Implementation of Mitigation Measure 5.2-8(j) would reduce the traffic queue at the northbound 12th Avenue off-ramp for the Proposed Project and all access scenarios to ***less than significant*** levels.

Implementation of Mitigation Measure 5.2-1(c) would reduce the traffic queue at the southbound 12th Avenue off-ramp for the Proposed Project and all access scenarios, but it will not fully mitigate the impact to the less than significant level. No other feasible mitigation measure was identified; therefore the impact to the southbound 12th Avenue off ramp would remain ***significant and unavoidable***.

No feasible mitigation measure was identified that would reduce the impact of the project on SR 99. Widening the freeway would reduce the impact but was not considered feasible. Although implementation of Mitigation Measure 5.2-2(a) would

reduce the impact of the project on SR 99, the impact after mitigation would remain ***significant and unavoidable***.

OTHER CONSIDERATIONS

Western At-Grade Crossing

An assessment was made to determine the potential effects of providing a western at-grade crossing that would connect to Freeport Boulevard. The traffic analysis showed that approximately 25 percent of the commercial traffic and 19 percent of the residential traffic would travel along Freeport Boulevard and 21st Street. Based on the location of the land uses on the project site and the shortest paths to and from destinations outside the project site, it is estimated that approximately 20 percent of the project traffic that would travel along Freeport Boulevard and 21st Street might use a western at-grade crossing. This rationale leads to the conclusion that approximately 5 percent of the project's commercial traffic and 4 percent of the projects residential traffic might use a western at-grade crossing.

A western at-grade crossing would relieve traffic congestion at impacted intersections but may not be sufficient to mitigate the significant impacts identified in this report. A western at-grade crossing would also result in secondary impacts to the street that would provide the connection between the project site and Freeport Boulevard. A centrally located street such as 7th Avenue or 6th Avenue would provide the highest potential for traffic diversion. All the streets that could provide the connection are local residential streets. If the western at-grade crossing carried 5 to 7 percent of the project traffic, the street providing the connection would carry approximately 800 to 1,120 vehicles per day.

Sight Distance

The safety of traffic operations on Sutterville Road were evaluated with regard to the location of the proposed new project access (Road A) for the Proposed Project. Sutterville Road is relatively flat on the approach to the Road A intersection from the east. The approach from the west passes over the railroad along a crest vertical curve. This westbound approach was evaluated to determine if the line of sight for approaching motorists would be adequate.

An examination of roadway profile information showed that the design speed of Sutterville Road at the railroad overcrossing is between 35 and 40 mph. The proposed Road A intersection would be located at a sag vertical curve on Sutterville Road about 700 feet east of the crest of the vertical curve. The 95th percentile queue of eastbound vehicle stopped at the proposed intersection ranges from approximately 275 feet to 450 feet. Eastbound motorists on Sutterville Road approaching the intersection would have adequate stopping sight distance for speeds well in excess of the design speed of Sutterville Road. At no point along Sutterville Road in the vicinity of the intersection would the stopping sight distance be less than the design speed of Sutterville Road for vehicles approaching a queue of vehicles stopped at the intersection.

5.3 AIR QUALITY

5.3 AIR QUALITY

5.3.0 INTRODUCTION

The Air Quality chapter of the EIR describes the impacts of the proposed project on local and regional air quality. It should be noted that the proposed project includes both updating the existing Remedial Action Plan (RAP) for the project site and the Curtis Park Village project itself. The chapter was prepared using methodologies and assumptions recommended within the indirect source review guidelines of the Sacramento Metropolitan Air Quality Management District (SMAQMD). In keeping with these guidelines the chapter describes existing air quality; construction-related impacts, direct and indirect emissions associated with the project; the impacts of these emissions on both the local and regional scale; and mitigation measures to reduce or eliminate any identified significant impacts. Additional sources used include the *Sacramento 2030 General Plan*,[1] *the Sacramento 2030 General Plan Master EIR*,[2] and an *Air Quality Impact Analysis*,[3] prepared by Donald Ballanti.

5.3.1 EXISTING ENVIRONMENTAL SETTING

Air Basin Characteristics

The project site lies in the southern portion of the Sacramento Valley, a broad, flat valley bounded by the coastal ranges to the west and the Sierra Nevada to the east. A sea-level gap in the Coast Range – the Carquinez Strait – is located approximately 50 miles southwest, and the intervening terrain is very flat. The prevailing wind direction is southwesterly, which is the wind direction when marine breezes flow through the Carquinez Strait. Marine breezes dominate during the spring and summer months, and show a strong daily variation. Highest average wind speeds occur in the afternoon and evening hours; lightest winds occur in the night and morning hours. During fall and winter, when the sea breeze diminishes, northerly winds occur more frequently, but southwesterly winds still predominate.

The project is within the SMAQMD, which is part of the Sacramento Valley Air Basin (SVAB). The Sacramento Valley Air Basin has been further divided into Planning Areas called the Northern Sacramento Valley Air Basin (NSVAB) and the Greater Sacramento Air Region, designated by the U.S. Environmental Protection Agency (EPA) as the Sacramento Federal Ozone non-attainment area. The non-attainment area consists of all of Sacramento and Yolo County, and parts of El Dorado, Solano, Placer, and Sutter Counties.

The San Francisco Bay Area Air Basin lies to the west, and the San Joaquin Valley Air Basin is located to the south. Considerable transport of pollutants occurs between these air basins, resulting in Sacramento County air quality being partially determined by the release of pollutants elsewhere. In turn, pollutants generated in Sacramento County affect air quality in areas to the north and east.

Air Pollutants and Ambient Air Quality Standards

Both the U.S. EPA and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. The term "ambient air quality" refers to the atmospheric concentration of a specific compound as actually experienced at a particular geographic location. The ambient air quality standards establish levels of contaminants, which represent safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants, because the health and other effects of each pollutant are described in criteria documents.

The National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) are summarized in Table 5.3-1. The federal and State ambient standards were developed independently with differing purposes and methods, although both processes attempted to avoid health-related effects. As a result, the federal and State standards differ in some cases. In general, the California State standards are more stringent, particularly for ozone and PM_{10}.

Table 5.3-1
Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour 8-Hour	-- 0.075 PPM	0.09 PPM 0.070 PPM
Carbon Monoxide	8-Hour 1-Hour	9.0 PPM 35.0 PPM	9.0 PPM 20.0 PPM
Nitrogen Dioxide	Annual Average 1-Hour	0.053 PPM --	0.030 PPM 0.18 PPM
PM_{10}	Annual Average 24-Hour	-- 150 $\mu g/m^3$	20 $\mu g/m^3$ 50 $\mu g/m^3$

PPM = Parts per Million
$\mu g/m^3$ = Micrograms per Cubic Meter

Source: Donald Ballanti, Air Quality Impact Analysis for the Proposed Curtis Park Project, February 2009.

The most problematic pollutants in Sacramento are ozone and particulate matter. The major sources and health effects of these pollutants are described below.

Ozone

Ozone is the most prevalent of a class of photochemical oxidants formed in the urban atmosphere. The creation of ozone is a result of a complex chemical reaction between hydrocarbons and oxides of nitrogen in the presence of sunshine. Unlike other pollutants, ozone is not released directly into the atmosphere from any sources. The major sources of nitrogen

oxide (NO_X) and reactive organic gases (ROG), known as ozone precursors, are combustion sources such as factories and automobiles, and evaporation of solvents and fuels.

The health effects of ozone are eye irritation and damage to lung tissues. Ozone also damages some materials such as rubber, and may damage plants and crops.

Particulate Matter

Particulate matter (PM) is a mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small drops of liquid. These particles vary greatly in shape, size, and chemical composition and can be made up of many different particles, including metal, dust, soot, aerosols, and other matter, which are small enough to remain suspended in the air for a long period of time. A portion of the particulate matter in the air is due to natural sources such as wind blown dust and pollen. Man-made sources include combustion, automobiles, field burning, factories, and road dust. Wood burning in fireplaces and stoves is a significant source of PM, particularly during cold, stagnant wintertime episodes when levels are highest. Motor vehicle PM emissions include tailpipe and tire wear emissions; however, greater quantities are generated by re-suspended road dust. A portion of the particulate matter in the atmosphere is also a result of photochemical processes. Inhalable PM consists of particles less than 10 microns in diameter, and is defined as "suspended particulate matter," The effects of high concentrations of PM on humans include aggravation of chronic respiratory illness, such as bronchitis and asthma, and heart/lung disease symptoms. Non-health effects include reduced visibility and soiling of surfaces.

Carbon Monoxide

Carbon monoxide (CO) is an odorless, colorless, poisonous gas that is primarily emitted by motor vehicles. Concentrations of this gas are highest near intersections of major roads. Because meteorological conditions are a significant factor affecting the development of high levels of CO, CO is primarily a winter period pollution problem, when periods of light winds or calm conditions combine with the formation of ground level temperature inversions; typically from the evening through the early morning period. Data from previous studies suggest that CO problems occur primarily in the vicinity of major traffic arteries having significant amounts of commercial development where parking lots are prevalent and there are a high number of "cold starts."

CO levels are a public health concern because CO combines readily with hemoglobin and thus reduces the amount of oxygen transported in the blood stream. State and federal ambient air quality standards for CO have been set at levels intended to keep CO from combining with more than 1.5 percent of the blood's hemoglobin.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Residential areas are considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Recreational land uses

are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercising places a high demand on respiratory functions, which can be impaired by air pollution.

Sensitive receptors in the area include local residences and C. K. McClatchy High School.

Current Air Quality

The SMAQMD and the California Air Resources Board (CARB) maintain several air quality monitoring sites in the Sacramento area. According to the nearest monitoring site's data, with the exception of ozone, all federal ambient air quality standards are met in the project area. Additionally, the State ambient standards of ozone and PM_{10} are regularly exceeded.

In Sacramento, motor vehicles are the major source of reactive organic gases ROG, NO_X, and CO. In addition, the 1986 Sacramento Air Quality Plan identified motor vehicle emissions and evaporation of various organic compounds (solvents, fuels, etc.) as the major contributors to regional ozone problems.

The CARB has seven air pollution monitoring sites within Sacramento County and three within the City of Sacramento. The air quality monitoring stations measure hourly pollutants and record sufficient data to meet EPA and/or ARB criteria for quality assurance. The closest monitoring site to the project area is located at 13th Street and T Street. This monitoring site measures multiple pollutants. A summary of the annual air quality measurements from this monitoring site is shown in Table 5.3-2.

Table 5.3-2
Air Quality Data Summary for Sacramento T Street Site, 2005-2007

Pollutant	Standard	Days Standard Was Exceeded During		
		2005	2006	2007
Ozone	State 1-Hour	4	6	2
Ozone	Federal 1-Hour	0	0	0
Ozone	State 8-hour	5	14	7
Ozone	Federal 8-Hour	1	3	1
PM_{10}	State 24-Hour	4	8	5
PM_{10}	Federal 24-Hour	0	0	0
Carbon Monoxide	Federal 8-Hour	0	0	0
Carbon Monoxide	State 8-Hour	0	0	0
Nitrogen Dioxide	State 24-Hour	0	0	0

Source: California Air Resources Board. Aerometric Data Analysis and Management (ADAM) System, 2008.

5.3.2 REGULATORY BACKGROUND

Federal

Environmental Protection Agency

The U.S. Environmental Protection Agency (USEPA) is the federal agency responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. The USEPA regulates emission sources that are under the exclusive authority of the federal government.

Federal Clean Air Act

At the federal level, the USEPA has been charged with implementing national air quality programs. The USEPA's air quality mandates are drawn primarily from the Federal Clean Air Act (FCAA), which was signed into law in 1970. Congress substantially amended the FCAA in 1977 and again in 1990.

The FCAA required the USEPA to establish National Ambient Air Quality Standards (NAAQS), and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions.

State

California Air Resources Board

The California Air Resources Board (CARB), a part of the USEPA, is responsible for the coordination and administration of both federal and State air pollution control programs within California. The CARB conducts research, sets State ambient air quality measure standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs.

California Clean Air Act

The California Clean Air Act (CCAA), 1988, requires that all air districts in the State endeavor to achieve and maintain California Ambient Air Quality Standards (CAAQS) for ozone and CO by the earliest practical date. Plans for attaining CAAQS were to be submitted to CARB by June 30, 1991. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either achieve a five percent annual reduction, averaged over consecutive three-year periods, in district-wide emissions of each non-attainment pollutant or its precursors, or to provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both State and federal planning requirements.

As stated above, the CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the CCAA of 1988. Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control districts and air quality management districts), establishing the CAAQS, and setting emissions standards for new motor vehicles. The emission standards established for motor vehicles differ depending on various factors including the model year, and the type of vehicle, fuel and engine used.

Senate Bill 656 – Reducing Particulate Matter in California

In 2003, the Legislature passed Senate Bill 656 to reduce public exposure to PM_{10} and $PM_{2.5}$. The legislation requires the CARB, in consultation with local air pollution control and air quality management districts (air districts), to adopt a list of the most readily available, feasible, and cost-effective control measures that could be implemented by air districts to reduce PM_{10} and $PM_{2.5}$. The legislation establishes a process for achieving near-term reductions in PM throughout California ahead of federally required deadlines for $PM_{2.5}$, and provides new direction on PM reductions in those areas not subject to federal requirements for PM. Sources categories addressed by SB 656 include measures to address residential wood combustion and outdoor greenwaste burning; fugitive dust sources such as paved and unpaved roads and construction; combustion sources such as boilers, heaters, and charbroiling; solvents and coatings; and product manufacturing.

Assembly Bills 1807 & 2588 - Air Toxics

Within California, toxic air contaminants (TACs) are regulated primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics Hot Spots Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB designates a substance as a TAC. Existing sources of TACs that are subject to the Air Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

Local

Sacramento Area Council of Governments Preferred Blueprint Scenario

The project would be consistent with the smart growth principles identified in the Blueprint by focusing on compact development to maximize use of existing land; offering a range of mixed land uses; using existing assets by infilling or intensifying the use of parcels in urbanized areas; encouraging a distinctive, community with high quality design; and providing transportation choices to encourage people to walk, ride bicycles, ride the bus, ride light rail, take the train, or car pool.

Sacramento Metropolitan Air Quality Management District

The SMAQMD is the agency primarily responsible for ensuring that National and State Ambient Air Quality Standards are not exceeded and that air quality conditions are maintained in the SVAB. Responsibilities of the SMAQMD include preparing plans for attaining ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the Federal Clean Air Act (FCAA) and the California Clean Air Act (CCAA). In an attempt to achieve national and State Ambient Air Quality Standards and maintain air quality, the SMAQMD has completed the Sacramento 1991 Air Quality Attainment Plan (AQAP), as well as the 1994 Sacramento Regional Clean Air Plan (SRCAP) (SMAQMD 1994).

Attainment Status

The FCAA required States to classify basins (or portions thereof) as either "attainment," "non-attainment," or "unclassified" based on whether or not the NAAQS had been achieved, with respect to the criteria air pollutants and applicable standards, and to prepare air quality plans containing emission reduction strategies for those areas designated as "non-attainment." An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "non-attainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An "unclassified" designation signifies that the data does not support either an attainment or a non-attainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category. See Table 5.3-3 for the current Sacramento County attainment status designations.

Table 5.3-3
Attainment Status Designations - Sacramento County

Pollutant	National Designation	State Designation
Ozone (1-hour)	No federal standard	Nonattainment/severe
Ozone (8-hour)	Nonattainment/serious	Nonattainment/severe
PM_{10}	Nonattainment/moderate	Nonattainment
CO	Attainment	Attainment
Nitrogen dioxide	Attainment	Attainment

Source: SMAQMD, http://64.143.64.21/aqdata/attainmentstat.shtml, 2008.

California Building Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings were established in 1978 in response to a legislative mandate to reduce California's energy consumption. These standards are codified in Title 24, Part 6, of the California Code of Regulations and are generally referred to as "Title 24 Standards." The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

Sacramento 2030 General Plan

The *Sacramento 2030 General Plan* includes an Air Quality discussion in the Environmental Resources Element, which contains policies that address air quality. The Plan also includes a number of policies addressing greenhouse gas emissions and climate change (See Appendix B of the *Sacramento 2030 General Plan*).

City of Sacramento Comprehensive Infill Strategy

The City's Infill Program adopts numerical and qualitative infill development goals, targets specific types of infill development, and offers focused procedural and financial incentives to help achieve infill development goals.

Sustainability Master Plan (2007)

As part of the Sustainability Master Plan, the City will integrate environmentally sustainable practices into City policies, procedures, and operations that will provide tools for measuring the City's progress towards sustainability. The foundation for the Sustainability Master Plan is the United Nations Environmental Accords, a set of 21 actions that the United Nations asked city governments to adopt and implement over a seven-year period. The City has incorporated the pertinent goals and targets identified in the Plan into the *Sacramento 2030 General Plan*. The goals and targets will serve as a policy framework for the City to ensure that sustainability concerns are incorporated into the City's decision-making processes.

5.3.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this analysis, a significant impact occurs if:

Ozone: the project increases nitrogen oxide (NO_X) levels above 85 pounds per day for short-term effects (construction). The project increases either ozone precursors, nitrogen oxides (NO_X) or reactive organic gases (ROG), above 65 pounds per day for long-term effects (operation).

Particulate Matter (PM_{10}): the project emits pollutants at a level equal to, or greater than, five percent of the CAAQS (50 micrograms/cubic meter for 24 hours) if there is an existing or projected violation; however, if a project is below the ROG and NO_X thresholds, it is assumed that the project is below the PM_{10} threshold as well.

Carbon Monoxide (CO): The project results in CO concentrations that exceed the 1-hour State ambient air quality standard of 20.0 parts per million (ppm) or the 8-hour State ambient standard of 9.0 ppm.

Toxic Air Contaminants: The project would create a significant impact if it creates a risk of 10 in 1 million for cancer.

Method of Analysis

Remedial Action Plan (RAP) Activities

The URBEMIS-2007 (Version 9.2.4)[4] program was used to estimate the maximum construction emissions from import of fill related to remediation of site soil contamination from trucks, equipment exhaust, construction worker vehicle trips, and fugitive emissions. As a worst-case assumption the import of fill was assumed to occur between April 15, 2009 and October 15, 2009.

Curtis Park Village Construction and Operation

The URBEMIS-2007 (Version 9.2.4)[5] and SMAQMD's Road Construction Model (Version 6.2) programs were applied to the proposed project to estimate the maximum construction emissions from site grading, equipment exhaust, construction worker vehicle trips, and other construction activities. The first phase of construction, consisting of fine grading of the site, importation of 10,000 cubic yards of fill to the site, and construction of the north-south roadway was assumed to be completed in six months. As a worst-case assumption, buildout of the commercial and residential portions of the project was assumed to take an additional two years. The construction emission analysis was based on a compressed schedule of 2.5 years for completion of all construction activities.

In addition, estimates of operational emissions generated by project traffic and area sources were made using the URBEMIS-2007 program. URBEMIS-2007 estimates the emissions that result from various land uses. The URBEMIS-2007 program includes considerations for trip generation rates, vehicle mix, average trip length by trip type, and average speed. The number of vehicle trips per day was based on trip generation tables provided for a previous iteration of the proposed project. It should be noted that minor changes to the proposed land use mix have occurred since the URBEMIS-2007 analysis was completed. The changes to the proposed land use mix would result in a reduction in the daily trip generation as compared to the trips for the previous iteration of the project; therefore, the following analysis is conservative (See Chapter 5.2, Transportation and Circulation, for further detail).

The URBEMIS-2007 program was used to calculate daily operational emissions during the summer months with an ambient temperature of 95 degrees Fahrenheit and during the winter months with an ambient temperature of 50 degrees Fahrenheit. Summer results from URBEMIS-2007 are used to assess ozone precursors, reactive organic gases (ROG) and nitrogen oxides (NO_X), while winter results are used to assess particulate matter (PM_{10}) and carbon monoxide (CO) emissions. In addition, the annual results were used to estimate the project carbon dioxide (CO_2) emissions per year.

A screening health risk assessment of diesel PM emissions from diesel locomotives traveling on the tracks adjacent to the Curtis Park Village site was conducted and found that cancer risks for locomotive PM emissions would be less than the evaluation criteria of the SMAQMD contained in the document *Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways*.[6]

SMAQMD's *Guide to Air Quality Assessment in Sacramento County* contains a screening procedure for determining if a project could have a significant impact on local carbon monoxide concentrations. The method utilizes estimates of background concentrations (adjusted by "rollback" values that reflect trends in county-wide emissions) and an estimated project-related carbon monoxide concentration determined by the peak-hour trip generation of the project. This screening procedure was applied to the proposed project.

The URBEMIS-2007 program was also used to calculate construction and operational emissions of carbon dioxide. Emissions of methane and nitrous oxide were estimated separately based on the URBEMIS-2007 estimates of carbon dioxide from diesel construction vehicles and equipment. Published methane and nitrous oxide emission factors were utilized to estimate project emissions of these gases based on the estimated carbon dioxide emissions. Because these gases are more powerful global warming gases the emissions were multiplied by a correction factor to estimate "carbon dioxide equivalents."

Global warming gas emissions related to electricity use were estimated using average annual electrical consumption for commercial space recommended by the California Energy Commission. Emission rates for greenhouse gases per megawatt hour were taken from the California Climate Action Registry General Reporting Protocol, Version 3.0. Project electrical usage factor was multiplied by the emission rates per megawatt hour to obtain annual emissions for CO_2, CH_4 and N_2O. These emissions were converted to CO_2 equivalents.

Project-Specific Impacts and Mitigation Measures

5.3-1 Impacts related to the update of the Remedial Action Plan.

Under the current Remedial Action Plan (RAP), contaminated soils would be excavated, disposed of at an appropriately certified landfill, and clean fill dirt would be introduced to return the site to the current grade. The project site is currently undergoing remediation activities. It should be noted that the update to the RAP to allow other potential remedies, including excavation and import of clean soil, in-situ treatment, and/or consolidation and capping on-site, could generate substantial truck traffic in the vicinity of the site if the off haul of contaminated soils and import of clean fill is chosen as a remedy. The other potential remedies associated with the update of the RAP would not result in air quality impacts beyond the impacts that would be created by implementation of the existing RAP.

As shown in Table 5.3-4, below, maximum emissions from soil importation associated with site remediation would not exceed the threshold of significance for NO_X.

Trucks transporting clean fill material to the site during remediation activities for soil contamination would access the site from Sutterville Road and would affect adjacent properties. During soil importation activities, 49 daily truck loads would be brought to the site, resulting in 98 daily diesel truck trips on Sutterville Road. Residences are located very near Sutterville Road east of the project site. Implementation of the revised RAP would result in nearly 100 trucks passing the residences along Sutterville Road. While

emissions during soil export and import would not exceed the SMAQMD construction threshold of significance and the impact would be temporary (approximately three months in length), the SMAQMD considers substantial and constant diesel truck activity near homes a *potentially significant* impact.

Mitigation Measure(s)

Compliance with model year 2007 emissions standards for diesel trucks requires that that particulate trap or soot filters be installed. Particulate traps are more than 90% effective in removing diesel exhaust particulate. Implementation of the following mitigation measure would reduce the above impact to a ***less than significant*** level.

5.3-1(a) *Prior to import of clean soil associated with the ongoing remediation activities in excess of the volume anticipated in the existing RAP, contracts for soil hauling shall specify that all haul trucks shall be model year 2007 or newer, or be retrofitted to meet model year 2007 emission standards, for the review and approval of the DTSC and the SMAQMD.*

5.3-2 Impacts related to exhaust emissions and fugitive particulate matter emissions from project-associated construction activities.

During the construction phase, various diesel-powered vehicles and equipment would be in use on the site. As shown in Table 5.3-4, the project related vehicles and equipment would emit substantial amounts of particulate matter that consists of diesel exhaust particulate and fugitive dust. The CARB has identified particulate matter from diesel-fueled engines as a toxic air contaminant (TAC). The CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines. High volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic were identified as having the highest associated risks.

Table 5.3-4
Maximum Construction Related Daily Emissions (pounds/day)

	ROG	NO_X	PM_{10}
RAP Activities	8.50	84.26	81.30
Project Construction	77.44	105.88	84.12
Significance Threshold	**--**	**85.0**	**80.0**

Source: Donald Ballanti, Air Quality Impact Analysis for the Proposed Curtis Park Project, February 2009.

Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. The emissions resulting from construction are temporary, affecting a specific receptor for a period of days or perhaps weeks. Emissions from diesel powered equipment on the site would be spread over site and would not affect any specific receptor for any length of time.

Controlled dust emissions during construction would exceed 80 pounds per day during the grading of the site. These controlled emissions could potentially result in localized

exceedances of the particulate matter ambient air quality standards which is a significance threshold; therefore, a *potentially significant* impact could result.

Mitigation Measure(s)

Appendix B of SMAQMD's Guide to Air Quality Assessment in Sacramento County provides recommended mitigation measures that are dependent on the size of the project site and the maximum number of receptors disturbed in an area at any given time. If the appropriate measures are employed, the impacts of fugitive dust caused by the project can be mitigated to a ***less than significant*** level. Based on the size of the proposed project, Level Three mitigation would be needed. Level Three mitigation is required for projects that are assumed to have a maximum actively disturbed area of 12.1 to 15.0 acres at one time. Therefore, implementation of the following mitigation measures for a project of this size is required, pursuant to the SMAQMD.

5.3-2(a) *The project applicant shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately, and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supercede other SMAQMD or state rules or regulations.*

5.3-2(b) *Prior to the approval of any grading permit, the project proponent shall submit a dust-control plan to the City of Sacramento Development Services Department. The dust-control plan shall stipulate grading schedules associated with the project phase, as well as the dust-control measures to be implemented. Grading of proposed project phases shall be scheduled so that the total area of disturbance would not exceed 15 acres on any given day. The dust control plan shall be incorporated into all construction contracts issued as part of the proposed project development. The dust-control plan shall, at a minimum, incorporate the following measures:*

- *Apply water, chemical stabilizer/suppressant, or vegetative cover to disturbed areas, including storage piles that are not being actively used for construction purposes, as well as any portions of the construction site that remain inactive for longer than 3 months;*

- *Water exposed surfaces sufficient to control fugitive dust emissions during demolition, clearing, grading, earth-moving, or excavation operations. Actively disturbed areas should be kept moist at all times;*
- *Cover all vehicles hauling dirt, sand, soil or other loose material or maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114;*
- *Limit or expeditiously remove the accumulation of project-generated mud or dirt from adjacent public streets at least once every 24 hours when construction operations are occurring; and*
- *Limit onsite vehicle speeds on unpaved surfaces to 15 mph, or less.*

5.3-3 Impacts related to a temporary increase in NO_X emissions.

Nitrogen oxides are ozone precursors, and as such could contribute to the creation of smog within the SVAB. Construction-generated emissions of NO_X are short-term and of temporary duration, lasting only as long as construction activities occur, but possess the potential to represent a significant air quality impact. The construction and development of the proposed land uses would result in the temporary generation of emissions resulting from vehicles associated with site grading and excavation, road paving, building construction, worker trips, and the movement of construction equipment.

As shown in Table 5.3-4, vehicles and equipment associated with the construction of the proposed project would emit up to 105.88 pounds per day of NO_X. Therefore, construction emissions associated with buildout of the Curtis Park Village portion of the project would exceed the SMAQMD threshold of 85 pounds per day for NO_X. As a result, implementation of the proposed project would result in a *potentially significant* impact to air quality.

Mitigation Measure(s)

The following mitigation measure would reduce the proposed project's NO_X emissions, but not to levels below the threshold of 85 pounds per day. Fees are collected for the construction mitigation to the SMAQMD sufficient to offset project emissions of NO_X above 85 pounds per day. Fees go toward programs to support emissions reduction construction equipment. The program supports the Independent Construction Caterpillar 633D Scraper Tier 2 Engine Repower, a new equipment that has an annual NO_X reduction of 2.4 tons per year, annual ROG reduction of 510 pounds per year, annual PM 10 reduction of 230 pounds per year, and annual CO_2 reduction of approximately 20 to 40 percent. Therefore, the project would be subject to an additional mitigation measure from the SMAQMD *Guide to Air Quality Assessment* (Mitigation Measure 5.3-2[b]), which would reduce construction NO_X impacts to a ***less than significant*** level. In addition, it should be noted that the number of vehicle trips associated with the proposed project was based on trip generation rates provided for a previous iteration of the project; vehicle trips associated with the project are likely to change slightly due to minor modifications to the proposed land use mix. Furthermore, because remediation of the site is not yet complete,

the construction start date for Curtis Park Village is currently unknown. Finally, SMAQMD's fee for NO_X construction offsets may change by the time construction begins. Therefore, although the current NO_X construction offset fee has been included in the below mitigation, the fee for the proposed project has not yet been calculated because it cannot be done accurately at this time.

5.3-3(a) *Prior to issuance of a grading permit, the applicant shall submit a SMAQMD-approved plan, which demonstrates that the heavy-duty (>50 horsepower) off-road vehicles to be used during construction of the project (including owned, leased, and subcontracted vehicles) will achieve a project-wide average of 20 percent NO_X reduction and 45 percent particulate matter reduction, based on the most recent CARB fleet average at the time of construction. In addition, the applicant shall submit to SMAQMD a comprehensive inventory of all off-road construction equipment (>50 horsepower) that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and project hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project. Inventory shall not be required for any 30-day period in which construction activities do not occur. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the applicant shall provide SMAQMD with the anticipated construction timeline, including the start date and the name and phone number of the project manager and on-site foreman.*

5.3-3(b) *Prior to issuance of a grading permit, the applicant shall provide a construction mitigation fee to the SMAQMD sufficient to offset project emissions of NO_X above 85 pounds per day. The amount of the fee shall be based on updated construction scheduling and equipment lists, and shall be calculated using the SMAQMD method of estimating excess emissions. The current price of NO_X construction offsets calculated by SMAQMD is $16,000 per ton.*

5.3-4 Development of the project would result in increases in emission of carbon monoxide.

Implementation of the proposed project would result in increased concentrations of carbon monoxide. The project would increase the number of vehicle trips in the area and on streets providing access to the site, thus resulting in increases in emissions of carbon monoxide in the vicinity of the project. In the Sacramento area, automobiles are the primary source of carbon monoxide. Concentrations of carbon monoxide are highest near intersections and major roads.

The project would result in a significant impact if the project would result in CO concentrations that exceed the one-hour State ambient air quality standard of 20.0 parts

per million (ppm) or the eight-hour State ambient standard of 9.0 ppm. When the screening procedure is applied to the proposed project, the estimated worst-case total concentration (project plus project background) was 11.2 parts per million (ppm) for a one-hour period and 7.6 ppm for an eight-hour period.[1]

These predictions, based on worst-case concentrations of carbon monoxide, do not exceed or approach the most stringent ambient air quality standard of 20.0 ppm for a one-hour period and 9.0 ppm for an eight-hour period. Therefore, the proposed project's impacts related to an increase in local carbon monoxide concentrations would be ***less than significant***.

Mitigation Measure(s)
None required.

5.3-5 Impacts related to long-term increases of criteria air pollutants.

The proposed project would result in the development of commercial and office uses, which would generate emissions of ozone-precursor pollutants (i.e., ROG and NO_X). Predicted operational emissions are summarized below in Table 5.3-5.

Table 5.3-5
Estimated New Regional Emissions (pounds/day)

Alternative	ROG	NO_X
Proposed Project	160.52	134.99
SMAQMD Significance Threshold	**65.0**	**65.0**

Source: Donald Ballanti, Air Quality Impact Analysis for the Proposed Curtis Park Project, February 2009.

Based on the modeling conducted, development of the proposed project would result in total predicted emissions of ROG or NO_X that would exceed the corresponding SMAQMD threshold of 65 lbs/day. Because predicted increases in ozone-precursor pollutants (i.e., ROG and NO_X) would exceed SMAQMD significance thresholds at project buildout, this impact would be considered *significant.*

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the project's impact related to increases in emissions of ROG and NO_X by a minimum of 15 percent. The proposed project would have a minimum of 15 percent reduction of ROG and NO_X emissions due to the implementation of the mitigation measure requiring an Air Quality Management Plan (AQMP) for the project, which requires a project to achieve a minimum overall reduction in operational emissions of 15 percent. However, the mitigation measure would not reduce the project's emissions of ROG and NO_X to levels

[1] Minor changes to the proposed land use mix have occurred since the carbon monoxide screening analysis was completed. These changes reduce daily trip generation slightly. Use of the higher trip generation numbers is conservative.

below the SMAQMD thresholds of significance for ozone precursors; therefore, the proposed project's regional air quality impacts would be ***significant and unavoidable***.

5.3-5(a) *Prior to the issuance of any grading permit, the project applicant shall coordinate with the SMAQMD and the City of Sacramento Development Services Department to develop a project Air Quality Mitigation Plan (AQMP). In accordance with SMAQMD recommendations, the AQMP shall achieve a minimum overall reduction of 15 percent in the project's anticipated operational emissions. SMAQMD-recommended measures and corresponding emissions-reduction benefits are identified in SMAQMD's Guidance for Land Use Emission Reductions, which can be found in Appendix E of the SMAQMD document. The AQMP shall be reviewed and endorsed by SMAQMD staff prior to project implementation. Available measures to be included in the AQMP include, but are not limited to, the following:*

- *Prohibit the installation of wood-burning fireplaces and stoves.*
- *Provide onsite bicycle storage and showers for employees that bike to work sufficient to meet peak season maximum demand.*
- *Provide preferential parking (e.g., near building entrance, sheltered area, etc.) for carpool and vanpool vehicles.*
- *Provide transit enhancing infrastructure that includes: transit shelters, benches, etc.; street lighting; route signs and displays; and/or bus turnouts/bulbs*
- *Incorporate onsite transit facility improvements (e.g., pedestrian shelters, route information, benches, lighting) to coincide with existing or planned transit service.*
- *Incorporate landscaping and sun screens to reduce energy use. Deciduous trees should be utilized for building shading to increase solar heating during the winter months. Install sun-shading devices (e.g., screens) or recessed windows on newly proposed buildings.*
- *Install efficient lighting and lighting control systems.*
- *Install energy-efficient heating and cooling systems, appliances and equipment.*
- *Install light colored "cool" roofs and pavements (i.e., high reflectance, high emittance roof surfaces, or exceptionally high reflectance and low emittance surfaces) and strategically placed shade trees to the extent practical.*
- *Limit hours of operation of outdoor lighting to the extent practical.*
- *Provide shade (within 5 years) and/or use light-colored/high-albedo materials (reflectance of at least 0.3) and/or open grid pavement for*

at least 30 percent of the site's non-roof impervious surfaces, including parking lots, walkways, plazas, etc.; or, place a minimum of 50 percent of parking spaces underground or covered by structured parking; or, use an open-grid pavement system (less than 50 percent impervious) for a minimum of 50 percent of the parking lot area.

5.3-5(b) Documentation confirming implementation of the Air Quality Mitigation Plan shall be provided to the SMAQMD and City prior to issuance of occupancy permits.

5.3-6 Development of the project could place new sensitive receptors in proximity of a rail line, a source of diesel particulate emissions.

The proposed project would be located adjacent to active railroad tracks, siting sensitive receptors approximately 100 feet away and downwind from the tracks. Diesel locomotives traveling adjacent to the project site are a source of combustion related particulate matter emissions. Long-term exposure to particulate matter has been identified as a potential contributor to cancer. Therefore, a screening health risk assessment of diesel particulate matter emissions from diesel locomotives traveling on the tracks adjacent to the Curtis Park Village site has been conducted to estimate the potential cancer risk at the proposed residences within the development that are within 100 feet of the railroad tracks.

The screening health risk assessment calculated the maximum potential cancer risk factor an individual would have if they stayed in their house for a full year. The estimated cancer risk from exposure to 1,460 trains per year was modeled at 2.4 in one million, which indicates that a person exposed to the emissions likely to occur on the project site for a lifetime would have a 0.00024 percent potential to contract cancer as a result of train-related emissions.[7] It should be noted that an individual who visits the proposed project site, but does not live in the vicinity of the site, would have a considerably lower cancer risk factor.

Currently there are not any known thresholds of significance or adopted analysis protocols for rail line emissions. The SMAQMD released a protocol document entitled: *Recommended Protocol For Evaluating The Location Of Sensitive Land Uses Adjacent To Major Roadways* (*Protocol*), which was most recently updated in March 2009. Although the SMAQMD's *Protocol* is for road traffic (cars and trucks) only, the *Protocol* was applied to the proposed project as a screening criterion to determine if additional analysis was needed. The *Protocol* establishes a screening criterion of 296 in one million for mobile sources (SMAQMD, 2009).

The 2.4 in one million cancer risk factor for the project would be below the SMAQMD's screening analysis threshold of 296 in one million for mobile sources. In addition, the 2.4 in one million risk factor is below the SMAQMD's incremental cancer risk threshold of significance for stationary sources, which is 10 in one million. Therefore, the cancer risk

on the project site is expected to be lower than the SMAQMD mobile source and stationary source incremental cancer risk thresholds, and the proposed project's indirect impacts related to locating sensitive receptors near existing railroad tracks would be considered ***less than significant***.

Mitigation Measure(s)
None required.

5.3-7 Impacts related to the project's production of greenhouse gas emissions.

To date, analysts have yet to define protocols for establishing the effect of a specific local development project on a cumulative global temperature increase. The IPCC notes that "difficulties remain in attributing temperature on smaller than continental scales and over time scales on less than 50 years. Attribution at these scales, with limited exceptions, has not yet been established." The following discussion focuses on the proposed project's contribution to global climate change by quantifying GHG emissions and qualitatively discussing project GHG reductions, which would be consistent with the regulatory context presented below. The assessment focuses on the quantification of major greenhouse gases: carbon dioxide (CO_2), Nitrous oxide (N_2O), and methane gas (CH_4), which contributes to global warming.

Short-Term Construction Emissions

Estimated greenhouse gas emissions attributable to the proposed project were calculated using the URBEMIS2007 computer program and emission factors obtained from the CEC and CARB. Emissions were calculated for short-term construction and long-term operational activities, including emissions generated by mobile sources, energy consumption, and decomposition of project-generated waste. Emissions were converted to CO_2 equivalent units of measure, expressed in metric tons, based on the global warming potential of the individual pollutants.

During construction of the project, GHGs would be emitted from the operation of construction equipment and from worker and building supply vendor vehicles. The project construction emissions of CO_2 equivalents are shown in Table 5.3-6, below. It was estimated that the proposed project would emit a total of approximately 5,634 tons per year of CO_2 equivalent during construction of the project. Emissions of nitrous oxide and methane are negligible in comparison and were not estimated.

Table 5.3-6
Short-Term Construction-Generated Greenhouse Gas Emissions
Proposed Project

Source	Maximum CO_2 Equivalent (Tons/Year)
Equipment Exhaust	5,633.79

Source: Donald Ballanti, Air Quality Impact Analysis for the Proposed Curtis Park Project, February 2009.

Long-Term Operation

The largest source of GHGs associated with the proposed project would be on- and off-site motor vehicle use. CO_2 emissions, the primary GHG from mobile sources, are directly related to the quantity of fuel consumed. CO_2 emissions during operation of the project at full buildout were estimated using URBEMIS2007, as shown in Table 5.3-7. As shown, total CO_2 emissions generated by the project would be 30,862 tons per year, which equates to approximately 0.006 percent of California's total emissions

Table 5.3-7
Long-Term Operational Greenhouse Gas Emissions
Proposed Project

Source	CO_2 Equivalent (Tons/Year)	Percent of Total Project Emissions
Motor Vehicles	21,764	71
Electricity	6,464	21
Natural Gas	2634	8
Total:	**30,862**	
Percent of Statewide Total:	**0.006**	

Source: Donald Ballanti, Air Quality Impact Analysis for the Proposed Curtis Park Project, February 2009.

Strategies to Reduce GHG Emissions

Governmental agencies have not provided specific guidance on how to conduct GHG analysis for CEQA documents. The following qualitative approach for assessing the project's compliance with AB 32 and other climate change reduction strategies was developed in accordance with several approaches outlined in white papers and technical advisories provided by the Governors Office of Planning and Research, the California Air Pollution Control Officers Association (CAPCOA, 2008), the consulting firm of Jones and Stokes (2007), and the Association of Environmental Professionals (AEP, 2007).

The proposed project would result in high-density mixed-use development within an urbanized area of the City. The project site is within a relatively short distance to downtown Sacramento, which is a regional employment and retail center. Residential development in proximity to the downtown Sacramento area has been shown to reduce average commuting lengths, according to the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan, 2035. Given the high density and mixed-use nature of the proposed development coupled with the proximity to existing employment centers and retail attractions in the City, the proposed project could reduce daily vehicle travel. This would aide in California's goal to reduce GHG under AB 32. Furthermore, the *Sacramento 2030 General Plan* includes goals and policies that would reduce GHG emissions from future projects. These goals and policies are included in the Environmental Resources, Air Quality, Mobility, Land Use and Urban Design, Economic Development, Public Health and Safety, Utilities, Education, Recreation, and Culture Elements.

Project Compliance with Assembly Bill 32

In March 2008, the California Attorney General issued a paper for use by local agencies in carrying out their duties under CEQA as they relate to global climate change. Included were examples of various measures that may reduce the emissions of individual projects that result in global warming. As noted in the paper, each of the measures should not be considered in isolation, but as part of a larger set of measures, that together, would help reduce greenhouse gas emissions and the effects of global warming.

As discussed above, statewide emission reduction strategies and measures would result in a substantial decrease in statewide emissions to levels far below current background levels. Of the approximately 228 strategies and measures currently under consideration that would ensure a statewide reduction in GHG emissions, 28 would apply to the proposed project and are shown in Table 5.3-8. Table 5.3-8 lists the measures from the California Attorney General's office that are applicable to the proposed Curtis Park Village project and indicates whether, and how, the project would conform to the measures. The other policies are not applicable to the proposed project because they are directed at State entities (e.g., CARB), are planning-level measures (e.g., for general plans), or apply to particular industries (e.g., auto repair). As shown in Table 5.3-8, the proposed project would be in compliance with these 28 applicable State climate change strategies.

A consensus on identification of a quantitative threshold of significance for greenhouse gas emissions for private development projects has not been reached. Active discussions at the CARB may lead to such a standard, or a scientific consensus may emerge from the ongoing debate. Based on the information available at this time, the City does not believe that basing impact significance on an arbitrary emission level would contribute to a meaningful analysis on GHG emissions or climate change in the context of CEQA.

Recognizing the importance of the issue, the City is currently working with the CARB, the SMAQMD, and the State Attorney General to develop a comprehensive approach for identifying, assessing, and reducing impacts associated with GHG emissions. State legislation requires action by the Office of Planning and Research within the next year establishing regulations for the evaluation of GHGs, and the City reasonably expects that agreement on methodology and procedures will occur with that time period.

In the absence of a specific quantitative threshold, expressed in terms of metric tons per year for example, the City evaluates projects on a project-by-project basis to reach a conclusion regarding the significance of the GHG emissions that would result from a project. One measure is the extent to which the project complies with directly applicable emission reduction measures that would support the State's efforts to significantly reduce its contribution to global climate change and the associated impacts. These would include each of the project-applicable strategies currently identified by the CARB or the CAT to comply with Executive Order S-3-05 or AB 32. Based on this information, a qualitative threshold of significance has been formulated, as follows:

Table 5.3-8
Greenhouse Gas Emissions Reduction Measures
Curtis Park Village

Office of the California Attorney General Methods to Offset or Reduce Global Warming Impacts (March 2008)	Curtis Park
Energy Efficiency	
Design buildings to be energy efficient. Site buildings to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use.	Project to include as required in PUD Guidelines, where appropriate.
Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems in buildings.	Project to include as required in PUD Guidelines, where appropriate.
Install light colored "cool" roofs, cool pavements, and strategically placed shade trees.	Project to include as required in PUD Guidelines, where appropriate.
Provide information on energy management services for large energy users.	Project to include as required in PUD Guidelines, where appropriate.
Install energy efficient heating and cooling systems, appliances and equipment, and control systems.	Project to include as required in PUD Guidelines, where appropriate.
Install light emitting diodes (LEDs) for traffic, street, and other outdoor lighting.	Included in City Standards.
Limit the hours of operation of outdoor lighting.	Project to include as required in PUD Guidelines, where appropriate.
Use solar heating, automatic covers, and efficient pumps and motors for pools and spas.	Project to include as required in PUD Guidelines, where appropriate.
Renewable Energy	
Install solar and wind power systems, solar and tankless hot water heaters, and energy-efficient heating ventilation and air conditioning. Educate consumers about existing incentives.	Project to include as required in PUD Guidelines, where appropriate.
Install solar panels on carports and over parking areas.	Project to include as required in PUD Guidelines, where appropriate.
Water Conservation and Efficiency	
Create water-efficient landscapes.	Required by City Ordinance.
Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.	Required by City Ordinance.
Design buildings to be water-efficient. Install water-efficient fixtures and appliances.	Required by Building Code.
Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff.	Required by City Ordinance.
Restrict the use of water for cleaning outdoor surfaces and vehicles.	Required by City Ordinance.
Implement low-impact development practices that maintain the existing hydrologic character of the site to manage storm water and protect the environment. (Retaining storm water runoff on-site can drastically reduce the need for energy-intensive imported water at the site.)	Required by City, State, and Federal Regulations.

Table 5.3-8 Greenhouse Gas Emissions Reduction Measures Curtis Park Village	
Office of the California Attorney General Methods to Offset or Reduce Global Warming Impacts (March 2008)	**Curtis Park**
Solid Waste Measures	
Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).	Required by City Ordinance.
Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.	Required by City Ordinance.
Land Use Measures	
Include mixed-use, infill, and higher density in development projects to support the reduction of vehicle trips, promote alternatives to individual vehicle travel, and promote efficient delivery of services and goods.	Mixed-use required by project PUD and zoning.
Incorporate public transit into project design.	Included in PUD entitlement.
Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.	Included in PUD entitlement.
Include pedestrian and bicycle-only streets and plazas within developments. Create travel routs that ensure that destinations may be reached conveniently by public transportation, bicycling or walking.	Required by project circulation system and tentative map entitlements.
Transportation and Motor Vehicle Measures	
Limit idling time for commercial vehicles, including delivery and construction vehicles.	Required by AQMP.
Use low or zero-emission vehicles, including construction vehicles.	Required by AQMP.
Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).	Provided in AQMP, where appropriate.
Incorporate bicycle lanes and routes into street systems, new subdivisions, and large developments.	Included in street and circulation plan in tentative map.
Incorporate bicycle-friendly intersections into street design.	Included in street and circulation plan in tentative map.
For commercial projects, provide adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience. For large employers, provide facilities that encourage bicycle commuting, including, e.g., locked bicycle storage or covered or indoor bicycle parking.	Required by City Ordinance and included in AQMP.

- Conflict with or obstruct implementation of the goals or strategies of Executive Order S-3-05, the California Global Warming Solutions Act of 2006, or the Attorney General's suggested global warming mitigation measures.

As indicated, the proposed project would include a substantial number of features and mitigation measures that would reduce the project's contribution to global climate change. Based on the information provided in Table 5.3-8, the City has determined that the proposed project would not conflict with or obstruct implementation of the goals or strategies of Executive Order S-3-05, the California Global Warming Solutions Act of 2006, or the Attorney General's suggested global warming mitigation measures. Therefore, the proposed project would have a ***less than significant*** impact associated with the generation of greenhouse gases.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

5.3-8 Cumulative contribution to regional air quality conditions.

Because the SVAB is classified as non-attainment status for ozone and PM_{10}, if project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO_X) or PM_{10} would exceed the long-term thresholds, then the cumulative impacts would be considered significant.

As discussed in impact 5.3-5, the proposed project's emissions of ROG and NO_X both exceed the SMAQMD's significance threshold of 65 pounds per day. Based on this criterion, the proposed project would have a *significant* cumulative impact to regional air quality conditions.

Mitigation Measure(s)
Implementation of Mitigation Measure 5.4-2(a) and (b) and Mitigation Measure 5.3-5(a) and (b) would reduce short-term and long-term increases in emissions attributable to the proposed project by a minimum of 15 percent. However, as noted in Impact 5.3-5, long-term operational increases in emissions would still be anticipated to exceed SMAQMD's significance threshold. As a result, the impact would be considered ***significant and unavoidable***.

5.3-8 Implement Mitigation Measures 5.3-2(a) and (b) and 5.3-4(a) and (b).

5.3-9 Cumulative impacts related to greenhouse gas emissions.

The *Sacramento 2030 General Plan Master EIR* discusses GHG emissions and climate change. The Master EIR concludes that the GHGs that would be generated by development that is consistent with the *Sacramento 2030 General Plan* would result in a significant and unavoidable cumulative impact (See Final MEIR, Errata No. 2). The

Sacramento 2030 General Plan implements an overall vision for development in the community that focuses on utilization of infill sites where urban infrastructure and services exist, and which will result in a reduction in vehicle miles traveled, one of the primary sources of GHGs.

The proposed project would be consistent with the land use principles found in the *Sacramento 2030 General Plan*, which would facilitate the City's efforts to reduce GHG emissions through land use design. As discussed above, Table 5.3-8 demonstrates various components that have been identified by the Attorney General to reduce GHG emissions and identifies the extent to which the proposed project is consistent with such measures.

A full discussion of GHG emissions is included in the *Sacramento 2030 General Plan Master EIR* (Chapter 8.1) and the *Sacramento 2030 General Plan Final Master EIR* (See Response to Letter 2). Because the proposed project would not impede the City's efforts with respect to the reduction of GHG emissions, and would be consistent with the land use principles embodied in the *Sacramento 2030 General Plan*, the proposed project's contribution to greenhouse gases would not be cumulatively considerable, and the impact would be ***less than significant***.

Mitigation Measure(s)
None required.

Endnotes

[1] City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
[2] City of Sacramento, *Sacramento 2030 General Plan Master EIR*, March 2009.
[3] Donald Ballanti, *Air Quality Impact Analysis for the Proposed Curtis Park Project*, February 2009.
[4] Jones and Stokes Associates, *Software User's Guide: URBEMIS2007 for Windows, Version 9.2.4, Emissions Estimation for Land Use Development Projects*, November 2007.
[5] Ibid.
[6] Environmental Resource Management, *Screening Health Risk Evaluation for Railway Diesel Emissions Exposure, Curtis Park Village Development Project*, February 2008.
[7] Ibid.

5.4 NOISE AND VIBRATION

5.4 NOISE AND VIBRATION

5.4.0 INTRODUCTION

The Noise chapter of the EIR describes the existing noise environment in the project vicinity, and identifies potential impacts and mitigation measures related to the construction and operation of the proposed Curtis Park Village project. In addition, this chapter describes the potential noise impacts due to construction. The method by which the potential impacts are analyzed is discussed, followed by the identification of potential impacts and the recommended mitigation measures designed to reduce significant impacts to levels that are less-than-significant. Sources used in the analysis of noise include the *City of Sacramento 2030 General Plan*,[1] the *City of Sacramento 2030 General Plan EIR*,[2] the *Environmental Noise Assessment*,[3] prepared by Bollard Acoustical Consultants, and *City of Sacramento Noise Control Ordinance*.[4]

Comments provided on the Notice of Preparation (NOP), the revised NOP, the second revised NOP, and the related scoping meetings related to potential exposure of persons in the project vicinity to project-related traffic noise are addressed in Impact Statement 5.4-3.

5.4.1 EXISTING ENVIRONMENTAL SETTING

Acoustical Background and Terminology

Definitions of acoustical terminology used in this section are provided in Table 5.4-1. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur at least 20 times per second, they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals) as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by the A-weighing network. A strong correlation exists between A-weighted sound levels (expressed as dBA) and the way the human ear perceives noise. For this reason, the A-weighted sound level has become the standard tool of

environmental noise assessment. All noise levels reported in this chapter are in terms of A-weighted levels.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor (Ldn).

The Ldn is based on the average noise level over a continuous 24-hour period, with a +10 dB weighting applied to noise occurring during nighttime (10 p.m. to 7 a.m.) hours. The nighttime penalty is based on the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because the Ldn represents a 24-hour average, the Ldn tends to disguise short-term variations in the noise environment.

See Table 5.4-1 for definitions of acoustical terminology.

Effects of Single Event Noise

In recent years, there has been increased attention on the evaluation of the potential for sleep disturbance due to individual loud events at new noise-sensitive developments. A single event is an individual distinct loud activity, such as an aircraft overflight or train passage. Because most noise policies applicable to railroad and aircraft noise sources are specified in terms of 24-hour-averaged descriptors, such as Ldn or CNEL, the potential for annoyance or sleep disturbance associated with individual loud events can be masked by the averaging process.

Extensive studies have been conducted regarding the effects of single-event noise on sleep disturbance. Although there is no general consensus within the scientific community as to an appropriate noise level threshold to use in evaluating impacts associated with single events, there is growing agreement that the potential for awakening is a function of more than just the maximum noise level of the individual event. Factors that contribute to awakening at night include the intensity and duration of the individual event, the number of times a night the event occurs, and the time of night the event occurs (as people are more likely to awaken toward the end of their night's sleep than near the beginning). Due to the presence of railroad tracks adjacent to the project site, and the fact that railroad operations are specifically identified in the 2030 Sacramento General Plan as sources of noise that should be evaluated for new noise sensitive developments, this chapter includes an evaluation of single event noise impacts.

Table 5.4-1
Acoustical Terminology

Acoustics	The science (or physics) of sound.
Ambient Noise	The distinctive acoustical characteristics of a given environment consisting of all noise sources audible at a given location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response filter that conditions a given sound signal to approximate human response.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours (10 p.m. - 7 a.m.) weighted by a factor of 10 prior to averaging.
Decibel or dB	A Bel is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bel.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
L_{dn}	Day/Night Average Level. Similar to CNEL but with no evening weighting. The hours of 7 – 10 p.m. are considered daytime.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
L_n	The measured sound pressure level exceeded (n) percent of the time.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB at 1,000 Hz for those with good hearing.
SEL	A single-number rating indicating the total energy of a discrete noise event compressed into a 1-second time duration.

Vibration Background

Vibration is similar to noise in that vibration also involves a source, a transmission path, and a receiver. However, while noise is generally considered to be pressure waves transmitted through air, vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. An individual's perception of vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities. For this project, vibration is a concern during the passage of trains on the nearby tracks. A detailed analysis of railroad-related vibration levels is contained within this report.

Existing Receptors in the Project Vicinity

Existing land uses in the project vicinity consist of residential, retail commercial, a community college, and industrial uses. The project site is bordered to the north, east, and south by existing residences, and to the west by the Union Pacific railroad tracks (UPRR), Sacramento City College, and residences.

Existing Ambient Noise Environment in the Project Vicinity

Overview of Existing Noise Environment

The existing ambient noise environment in the immediate project vicinity is mostly defined by heavy and light rail operations on the UPRR tracks to the immediate west, and by traffic on Sutterville Road to the south. To quantify existing noise levels in the project vicinity from these sources, as well as general ambient conditions at locations removed from these sources, continuous and short-term noise surveys were conducted on and near the project site, and accepted noise predictions methodologies were used. A separate discussion of the existing ambient, traffic, and railroad noise conditions follows.

Noise Measurement Locations, Procedures, and Instrumentation

The noise measurement locations used to quantify existing noise conditions in the immediate project vicinity are shown on Figure 5.4-1. The measurement locations were selected to represent ambient noise conditions at a variety of existing residential locations adjacent to the project site, including locations both close to and removed from significant sources of traffic and railroad noise. Measurement sites were also selected at locations which would be representative of railroad noise exposure for future residential uses constructed within the project site. The continuous monitoring location was selected to quantify railroad noise levels during both daytime and nighttime periods, including single event noise.

The short-term noise surveys were conducted during daytime hours on August 9, 2005 to generally assess ambient conditions at various locations adjacent to the project site (access to the project site itself was restricted due to site remediation considerations). The long-term (continuous) noise measurements were conducted an August 2-3, 2005 to specifically provide information pertaining to the noise intensity and number of daily railroad events adjacent tot he project site.

Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters were used for the ambient noise level measurement surveys. The meters were calibrated before and after use with an LDL Model CA200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4). The noise level meters were programmed to record the maximum and average noise level at each site during the short-term surveys, as well as single event data at the continuous monitoring site.

General Ambient Noise Conditions

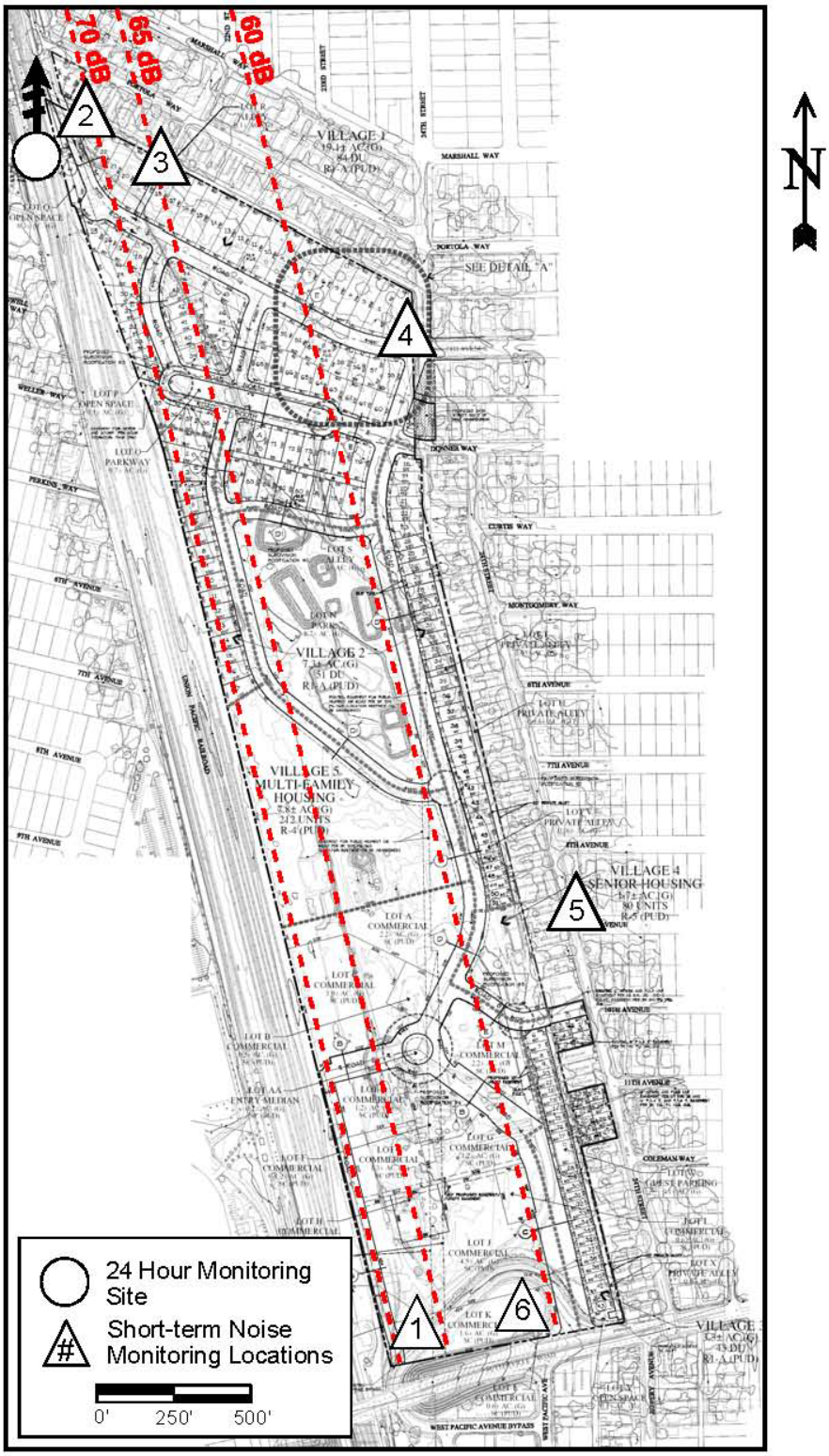
The results of the short-term general ambient noise level measurement surveys are provided in Table 5.4-2. The general ambient noise survey results indicate that the measured daytime ambient noise levels at the project site are directly affected by traffic on Sutterville Road and the railroad activity on the UPRR tracks. However, on the North and East side of the project, at locations removed from those major noise sources, ambient noise levels were noted to be lower and more consistent with quieter residential neighborhoods.

Existing Traffic Noise Environment

To quantify noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly Leq values for free-flowing traffic conditions. To predict noise levels in terms of Ldn, the daytime and nighttime distribution of traffic were factored into the computations.

Traffic volumes were obtained from the project transportation consultant in the form of peak morning and afternoon hour intersection movements. The p.m. peak hour traffic volumes were compiled into segment volumes and converted to daily traffic volumes using a factor of 10. Truck usage on the local area roadways was generally estimated from field observations.

Figure 5.4-1
Noise Measurement Locations and Railroad Noise Contours



Source: Bollard Acoustical Consultants, Inc., March 2009.

Table 5.4-2
Ambient Noise Monitoring Results
Curtis Park Village Site - August 9, 2005

Site	Location	Measured Sound Level, dBA	
		Average (Leq)	Maximum (Lmax)
1	Southwest corner of Property	58	73
2	Northwest corner of Property	53	69
3	Center of Northern boundary of Property	49	63
4	Northeast corner of Property	51	68
5	Center of Eastern boundary of Property	51	68
6	Southeast corner of Property	64	82

Source: Bollard Acoustical Consultants, Inc., March 2009.

Table 5.4-3 shows the predicted existing traffic noise levels in terms of the Day/Night Average Level descriptor (Ldn) at a standardized distance of 100 feet from the centerlines of the existing project-area roadways for existing conditions, as well as distances to existing traffic noise contours. The extent by which existing land uses in the project vicinity are affected by existing traffic noise depends on their respective proximity to the roadways and their individual sensitivity to noise.

Existing Railroad Noise Environment

Observations of railroad activity at the project site indicate that some of the tracks located adjacent to the project site are used as a mainline for heavy freight trains, some are dedicated for use by the Regional Transit light rail system, and that others are used for switching of rail cars, which are commonly paused along the property boundary.

A combination of the previously-described short-term and long-term noise measurement surveys was utilized to quantify railroad noise levels in the immediate project vicinity. The purpose of the short term noise level measurements was to characterize the noise attributes of individual and collective light and heavy rail operations in the area for subsequent evaluation of railroad noise impacts at proposed noise-sensitive land uses within the project site.

The results of the railroad noise measurements are shown in Table 5.4-4. Table 5.4-4 also shows the computed Leq and Lmax for each of the seven train events monitored during the short-term survey. Table 5.4-5, shows the results of the 24-hour sample taken in addition to the calculated average sound exposure levels (SEL) for individual train operations as well as the computed Ldn of the total daily light and heavy rail operations.

Table 5.4-3
Existing Traffic Data, Noise Levels and Distances to Contours
Curtis Park Village Project - Sacramento, California

Intersection	Direction	Ldn @ 100 Feet	Distance to Contours (feet)[1]	
			65 dB Ldn	60 dB Ldn
24th St. & Broadway	North	59	42	90
	South	59	42	90
	East	63	75	162
	West	63	72	154
Freeport Blvd. & 2nd Ave.	North	61	52	113
	South	61	53	114
	East	55	20	43
	West	54	19	41
21st St. & 2nd Ave.	North	63	71	154
	South	63	69	150
	East	58	35	76
	West	55	20	43
24th St. & 2nd Ave.	North	58	34	74
	South	58	35	76
	East	56	24	51
	West	58	32	68
21st St. & 4th Ave.	North	63	68	147
	South	62	64	139
	East	55	22	47
	West	n/a	n/a	n/a
Freeport Blvd. & 21st St.	North	62	64	137
	South	64	91	196
	East	n/a	n/a	n/a
	West	61	53	114
Freeport Blvd. & Vallejo Wy.	North	64	91	196
	South	65	95	205
	East	34	1	2
	West	57	30	65
24th St. & Portola Wy.	North	58	35	76
	South	58	35	75
	East	50	11	23
	West	50	11	23
24th St. & 5th Ave.	North	58	35	75
	South	58	33	72
	East	47	6	13
	West	n/a	n/a	n/a

Table 5.4-3 (Continued)
Existing Traffic Data, Noise Levels and Distances to Contours
Curtis Park Village Project - Sacramento, California

Intersection	Direction	Ldn @ 100 Feet	Distance to Contours (feet)[1]	
			65 dB Ldn	60 dB Ldn
24th St. & Donner Wy.	North	58	33	72
	South	58	33	71
	East	48	8	16
	West	n/a	n/a	n/a
Franklin Blvd. & 5th Ave.	North	61	52	112
	South	61	58	125
	East	56	24	51
	West	n/a	n/a	n/a
24th St. & 10th Ave.	North	58	32	70
	South	58	32	70
	East	38	2	4
	West	n/a	n/a	n/a
24th St. & 11th Ave.	North	58	32	70
	South	58	33	71
	East	43	3	7
	West	n/a	n/a	n/a
Freeport Blvd. & Sutterville Rd. (North)	North	65	107	232
	South	65	105	227
	East	65	95	204
	West	n/a	n/a	n/a
21st St. & Sutterville Rd.	North	55	23	49
	South	54	17	37
	East	65	102	220
	West	65	100	215
City College Dr. & Sutterville Rd.	North	59	40	87
	South	61	55	119
	East	66	110	237
	West	65	104	224
Bypass Ramps & Sutterville Rd.	North	52	14	31
	South	n/a	n/a	n/a
	East	66	108	233
	West	66	110	237
24th St. & Sutterville Rd.	North	56	26	57
	South	n/a	n/a	n/a
	East	65	103	222
	West	65	107	231

Table 5.4-3 (Continued)
Existing Traffic Data, Noise Levels and Distances to Contours
Curtis Park Village Project - Sacramento, California

Intersection	Direction	Ldn @ 100 Feet	Distance to Contours (feet)[1]	
			65 dB Ldn	60 dB Ldn
Curtis Drive (West) & Sutterville Rd.	North	48	7	15
	South	n/a	n/a	n/a
	East	65	102	221
	West	65	103	222
Franklin Blvd & Sutterville Rd.	North	62	61	132
	South	63	72	156
	East	65	97	209
	West	65	103	221
SR 99 SB Ramps & Sutterville Rd.	North	62	60	128
	South	57	31	68
	East	65	97	209
	West	65	97	208
SR 99 NB Ramps & Sutterville Rd.	North	61	56	120
	South	57	30	66
	East	64	90	194
	West	65	97	209
Freeport Blvd. (South) & Sutterville Rd.	North	65	107	231
	South	65	102	219
	East	36	1	3
	West	62	65	140
Franklin Blvd. & 5th Ave. (South)	North	61	54	117
	South	61	55	118
	East	n/a	n/a	n/a
	West	47	6	14

1. Distances to traffic noise contours are measured in feet from the centerlines of the roadways.

Source: Bollard Acoustical Consultants, Inc., March 2009.

Table 5.4-4
Short Term Railroad Noise Measurement Results
Curtis Park Village Site - August 2, 2005

Event Site	Event Measured Location	Measured Sound Level, dBA	
		Average (Leq)	Maximum (Lmax)
1	48 feet from light rail deceleration.	79	87
2	60 feet from light rail acceleration.	67	75
3	111 feet from a two-engine freight and 60 feet away from a light rail deceleration.	73	84
4	60 feet from light rail acceleration.	70	76
5	81 feet from a two-engine freight with approximately 30 trailing cars.	73	85
6	100 feet from a two-engine freight with approximately 30 trailing cars.	69	79
7	100 feet from fast-moving light rail.	65	72

Source: Bollard Acoustical Consultants, Inc., March 2009.

Table 5.4-5
24 Hour Railroad Noise Measurement Results
Curtis Park Village Project Area - August 2-3, 2005

				Distance to Contours (feet)		
Description	Distance at which SEL and Ldn computed	Mean SEL, dB	Computed Ldn, dB	70 dB Ldn	65 dB Ldn	60 dB Ldn
Light Rail	30	99.5	70	30	65	139
Freight	50	105.9	77	144	311	669

The number of apparent railroad operations was estimated from an analysis of single-event noise level data collected over the 24-hour monitoring period. Events were considered to be railroad operations if they met criteria for event duration, maximum level, and SEL. It should be noted that as of 2009, Light Rail and Freight still generate the greatest single-event noise levels.

Source: Bollard Acoustical Consultants, Inc., March 2009.

A detailed analysis of the single-event data indicated an average of approximately 61 light rail trains and 25 freight trains per day on these railroad tracks. In addition, the light rail operations took place between the hours of 6:10 a.m. and 10:31 p.m. and the freight operations were essentially randomly distributed throughout the day and nighttime hours.

Existing Aircraft Noise Environment

Sacramento Executive Airport is located approximately 1.5 miles southwest of the project site. As shown in the Sacramento 2030 General Plan, page 6.8-11, the project site is located outside of the critical noise impact contours for this airport.

Existing Railroad Vibration Environment

The only identified source of potentially significant vibration levels at the project site is heavy freight train operations on the adjacent railroad tracks. Because of site access issues due to remediation activities, Bollard Acoustical Consultants was unable to conduct vibration measurement adjacent to the tracks from the project site. As a result, railroad vibration levels measured during passage of six separate train passages adjacent to similar tracks were utilized to assess general vibration levels in the project vicinity. The measurement results collected at the similar tracks are considered applicable to the project site because the types of heavy rail operations, intervening ground type, and distances to the vibration measurement locations are consistent with the conditions present at the project site.

The vibration measurements consisted of peak particle velocity sampling at a distance of approximately 50 feet from the railroad tracks. The measurements were conducted using a Larson-Davis Laboratories Model HVM-100 Vibration Analyzer with a PCB Electronics Model 353B51 ICP Vibration Transducer. The test system is a Type I instrument designed for use in assessing vibration as perceived by human beings, and meets the full requirements of ISO 8041:1990(E). The train passages consisted of five freight trains and one Amtrak. The trains ranged from one to eight locomotives and from four to 80 cars. The results of the vibration measurements are shown in Table 5.4-6.

Table 5.4-6
Vibration Measurement Results
50 feet from Railroad Tracks

Event	Duration (minutes: seconds)	# Engines	# Cars	Peak Vibration (in/sec ppv)
1	1:23	8	80	0.097
2	1:42	8	73	0.108
3	0:56	4	25	0.064
4	0:24	3	19	0.106
5	0:29	4	27	0.101
6	0:18	1	4	0.097

Source: Bollard Acoustical Consultants, Inc., March 2009.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. The City of Sacramento threshold for exposure of residential and commercial areas to vibration is 0.5 inches-per-second due to project construction and exposure of residential and archaeological sites is 0.25 for project construction, roadway traffic, and rail operations.

5.4.2 REGULATORY BACKGROUND

The following section identifies the noise regulations, which would be applicable to these noise sources and receptors.

Federal

Federal plans, policies, regulations, or laws related to noise are not applicable to the project. The environmental review of federal projects generally defers to State, County, or other local guidelines.

State Regulations

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations establishes uniform minimum noise insulation performance standards to protect persons within new buildings that house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB Ldn or CNEL in any habitable room. Title 24 also mandates that for structures containing noise-sensitive uses to be located where the Ldn or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels (Section 1208A.8.4). If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

Local Regulations

Sacramento 2030 General Plan

The City of Sacramento recently adopted the *Sacramento 2030 General Plan*, which contains goals and policies specifically related to noise and vibration. According to the *Sacramento 2030 General Plan*, the normally acceptable exterior noise environment for commercial land uses is 65 dB Ldn, with a conditionally acceptable range up to 80 dB Ldn. In addition, the General Plan establishes 45 dB Ldn as an acceptable interior noise environment for residential uses. In instances where attainment of the normally acceptable exterior noise level is not possible with best available noise reduction measures, the General Plan allows an exterior noise level exceeding the acceptable Ldn, up to the conditionally acceptable range, provided that noise level reduction measures have been implemented and that interior noise level standards are achieved.

Goal EC 3.1 Noise Reduction. Minimize noise impacts on human activity to ensure the health and safety of the community.

Policy EC 3.1.1 Exterior Noise Standards. The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table EC 1 (See Table 4.3-5) to the extent feasible.

Policy EC 3.1.2 Exterior Incremental Noise Standards. The City shall require mitigation for all development that increases existing noise levels by more than the allowable increment as shown in Table EC 2 (See Table 4.3-6) to the extent feasible.

Table 4.3-5
Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Noise Exposure That Is Regarded as "Normally Acceptable"[a] (Ldn[b] or CNEL[c])
Residential – Low Density Single-Family, Duplex, Mobile Homes	60 dBA[d,c]
Residential – Multi-Family	65 dBA
Urban Residential Infill[f] and Mixed-Use Projects[g]	70 dBA
Transient Lodging – Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office buildings – Business, Commercial and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

Source: Governor's Office of Planning and Research, State of California General Plan Guidelines 2003, October 2003.

a. As defined in the *Guidelines*, "Normally Acceptable" means that the "specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements."
b. Ldn or Day Night Average Level is an average 24-hour noise measurement that factors in day and night noise levels.
c. CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.
d. dBA or A-weighted decibel scale is a measurement of noise levels.
e. The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA.
f. With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High) Urban Center (Low or High).
g. All mixed-use projects located anywhere in the City of Sacramento.

Table 4.3-6
Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses (dBA)

Residences and Buildings Where People Normally Sleep[a]		Institutional Land Uses with Primarily Daytime and Evening Uses[b]	
Existing Ldn	**Allowable Noise Increment**	**Existing Peak Hour Leq**	**Allowable Noise Increment**
45	8	45	12
50	5	50	9
55	3	55	6
60	2	60	5
65	1	65	3
70	1	70	3
75	0	75	1
80	0	80	0

Source: Federal Transit Administration, Transit Noise Impact and Vibration Assessment, March 2006.

a. This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
b. This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, mediation, and concentration on reading material.

Policy EC 3.1.3 Interior Noise Standards. The City shall require new development to include noise mitigation to assure acceptable interior noise levels appropriate to the land use type: 45 dBA Ldn for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA Leq (peak hour) for office buildings and similar uses.

Policy E.C. 3.1.4 Interior Noise Review Standards for Multiple, Loud Short-Term Events. In cases where new development is proposed in areas subject to frequent, high-noise events (such as aircraft over-flights or train and truck pass-bys) the City shall evaluate noise impacts on any sensitive receptors from such events when considering whether to approve the development proposal, taking into account potential for sleep disturbance, undue annoyance, and interruption in conversation, to ensure that the proposed development is compatible within the context of its surroundings.

City of Sacramento Noise Ordinance

Construction activities are regulated under the City of Sacramento Noise Control Ordinance in Section 8.68.080. Construction activities are conditionally exempt from the Noise Ordinance. Construction activities are exempt from the noise standard from 7:00 a.m. to 6:00 p.m. Monday through Saturday, and from 9:00 a.m. to 6:00 p.m. on Sunday. Noise sources due to the construction (including excavation), demolition, alteration or repair of any building or structure between the hours of 7:00 a.m. to 6:00 p.m. Monday through Saturday, and from 9:00 a.m. to 6:00 p.m. on Sunday are exempt from the noise control ordinance, provided that the operation of an internal combustion engine is equipped with suitable exhaust and intake silencers which are in good working order. The director of building inspections may permit work to be done during the hours not exempt by this subsection in the case of urgent necessity and in the interest of public health and welfare for a period not to exceed three days. Application for this exemption may be made in conjunction with the application for the work permit or during progress of the work.

5.4.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

The City of Sacramento has determined that implementation of the proposed project would result in significant noise and vibration impacts if the project would result in any of the following:

- Exposure of persons to or generation of noise levels in excess of standards established in the City's General Plan or Noise Ordinance;
- The project would result in an increase in noise levels exceeding the thresholds identified in Table 5.4-8;

- Significant sleep disruption to future residents located within the project site during nighttime train passages;
- Residential interior noise levels of Ldn 45 dB or greater caused by noise level increases due to the project;
- Construction noise levels exceed the standards in the City of Sacramento Noise Ordinance;
- Occupied existing and project residential and commercial areas are exposed to vibration peak particle velocities greater than 0.5 inches-per-second due to project construction; or
- Project residential and archaeological sites are exposed to vibration peak particle velocities greater that 0.25 inches per second due to project construction, roadway traffic, and rail operations.

Method of Analysis

General Noise Impact Assessment Methodology

The proposed project and its alternatives include a mixture of commercial, mixed-use, residential, and park/open space uses. The assessment of noise impacts for this project basically falls into two categories.

The first category includes noise impacts that the project would create at existing land uses not located within the project site. Such impacts would include changes in traffic noise levels at residences located along the local roadway network due to the traffic generation of the project, and noise from on-site activities at existing off-site sensitive areas.

The second category of impact evaluated in this section consists of noise impacts at proposed noise-sensitive land uses located within the project site. Such impacts would include the effects of noise generated by traffic, railroad, aircraft, school and future on-site park (including amphitheater), and commercial activities on proposed noise-sensitive (residential) uses within the project site.

Existing and Future Traffic Noise Impact Assessment Methodology

To assess noise impacts due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly Leq values for free-flowing traffic conditions. To predict noise levels in terms of Ldn, the daytime and nighttime distribution of traffic must be included in the computations. Traffic volumes were obtained from Dowling Associates Inc. in the form of peak morning and afternoon hour intersection movements. The p.m. peak hour traffic volumes were compiled into segment volumes and converted to daily traffic volumes using a factor of 10. Truck usage on the local area roadways was generally estimated from Bollard Acoustical Consulting, Inc. site observations.

Traffic Noise Sources

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels are predicted at a normalized distance of 100 feet from the centerlines of project area roadways for baseline and cumulative conditions, both with and without the proposed project and the project's alternatives.

To describe existing and projected noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly Leq values for free-flowing traffic conditions. To predict traffic noise levels in terms of Ldn, the input volume is adjusted to account for the day/night distribution of traffic.

Traffic volumes for the previously stated conditions were obtained from Dowling Associates, Inc. Truck traffic and vehicle speeds on the local road were estimated from field observations. The predicted increases in traffic noise levels on the local roadway network for baseline and future conditions that would result from the project are provided in terms of Ldn at a standard distance of 100 feet from the centerlines of the project-area roadways.

Railroad Noise

Railroad noise impacts were evaluated by overlaying the railroad noise footprint described in the Setting section over the project site plan, as shown in Figure 5.4-1. Where residential uses are proposed within the 70 dB Ldn railroad noise contour (located 144 feet from the center of the railroad tracks), shown on Figure 5.4-1, noise impacts were identified.

Potential noise impacts associated with nighttime railroad passages were also evaluated using the ANSI/ASA S12.9-2008 / Part 6 methodology. That methodology utilizes the typical number of nighttime (10 p.m. to 7 a.m.), events with the average noise level per event to predict percentages of persons likely to be awakened by the events. Because the typical number of events per night are known, as is the mean sound exposure level (SEL) per event, the remaining parameter which must be established is the acceptable percentage of persons potentially awakened by nighttime railroad events. Once this parameter has been defined, the degree of building façade noise level reduction necessary to limit potential awakenings to this level can be defined.

The establishment of an acceptable parameter for sleep disturbance for this project should be consistent with that provided by other City noise policies. For example, Federal research indicates that 13 percent of people exposed to exterior noise environments of 65 dB Ldn will be highly annoyed. In setting a 70 dB Ldn exterior noise standard for outdoor activity areas of new mixed use and urban infill developments, the City recognizes that between 15 to 20 percent of the population exposed to levels in this range may be highly annoyed, but that that there must be reasonable balance between that which can be practically accomplished in terms of limiting community noise exposure given real constraints, and the desire for peace and quiet within the City. Therefore, the

use of acceptable sleep disturbance levels reflects the fact that this is an infill project that people would choose to live in voluntarily with full disclosure of the existing noise environment.

As noted previously, a detailed analysis of the single-event noise measurement data indicated approximately 25 freight trains per day on the tracks adjacent to the project site. Because the distribution of trains was random throughout the day and nighttime hours, a typical number of nighttime events based on 25 daily events would compute to approximately nine trains per night on average. The mean SEL computed from the individual train events was approximately 100 dB SEL at a distance of 100 feet, which is the approximate distance from the nearest residential building facades to the main freight tracks. Based on this number of nighttime operations and mean noise level per operation, a building façade noise level reduction of approximately 35 to 40 dB is recommended by Bollard Acoustical Consultants to minimize sleep disturbance at future residences within the project site nearest to and facing the railroad tracks.

Railroad Vibration

Table 5.4-6 indicates that measured vibration levels were approximately 0.1 inch per second peak particle velocity at the vibration measurement location (50 feet from the railroad tracks). The nearest residences in the Curtis Park Village development would be located at this approximate distance or beyond, with vibration levels at more distant locations predicted to be lower than 0.1 in/sec ppv. Vibration impacts are identified if vibration levels are predicted to exceed 0.25 in/sec ppv.

Construction Noise

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Activities involved in construction would generate maximum noise levels, as indicated in Table 5.4-7, ranging from 85 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Table 5.4-7
Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85

Source: Bollard Acoustical Consultants, Inc., March 2009.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A significant project-generated noise source would be truck traffic associated with

transport of heavy materials and equipment to and from construction sites. This noise increase would be of short duration, and would likely occur primarily during daytime hours.

Noise Generated by On-Site Commercial Activities

The project proposes various commercial uses. Noise sources identified for such commercial uses include mechanical equipment (HVAC), truck unloading, and general parking lot noise. Such sources typically generate noise levels in the range of 50-60 dB Leq at a reference distance of 100 feet, depending on the intensity of the activity.

The site has been designed to locate the commercial uses in the least-sensitive portion of the project site. Specifically, the southwest quadrant of the site is located adjacent to Sutterville Road to the south and the UPRR tracks to the west, beyond which is parking for the Sacramento City College and light rail station. The Sutterville Road overcrossing of the UPRR tracks would provide substantial shielding of commercial noise in the southerly direction.

Noise Generated at the Proposed Park

The proposed project includes the construction of a neighborhood park in the approximate center of the site. The conceptual park plan indicates active and passive recreation areas with play-structure equipment, picnic areas, and unlit play fields, and courts.

Noise sources during soccer and basketball games would primarily be shouting children and cheering adults. Reference noise level data collected at various soccer facilities indicates that average noise levels during games would be approximately 60 dB Leq and 75 dB Lmax at a distance of 100 feet from the center of the soccer field. This data was used to determine noise impacts at the closest proposed homes from activities on the playing fields.

The nearest proposed residences would be located approximately 200+ feet from the center of the soccer field, with existing residences in the project area located beyond 300 feet. In addition, existing residences would be shielded from park noise by the new residences, and because the proposed residences will face the park, the backyards of those residences will be shielded by the proposed residential structures. As a result of these setbacks and shielding, park noise levels at the outdoor activity areas of existing and proposed residential uses are predicted to be well below 55 dB Leq. Therefore, provided the park is not used during nighttime periods (10 p.m. to 7 a.m.), the City's Noise Element standards will be satisfied at the nearest residences.

Project-Specific Impacts and Mitigation Measures

5.4-1 Impacts related to the update of the Remedial Action Plan.

Updates to the RAP to allow remedies would allow for contaminated soils to be remediated on-site via in-situ treatment and/or contained underground and capped with a membrane, which could reduce the number of truckloads of clean fill dirt required; thereby decreasing noise impacts. However, the potential remedy for inclusion in the

updated RAP, off hauling of the additional volume of contaminants and importing of additional clean fill, would potentially result in a noise impact. Over a period of months, approximately 49 truckloads of soil per day would be brought in to return the project site to current grade. The additional truckloads would utilize the same truck routes that are currently being used for the import of clean fill pursuant to the existing RAP. Current RAP activities are subject to the City of Sacramento Municipal Code Section 8.68.080 with respect to hours of operation, muffling of internal combustion engines, and other factors that affect noise generation and the effects on noise-sensitive land uses. Therefore, remedial activities associated with the updated RAP remedies would also be required to adhere to the City of Sacramento Municipal Code Section 8.68.080, restricting activities to the following hours, unless a permit for work to be done during the hours not set forth below in the case of urgent necessity and in the interest of public health and welfare for a period not to exceed three days:

Monday through Saturday	*7:00 a.m. to 6:00 p.m.*
Sunday	*9:00 a.m. to 6:00 p.m.*

Therefore, updates to the RAP remedies would not result in additional environmental impacts in the area of noise, and a ***less than significant*** impact would result.

Mitigation Measure(s)
None required.

5.4-2 Construction noise impacts to surrounding existing uses.

Construction activities associated with the Curtis Park Village project would not begin until the site remediation has been complete pursuant to DTSC standards. Noise from construction activities would result in increased noise levels in the immediate area. The combined activities involved in construction would typically generate noise levels ranging from 85 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature and would likely occur during normal daytime working hours, in accordance with the City's Noise Ordinance.

Students of Sacramento City College are not considered sensitive for noise.

Although the City of Sacramento Municipal Code Section 8.68.080 exempts construction activities from the noise standards specified in the Municipal Code, construction activities, such as the use of jackhammers and tractors, could expose occupants of nearby residences to high levels of noise during the day. Existing residences are located near the project site to the north, south, and east. Therefore, construction noise would exceed the City of Sacramento Noise Ordinance threshold of 70dB and would be a short-term *potentially significant* impact on sensitive receptors located near the project site.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a ***less than significant*** level.

5.4-2 Construction activities shall be limited to the hours set forth below (unless an exception is granted by the Development Services Department:

Monday through Saturday	*7:00 a.m. to 6:00 p.m.*
Sunday	*9:00 a.m. to 6:00 p.m.*

These Restricted hours shall be included on all grading and construction plans submitted for the review and approval of the Development Services Department prior to issuance of grading and construction permits.

5.4-3 Project-related increase in existing traffic noise levels.

As shown in Table 5.4-10, almost all of the proposed project would result in a 4 dB increase or less in traffic noise levels on all roadways analyzed. Some roadways would experience a reduction in noise levels by as much as 9 dB. The area north of the Bypass Ramps and Sutterville Road would experience an increase in noise levels of 9 dB; however, that location is adjacent to the commercial area of the proposed project which would not include any sensitive receptors. As a result, sensitive receptors would not be exposed to an increase of more than 4 dB.

The standards of significance indicate that a significant impact would occur if a project results in a greater than 4 dB noise increase and exceeds the normally acceptable noise level for a given land use category. The largest increase in noise levels near a residential area would be 4 dB east of the 24th Street and Donner Way intersection. The noise level at that point would be 52 dB Ldn, which is less than the normally acceptable standard of 60 dB. As a result, project related traffic noise would result in a ***less than significant*** impact.

Mitigation Measure(s)
None required.

5.4-4 Exterior roadway traffic noise impacts on project residences.

As shown in Table 5.4-10, the predicted future Sutterville Road traffic noise level at a reference distance of 100 feet from centerline would be as high as 66 dB Ldn. Project residences would be located within 100 feet of Sutterville Road, but noise levels at the exterior of project residences are not predicted to exceed the 70 dB Ldn standard applicable to the project. As a result, this impact is considered ***less than significant***.

Mitigation Measure(s)
None required.

5.4-5 Internal roadway traffic noise levels at proposed residences within the project site.

As shown in Table 5.4-8, the predicted future traffic noise levels from internal project roadways would not exceed 61 dB Ldn at a distance of 100 feet from any internal roadway centerline. Because the residences of this development would face the internal project roadways the outdoor activity areas (backyards) would be shielded by the residential structures, estimated to provide at least 5 dB of noise reduction, and traffic noise levels would be less than 60 dB Ldn for residential outdoor activity areas adjacent to internal roadways. Because the proposed project would comply with the City's 70 dB Ldn noise standard, internal traffic would have a ***less than significant*** impact on project residences.

Mitigation Measure(s)
None required.

5.4-6 Railroad related vibration at proposed residences.

Railroad passages near proposed residential uses on the project site would generate vibration levels similar to those indicated in Table 5.4-6. The peak vibration would be approximately 0.1 in/sec ppv, which would be less than the 0.25 in/sec ppv standard of significance. Therefore, based on the data contained in Table 5.4-6, peak particle velocities associated with train passages are predicted to be well below levels that would cause damage to structures. As a result, railroad related vibration levels are would have a ***less than significant*** impact on project residences.

Mitigation Measure(s)
None required.

5.4-7 Railroad noise levels at exterior noise spaces of proposed project residences.

As shown in Table 5.4-5, the 70 dB Ldn UPRR noise contour is approximately 144 feet from the railroad tracks. Figure 5.4-1 indicates that a portion of the project site proposed for single-family homes and multi-family dwellings is within that distance and would, therefore, be located within the 70 dB Ldn contour. Specifically, single-family residential lots are proposed approximately 75 to 100 feet from the UPRR tracks. At this distance, backyard noise levels are predicted to be approximately 74 dB Ldn due to railroad passages. Because railroad noise levels are predicted to exceed 70 dB Ldn within the backyards of the residences proposed on the west side of the project site, without a noise barrier (See Figure 5.4-2) this impact is considered *potentially significant*.

Table 5.4-8
Baseline Traffic Noise Levels and Project-Related Traffic Noise Level Increases

Intersection	Direction	Ldn @ 100 Feet		
		Baseline	Baseline + Project	Change[1]
24th St. & Broadway	North	59	59	0
	South	59	60	1
	East	63	63	0
	West	63	63	0
Freeport Blvd. & 2nd Ave.	North	61	61	0
	South	61	61	0
	East	55	55	0
	West	54	54	0
21st St. & 2nd Ave.	North	63	63	0
	South	63	63	0
	East	58	59	1
	West	55	55	0
24th St. & 2nd Ave.	North	58	59	1
	South	58	59	1
	East	56	56	0
	West	58	58	0
21st St. & 4th Ave.	North	63	63	0
	South	62	62	0
	East	55	56	1
	West	n/a	n/a	n/a
Freeport Blvd. & 21st St.	North	62	62	0
	South	64	64	0
	East	n/a	n/a	n/a
	West	61	61	0
Freeport Blvd. & Vallejo Wy.	North	64	64	0
	South	65	65	0
	East	34	34	0
	West	57	57	0
24th St. & Portola Wy.	North	58	59	1
	South	58	59	1
	East	50	50	0
	West	50	50	0
24th St. & 5th Ave.	North	58	59	1
	South	58	59	1
	East	47	49	2
	West	n/a	n/a	n/a

Table 5.4-8 (Continued)
Baseline Traffic Noise Levels and Project-Related Traffic Noise Level Increases

Intersection	Direction	Ldn @ 100 Feet		
		Baseline	Baseline + Project	Change[1]
24th St. & Donner Wy.	North	58	53	-5
	South	58	53	-5
	East	48	52	4
	West	n/a	49	n/a
Franklin Blvd. & 5th Ave.	North	61	61	0
	South	61	62	1
	East	56	56	0
	West	n/a	n/a	n/a
24th St. & 10th Ave.	North	58	53	-5
	South	58	53	-5
	East	38	38	0
	West	n/a	n/a	n/a
24th St. & 11th Ave.	North	58	53	-5
	South	58	53	-5
	East	43	43	0
	West	n/a	n/a	n/a
Freeport Blvd. & Sutterville Rd. (North)	North	65	65	0
	South	65	65	0
	East	65	65	0
	West	n/a	n/a	n/a
21st St. & Sutterville Rd.	North	55	55	0
	South	54	54	0
	East	65	65	0
	West	65	65	0
City College Dr. & Sutterville Rd.	North	59	59	0
	South	61	61	0
	East	66	66	0
	West	65	65	0
Bypass Ramps & Sutterville Rd.	North	52	61	9
	South	n/a	n/a	n/a
	East	66	66	0
	West	66	66	0
24th St. & Sutterville Rd.	North	56	47	-9
	South	n/a	n/a	n/a
	East	65	66	1
	West	65	66	1

Table 5.4-8 (Continued)
Baseline Traffic Noise Levels and Project-Related Traffic Noise Level Increases

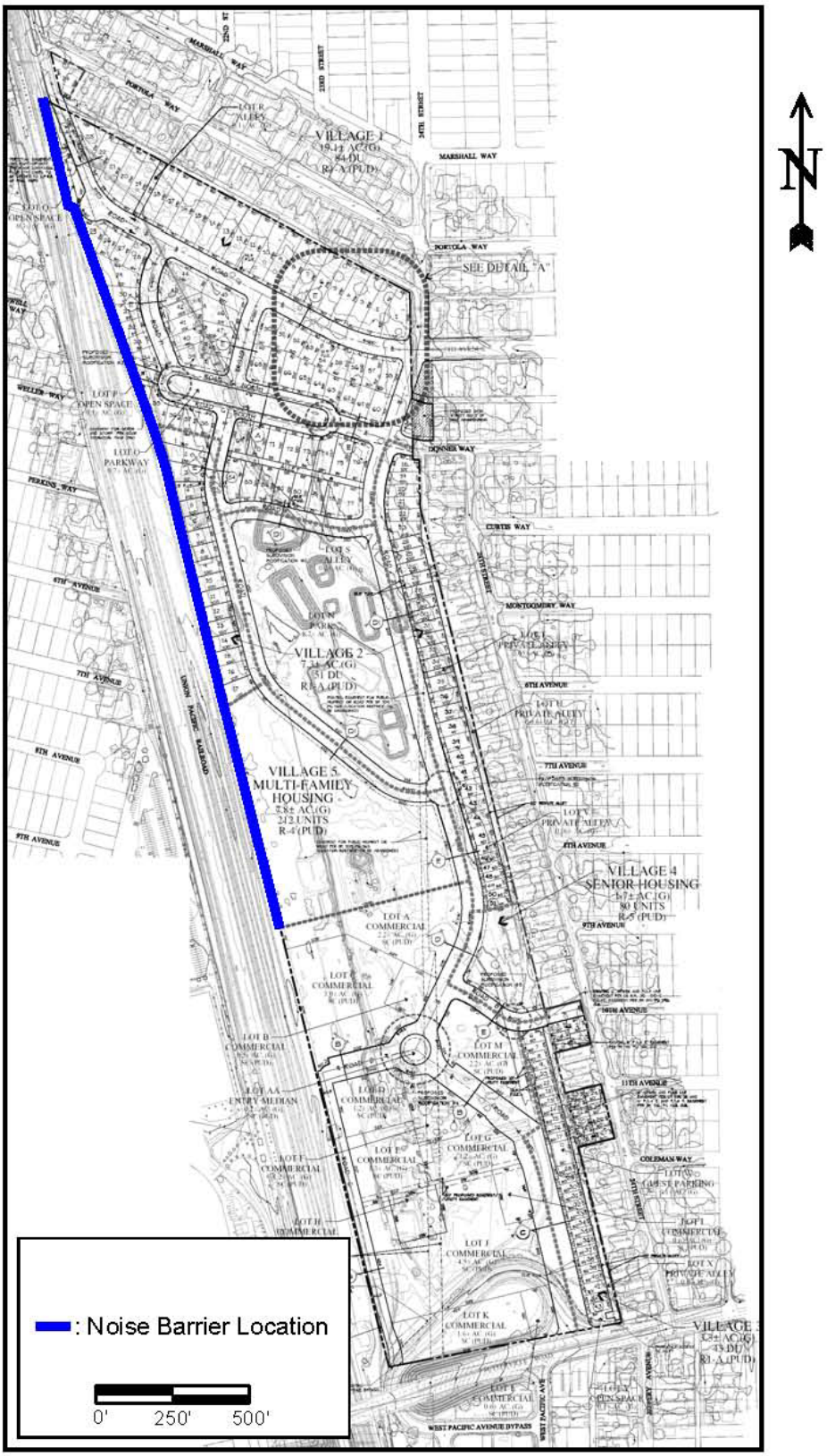
Intersection	Direction	Ldn @ 100 Feet		
		Baseline	Baseline + Project	Change[1]
Curtis Dr. (West) & Sutterville Rd.	North	48	48	0
	South	n/a	n/a	n/a
	East	65	66	1
	West	65	66	1
Franklin Blvd. & Sutterville Rd.	North	62	62	0
	South	63	63	0
	East	65	65	0
	West	65	66	1
SR 99 SB Ramps & Sutterville Rd.	North	62	62	0
	South	57	57	0
	East	65	65	0
	West	65	65	0
SR 99 NB Ramps & Sutterville Rd.	North	61	61	0
	South	57	58	1
	East	64	64	0
	West	65	65	0
Freeport Blvd. (South) & Sutterville Rd.	North	65	66	1
	South	65	65	0
	East	36	36	0
	West	62	62	0
Road A & Road G	North	n/a	59	n/a
	South	n/a	58	n/a
	East	n/a	55	n/a
	West	n/a	48	n/a
Road A & Road E	North	n/a	58	n/a
	South	n/a	58	n/a
	East	n/a	n/a	n/a
	West	n/a	44	n/a
Road A & Area 3	North	n/a	58	n/a
	South	n/a	59	n/a
	East	n/a	48	n/a
	West	n/a	55	n/a
Road A & Road C	North	n/a	59	n/a
	South	n/a	60	n/a
	East	n/a	n/a	n/a
	West	n/a	51	n/a
Road A & Area 1	North	n/a	60	n/a
	South	n/a	61	n/a
	East	n/a	n/a	n/a
	West	n/a	55	n/a
Road A & Area 2	North	n/a	60	n/a
	South	n/a	60	n/a
	East	n/a	46	n/a

Table 5.4-8 (Continued)
Baseline Traffic Noise Levels and Project-Related Traffic Noise Level Increases

Intersection	Direction	Ldn @ 100 Feet		
		Baseline	Baseline + Project	Change[1]
	West	n/a	50	n/a
Franklin Blvd. & 5th Ave. (South)	North	61	61	0
	South	61	61	0
	East	n/a	n/a	n/a
	West	47	50	3

1. **Bold** values indicate a potentially significant increase in traffic noise levels.
Sources: Bollard Acoustical Consultants, Inc., March 2009.
FHWA RD-77-108 Traffic Noise Prediction Model & Dowling Associates Data.

Figure 5.4-2
Noise Barrier Locations



Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a ***less than significant*** level.

5.4-7 Prior to the issuance of building permits, a noise barrier shall be shown on the plans along the western boundary of the project site, from the northern boundary to the southern end of the Multi-family parcel, for the review and approval of the City Engineer. A barrier 10 feet in height (relative to nearest outdoor activity elevations) would intercept line of sight to railroad pass-bys, thereby reducing future UPRR noise levels to 70 dB Ldn or less at the nearest outdoor activity areas proposed adjacent to the tracks

Barriers can take the form of earthen berms, solid walls, or a combination of the two. Appropriate materials for noise walls include precast concrete or masonry block. Other materials may be acceptable provide they have a density of approximately four pounds per square foot.

5.4-8 Railroad noise levels at interior spaces of proposed residences on the project site.

Figure 5.4-1 indicates that single- and multi- family homes are proposed within the 60 dB Ldn UPRR noise contour. Typical residential construction methods are sufficient to reduce exterior noise levels by 15 dB Ldn. However, as the exterior noise level would exceed 60 dB Ldn, interior noise levels at project residences could exceed the City's 45 dB Ldn interior noise level standard. In addition, given the combination of interior SEL due to individual railroad passages and the number of such passages observed during nighttime hours, there is an unacceptably high probability of nighttime awakening at residences located nearest to the railroad tracks. However, with implementation of sound insulation features, SEL noise levels at residences within the noise contour would not exceed the threshold. Therefore, without noise reduction measures, this impact is considered *potentially significant*.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a ***less than significant*** level by ensuring that the City's 45 dB Ldn interior noise level standard would be satisfied and by reducing the potential for sleep disturbance to acceptable limits.

5.4-8(a) Prior to the issuance of building permits, all residential lots located within the 70 dB Ldn contour shall include noise insulation features such as the following:

- *Sound-rated windows and doors with STC rating of 35; and*
- *Stucco exterior siding.*

5.4-8(b) Prior to sale of any residential lots, statements shall be included in the title for all properties within the 65 dB Ldn contour that informs the buyer of elevated noise levels during train passages, and that train passages routinely occur during nighttime hours.

5.4-9 Noise-producing commercial uses proposed within the project site.

The proposed project includes commercial development adjacent to proposed residential areas. The noise sources associated with the commercial development may adversely affect the adjacent development. The sources would include medium duty and heavy duty truck deliveries to the major retail stores and shops, parking lot activity (including engine starts, door slams, and vehicular circulation on site), and rooftop mechanical equipment.

Because the distance between the truck unloading areas of the larger commercial buildings and existing and proposed residences is approximately 400 feet, a significant increase in ambient noise levels due to commercial operations is not expected, especially in light of the elevated ambient noise environment resulting from railroad activity to the west of the site. If, however, unshielded nighttime truck circulation or unloading occurs within 200 feet of an existing or proposed residential use, such action could result in unacceptable nighttime noise exposure to future residents within the development. Therefore, the potential exists for truck circulation and operation of mechanical equipment to create noise above the project standards of significance. As a result, a *potentially significant* impact to residences adjacent to the commercial portion of the proposed project would result.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a ***less than significant*** level.

5.4-9(a) Unshielded (i.e. unloading activities which are visible from any residential window) nighttime truck unloading shall be prohibited within 200 feet of any residential unit.

5.4-9(b) Prior to issuance of a building permit, the site plans shall indicate that a parapet wall shall be constructed along the edge of the roofs of the commercial buildings of sufficient height to intercept line of sight from rooftop mechanical equipment at the nearest residences to reduce noise levels at those nearby residences.

5.4-10 Park generated noise at residential uses proposed within the project site.

The nearest proposed residences would be located approximately 200 feet from the center of the soccer field, with existing residences in the project area located beyond 300 feet. In addition, existing residences would be shielded from park noise by the new residences, and because the proposed residences would face the park, the backyards of those residences would be shielded by the proposed residential structures. As a result of these setbacks and shielding, park noise levels at the outdoor activity areas of existing and proposed residential uses are predicted to be well below 55 dB Leq. Therefore, provided the park is not used during nighttime periods (10 p.m. to 7 a.m.), the City's Noise Element standards would be satisfied at the nearest residences.

Active use of the park after nightfall could generate noise levels in excess of the City of Sacramento Noise Element standards at the outdoor areas of nearby residences. As a result, park related noise would result in a *potentially significant* impact to nearby residences.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a ***less than significant*** level.

5.4-10 Park activities shall be restricted to daytime hours, with exceptions allowed on a case-by-case basis subject to the approval of the Director of the Parks and Recreation.

Cumulative Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the proposed project in combination with other proposed and pending projects in the region. The project area is substantially built out at this time. The Curtis Park Village Project site is one of the few remaining infill sites of substantial size. Therefore, cumulative development is not expected to result in a substantial change in the noise environment from railroad, traffic, commercial, or park noise.

5.4-11 Project-related increase in cumulative traffic noise levels.

As shown in Table 5.4-9, the proposed project would result in a 1 dB increase or less in traffic noise levels on all roadways analyzed. In addition, some roadways would experience a reduction in noise levels by as much as 6 dB. The area north of the Bypass Ramps and Sutterville Road would experience an increase in noise levels of 10 dB. However, as previously discussed, that location is the commercial area of the proposed project, which would not include any sensitive receptors. As a result, the proposed project would not increase the cumulative noise level for sensitive receptors by more than 1 dB.

The standards of significance indicate that a significant impact would occur if a project results in a substantial noise increase and exceeds the acceptable noise level for a given land use category. The proposed project would not increase the noise level in areas containing sensitive receptors by more than 1 dB. As a result, the project's incremental contribution to cumulative traffic noise would be ***less than significant***.

Mitigation Measure(s)
None required.

Table 5.4-9
Future Traffic Noise Level and Project-Related Traffic Noise Level Increases

Intersection	Direction	Ldn @ 100 Feet		
		No Project	Proposed Project	Change
24th St. & Broadway	North	61	61	0
	South	61	61	0
	East	65	65	0
	West	65	65	0
Freeport Blvd. & 2nd Ave.	North	63	63	0
	South	62	63	1
	East	57	57	0
	West	55	55	0
21st St. & 2nd Ave.	North	64	64	0
	South	64	64	0
	East	60	60	0
	West	57	58	1
24th St. & 2nd Ave.	North	60	60	0
	South	61	61	0
	East	56	56	0
	West	59	59	0
21st St. & 4th Ave.	North	64	64	0
	South	64	64	0
	East	56	57	1
	West	n/a	n/a	n/a
Freeport Blvd. & 21st St.	North	64	64	0
	South	66	66	0
	East	n/a	n/a	n/a
	West	62	63	1
Freeport Blvd. & Vallejo Wy.	North	66	66	0
	South	66	66	0
	East	36	36	0
	West	59	59	0
24th St. & Portola Wy.	North	60	61	1
	South	61	62	1
	East	53	53	0
	West	56	56	0
24th St. & 5th Ave.	North	61	62	1
	South	61	61	0
	East	52	53	1
	West	n/a	n/a	n/a
24th St. & Donner Wy.	North	61	61	0
	South	60	60	0
	East	53	54	1
	West	n/a	49	n/a

Table 5.4-9 (Continued)
Future Traffic Noise Level and Project-Related Traffic Noise Level Increases

Intersection	Direction	Ldn @ 100 Feet		
		No Project	Proposed Project	Change
Franklin Blvd. & 5th Ave.	North	61	61	0
	South	62	62	0
	East	56	56	0
	West	n/a	n/a	n/a
24th St. & 10th Ave.	North	60	55	-5
	South	60	54	-6
	East	49	49	0
	West	n/a	n/a	n/a
24th St. & 11th Ave.	North	60	55	-5
	South	60	54	-6
	East	50	50	0
	West	n/a	n/a	n/a
Freeport Blvd. & Sutterville Rd. (North)	North	67	67	0
	South	67	67	0
	East	66	66	0
	West	n/a	n/a	n/a
21st St. & Sutterville Rd.	North	56	56	0
	South	54	55	1
	East	66	66	0
	West	66	66	0
City College Dr. & Sutterville Rd.	North	64	64	0
	South	63	63	0
	East	67	67	0
	West	66	67	1
Bypass Ramps & Sutterville Rd.	North	52	62	10
	South	n/a	n/a	n/a
	East	67	67	0
	West	67	67	0
24th St. & Sutterville Rd.	North	60	54	-6
	South	n/a	n/a	n/a
	East	67	67	0
	West	67	67	0
Curtis Dr. (West) & Sutterville Rd.	North	53	53	0
	South	n/a	n/a	n/a
	East	67	67	0
	West	67	67	0
Franklin Blvd. & Sutterville Rd.	North	63	63	0
	South	64	64	0
	East	66	66	0
	West	67	67	0

Table 5.4-9 (Continued)
Future Traffic Noise Level and Project-Related Traffic Noise Level Increases

Intersection	Direction	Ldn @ 100 Feet		
		No Project	Proposed Project	Change
SR 99 SB Ramps & Sutterville Rd.	North	62	62	0
	South	59	59	0
	East	66	66	0
	West	66	66	0
SR 99 NB Ramps & Sutterville Rd.	North	62	62	0
	South	59	59	0
	East	65	65	0
	West	66	66	0
Freeport Blvd. (South) & Sutterville Rd.	North	67	67	0
	South	67	67	0
	East	47	47	0
	West	63	63	0
Road A & Road G	North	n/a	61	n/a
	South	n/a	60	n/a
	East	n/a	57	n/a
	West	n/a	48	n/a
Road A & Road E	North	n/a	60	n/a
	South	n/a	60	n/a
	East	n/a	n/a	n/a
	West	n/a	44	n/a
Road A & Area 3	North	n/a	60	n/a
	South	n/a	61	n/a
	East	n/a	48	n/a
	West	n/a	55	n/a
Road A & Road C	North	n/a	61	n/a
	South	n/a	61	n/a
	East	n/a	n/a	n/a
	West	n/a	51	n/a
Road A & Area 1	North	n/a	61	n/a
	South	n/a	62	n/a
	East	n/a	n/a	n/a
	West	n/a	55	n/a
Road A & Area 2	North	n/a	61	n/a
	South	n/a	61	n/a
	East	n/a	46	n/a
	West	n/a	50	n/a
Franklin Blvd. & 5th Ave. (South)	North	61	62	1
	South	62	62	0
	East	n/a	n/a	n/a
	West	52	53	1

Source: Bollard Acoustical Consultants, Inc., March 2009.

5.4-12 Cumulative exterior roadway traffic noise impacts on project residences.

As shown in Table 5.4-9, the predicted future Sutterville Road traffic noise level at a reference distance of 100 feet from centerline would be 67 dB Ldn. At the nearest residences, however, future traffic noise levels are predicted to be below the City's 70 dB Ldn standard applicable to infill projects. Therefore, this impact is considered ***less than significant***.

Mitigation Measure(s)
None required.

Endnotes

[1] City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
[2] City of Sacramento, *Sacramento 2030 General Plan Master EIR*, March 2009.
[3] Bollard Acoustical Consultants, *Environmental Noise Assessment, Curtis Park Village (Revised)*, March 27, 2009.
[4] City of Sacramento, *Noise Control Ordinance*, December 2003.

5.5 BIOLOGICAL RESOURCES

5.5 BIOLOGICAL RESOURCES

5.5.0 INTRODUCTION

The Biological Resources chapter of the EIR evaluates the biological resources that occur in the Curtis Park Village project area. Existing plant communities, wetlands, wildlife habitats, and potential for special-status species and communities are discussed. This chapter is based on information contained in the *Sacramento 2030 General Plan*,[1] the *Sacramento 2030 General Plan Master EIR*,[2] the California Natural Diversity Database,[3] the U.S. Fish and Wildlife Service Special-Status Species Database website,[4] the California Native Plant Society (CNPS) On-Line Inventory,[5] and a Tree Resources Assessment by North Fork Associates.[6]

Comments provided on the Notice of Preparation (NOP), the revised NOP, the second revised NOP, and the associated NOP scoping meetings for the proposed project have been integrated into the analysis. Biological impact comments received on the NOPs were related to the protection and preservation of Heritage Oak Trees, which is addressed in Impact Statement 5.5-5.

5.5.1 EXISTING ENVIRONMENTAL SETTING

Waters of the U.S. and Wetlands

The proposed project site is currently undergoing remediation, pursuant to the previously-approved Remedial Action Plan (RAP) for the project site, for soil pollution that resulted from previous railroad operations on the site. Due to the remediation activities, including removal of toxic soils, the project site currently contains multiple depressions that hold water through the dry season. Native trees such as cottonwoods and willows grow within these depressions; however, the areas are man-made and are not considered waters of the U.S. Furthermore, the project site is not located near any major bodies of water, including rivers, creeks, or natural or manmade ditches. Therefore, jurisdictional waters are not considered an issue for the proposed project site. In addition, much of the site has been graded or excavated and the on-site soils are already highly disturbed. The remediation of the site will be complete prior to development of the proposed project and, post-remediation, the site would be graded to the site's relatively flat original grade.

Biological Communities

The Sacramento 2030 General Plan designates the proposed project site is as Urban Lands Habitat, which is associated with all the residential and commercial developments in the General Plan area, and includes buildings, associated landscapes, urban parks, schools, and similar areas. Much of this habitat is not vegetated and when present, consists of irrigated ornamental plantings. Native trees and shrubs are found only occasionally in interspersed native landscapes,

or where they have "volunteered." The variety of trees and shrubs used for landscaping of urban areas provides nest sites and cover for wildlife. According to the Sacramento 2030 General Plan Master EIR, approximately 25 bird species commonly nest in urban areas within the Sacramento General Plan area, and about 15 species of these birds are year-round residents. Typical native bird species include American kestrels, mourning doves, scrub jays, northern mockingbirds, American robins, Brewer's blackbirds, brown towhees, and house finches; introduced species include rock doves, European starlings, and house sparrows. Urban areas also provide habitat for several species of native mammals such as deer mice, California ground squirrels, and striped skunks, in addition to the introduced eastern fox squirrel. Introduced pest species such as house mice are also abundant in urban areas.

Vegetation on the Project Site

The proposed project is located on an undeveloped parcel of land within an urban area. Additionally, the project site has been highly disturbed by remediation activities, and therefore has low potential for containing sensitive vegetation communities within the majority of the project site. However, the northern region of the project site includes a stand of native trees, discussed below.

The trees located on the subject property include the following: valley oak, live oak, date palm, tree of heaven, box elder, wild plum, black walnut, Oregon ash, juniper, pecan, English walnut, almond, sycamore, empress tree, black acacia, fruitless mulberry, elm, eucalyptus, camphor, cottonwood, and willow. North Fork Associates identified 147 trees on-site that are designated as Heritage Trees (See Figure 5.5-1).

Tree species assessed include valley oak (*Quercus lobata*) (87 percent), coast live oak (*Quercus agrifolia*) (11 percent), interior oak (*Quercus wislizeni*) (1 percent), and sycamore (*Platanus acerifolia*) (1 percent). The sycamore trees onsite are non-native but are considered Heritage Trees because their trunk circumference is 100 inches or more (≥32 inches diameter at breast height (dbh)).

Wildlife on the Project Site

Because the project site is within a highly developed area and is surrounded on all sides by existing development, the site is considered an infill development and not a natural, undisturbed habitat for wildlife species. However, the presence of large trees and some shrubs on-site could provide groundcover, nesting, and foraging habitat for several species, as noted above. It should be noted that the majority of the proposed project site is disturbed due to the ongoing remediation activities; therefore, only small portions of the site in the north and east could provide nesting or foraging habitat for wildlife species. In addition, because the project site contains several large trees, the potential exists for bird species to occur on the site.

Although raptors were not observed during the survey, nesting could occur within on-site trees. Given the presence of several relatively large ornamental trees located near the project site, the possibility exists that one or more pairs of raptors, plus a variety of songbirds, nest in the trees adjacent to the project site each year.

Figure 5.5-1
On-Site Heritage Trees

Special-Status Species

Special-status species are defined as plants and wildlife that may meet one or more of the following criteria:

- Legally protected under the Federal Endangered Species Act (FESA) and/or California Endangered Species Act (CESA) or under other regulations;
- Considered sufficiently rare by the scientific community to qualify for such listing; or,
- Considered sensitive because they are unique, declining regionally or locally, or at the extent of their natural range.

Special-status plant species may meet one or more of the following criteria:

- Plants listed or proposed for listing as threatened or endangered under the FESA (50 CFR 17.12 for listed plants and various notices in the Federal Register for proposed species);
- Plants that are candidates for possible future listing as threatened or endangered under the FESA (64 FR 205, October 25, 1999; 57533-57547);
- Plants that meet the definitions of rare or endangered species under the California Environmental Quality Act (CEQA) (CEQA Guidelines, Section 15380);
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered" in California (Lists 1B and 2 species in CNPS [2001]);
- Locally important occurrences of plants listed by CNPS as plants for which more information is needed and plants of limited distribution (Lists 3 and 4, respectively, species in CNPS [2001]);
- Plants listed or proposed for listing by the State of California as threatened or endangered under the CESA (14 CCR 670.5);
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.). Plants considered sensitive by other federal agencies (i.e., U.S. Forest Service, Bureau of Land Management) or state and local agencies or jurisdictions; or,
- Plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range (CEQA Guidelines, Appendix G).

Special-status wildlife species may meet one or more of the following criteria:

- Wildlife listed or proposed for listing as threatened or endangered under the FESA (50 CFR 17.11 for listed wildlife and various notices in the Federal Register for proposed species);
- Wildlife that are candidates for possible future listing as threatened or endangered under the FESA (54 CFR 554);
- Wildlife that meet the definitions of rare or endangered species under the CEQA (CEQA Guidelines, Section 15380);
- Wildlife listed or proposed for listing by the State of California as threatened and endangered under the CESA (14 CCR 670.5);
- Wildlife species of special concern to the California Department of Fish and Game (Remsen [1978] for birds; Williams [1986] for mammals); or,

- Wildlife species that are fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

The location of the project site is in the central western portion of the USGS 7.5-minute Sacramento East topographic quadrangle, and the CNDDB search encompassed the Sacramento East and Sacramento West topographic quadrangles. The CNDDB search area encompassed an area of approximately 140 square miles surrounding the site.

Table 5.5-1 lists special-status species observed on the site or known to occur in the vicinity of the site, along with their federal, State, and CNPS status. Information for this table was gathered from CNDDB (2008), CNPS Inventory of Rare and Endangered Plant, and U.S. Fish and Wildlife Service's Species List website. The search parameters for all three of the search engines listed above included the Sacramento West and Sacramento East USGS 7.5-minute quadrangles. Species from the U.S. Fish and Wildlife Service's website include all the sensitive species that have been found in these quadrangles, and also ones that could be affected by projects in the area.

Because the project site is located in uplands, and is located 1.5 miles from the nearest watercourse (the Sacramento River to the east), fish species, as well as other species associated exclusively with riparian habitat, do not appear on the following list.

The highly disturbed vegetation that is common throughout the project site provides marginally suitable habitat for sensitive species found in the greater project vicinity. Additionally, the project site is in a highly urbanized area and is surrounded on all sides by residential, commercial, and public facilities development. Due to the marginal habitat the site provides, a 1.5-mile radius surrounding the project site is used. A summary of the listing status and habitat requirements of sensitive species that the CNDDB has documented within the project vicinity is provided below.

Figure 5.5-2, Special-Status Species CNDDB Map, identifies the locations of the special-status species that have been observed or are known to occur in the project area.

Listed and Special-Status Plants

Although the project site may have previously provided habitat for the sensitive plant species listed in Table 5.5-1, railyard activities, toxic remediation activities, and the surrounding development have substantially modified natural habitats in the project vicinity, including those located within the project site. The sensitive plants found within the greater project vicinity generally occur in relatively undisturbed areas and are largely found within vegetation communities that do not occur within the project site (e.g., native valley and foothill native grasslands, vernal pools, and riparian habitats). Because the rare plants that occur within the greater project vicinity are found in habitats which do not exist within or adjacent to the project site, the likelihood for occurrence within the immediate project vicinity or within the project site is considered remote.

Table 5.5-1
Special-Status Species

Scientific Name	Common Name	Federal Status	State Status	CNPS Status
Accipiter cooperii	Cooper's hawk	--	SC	--
Agelaius tricolor	Tricolored blackbird	--	SC	--
Ambystoma californiense	California tiger salamander	T	SC	--
Anthicus antiochensis	Atioch dunes anthicid beetle	--	SC	--
Anthicus sacramento	Sacramento anthicid beetle	--	SC	--
Athene cunicularia	Burrowing owl	--	SC	--
Baeolophus inornatus	Oak titmouse	--	SLC	--
Branchinecta lynchi	Vernal pool fairy shrimp	T	--	--
Branchinecta mesovallensis	Midvalley fairyshrimp	--	SC-	--
Branta Canadensis leucopareia	Aleutian Canada goose	D	--	--
Buteo regalis	Ferruginous hawk	--	SC	
Buteo swainsonii	Swainson's hawk	--	T	--
Carduleis lawrencei	Lawrence's goldfinch	--	SC	--
Chaetura vauxi	Vaux's swift	--	SC	--
Charadrius montanus	Mountain plover	-	SC	--
Clemmys marmorata marmorata	Northwestern pond turtle	--	SC	--
Corynorhinus townsendii townsendii	Pacific western big-eared bat	--	SC	--
Elanus leucurus	White-tailed kite	--	SC	--
Empidonax traillii brewsteri	Little willow flycatcher	--	E	--
Falco peregrinus anatum	American peregrine falcon	D	--	--
Grus Canadensis tabida	Greater sandhill crane	--	T, FP	--
Haliaeetus leucocephalus	Bald eagle	T		
Hibiscus lasiocarpus	Rose-mallow	--	--	2
Lanius ludovicianus	Loggerhead shrike	--	SC	--
Lepidurus packardii	Vernal pool tadpole shrimp	Endangered	--	--
Linderiella occidentalis	California linderiella or fairy shrimp	--	--	--
Melanerpes lewis	Lewis's woodpecker	--	SC	--
Myotis ciliolabrum	Small-footed bat	--	SC	--
Myotis volans	Long-legged myotis bat	--	SC	--
Myotis yumanensis	Yuma myotis bat	--	SC	--

Continued on next page

Table 5.5-1 (continued)
Special-Status Species

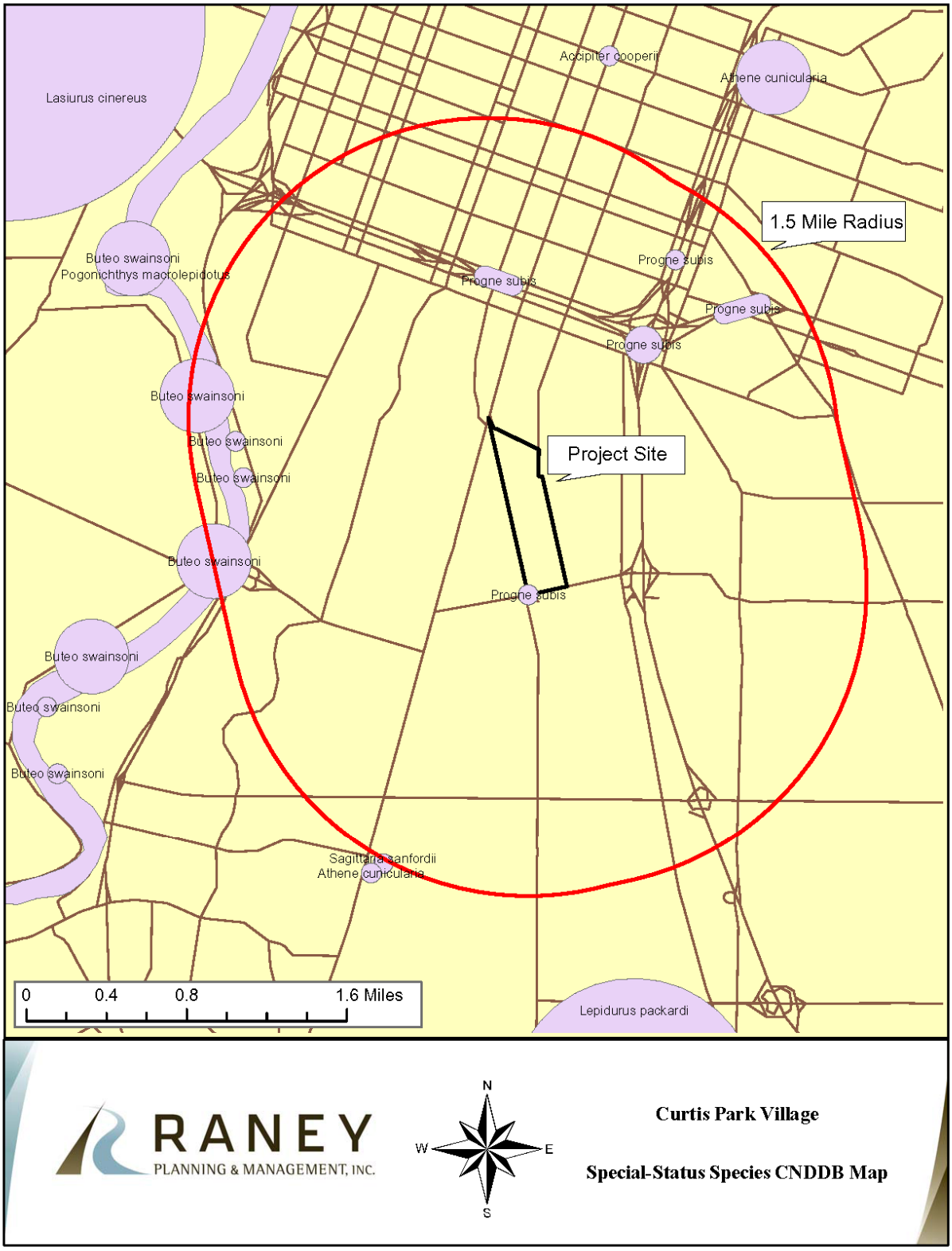
Scientific Name	Common Name	Federal Status	State Status	CNPS Status
Numenius americanus	Long-billed curlew	--	SC	--
Perognathus inornatus	San Joaquin pocket mouse	--	SC	--
Phrynosoma coronatum frontale	California horned lizard	--	SC	--
Picoides muttallii	Nuttall's woodpecker	--	SC	--
Plegadis chihi	White-faced ibis	--	SC	--
Progne subis	Purple martin	--	SC	--
Rana aurora draytonii	California red-legged frog	T		
Riparia riparia	Bank swallow	--	T	--
Sagittaria sanfordii	Sanford's arrowhead	--	--	1B
Selapsphorus rufus	Rufous hummingbird	--	SC	--
Spea hammondii	Western spadefoot toad	--	SC--	

Notes:
T: Threatened
E: Endangered
SC: Species of Concern
SLC: Species of Local Concern
D: Delisted (will be monitored for five years)
FP: Fully protected
X: Critical habitat designated by USFWS
CNPS* Categories: 1A = plants presumed extinct in California 1B = plants rare, threatened, or endangered in California and elsewhere 2 = plants rare, threatened, or endangered in California, but common elsewhere 3 = plants about which we need more information 4 = plants of limited distribution

*CNPS is a private non-profit organization that works closely with CDFG throughout the state. CNPS-developed information serves as an important source of data for consideration by CDFG and USFWS in recommendations for listing state and federal threatened and endangered plant species.

Sources: CNDDB, 2008. CNPS Inventory of Rare and Endangered Plants, 2008.

Figure 5.5-2
Special-Status Species CNDDB Map



Based on known CNDDB occurrence records and direct observation in the field, the special-status plant Sanford's arrowhead (*Sagittaria sanfordii*) is known to occur within approximately 1.5 miles of the project site. However, the CNDDB does not identify special-status plants that are known to occur on the project site. Sanford's arrowhead occurs in marshes and swampy areas up to 2,000 feet above sea level. The project site does not provide suitable habitat for this species.

Listed and Special-Status Wildlife

Based on a review of the USFWS lists, a records search of the CNDDB, documents pertaining to the biological resources of the site, and field surveys, potential habitat for the following special-status wildlife species occurs on the site: Swainson's hawk (*Buteo swainsoni*), western burrowing owl (*Athene cunicularia hypugaea*), Purple Martin (*progne subis*), vernal pool tadpole shrimp (*lepidurus packardii*), and California linderiella (*linderiella occidentalis*). However, none of these special-status wildlife species are known to occur on the project site.

Because the vernal pool tadpole shrimp and California linderiella are not known to migrate, the closest known occurrence is approximately three miles south, and the ground on the project site is highly disturbed from remediation activities, these species are not expected to be present on the project site.

Swainson's hawk, western burrowing owl, purple martin, and other migratory birds and raptors could potentially occur on the project site.

Swainson's hawk (Buteo swainsoni)

Swainson's hawk is a federal Species of Concern and State-listed threatened. This species is a breeding resident and migrant of California. Migration occurs from early March through early April, from their wintering grounds in the open pampas and agricultural areas of South America (Argentina, Uruguay, southern Brazil) to their breeding grounds in east-central Alaska, southwest Canada, eastern Washington and Oregon, and the Central Valley of California. On breeding grounds, Swainson's hawks prefer open habitats, including mixed and short grasslands with scattered trees or shrubs for perching, dry grasslands, irrigated meadows, and edges between two habitat types. This species is monogamous, with a breeding season that extends from late March through late August, peaking in late May through July (Zeiner, 1990a). Nests are built on a platform of bark, sticks, and fresh leaves in a tree, bush, or utility pole. Clutch size ranges from three to four eggs, and incubation is approximately 34 days. Swainson's hawks leave their breeding grounds to return to their wintering grounds in late August or early September (Zeiner, 1990a).

In the Central Valley, Swainson's hawk nests are generally found in scattered trees or along riparian habitats in close proximity to agricultural fields and pastures. Major prey for Central Valley Swainson's hawks include invertebrates such as crickets (*Gryllidae* sp.) and grasshoppers (*Conocephalinae* sp.); birds such as meadowlark (*Sturnella neglecta*), mourning dove, and other passerines (i.e., perching birds); and mammals such as California ground squirrel, California vole (*Microtus californicus*), deer mice (*Peromyscus maniculatus*), and valley pocket gopher (*Thomomys bottae*).

Swainson's hawks have been found multiple times within 1.5 miles of the project site (CNDDB, 2008), including occurrences along the Sacramento River approximately 1.5 miles west of the project site. Based on past occurrence records, the likelihood of rodents being present on the project site, and the presence of multiple large trees on the site, Swainson's hawk has a moderate potential for occurring on the project site, and foraging and nesting habitat for Swainson's hawk is present on-site.

Western burrowing owl (Athene cunicularia)

Western burrowing owl is a federal and State Species of Concern and a yearlong resident of the Central Valley (CDFG, 2000b). This bird species uses rodent or other types of burrows for roosting and nesting cover. Oftentimes, this species is found perching in open sunlight in the early morning, and moves to shade or to the burrow in hotter temperatures. Burrowing owls primarily feed on insects, small mammals, reptiles, birds, and carrion. Breeding occurs from March through August, with the peak breeding time occurring in April and May. Young emerge from the burrow at about two weeks and fly at about four weeks (Zeiner, 1990a).

This species was formerly a common, even locally abundant, permanent resident throughout much of California, but a decline noticeable by the 1940s (Zeiner, 1990a) has continued through to the present time. The decline has been almost universal throughout California (CDFG, 2000b). Conversion of grasslands and pasturelands to agriculture and destruction of ground squirrel colonies have been the main factors causing the decline of the burrowing owl population (Zeiner, 1990a). Assimilation of poisons applied to ground squirrel colonies has probably also taken a toll. The burrowing owls' propensity for nesting in roadside banks also makes them particularly vulnerable to roadside shooting, being hit by cars, road maintenance operations, and general harassment (CDFG, 2000b).

The burrowing owls have been found several times within approximately 1.5 miles of the project site (CNDDB, 2005). The closest known occurrence of burrowing owl occurred at the Executive Airport approximately 1.5 miles south of the project site. Based on the presence of potential burrowing habitat and known occurrences of this species in the surrounding areas, the western burrowing owl has a moderate to high potential to occur on the project site.

Purple Martin (progne subis)

The Purple Martin is a migratory bird that is identified as a State Species of Special Concern by CDFG. At one time, the purple martin was a fairly common breeder in the coast ranges and, in smaller numbers, in the Sierra Nevada. Purple martins were even thought to be increasing in some populated areas (Grinnell and Miller 1944). In the last 15 years, a dramatic decrease has occurred in southern California where the Purple Martin was once a common breeder in the mountains and even nested in some lowland residential areas (Willett 1912). Decreases have been noted in Tehama County in the riparian habitat along the Sacramento River (T. Stone, pers. comm.), Marin County (DeSante and Remsen 1972; W. M. Pursell, pers. comm.), Santa Cruz County (R. Morgan, pers. comm.), the Diablo Range (A. Edwards, pers. comm.), and the Oroville area (S. Laymon, pers. comm.). However, numbers in the Sacramento area and along the north coast are apparently stable. Reasons for the decline include introduced starlings, which

oust Purple Martins from nest cavities at a number of localities. Competition for nesting sites with starlings is likely to be at least partly responsible for the decline. Removal of dead trees (snags) has eliminated nesting sites in several areas.

According to the CNDDB search performed in May 2008, Purple Martins have occurred five times within a 1.5-mile vicinity of the project site. Purple Martins nest in tall, isolated trees or snags, which occur on the project site.

5.5.2 REGULATORY BACKGROUND

A number of federal, State, and local policies provide the regulatory framework that guides the protection of biological resources. The following discussion summarizes those laws that are most relevant to biological resources in the vicinity of the project site.

Federal

Federal Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. The FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

The FESA prohibits the "take" of endangered or threatened wildlife species. "Take" is defined as harassing, harming (including significantly modifying or degrading habitat), pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species, or any attempt to engage in such conduct (16 USC 1532, 50 CFR 17.3). Taking can result in civil or criminal penalties.

The FESA and NEPA Section 404 guidelines prohibit the issuance of wetland permits for projects that would jeopardize the existence of threatened or endangered wildlife or plant species. The U.S. Army Corps of Engineers must consult with the U.S. Fish and Wildlife Service (USFWS) and National Oceanic Atmospheric Administration (NOAA) when threatened or endangered species may be affected by a proposed project to determine whether issuance of a Section 404 permit would jeopardize the species.

Migratory Bird Treaty Act

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of state and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the California Fish and Game Code states, "It is unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

Clean Water Act

The U.S. Army Corps of Engineers (USACE) regulates discharge of dredged or fill material into Waters of the United States under Section 404 of the Clean Water Act (CWA). "Discharge of fill material" is defined as the addition of fill material into Waters of the U.S., including but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and sub-aqueous utility lines (33 C.F.R. §328.2[f]). In addition, Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Waters of the United States include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 C.F.R. §328.3[b]).

Furthermore, Jurisdictional Waters of the United States can be defined by exhibiting a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the USACE as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 C.F.R. §328.3[e]).

State

California Endangered Species Act and California Department of Fish and Game

The State of California enacted the California Endangered Species Act (CESA) in 1984. The CESA is similar to the FESA but pertains to State-listed endangered and threatened species. CESA requires state agencies to consult with the California Department of Fish and Game (CDFG) when preparing California Environmental Quality Act (CEQA) documents to ensure that the state lead agency actions do not jeopardize the existence of listed species. CESA directs agencies to consult with CDFG on projects or actions that could affect listed species, directs CDFG to determine whether jeopardy would occur, and allows CDFG to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. Agencies can approve a project that affects a listed species if they determine that "overriding considerations" exist; however, the agencies are prohibited from approving projects that would result in the extinction of a listed species.

The CESA prohibits the taking of State-listed endangered or threatened plant and wildlife species. CDFG exercises authority over mitigation projects involving state-listed species,

including those resulting from CEQA mitigation requirements. CDFG may authorize taking if an approved habitat management plan or management agreement that avoids or compensates for possible jeopardy is implemented. CDFG requires preparation of mitigation plans in accordance with published guidelines.

The 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.

In addition, CDFG enforces the Fish & Game Code of California, which provides protection for "fully protected birds" (§3511), "fully protected mammals" (§4700), "fully protected reptiles and amphibians" (§5050), and "fully protected fish" (§5515). The California Code of Federal Regulations (Title 14) prohibits the take of Protected amphibians (Chapter 5, §41), Protected reptiles (Chapter 5, §42) and Protected furbearers (Chapter 5, §460). The California Endangered Species Act, which prohibits 'take' of state-listed Endangered or Threatened species, is also enforced by CDFG.

For projects resulting in unavoidable impacts to biological resources, mitigation measures are required to minimize adverse environmental effects. Mitigation measures often include, for example, replacement of removed trees and mitigation for impacts to wetlands and/or waters. Depending on the quality and extent of the area impacted, the mitigation ratio can vary between 1:1 (mitigation:impact) and 5:1. For non-water-dependent projects located near creeks, the CDFG also typically requires the establishment of a buffer zone immediately adjacent to creeks and wetlands. Depending upon the specific project components and the presence of State- or federally-listed species, the buffer zone may be as little as 50 feet or as much as 300 feet.

CDFG Species of Special Concern

In addition to formal listing under FESA and CESA, plant and wildlife species receive additional consideration during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern" developed by the CDFG. CDFG tracks species in California whose numbers, reproductive success, or habitat may be threatened.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The following goals and policies from the recently adopted Sacramento 2030 General Plan are applicable to biological resources:

Goal ER 2.1 Natural and Open Space Protection. Protect and enhance open space, natural areas, and significant wildlife and vegetation in the city as integral parts of a sustainable environment within a larger regional ecosystem.

Policy ER 2.1.1 Resource Preservation. The City shall encourage new development to preserve on-site natural elements that contribute to the community's native plant and wildlife species value and to its aesthetic character.

Policy ER 2.1.8 Oak Woodlands. The City shall preserve and protect oak woodlands, and/or significant stands of oak trees in the city that provide habitat for common native, and special-status wildlife species, to the extent feasible. If not feasible, the mitigation of all adverse impacts on oak woodlands shall comply with the standards of the *Oak Woodlands Conservation Act*.

Policy ER 2.1.10 Habitat Assessments. The City shall require preconstruction surveys and/or habitat assessments for sensitive plant and wildlife species for any project requiring discretionary approval.

Policy ER 2.1.11 Agency Coordination. The City shall coordinate with State and Federal resource agencies (e.g., California Department of Fish and Game (CDFG), Corps, United States Fish and Wildlife Service (USFWS)) to protect areas containing rare or endangered species of plants and animals.

Policy ER 3.1.3 Trees of Significance. The City shall require the retention of trees of significance (such as heritage trees) by promoting stewardship of such trees and ensuring that the design of development projects provides for the retention of these trees wherever possible. Where tree removal cannot be avoided, the City shall require tree replacement or suitable mitigation.

Sacramento City Tree Protection and Preservation Ordinance

The City of Sacramento protects Heritage Trees by ordinance. Heritage Trees are defined by Sacramento's Heritage Tree Ordinance as trees of any species having a trunk circumference of 100 inches or more measured 4.5 feet above ground level, which are of good quality in terms of health, vigor of growth, and conformity to generally accepted horticultural standards of shape for

its species. When such a tree is found in a developing area, removal of the tree is subject to a special permit requirement (See Municipal Code, Section 12.64.050). Heritage Trees are further defined as any native *Quercus* species, *Aesculus california* or *Platanus Racemosa*, having a circumference of 36 inches or greater with a single trunk or cumulative multi-trunk; any tree 36 inches in circumference or greater in a riparian zone; and any tree, grove of trees, or woodland trees designated by resolution of the City Council to be of special historical or environmental value or significant community benefit (City Codes, Title 12, Ch. 12.64).

Other Statutes, Codes, and Policies Affording Limited Species Protection

California Native Plant Society

The California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Plants of California (Tibor, 2001). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The following identifies the definitions of the CNPS listings:

List 1A:	Plants believed extinct.
List 1B:	Plants rare, threatened, or endangered in California and elsewhere.
List 2:	Plants rare, threatened, or endangered in California, but more numerous elsewhere.
List 3:	Plants about which we need more information - a review list.
List 4:	Plants of limited distribution - a watch list.

5.5.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this EIR, an impact would be considered significant if any of the following conditions, or potential therefore, would result from implementation of the proposed project:

- Creation of a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected;
- Substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal;
- Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands); or
- Violate the Heritage Tree Ordinance (City Municipal Code Chapter 12.64).

Method of Analysis

Raney performed a visual survey of the project site in June 27, 2005, which was updated in January 2009. In addition, Raney conducted searches of the CNPS Inventory of Rare and

Endangered Plants and the U.S. Fish and Wildlife Service (USFWS) Special-Status Species Database in 2005, an updated search of the Sacramento East and Sacramento West U.S.G.S. 7.5-minute topographic quadrangles was conducted on the CNDDB in May 2008. Because of the urban nature of the project site and surrounding areas, species under consideration for this biological resources chapter include those within 1.5 miles of the project site. Species that occur within habitats that do not occur on or adjacent to the project site were not considered further in the impact discussions below.

To determine potential impacts related to on-site trees, Raney utilized the findings and recommendations in the Tree Resources Assessment prepared by North Fork Associates. As part of the Tree Resources Assessment, the condition of the on-site Heritage Trees was assessed. Both the structure and health of each tree were rated poor, fair, good, or a combination of two of the designations.

Project-Specific Impacts and Mitigation Measures

5.5-1 Impacts to biological resources related to the update of the Remedial Action Plan.

As discussed in the Existing Environmental Setting section above, potential habitat for the following special-status wildlife species occurs on-site: Swainson's hawk (*Buteo swainsoni*), western burrowing owl (*Athene cunicularia hypugaea*), Purple Martin (*progne subis*), vernal pool tadpole shrimp (*lepidurus packardii*), and California linderiella (*linderiella occidentalis*). Although none of these special-status wildlife species are known to occur on the project site, Swainson's hawk, western burrowing owl, purple martin, and other migratory birds and raptors could potentially occur on the project site due to the presence of large trees and some shrubs on-site. Vernal pool tadpole shrimp and California linderiella are not expected to be present on the project site. In addition, 147 of the trees on the project site have been designated as Heritage Trees.

The proposed project site is currently undergoing remediation pursuant to the previously-approved Remedial Action Plan (RAP), including activities such as grading and excavation; therefore, the site is already highly disturbed. In addition, it should be noted that the Tree Preservation Commission previously approved the removal of some of the Heritage Trees on-site as part of the previously-approved RAP. Because the project site has been highly disturbed by remediation activities, suitable foraging and nesting habitat for the above-mentioned special-status species is not expected to exist on-site.

Similar to the approved 1995 RAP, the new remedies in the updated RAP would involve extensive excavation and grading. Changes to the remedies in the RAP would not result in additional impacts to biological resources, including special-status species and Heritage Trees, beyond what was anticipated for the approved RAP. Therefore, impacts to biological resources associated with the update of the RAP would be ***less than significant***.

Mitigation Measure(s)
None required.

5.5-2 Impacts to burrowing owl.

Remediation activities are currently underway on the project site and would be expected to disrupt any nesting and foraging on-site. The continuation of the remediation activities in accordance with the proposed RAP would result in continued site disruption. However, the possibility exists that the project site could remain vacant for some time after the completion of the remediation activities and prior to initiation of grading for, and construction of, the proposed Curtis Park Village project. Therefore, because burrowing owls could potentially forage or nest on-site after the completion of the reclamation activities but before the initiation of grading or construction of the proposed project, burrowing owl has the potential to occur on the project site, and impacts related to burrowing owls would be considered *potentially significant*.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a ***less than significant*** level.

5.5-2 Prior to any ground disturbance associated with grading or construction, the applicant shall initiate a burrowing owl consultation with the CDFG and shall implement the following mitigation measures or equivalents, based on the results of the consultation.

The developer shall arrange for burrowing owl surveys to be performed consistent with the CDFG's 1995 Staff Report on Burrowing Owl and the California Burrowing Owl Consortium's (CBOC) Survey Protocol (1997) not less than 30 days prior to ground disturbance for each phase of project grading. If burrowing owls are not detected, further mitigation is not necessary. However, if burrowing owls are detected the following steps shall be taken:

If site disturbance commences during the nesting season (between February 1 and August 31) and burrowing owls are detected, a fenced buffer shall be erected on the project site by the developer not less than 250 feet between the nest burrow(s) and construction activities. The 250-foot buffer shall be observed and the fence left intact until a qualified raptor biologist determines that the young are foraging independently, the nest has failed, or the owls are not using any burrows within the buffer.

If ground disturbance associated with grading or construction commences outside of the nesting season, and burrowing owl(s) are present on-site or within 160 feet of site disturbance, passive relocation consistent with the CDFG Staff Report (1995) and the CBOC Survey Protocol (1997) shall be

performed. At least one or more weeks will be necessary to accomplish this and allow the owls to acclimate to off-site burrows. The pre-construction surveys shall be repeated if more than 30 days elapse between the last survey and the start of construction activities.

5.5-3 Impacts to Swainson's hawk nesting and foraging habitat.

While Swainson's hawk has not been observed on the project site, this species has occurred multiple times within 1.5 miles of the project site, including occurrences along the Sacramento River approximately 1.5 to two miles west of the project site. For projects between one and five miles from a nest that has been active at least once during the past five years, the recommended mitigation is at a ratio of 0.75 conserved acre to one acre of potential foraging land planned for development. However, the land has been developed with industrial uses and the site is not considered to be foraging habitat. Furthermore, remediation activities are currently underway on the project site and disrupt any potential foraging habitat that may have developed on-site. Following remediation, the proposed Curtis Park Village would convert the former industrial site to a mixed-use urban development.

However, the possibility exists that the project site could remain vacant for some time after the completion of the remediation activities and prior to the initiation of grading for, and construction of, the proposed Curtis Park Village project. Therefore, because Swainson's hawk could potentially forage or nest on the project site (given the presence of large trees on-site) after the completion of the remediation activities but before the initiation of grading or construction of the proposed project, Swainson's hawk has the potential to occur on the project site. Therefore, the proposed project would result in a *potentially significant* impact to Swainson's hawk.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a ***less than significant*** level.

5.5-3 If site disturbance associated with grading or construction activities is proposed by the developer during breeding season (February to August), a pre-construction survey for Swainson's hawk nests shall be conducted within 30 days prior to site disturbance/construction activities by a qualified biologist in order to identify active nests in the project site vicinity. The results of the survey shall be submitted to CDFG and the Development Services Department. If active nests are not found during the pre-construction survey, further mitigation is not required. If active nests are found, pursuant to consultation with CDFG, a fenced buffer shall be erected by the developer on the project site not less than one-quarter mile (approximately 1,300 feet) around the active nest. Site disturbance associated with grading or construction activities that may cause nest abandonment or forced fledging shall not be initiated within this buffer zone between March 1 and September 1. Any trees containing nests that

must be removed as a result of project implementation shall be removed during the non-breeding season (September to January).

5.5-4 Impacts to raptors and migratory birds.

Suitable habitat for raptors such as white-tailed kites, as well as migratory ground and tree or shrub-nesting avian species, is present within and adjacent to the proposed project site. In addition, as discussed above, the purple martin has the potential to occur on the project site. Construction of the proposed project during the nesting season (February to August) could result in the disturbance of nests or disrupt nesting behavior.

Remediation activities are currently underway on the project site and would be expected to disrupt any habitat on-site. However, potential nesting trees would remain in the northern portion of the project site. Therefore, the possibility exists that raptors and/or migratory birds would occur on the project site post-remediation. Because construction of the project has the potential to result in "take" of ground-nesting, tree-nesting, shrub-nesting, or emergent vegetation-nesting raptors and/or migratory birds, a *potentially significant* impact could occur.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a ***less than significant*** level.

5.5-4 Prior to any grading or construction activities during the nesting season (February 1 to August 15), a preconstruction survey shall be conducted by a qualified wildlife biologist within 15 days of the start of project-related activities. If nests of migratory birds are detected on site, or within 75 feet (for migratory passerine birds) or 250 feet (for birds of prey) of the site, the developer shall consult with the CDFG to determine the size of a suitable buffer in which new site grading or construction disturbance is not permitted until August 15, or the qualified biologist determines that the young are foraging independently, or the nest has been abandoned.

5.5-5 Impacts to Heritage Trees.

The City provides for the protection and preservation of existing trees within the City through the Heritage Tree Ordinance. According to the Tree Resources Assessment, the project site contains 147 Heritage Trees, which are primarily located along the northern and eastern boundaries of the project site.

According to the Tree Resources Assessment, the majority of the Heritage Trees (95 percent) on-site were assessed to be fair or better in health, and most of the trees (84 percent) have fair to poor structure. Regarding health and vigor, five (3 percent) were rated as good, 40 (27 percent) were rated as good to fair, 94 (64 percent) were rated as fair, seven (5 percent) were rated as fair to poor, and one (< 1 percent) was rated as

poor. Regarding structure, none were rated as good, 19 (13 percent) were rated as good to fair, 66 (45 percent) were rated as fair, 58 (39 percent) were rated as fair to poor, and four (3 percent) were rated as poor.

The proposed project would include the preservation of 59 of the Heritage Trees, most of which are located along the northern boundary of the site. The Tree Resources Report indicates that 88 of the 147 Heritage Trees would be removed to accommodate the proposed project (See Figure 5.5-3).

Although implementation of the proposed project would require the removal of Heritage Trees on-site, the proposed project would be required to comply with the City's Heritage Tree Ordinance (City Municipal Code Chapter 12.64); therefore the project's impacts related to violation of the Heritage Tree Ordinance would be ***less than significant***.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

5.5-6 Cumulative loss of biological resources in the City of Sacramento and the effects of ongoing urbanization in the region.

As defined in Section 15355 of the State CEQA Guidelines, "cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects (CEQA Guidelines 15355).

According to the *Sacramento 2030 General Plan Master EIR*, implementation of the 2030 General Plan would contribute to the loss of regional biological resources through the incremental conversion of habitat for special-status species to human use and would thus limit the availability and accessibility of remaining natural habitats to regional wildlife. In addition, implementation of the 2030 General Plan could affect designated critical habitat and directly impact threatened and/or endangered species through habitat conversion or unauthorized take.

However, the *Sacramento 2030 General Plan Master EIR* also notes that terrestrial plant and wildlife habitat in the Policy Area has been highly modified and is of relatively low quality due to the Policy Area's urban nature. The remnant habitat available in the Policy Area is small from a regional perspective and, with the exception of the Sacramento and American River Parkways, is isolated from other areas of similar habitat by urban development.

Figure 5.5-3
On-Site Heritage Trees to be Removed

Even though the habitat value in the Policy Area is low, the *Sacramento 2030 General Plan Master EIR* indicates that future development projects are required to participate in mitigation plans (e.g., for Swainson's Hawk and burrowing owl) approved by State resource agencies, which would replace lost habitat and preserve contiguous areas of habitat, presumably outside of the boundaries of the Policy Area within the larger regional context.

Because the proposed project would be required to participate in mitigation plans for special-status species and because the project would be consistent with the Sacramento 2030 General Plan and General Plan EIR, which include goals, policies, and mitigation measures intended to reduce impacts to biological resources, cumulative impacts associated with the proposed project would be ***less than significant***.

Mitigation Measure(s)
None required.

Endnotes

[1] City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
[2] City of Sacramento, *Sacramento 2030 General Plan Master EIR*, March 2009.
[3] California Department of Fish and Game, *California Natural Diversity Database (CNDDB) RareFind 3*, Commercial Version, Version 3.0.5, May 2008.
[4] U.S. Fish and Wildlife Service, http://www.fws.gov/sacramento/es/spp_list.htm, accessed November 15, 2005.
[5] California Native Plant Society, *On-Line Inventory*. http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi, accessed May 2008.
[6] North Fork Associates, *Tree Resources Assessment for the 71.7-Acre Curtis Park Village Study Area*, February 6, 2008.

5.6 CULTURAL RESOURCES

5.6 CULTURAL RESOURCES

5.6.0 INTRODUCTION

The Cultural Resources chapter of the EIR addresses known historic and prehistoric resources in the project vicinity and the potential for unknown resources to exist. The analysis summarizes the existing setting and briefly describes the potential effects to historical, archaeological, and paleontological resources. The analysis will both identify the thresholds of significance of possible impacts associated with the project, and develop mitigation measures that would be necessary to reduce impacts to a less-than-significant level. Information for this chapter was drawn from the *Sacramento 2030 General Plan*,[1] the *Sacramento 2030 General Plan Master EIR*,[2] and a *Cultural Resources Assessment* prepared by Peak Associates.[3]

Pertinent comments received in response to the original Notice of Preparation (NOP), the revised NOP, and the associated NOP scoping meetings for the proposed project have been integrated into the analysis. Comments that relate to Native American habitation and impacts to the surrounding historical neighborhoods are addressed in Impact Statements 5.6-1 and 5.6-2, respectively.

5.6.1 EXISTING ENVIRONMENTAL SETTING

The physical environment of the project site has been greatly altered by human activity over the past 150 years. Specifically, the urbanization of the City of Sacramento has greatly altered the pre-1850 environment. In addition, the very extensive disturbance from remediation work has made survival of archeological resources, if any existed here in the first place, very unlikely. The only surviving building on the site is a wooden storage shed, of no great age. Other than the light rail lines and the relatively tiny remaining switching yards bordering the western edge of the project site, all rails, ties and other features related to the old railyard have been removed. On a larger scale, the deposition of deep alluvial soils over the past 10,000 years has buried any early archaeological resources.

Prehistory/Ethnography

The Nisenan, or Southern Maidu, occupied the upper drainages and the adjacent ridges of the Yuba, the north, middle, and south forks of the American, and at least the upper north side of the Cosumnes River. The eastern limit of their territory is conventionally believed to extend to the crest of the Sierra. The Nisenan in the valley proper also occupied some area west of the lower reaches of the Feather River (Wilson and Towne 1978).

The Nisenan linguistically are grouped with the Northern Maidu and Konkow within the Penutian family (Riddell 1978:387). Alfred L. Kroeber distinguished three dialects within the larger territory occupied by the Nisenan, but Riddell indicated that more distinctions are

possible. Wilson and Towne (1978) distinguished several "centers," presumably linguistic and social groupings.

The Nisenan were socially integrated at the village or community group level (Wilson and Towne 1978), with the group participating in the decision-making process. The villages would range in size from 15 to 25 people to, at least in the Valley Nisenan, villages of over 500 people (Kroeber 1925:821). A very large settlement consisted of a major village and associated smaller camps, whether general or specialized in nature. A headman, respected by all, residing in the major village had the authority to call upon the smaller associated groups in times of need, although the smaller groups did not have to always obey.

The villages for the Hill Nisenan were located on ridges and flats along the major streams and rivers within their territory. The satellite encampments and villages were probably located on the smaller watercourses surrounding or nearby the major village.

The Nisenan, as with other Sierran groups, moved into the higher elevations during the hot summer months. The main activity was the collecting of pine nuts and numerous other species of nuts, roots, and berries, done primarily by women and children. The foraging groups in a locale could range from small, extended family groups, composed of a woman, her immediate female kin, and their adolescent children to whole villages (Wilson and Towne 1978:389). The men spent most of their time hunting or fishing for a wide variety of fish and animals. Hunting was noted as often involving communal drives, with the best archers of the village posted to do the killing (Wilson and Towne 1978:389). Individual hunters made extensive use of decoys and imitative sounds.

Most Nisenan never left the territory used by their own village group. However, there were, in most large villages, at least some individuals who engaged in rather extensive trade with several valley and Sierra groups, such as the Washoe. The Hill Nisenan probably acquired obsidian and basketry from the east, in exchange for acorns from the Washoe (Davis 1974:38; Freed 1966:78). Whether they were visited by the Washoe or they visited the Washoe or both is presently unclear. Presumably, the exchange network functioned in the summer and fall when trails through the Sierra were clear of snow.

Historical Period

Early historic events in the project vicinity are related to the development of Sutterville. This community was planned and laid out by John Sutter in 1844 to serve as an agricultural center for the "New Helvetia" colony that was his goal for his land grant of the same name. The community was located on relatively high land in the otherwise flood-prone vicinity of the Sacramento River a couple of miles below the embarcadero for Sutter's Fort. The gold rush completely upset Sutter's plans for New Helvetia, but Sutterville continued to thrive even as the embarcadero area evolved into downtown Sacramento. Sutterville continued as a separate community until incorporated into Sacramento in 1950 (Kyle 1990: 291).

The project vicinity, still subject to flooding until the Sacramento levee system was completed, remained lightly settled for many years. The 1911 Brighton USGS map does not show any

structures in the project area, nor are any railroad tracks other than the Western Pacific mainline shown. Earlier maps (General Land Office plats of 1865 and 1862) indicate roads and fences in the area, but did not show houses. The project site is shown as being adjacent to overflowed land, but was, apparently, in agricultural production.

As a result of the low population, the area was easily acquired by the Western Pacific when the railroad needed shops near downtown Sacramento and, of course, adjacent to their mainline. The railroad was incorporated in 1903 as competition for the Southern Pacific monopoly on rail connections between California and the eastern U.S. Construction began in 1906 and was completed, on the mainline, by 1909. Freight service began that year and passenger service in 1910. The Oak Park district was created in 1911. The yards in the project area were operated as a railroad maintenance and switching yard. While operating as a railroad maintenance facility, the principle activity was refurbishing railroad cars and locomotives. This involved use of various solvents, cleansers and degreasers. Prior to 1951, activities included removal of asbestos insulation from boilers and pipes of steam engines.

Curtis Park is one of the earliest planned subdivisions in Sacramento, dating from the 1910s and 1920s. The project area is bounded by three separate subdivisions: the West Curtis Oaks Addition on the north, which dates to 1911, the Curtis Oaks subdivision to the northeast, dating to 1916, and the South Curtis Oaks subdivision on the west, developed in the 1920s.

The West Curtis Oaks Addition and Curtis Oaks subdivisions are examples of transportation-based planned communities, in this case, based on streetcars. Both were developed by J.C. Carly, a prominent pre-WWII developer who lived in the Curtis Park community. Examples of California Bungalow residences and Arts and Crafts residential architecture are located in both subdivisions. This association with streetcars was relatively brief. In the 1940s the streetcars were replaced by busses and the rails in the street rights-of-way were generally, just paved over.

West Curtis Oaks was a development of the Hickman Coleman Company, also prominent city developers in the 1920's and 30's. West Curtis Oaks contains excellent examples of "Small Homes" and "Better Homes" eclectic revival residential architecture of the 1920's.[4]

Existing Cultural Resources

A records search to identify previous cultural resources studies in the project vicinity was conducted by the North Central Information Center of the California Historical Resources Information System. The results of the records search conducted by the North Central Information Center indicate that linear surveys have been conducted around the margins of the site (Billat 2002, Derr 1993, Munns and Turner 2000) and an old survey of a portion of the northern section of the property (Johnson 1974) was conducted. Although environmental studies were performed prior to the beginning of toxics remediation efforts, a cultural resources report is not on file at the Information Center. None of the above surveys recorded cultural resources within the project area. However, the Western Pacific tracks have been recorded elsewhere as CA-SAC-464-H (P-34-491) by Derr in 1995. The Information Center does not have a record of the Curtis Park railyard being recorded or evaluated as an historical resource prior to removal of the facilities.

The *Cultural Resources Assessment* prepared by Peak & Associates, Inc. indicates that evidence of prehistoric or historic archaeological deposits does not exist within the project area.

5.6.2 REGULATORY BACKGROUND

Federal, State, and local governments have developed laws and regulations designed to protect significant cultural resources that could be affected by actions that they undertake or regulate. The National History Preservation Act of 1966 (NHPA) and California Environmental Quality Act (CEQA) are the principal federal and State laws governing preservation of historic and archaeological resources of national, regional, State, and local significance.

State

State historic preservation regulations affecting this project include the statutes and guidelines contained in the California Environmental Quality Act (CEQA; Public Resources Code sections 21083.2 and 21084.1 and sections 15064.5 and 15126.4 (b) of the CEQA Guidelines). CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. An "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript that is historically or archaeologically significant (Public Resources Code section 5020.1). Section 15064.5 of the CEQA Guidelines references the California Register of Historic Resources criteria for evaluating the importance of cultural resources, including:

1) The resource is associated with events that have made a significant contribution to the broad patterns of California history;
2) The resource is associated with the lives of important persons from our past;
3) The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual or possesses high artistic values; or
4) The resource has yielded, or may be likely to yield, important information in prehistory or history.

Advice on procedures to identify such resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR).[5] The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associations and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains.[6]

Senate Bill (SB) 18

Senate Bill 18, signed into law by Governor Schwarzenegger in September 2004, requires cities and counties to notify and consult with California Native American Tribes about proposed adoption of, or changes to, general plans and specific plans for the purpose of protecting Traditional Tribal Cultural Places ("cultural places"). Interim tribal consultation guidelines were published by OPR on March 1, 2005. The proposed project falls under the SB 18 requirements as defined by OPR; therefore, the City of Sacramento has contacted the Native American Heritage Commission and requested consultation.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

City of Sacramento 2030 General Plan

The following City of Sacramento 2030 General Plan goals and policies are applicable to cultural resources:

Identification and Preservation of Historic and Cultural Resources

Goal HCR 2.1 Identify and preserve the city's historic and cultural resources to enrich our sense of place and our understanding of the city's prehistory and history.

Policy HCR 2.1.1 The City shall identify historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) to provide adequate protection of these resources. (PSR)

Policy HCR 2.1.6 The City shall take historical and cultural resources into consideration in the development of planning studies and documents. (MPSP/PSR)

Policy HCR 2.1.10 The City shall minimize potential impacts to historic and cultural resources by consulting with property owners, land developers, and the building industry early in the development review process. (RDR/JP/PI)

Policy HCR 2.1.11 The City shall review proposed new development, alterations, and rehabilitation/remodels for compatibility with the surrounding historic context. The City shall pay special attention to the scale, massing, and relationship of proposed new

development to surrounding historic resources. (RDR)

Policy HCR 2.1.15 The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological, historic, and cultural resources including prehistoric resources. (RDR)

City of Sacramento Preservation Ordinance

Article VIII of Chapter 17.134 of the City Code provides for review of the Sacramento Register eligibility and potential listing of structures on the project sites proposed for demolition that are 50 yeas old, or older.

5.6.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

Cultural resources impacts may be considered significant if the proposed project would result in one or more of the following:

- Cause a substantial change in the significance of a historical or archaeological resources as defined in CEQA Guidelines Section15064.5; or
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Method of Analysis

The Peak & Associates, Inc. report included the results of a literature review and field inspection. The archaeological literature review (file no. SAC-05-145) at the North Central Information Center (NCIC) at Sacramento State University was conducted to locate historic or prehistoric sites inside the proposed project boundaries or in the project area. Additionally, a letter requesting a list of the appropriate Native American contacts was sent to the Native American Heritage Commission on November 21, 2005. In a letter dated November 25, 2005 the Native American Heritage Commission provided the names and contact information for nine tribes and tribal contact persons. Letters requesting comments were sent to the persons identified by the Native American Heritage Commission. As of the time of this writing, March 2009, responses have not been received.

The project area was inspected on foot by Robert Gerry of Peak & Associates. The surface was inspected for evidence of aboriginal occupation and/or use of the area. Typical indicators for this area would include darker than surrounding soils containing evidence of fires (ash, charcoal, fire altered rock), concentrations of stone, bone and/or shellfish remains, and artifacts of these materials. The results of the inspection are presented in the impact discussions below.

The section below evaluates the impacts from the proposed project on the cultural resources that could occur within the project site, by consulting available information in the City of Sacramento 2030 General Plan, the City of Sacramento 2030 General Plan Draft Master EIR, and the *Cultural Resources Assessment* prepared by Peak & Associates, Inc. Based on information in those reports, the standards of significance for cultural resources are identified, and then these standards are applied to the existing conditions to determine the impacts; lastly, mitigation measures are to be proposed, if necessary.

Project-Specific Impacts and Mitigation Measures

5.6-1 Impacts related to the update of the Remedial Action Plan

Currently the site is undergoing remediation activities. Under the current Remedial Action Plan (RAP), contaminated soils are being excavated, disposed of at an appropriately certified landfill, and clean fill dirt is being introduced to return the site to the pre-remediation grade. All on-site buildings, except for a wooden shed of no great age that houses pump equipment, have been removed during remediation activities under the current RAP. Thus, the site does not contain any structures that would qualify as a historical resource. In addition, because the site has been and will continue to be extensively excavated and graded, surface archaeological resources are not likely. However, updates to the RAP to allow other potential remedies would include deeper excavation to capture the additional contaminated soils encountered in 2008. The additional excavation would result in the disturbance of soil beyond that included in the current RAP. The possibility exists that the additional excavation associated with the updated RAP activities could disturb previously unknown archaeological or unique paleontological resources. Therefore, implementation of the remedies included the update of the RAP could result in a ***potentially significant impact***.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a *less than significant* level.

5.6-1(a) In the event that any prehistoric subsurface archeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, animal bone, obsidian and/or mortars are discovered during earth-moving activities, all work within 100 feet of the resource shall be halted, and the City shall consult with a qualified archeologist, representatives of the City and a qualified archeologist shall coordinate to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis and professional museum curation.

5.6-1(b) If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives.

If a Native American archeologist, ethnographic, or spiritual resources are discovered, all identification and treatment shall be conducted by qualified archeologists, who are certified by the Society of Professional Archeologists (SOPA) and/or meet the federal standards as stated in the Code of Federal Regulations (36 CFR 61), and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions.

In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archeological sites are involved, all identified treatment is to be carried out qualified historical archeologists, who shall meet either Register of Professional Archeologists (RPA), or 36 CFR 61 requirements.

5.6-1(c) If a human bone or bone of unknown origin is found during earth-moving activities, all work shall stop within 100 feet of the find, and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have taken place.

5.6-2 Project grading could unearth previously unknown archaeological resources.

Figure 6.4-1, Archaeological Sensitivity, of the Sacramento 2030 General Plan EIR, identifies primary impact areas related to cultural resources in the Sacramento General Plan area. The project area is not identified as a primary impact area for archaeological resources. The 2030 General Plan also does not indicate that the project area is an archaeologically sensitive area, primarily due to the fact that the project site is not located in the northern Sacramento floodplain; nor is the site along any drainageways or other watercourses.

During his site survey, project archaeologist, Robert Gerry of Peak & Associates, Inc. did not identify any prehistoric resources. Additionally, a record search conducted by the North Central Information Center of the California Historical Resources Information System did not reveal any known prehistoric resources on the project site or in the immediate vicinity of the project site.

The discussed in Impact 5.6-1, additional volumes of contaminants were encountered during on-site remediation in 2008, which required an update of the approved 1995 RAP. The proposed project would not be allowed to proceed until the Department of

Toxic Substances Control (DTSC) deems the updated RAP complete. Thus, grading associated with the proposed project would occur after soil has been imported to the site consistent with the updated RAP. Imported soil would not contain any cultural resources. Therefore, a ***less than significant*** impact would result.

Mitigation Measure(s)
None required.

5.6-3 Impacts to the historical character of the Curtis Park neighborhood and possible destruction of historic structures.

The City of Sacramento 2030 General Plan does not identify historical resources within the project area. The only surviving building on the site is a windowless concrete storage shed, which is not of a substantial age. Other than the light rail lines and the remaining switching yard bordering the western edge of the project site, all rails, ties, and other features related to the old railyard have been removed. According to Peak & Associates, Inc., nothing remaining in the area meets the criteria for a historic resource (*Cultural Resources Assessment,* p. 6).

The *Cultural Resources Assessment* prepared by project archaeologist Robert Gerry of Peak & Associates, Inc., determined that the proposed project would not cause direct impacts to any identified historic resource. However, the location is in an area of residences that are more than 50 years old, and which are part of a defined neighborhood of similar architectural styles. Furthermore, in some cases, the residences are of some merit in terms of architectural history. Therefore, indirect effects of the project on the historic setting should also be considered.

Prior to the removal of the railroad facilities, which also were completely out of character for the residential neighborhood, the solution was that the neighborhood basically "turned its back" on the railyards. The only street bordering the facility is Sutterville Road, which includes a line of commercial establishments and an elevated crossing of the railroad mainline. Other than this street, the railroad property abutted the backyards of surrounding residences that faced streets built one lot-length away from the railroad. Given the lush landscape that developed in the area, the railyard was minimally visible from the streets of the existing Curtis Park neighborhood.

If the project is constructed as planned, the railroad and light rail lines continuing in use will buffer the area on the west and Sutterville Road will still be commercial and elevated on the south. The north and east sides of the development will continue to abut people's back yards and be relatively hidden from neighborhood streets. The only difference will be added access to Curtis Park Village from the surrounding residential streets. The access points will be few and the plans do not call for wide, attention-grabbing entries that would significantly alter the feeling of the surrounding area. Additionally, Design Guidelines for the proposed project indicate that the proposed housing units "should complement the massing scale, proportion, material, texture, and level of craft that distinguishes the architectural character of Curtis Park" (*Design Guidelines for Curtis Park Village PUD: Pattern Book,* p. 8).

Because historic features do not exist on the project site, and because the project design guidelines promote consistency with the historical integrity and character of the surrounding Curtis Park homes, impacts on the historic character of the Curtis Park neighborhood would be ***less than significant.***

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

5.6-4 Disturbance or destruction of previously unknown archaeological resources in combination with other development in the Sacramento area.

Buildout of approved and planned uses within the City has the potential to uncover previously unknown resource sites. Each site is a unique contributor to the overall scientific understanding of a region's pre-history. Evaluation of cultural finds and resources within their original context is a critical component of their value. Disturbance, movement, and destruction of such resources would remove or preclude the analysis of the resource within the original context and therefore adversely affect the understanding of the development of human cultural history. Increased population and intensified land use patterns associated with cumulative growth could also increase the potential for vandalism and/or inadvertent destruction of such resources. Consequently, the *Sacramento 2030 General Plan EIR* found that cumulative development would create a potentially significant impact to cultural resources that could be mitigated to a less than significant level with implementation of certain mitigation measures.

The field inspection by Peak & Associates, Inc. did not find evidence of prehistoric or archaeological deposits on the site. Furthermore, as discussed above, the extensive ground disturbance associated with remediation of the site has not unearthed any archaeological resources. Therefore, the project would occur on a location that would not have any unidentified cultural resources, and the project's incremental contribution to the cumulative loss of cultural resources would not be cumulatively considerable. As a result, the proposed project would have a ***less than significant*** cumulative impact on cultural resources.

Mitigation Measure(s)
None required.

Endnotes

[1] City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
[2] City of Sacramento, *Sacramento 2030 General Plan Master EIR*, March 2009.
[3] Peak & Associates, Inc., *Cultural Resources Assessment of the Curtis Park Village In-Fill Project, Sacramento, California.* November 16, 2005.
[4] Sierra Curtis Neighborhood Association website, http://www.sierra2.org/scna_info/scna.html, accessed May 2008.
[5] State of California, Governor's Office of Planning and Research, *CEQA and Archaeological Resources*, 1994.
[6] California Health and Safety Code Section 7050.5, California Public Resources Code Sections 5097.94 *et seq.*

5.7 GEOLOGY AND SOILS

5.7 GEOLOGY AND SOILS

5.7.0 INTRODUCTION

The Geology and Soils chapter of the EIR analyzes the effects of the proposed Curtis Park Village project upon soils and geology within the project area. Much of the analysis focuses on the potential for erosion of topsoil during construction and the effect that expansive soils would have on the proposed development. Information in this chapter is drawn from the *Sacramento 2030 General Plan*,[1] the *Sacramento 2030 General Plan Master EIR*,[2] the *Final Remedial Action Plan, Union Pacific Railroad Yard, Sacramento, California*,[3] *Preliminary Earthwork Recommendations* performed by ENGEO Inc.,[4] and the Soil Survey of Sacramento County, California.[5]

Pertinent comments received in response to the original Notice of Preparation (NOP), the revised NOP, second revised NOP, and the associated NOP scoping meetings for the proposed project have been integrated into the analysis. Concerns related to pollutants in onsite soils are addressed in Chapter 5.8, Public Health and Hazards, of this Draft EIR.

5.7.1 EXISTING ENVIRONMENTAL SETTING

The following background setting information focuses on the existing topography of the project site, the underlying bedrock, and site seismicity, as well as the general conditions and expansiveness of the on-site soils.

Regional Geology

The City of Sacramento is located in the Great Valley geomorphic province of California. The Great Valley is generally considered less seismically active than other areas of California. The majority of significant, historic faulting (and groundshaking) in the vicinity of Sacramento has been generated along distant faults. Sacramento is surrounded by several faults in the San Andreas fault system to the west and the Eastern Sierra fault system to the east. A series of faults also run along the eastern base of the foothills west of the City.

The Alquist-Priolo Special Studies Zone Act of December 1972 (AP Zone Act) regulates development near active faults so as to mitigate the hazard of surface fault rupture. The AP Zone Act requires that the State Geologist (Chief of the California Department of Mines and Geology [CDMG]) delineates "special study zones" along known active faults in California. Cities and counties affected by these zones must regulate certain development projects with these zones. The AP Zone Act prohibits the development of structures for human occupancy across the traces of active faults. According to the AP Zone Act, "active faults" have experienced surface displacement during the last 11,000 years. "Potentially" active faults are those that show

evidence of surface displacement during the last 1.6 million years. A fault may be presumed to be inactive based on satisfactory geologic evidence; however, the evidence necessary to prove inactivity sometimes is difficult to obtain and locally may not exist.

Known faults do not exist within the greater Sacramento region and Planning Area identified in the Sacramento 2030 General Plan Master Draft EIR. The current EIR (page 6.5-2) indicates that ground shaking has and will occur periodically in Sacramento as a result of distant earthquakes. Sacramento is in an area of relatively low severity and the maximum earthquake intensity expected between VII and VIII on the Modified Mercalli Intensity Scale. Buildings in the City are at varying degrees of risk for damage during such earthquakes. The 2030 General Plan further states that the earthquake resistance of any building is dependent upon an interaction of seismic frequency, intensity and duration with the structure's height, condition, and construction materials.

Project Site Geology

The Curtis Park Village site was used as a railyard from the early 1900's until operations were discontinued in 1983. Petrovich Development Company purchased the 72-acre site from the Union Pacific Railroad and has been operating under a Remedial Action Plan (RAP) from the State of California Department of Toxic Substance Control (DTSC) for site cleanup. The cleanup process includes, among other things, excavation and removal of a depth of four to 20 feet of contaminated soil across much of the southern and eastern portions of the project site. The RAP requires excavated areas to be restored to original grade with compacted engineered fill. Because the project site is currently undergoing remediation for soil contamination that resulted from railroad operations on the site, pursuant to the RAP, numerous excavation pits and stockpile berms currently exist throughout the site. The remediation of the site will be complete prior to development of the Curtis Park Village project.

Soil Conditions

Soils within the project area are underlain by Pleistocene Alluvium of the Victor Formation and Holocene Floodplain Deposits, which form a broad plain between the Sacramento River and the foothills of the Sierra Nevada mountains. The Soil Survey of Sacramento County, California published by the US Department of Agriculture, Soil Conservation Service (1993) refers to the near-surface soils within the project area as belonging to the San Joaquin-Urban Land Complex soil series. The soils are described as silty loams with low strength and a high shrink-swell (expansion) potential.

Site Seismicity

A fault is defined as a fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side. A fault zone is a zone of related faults that commonly are braided and subparallel, but may be branching or divergent. Movement within a fault causes an earthquake. When movement occurs along a fault, the energy generated is released as waves which cause groundshaking. Groundshaking intensity varies with the

magnitude of the earthquake, the distance from the epicenter, and the type of rock or sediment the seismic waves move through.

The project site is not within an Alquist-Priolo Earth Quake Fault Zone. However, ground shaking has and will occur periodically in Sacramento as a result of distant earthquakes. The potential damage from seismic activity would be minimal due the project site location and the project proponent abiding by adopted City and State building standards.

Subsurface Conditions

ENGEO Inc. did not perform a subsurface exploration of the project site, due to access constraints and environmental considerations related to the current remediation activities. Instead, ENGEO Inc. conducted a review of available data relevant to the proposed project site, including subsurface explorations conducted by Dames and Moore for the RAP. Between 1988 and 1995, Dames and Moore explored the site with over 500 subsurface explorations. The explorations conducted by Dames and Moore included backhoe test pits and drilled borings; borings were drilled to a maximum depth of 150 feet. Dames and Moore generally characterized the site as consisting of fill from 0 to two feet over the majority of the site, although in the northern half of the site, fill can extend down to 12 feet. Beneath the fill, silt clay and clayey silt are dominant down to 25 feet, with a hardpan layer near the surface over much of the site. Below 25 feet, interbedded sands, silts and clays extend down to 150 feet which is the maximum depth explored by Dames and Moore.

Groundwater Conditions

Groundwater was observed by Dames and Moore in a number of exploration locations. Dames and Moore generally described groundwater as 25 to 30 feet below ground surface level and generally two feet below mean sea level in the northeast corner of the site, and up to eight feet below sea level in the southeast corner. Dames and Moore reported that groundwater beneath the project site flows to the southeast.

5.7.2 REGULATORY BACKGROUND

The following is a description of federal, State, and local environmental laws and policies that are relevant to the California Environmental Quality Act (CEQA) review process.

State

California Building Standards Code / Uniform Building Code

Site development and design are regulated in the State of California by the California Building Standards Code (CBC), based on the federal Uniform Building Code (UBC) and suited to the unique sensitivity of the state's geology and faultlines. CBC and UBC regulations must be adhered to with regard to expansive soils, drainage, erosion, earthquake resistance, and required safety measures during on-site development.

Geologic and soils conditions would also determine the proper installation of underground communications and utility lines.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

City of Sacramento 2030 General Plan

The following City of Sacramento 2030 General Plan goals and policies are applicable to geology and soils:

Section EC – Seismic and Geologic Hazards

Goal EC 1.1 Protect lives and property from seismic and geologic hazards and adverse soil conditions

Policy EC 1.1.1 The City shall regularly review and enforce all seismic and geologic safety standards and require the use of best management practices (BMPs) in site design and building construction methods. (RDR)

Policy EC 1.1.2 The City shall require geotechnical investigations to determine the potential for ground rupture, ground-shaking, and liquefaction due to seismic events, as well as expansive soils and subsidence problems on sites where these hazards are potentially present. *(RDR)*

City of Sacramento Grading, Erosion, and Sediment Control Ordinance

The City Grading, Erosion, and Sediment Control Ordinance (Title 15, Chapter 15.88 of the City Code) sets forth rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from construction activities. With limited exceptions, grading approval must be received from the City Department of Utilities before construction. All project applicants, regardless of project location, are required to prepare and submit separate erosion and sediment control plans applicable to the construction and post-construction periods. The Ordinance also specifies other requirements, such as written approval from the City for grading work within the right-of-way of a public road or street, or within a public easement.

5.7.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

An impact on the geology of the Curtis Park Village project would be considered significant if any of the following conditions would result from the proposed project implementation:

- Exposure of people or structures to substantial, adverse effects as a result of strong groundshaking, seismic-related ground failure, liquefaction, lateral spreading, landslides, or lurch cracking;
- Substantial erosion or unstable slope or soil conditions through alteration of topographic features, dewatering, or changes in drainage patterns; or
- Exposure of people, structures, or infrastructure components to increased risk of injury or damage due to the presence of expansive soils, soil settlement/compaction, or other geotechnical constraints.

Based on the analysis in the Initial Study (Appendix C), some potential impacts were determined to be less than significant, and thus were not analyzed in this EIR. Those impacts included the potential for landslides (because the site is relatively flat), and the capability of the soils for supporting septic tanks (because a septic systems is not proposed). Impacts related to mineral resources in the area were also determined to be less-than-significant.

Method of Analysis

The analysis for the proposed Curtis Park project is based on the Final Remedial Action Plan for Union Pacific Railroad Yard, the City of Sacramento 2030 General Plan, the City of Sacramento 2030 General Plan Master Draft EIR, and the Soil Survey of Sacramento County, California.

Project-Specific Impacts and Mitigation Measures

5.7-1 Impacts related to the update of the Remedial Action Plan.

The current Remediation Action Plan (RAP) requires that, once remediation activities are complete, clean fill be brought in to return the project site to the grade existing at the time the remediation activities began. However, due to the extent of the contamination on the site, additional excavation is required, beyond that assumed in the current RAP. The amount of clean fill assumed in the current RAP would not be enough to return the project site to the original grade. The additional imported fill must adhere to recommendations provided within the Preliminary Earthwork Recommendations prepared by ENGEO Inc. to ensure people or structures are not exposed to substantial adverse effects of or lateral spreading, or injury from the presence of expansive soils, soil settlement/compaction, or other geotechnical constraints. Recommendations prepared by ENGEO Inc. apply to the current RAP and any potential additional fill required by the updated RAP.

Updates to the RAP to allow other potential remedies would not expose people or structures to substantial, adverse effects of groundshaking, seismic-related ground failure, landslides, or lurch cracking in excess of what was previously analyzed for the current RAP. In addition, the updated RAP would return the site to pre-remediation grade; therefore the addition of potential remediation remedies would not result in substantial erosion or unstable slope/soil conditions through alteration of the site, dewatering, or changes to the drainage pattern. Therefore, the proposed project could result in a *potentially significant* impact.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce impacts related to unstable and expansive soils a ***less than significant*** level.

5.7-1(a) *At least 72 hours prior to the placement of imported fill, the applicant shall have the potential fill inspected by a qualified geotechnical consultant to ensure that all fill being used for fills less than five feet below design grade have a plasticity index of less than or equal to 12, and that all soils are clean and free of deleterious materials, organic materials, and shall not contain particles greater than six inches in size. The results of the geotechnical analysis shall be submitted to the City Engineer prior to placement of fill.*

5.7-1(b) *Prior to placement of imported fill, the applicant shall have the excavation surface inspected by a qualified geotechnical consultant to ensure the stability of the excavation bottom. Should the site be found to be unstable or contain loose or deleterious materials, the applicant shall perform required mitigation as identified by the geotechnical consultants and approved by the City Engineer. Mitigation for unstable fill could include, but is not limited to the following:*

- *Restrict fill activities to occur when the excavation bottom is dry and stable during warm weather; or*
- *Require that the placement of geotextile fabric be placed prior to granular import fill. The geotextile fabric would be required to be Mirafi 600X or equivalent. Granular fill would consist of well-graded crushed materials, such as Class 2 aggregate base of Caltrans Standard Specifications, but may also consist of other granular imported materials. Uniform crushed rock may be used as a stabilizing layer provided that the crushed rock is completely wrapped in the geotextile fabric.*

5.7-2 Impact of seismic activity on the proposed Curtis Park Village development.

As previously noted, due to the seismic activity in the State, construction is required to comply with Title 24 of the Uniform Building Code (UBC). The UBC contain standards to ensure that structures and infrastructure are constructed/installed to minimize the impacts from seismic activity to the extent feasible including exposure of people or

structures to substantial, adverse effects as a result of strong groundshaking, seismic-related ground failure, liquefaction, lateral spreading, landslides, or lurch cracking. Minor damage may occur, including the cracking of walls, and masonry veneers; and the severing of water, natural gas, and wastewater pipes. As a result, seismic activity in the area of the proposed development would not expose people or structures to substantial, adverse effects as a result of strong ground shaking and seismic-related ground failure. This impact is considered ***less than significant***.

Mitigation Measure(s)
None required.

5.7-3 Impacts related to loss of structural support due to potential liquefaction.

Liquefaction is a phenomenon whereby loose, saturated, granular soil deposits lose a significant portion of their shear strength due to excess pore water pressure buildup resulting from cyclic loading, such as that caused by an earthquake. Among other effects, liquefaction can result in densification of such deposits (and hence settlements of overlying deposits) after an earthquake as excess pore water pressures are dissipated. The primary factors affecting liquefaction potential of a soil deposit include: (1) level and duration of seismic ground motions; (2) soil type and consistency; and (3) depth to groundwater. Soils most susceptible to liquefaction are saturated, loose, sandy soils.

As discussed in Impact 5.7-1, clean import fill would be brought in to the site. In addition, Mitigation Measure 5.7-1(a) and 5.7-1(b) ensure that the imported fill is not susceptible to liquefaction. Furthermore, according to the approved Final Remedial Action Plan (p. 20) for the Curtis Park Village Project, groundwater is 25 to 35 feet below the surface of the site. Therefore, even if soils susceptible to liquefaction were present on the site, the depth to groundwater is sufficient such that the soils would not be saturated, and thus would not fail due to liquefaction. As a result, the impact from the loss of structural support due to potential liquefaction is considered to be ***less than significant***.

Mitigation Measure(s)
None required.

5.7-4 Impacts related to substantial erosion or unstable slope or soil conditions through alteration of topographic features, dewatering, or changes in drainage pattern.

The development of the proposed project would not start until the completion of the RAP. Mass grading will be completed on the proposed site prior to the development of the project. The proposed project site is currently undergoing reclamation and recovery activities to remove soil contamination associated with the site's prior uses as a railroad yard. The reclamation program includes the removal of contaminated soils and would necessitate the importation of replacement fill. Because the replacement fill associated with reclamation of the project site would be loose soil without existing vegetation or development to discourage the loss of soil through erosion, the construction-related

impacts associated with the potential for soil erosion and the loss of topsoil on the project site would be significant.

Potential erosion impacts is discussed and analyzed within Chapter 58, Public Health and Hazards. However, under the City Grading, Erosion, and Sediment Control Ordinance (Title 15, Chapter 15.88 of the City Code), the proposed project must adhere to rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from construction activities to minimize substantial erosion. The proposed project must prepare and submit an erosion and sediment control plan applicable to the construction and post-construction period for the City Department of Utilities approval. After construction, the drainage pattern would be consistent to the drainage pattern prior to construction activity and would not result in erosion, allowing water activities to be directed into storm drainages. As a result, the operational uses of the project site would not result in alteration of topographic features, dewatering, or changes in drainage patterns, substantial erosion, and unstable slope or soil conditions would not occur. Therefore, impacts would be considered ***less than significant***.

Mitigation Measure(s)
None required.

5.7-5 Damage to foundations, pavements, and other structures from expansive soils.

Following the removal of contaminated soil in accordance with the updated RAP, soils on the project site would be replaced with clean imported fill. The proposed project would not be developed until after the updated RAP is deemed complete. Adverse impacts to buildings and roadways could occur if the imported fill dirt does not meet engineering standards identified in the RAP and required in Mitigation Measure 5.7-1(a) and 5.7-1(b). Mitigation Measure 5.7-1(a) and 5.7-1(b) ensure that the imported fill soils are of the plasticity or consistency required for stability, and the excavation bottom is cleared properly. Therefore, a ***less than significant*** impact with regard to soil stability would result.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

The continuing buildout of developments in the City of Sacramento and surrounding areas would be expected to increase the need for surface grading and excavation, and, therefore, increase the potential for impacts related to soil erosion, unforeseen hazards, and exposure of people and property to earthquakes.

5.7-6 The proposed project would contribute to the continuing buildout of Sacramento and surrounding areas, and would combine with existing and future developments to increase the potential for related geological impacts and hazards.

The proposed project would increase the number of people and structures that could be exposed to potential effects related to seismic hazards. Development of the proposed project would also increase the number of structures that could be subject to the effects of expansive soils. Site preparation would also result in temporary and permanent topographic changes that could affect erosion rates or patterns. However, potentially adverse environmental effects associated with seismic hazards, as well as those associated with geologic or soils constraints, topographic alteration, and erosion, are usually site-specific and generally would not combine with similar effects that could occur with other projects in Sacramento. Furthermore, all projects would be required to comply with the UBC, the City of Sacramento's ESC, and other applicable regulations. Consequently, the proposed project would generally not be affected by, nor would it affect, other development approved by the City of Sacramento. Therefore, the impact would be considered ***less than significant***.

Mitigation Measure(s)
None required.

Endnotes

[1] City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
[2] City of Sacramento, *Sacramento 2030 General Plan Master EIR*, March 2009.
[3] Dames & Moore, *Final Remedial Action Plan, Union Pacific Railroad Yard, Sacramento, California*, June 1995.
[4] ENGEO Inc., *Preliminary Earthwork Recommendations*, October 24, 2007.
[5] United States Department of Agriculture, Soil Conservation Service, *Soil Survey of Sacramento County, California*, April 1993.

5.8 PUBLIC HEALTH AND HAZARDS

5.8 PUBLIC HEALTH AND HAZARDS

5.8.0 INTRODUCTION

The Public Health and Hazards chapter of the EIR assesses the potential for hazardous materials to exist on or near the Curtis Park Village project site, the potential hazards associated with the proposed remedies that may result from proposed changes to the Department of Toxic Substances (DTSC) approved Remediation Action Plan (RAP), as well as the development and operation of the Curtis Park Village project. This analysis assumes the full implementation of the existing RAP. This chapter provides general information on hazardous materials and reviews existing information about such materials in the project area. Additionally, potential impacts are identified based on the City's standards of significance and mitigation measures are identified, as appropriate. Information for this analysis is drawn from the *Sacramento 2030 General Plan*,[1] the *Sacramento 2030 General Plan Master EIR*,[2] and the *Final Remedial Action Plan, Union Pacific Railroad Yard, Sacramento, California*.[3]

Comments provided on the Notice of Preparation (NOP), the revised NOP, and the related scoping meetings related to potential exposure of persons in the project vicinity to contaminated soil, as well as comments related to exposure of residents to rail-line hazards, are addressed in Impact Statements 5.8-1, 5.8-2, and 5.8-3.

5.8.1 EXISTING ENVIRONMENTAL SETTING

Public health is potentially at risk wherever hazardous materials are stored or used. A necessary distinction exists between the "hazard" of these materials and the acceptability of the "risk" they pose to human health and the environment. A hazard is any situation that has the potential to cause damage to human health and the environment. The risk to public health is determined by the probability of exposure and the inherent toxicity of a material. When the risk of an activity is judged acceptable by society in relation to perceived benefits, then the activity is judged to be safe. Factors that could influence the health effects of exposure to hazardous materials include the dose to which the person is exposed, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person's body) and the individual's unique biological susceptibility.

Existing On-Site Uses

At one time, the proposed project site was the Sacramento railyard and operations center for the Western Pacific Railroad (WPRR); however, railroad operations do not currently occur on the project site. The project site is currently vacant and is undergoing remediation.

Existing Surrounding Sensitive Receptors

Some land uses are more sensitive to hazards and hazardous materials than others due to the uses' susceptibility to health risks and hazards. Residences, schools, churches, hospitals, and nursing homes are generally more sensitive to hazards and hazardous materials than are roadways and commercial and industrial land uses. Sensitive land uses in the project vicinity include residential areas on all sides, Sacramento Children's Home to the southeast, and C.K. McClatchy High School to the northwest (See Figure 5.8-1).

Site History

The proposed project site was identified as a superfund site and as part of the State Superfund process a Remedial Action Plan (RAP) was originally prepared and approved by the California Department of Toxic Substances Control (DTSC) in 1995.

In addition, the UPPR preformed a Health Risk Assessment (HRA) of the project site to evaluate the potential for adverse human health and environmental effects. However, the HRA did not identify long term risks following remediation of the site.

1995 Remedial Action Plan

The 1995 RAP includes the removal of 0.5 acres of asbestos-impacted soil, removal of 14,500 tons of slag, and installation of a groundwater treatment system. Remedial measures implements between 1995 and 2007 include on-and off-site groundwater remediation and excavation and off-site disposal of over 111, 568 tons of soil. It should be noted that in 2007 the majority of the project site was remediated to the limits of the 1995 RAP. The 1995 RAP also approved alternate cleanup levels for lead and arsenic that would be suitable for restricted-use development. Areas where restricted-use cleanup levels are implemented would preclude single-family residences and other potentially sensitive uses (parks/open space)

On-Site Hazards

The following discussion includes a description of the on-site hazards related to the RAP activities and the Curtis Park Village project.

RAP Activities

In 2008, subsequent sampling indicated that additional remediation would be required, which would result in a substantially larger amount of contaminated soil on the site being as opposed to what was previously anticipated. To continue the process of cleaning the site, the project applicant is working with the DTSC to revise the 1995 RAP. Full implementation of the existing RAP would not remediate all contamination due to supplemental investigations that demonstrated contaminated soils were more extensive than had been estimated. The proposed remedies could include the identification of a location on the project site for a containment "cell" that would enable hazardous material laden soils to be encapsulated on site.

Figure 5.8-1
Surrounding Land Uses

It should be noted that locating encapsulated contaminated soils within the neighborhood park area of the project would necessitate relocation of the project's stormwater detention/retention facility; however, the park uses could remain the same as currently proposed. While containment was not included in the original RAP, the remedy is consistent with other remediation efforts in California, and is one of the methods proposed for the Railyards project in Downtown Sacramento. In addition, the Revised RAP could include revisions to the required clean-up levels for hazardous materials known on the site to be consistent with current standards.

Curtis Park Village

Prior to development of the Curtis Park Village project, the site remediation would be completed to DTSC standards, pursuant to the updated RAP. Therefore, the future residents of the Curtis Park Village project would not be exposed to contaminated soils or groundwater. However, the Union Pacific Railroad (UPRR) tracks form the western boundary of the project site. Current train operations on these tracks consist of approximately 20 trains per day; therefore, the potential of a train derailment exists. The National Transportation Safety Board has indicated that derailed rail cars may travel up to 100 feet.

It should be noted that railroad operations continue, and will continue for the foreseeable future, on land still owned by UPRR to the immediate west of the project site. The remaining railroad operations that occur on this property consist of north/south rail mainlines and a switch area operated by the UPRR, as well as a dual track light rail transit facility and two stations operated by Sacramento Regional Transit. All of these facilities run along the entire western property line of the project site and separate the Curtis Park Village area from the Land Park neighborhood and Sacramento City College.

5.8.2 REGULATORY BACKGROUND

The term hazardous substance refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if designated on the hazardous materials list prepared by a federal, state or local regulatory agency or having characteristics defined as hazardous by such an agency.

Pursuant to California Health and Safety Code Section 25141(b), the California Environmental Protection Agency, Department of Toxic Substances Control (CAL-EPA, DTSC) has defined hazardous waste as waste or combinations of waste which, due to its quantity, concentration, or physical, chemical, or infectious characteristics:

> (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.

Many agencies regulate hazardous substances. The following discussion contains a summary review of regulatory controls pertaining to hazardous substances, including federal, state and local laws and ordinances.

Federal Regulations

Federal agencies that regulate hazardous materials include the Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health (NIH). The following federal laws and guidelines govern hazardous materials:

- Federal Water Pollution Control Act (Clean Water Act or CWA);
- Clean Air Act (CAA);
- Occupational Safety and Health Act;
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA);
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA);
- Guidelines for Carcinogens and Biohazards;
- Superfund Amendments and Reauthorization Act Title III;
- Resource Conservation and Recovery Act (RCRA);
- Safe Drinking Water Act; and
- Toxic Substances Control Act.

Prior to August 1992, the principal agency at the federal level regulating the generation, transport and disposal of hazardous waste was the EPA under the authority of the RCRA. As of August 1, 1992, however, the California Department of Toxic Substance Control (DTSC) was authorized to implement the State's hazardous waste management program for the EPA. The federal EPA continues to regulate hazardous substances under CERCLA, the CWA, and the CAA.

State Regulations

The California Environmental Protection Agency (Cal-EPA) and the State Water Resources Control Board (SWRCB) establish rules governing the use of hazardous materials and the management of hazardous waste. Applicable State and local laws include the following:

- Public Safety/Fire Regulations/Building Codes;
- Hazardous Waste Control Law;
- Hazardous Substances Information and Training Act;
- Air Toxics Hot Spots and Emissions Inventory Law;
- Underground Storage of Hazardous Substances Act; and
- Porter-Cologne Water Quality Control Act.

Within Cal-EPA, DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the management of hazardous materials and the generation, transport and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL).

In addition to the above regulations, SB 120 prohibits DTSC from making an official determination that the response action for the project site (referred to as the site at 3675 Western Pacific Avenue in SB 120) is complete, including, but not limited to, issuing a certification, a no further action letter, or a closure letter, or entering into a settlement or release of liability, until the City of Sacramento has completed the land use planning process and all response action necessary to conform to the approved land use plan are complete.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The following goals and policies from the recently adopted Sacramento 2030 General Plan are applicable to public health and hazards:

Public Health and Safety Element

Goal PHS 3.1 Reduce Exposure to Hazardous Materials and Waste. Protect and maintain the safety of residents, businesses, and visitors by reducing, and where possible, eliminating exposure to hazardous materials and waste.

Policy PHS 3.1.1 Investigate Sites for Contamination. The City shall ensure buildings and sites are investigated for the presence of hazardous materials and/or waste contamination before development for which City discretionary approval is required. The City shall ensure appropriate measures are taken to protect the health and safety of all possible users and adjacent properties.

Policy PHS 3.1.2 Hazardous Material Contamination Management Plan. The City shall require that property owners of known contaminated sites work with Sacramento County, the State, and/or Federal agencies to develop and implement a plan to investigate and manage sites that contain or have the potential to contain hazardous materials contamination that may present an adverse human health or environmental risk.

Policy PHS 3.1.4 Transportation Routes. The City shall restrict transport of hazardous materials within Sacramento to designated routes.

5.8.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

In accordance with CEQA, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. An EIR is required to focus on these effects and offer mitigation measures to reduce or avoid any significant impacts that are identified. The criteria, or standards, used to determine the significance of impacts may vary depending on the nature of the project. For the purposes of the EIR, an impact is considered significant if the proposed project would:

- Substantially increase the risk of exposure of construction workers to contaminated soils during site development;
- Substantially increase the risk of exposure of future occupants to contaminated soils;
- Expose occupants to a substantial, unmitigated risk of exposure to contaminated soil or groundwater due to phased development and/or ongoing remediation efforts;
- Expose construction workers, occupants, and/or site visitors to unmitigated hazards associated with the presence of hazardous substances (e.g., asbestos, lead, PCBs, etc.) in buildings that would be renovated and/or restored;
- Substantially increase the risk of exposure of site occupants to inadvertent or accidental releases of hazardous substances to the environment from non-residential uses during project occupancy; and/or
- Substantially increase the risk of exposure of site occupants to inadvertent or accidental releases of hazardous substances transported on adjacent roadways and rail lines within the project area.

Method of Analysis

Site conditions and impact assessments for this chapter are partially based on the *Final Remedial Action Plan* prepared for the project site by Dames and Moore in 1995. The format and contents of the *Remedial Action Plan* are consistent with the DTSC guidance provided in Official Policy/Procedure No. 87-2 dated October 5, 1987. The *Remedial Action Plan* is one part of the State Superfund cleanup process. In addition, Environmental Resources Management provided technical consultation services with regard to hazardous materials. The significance of impacts is identified using above standards of significance. It should be noted that all potential remedies contemplated for inclusion in the updated RAP are addressed in the following analysis. Following approval of the EIR by the City of Sacramento, the updated RAP would be submitted to the DTSC for review. The DTSC would review the Curtis Park Village EIR to ensure that all of the environmental impacts have been adequately addressed, as they pertain to the remediation remedies proposed in the updated RAP, and the draft updated RAP would be circulated for public review for a minimum of 30 days (separate from the CEQA public review required for the Curtis Park Village EIR). Following the RAP public review, the Final RAP would be prepared. The DTSC-approved Final RAP would include detailed descriptions of the remedial actions that would be undertaken, and would incorporate public comments received during the review of the draft updated RAP.

Project-Specific Impacts and Mitigation Measures

5.8-1 Impacts related to the update of the Remedial Action Plan.

As described above, additional volumes of contaminated soil were discovered during supplemental investigations, completed in December 2008. The additional volumes of the remaining on-site chemicals would require an update to the existing RAP to reflect the additional volume and proposed remediation remedies. However, because specific remediation methods would not be determined in the updated RAP by DTSC until after approval of the DEIR, this section analyzes the impacts of all potential remediation methods.

The remaining chemicals present in the project area soils mainly fall into the following categories:

- Metals;
- Petroleum Hydrocarbons; and
- Semivolatile Organic Compounds (SVOCs).

Although there is some overlap among these categories, typically each category possesses characteristics that influence where the chemicals are likely to be found given their mobility in the environment. The following discussion describes the sources, distribution, and potential remediation methods of these types of chemicals, which are evaluated in this analysis.

Metals

The supplemental investigations have demonstrated that arsenic (and to a lesser degree other heavy metals) is fairly pervasive throughout the site, while chemicals within the other categories are present at elevated levels only in localized areas.

Extent of Contamination

Arsenic is found in portions of the site in the surface soils, and is mostly located in the upper 1.5 feet of soil. The relative immobility of arsenic means that the metal generally remains where it was deposited in the soil. Thus, concentrations of arsenic on the site tend to be highest at the surface, where industrial activities occurred. Concentrations generally decrease with depth, with exceptions where cleaner fill was placed on top of contaminated soils, or where contaminated material was buried.

Arsenic, which is the primary heavy metal of concern, is not mobile in soils under most conditions because it exists in or forms insoluble compounds. Monitoring results indicate that arsenic has not degraded groundwater quality. However, pursuant to the existing RAP, ongoing groundwater monitoring will continue after remediation of the site is complete in order to ensure that groundwater quality is not compromised.

Potential Remediation Methods

Because of the relative immobility of arsenic, cleanup of arsenic in the soil is less problematic than cleanup of chemicals that easily migrate into groundwater. As noted above, specific remediation measures would be determined at a later date, but all are included in this analysis. Soil cleanup for arsenic usually involves one or more of the following approaches:

- Removing the impacted soil from the site by excavation followed by disposal or treatment of the excavated soil;
- Encapsulation, by creating a barrier to prevent human contact by construction of a barrier or cap; and/or
- Rendering the arsenic immobile or inert by in-situ stabilization to prevent migration and leaching into groundwater.

Petroleum Hydrocarbons

Hydrocarbons in soil and groundwater are of limited extent, and consist of petroleum products such as diesel and lubricating oils. The presence of these compounds in the soil and groundwater is due primarily to leaks from storage tanks and spills.

Extent of Contamination

Soils containing hydrocarbons have been found at limited locations throughout the project site. The contamination locations exist where the past railyard uses stored fuel tanks and staged fueling areas.

Potential Remediation Methods

Cleanup of hydrocarbons in soil can be accomplished through a variety of means, including:

- Excavation and off-site disposal;
- Encapsulation onsite within or below a barrier or cap; and/or
- In-situ chemical oxidation and other similar methodologies.

Hydrocarbons in groundwater, if any are found, can be removed through extraction and treatment, in-situ treatment, or natural biodegradation. The treatment of groundwater is included in the existing RAP.

Semivolatile Organic Compounds (SVOCs)

The SVOCs most commonly detected at elevated levels at the site are polynuclear aromatic hydrocarbons (PAHs), which are ordinarily formed as incomplete products of combustion of organic materials such as coal or oil. Most PAHs are only slightly unstable under normal conditions and are strongly adsorbed to soils, meaning they tend to adhere

to the surface of the soil, rather than entering into its deeper structure. Thus, they are relatively immobile in the environment and stay close to where they were initially discharged.

Extent of Contamination

Within the project area, PAHs are generally widespread in shallow soil.

Potential Remediation Methods

High molecular weight PAHs are relatively immobile and typically are found in the top few feet of soil. The methods used to clean up metals can also be applied to these chemicals. Applicable methods include:

- Excavation and off-site disposal;
- Encapsulation, by creating a barrier to prevent human contact by construction of a barrier or cap (provided groundwater is adequately protected and direct access is not possible); and/or
- In-situ treatment (chemical fixation/stabilization) or biodegradation.

Impact Discussion of Excavation and Off-site Disposal Remedy

Personnel involved in on-site activities prior to the completion of the site remediation are trained in accordance with the Occupational Safety and Health Act, participate in a medical surveillance program, and are equipped with personal protective equipment as specified in the Site Health and Safety Plan. Workers are checked frequently during site work to verify compliance with the Site Health and Safety Plan. Under the existing RAP, excavation and off-site disposal of the on-site contaminated soils, utilizing designated haul routes for hazardous materials, is currently being implemented for the above chemicals. Therefore, with implementation of this remedy for the additional volumes encountered, the update of the RAP would result in additional excavation and truck trips to remove the contaminated soil and import clean fill. Thus, because the same regulations and training requirements for the on-site workers conducting the current remediation activities would be required, the additional volumes would not result in increased risk of exposure of workers to contaminated soils or accidental releases of substances transported on adjacent roadways. It should be noted that the additional volumes of contaminants would be removed via truck, not rail. The presence of additional volumes of contaminated soil creates the potential for an increased risk of exposure of future site occupants to contaminated soils or groundwater. However, the implementation of the remedies included in the RAP update and addressed in this chapter would ensure the on-site contaminants are cleaned to DTSC standards. Furthermore, the additional hauling required under this remedy would utilize the same haul routes and be subject to the same laws and regulations as the current site remediation. As a result, impacts related to public health and hazards resulting from the excavation and off-site disposal remedy would be *less than significant*.

Impact Discussion of On-site Encapsulation and In-Situ Stabilization Remedies

Consolidation involves excavation of target soils and placement in a designated location specifically designed to accommodate the soils. In-situ stabilization involves chemically treating the contaminated soils rendering the soils inert. The treatment of the soils would change the chemical makeup of the soil particles such that the contaminant of concern would be stabilized (i.e., cleaned) to DTSC standards. Encapsulation involves the placement of a membrane over the contaminated soils, which is then covered by clean soil, typically to a minimum of two feet thick. The design of the cap is determined through the scientific processes of DTSC as part of the approval of the updates to the RAP. Because the fill is clean, restrictions on land use above the cap are not required. However, any excavation that would go deeper than the membrane would require workers trained in dealing with contaminated soils, and excavated soils would have to be disposed of at an approved facility. As a result, areas containing encapsulated soils require the establishment of long-term agreements with DTSC that identify the process for monitoring, conducting maintenance, and construction within the encapsulated area. The placement of encapsulated soils beneath either the proposed park site or the commercial portions of the project site is being considered.

Consistent with the requirements of SB 120, DTSC cannot approve the updates to the RAP until the City has approved a land use plan for the project site (i.e., Curtis Park Village). This regulation ensures that any areas cleaned to restricted standards (i.e., land uses would be restricted over the areas not cleaned to unrestricted standards) coincide with the appropriate land use and are subject to long-term agreements with DTSC. Although the type of land use is restricted within the areas cleaned to restricted standards (typically restricted to commercial or industrial uses only), all soils would be cleaned to a level that the DTSC has determined is safe for construction and maintenance workers. Thus, persons involved in construction, demolition, or excavation of restricted soils do not require any additional training, nor are special precautions required. Cleanup goals or standards for unrestricted land use areas are based on protecting the most sensitive uses from deleterious exposure to chemicals of concern; thus, acceptable uses generally include residential uses in addition to commercial and industrial. In-situ treatment of the additional volumes of contaminated soils could result in a restriction of the land uses that could be place over that area. Therefore, in-situ treated soils that are not stabilized to an unrestricted standard would only be allowed under the commercial portion of the site.

Given that the site is currently under remediation, the on-site workers are currently working with contaminated soils and are required to comply with the Site Health and Safety Plan (as described above). Therefore, because the same regulations and training requirements for the on-site workers conducting the current remediation activities would be required for implementation of the encapsulation or in-situ treatment remedies, an increased risk of exposure to contaminated soils for workers would not result. In addition, because of the requirements of SB 120 and the required ongoing groundwater monitoring, these remedies would not result in an increase risk of exposure to contaminated soil for future occupants of the site. Furthermore, these remedies would not result in an increase in transport of contaminated soil, as the soils would remain on-

site. Given the above, impacts related to public health and hazards resulting from the encapsulation or in-situ treatment remedies would be *less than significant*.

Conclusion

Based on the above discussions of the potential impacts from all the remedies contemplated for the updated RAP, implementation of the remedies would not substantially increase the risk of exposure of workers to contaminated soils, exposure of future occupants to contaminated soils or groundwater, or exposure of surrounding site occupants to inadvertent or accidental releases of hazardous substances transported on adjacent roadways and rail lines within the project area. Impacts to future Curtis Park Village residents are discussed in Impact 5.8-2, below.

In addition, all on-site structures have been removed from the site except for a wooden structure housing the pump equipment utilized for the current remediation activities. Per the project applicant, the wooden structure was built approximately 10 years ago. Therefore, the presence of asbestos-containing materials is not likely because asbestos containing materials and lead-based paints were phased out of use for construction in the 1970s (30 years ago). It should be noted that asbestos has previously been found in soils on the site, but these soils have been removed pursuant to the approved RAP, to the satisfaction of the DTSC. In addition, removal of all on-site buildings is included in the existing RAP. Therefore, because it is highly unlikely that asbestos and/or lead-based paints are present in the only structure located on the project site and removal of on-site buildings is included in the existing RAP, impacts related to exposure to asbestos and lead-based paint during the demolition of the structure would be *less than significant*.

Development of the Curtis Park Village project would not begin until the site has been cleaned to DTSC standards, pursuant to the updated RAP. Therefore, future occupants of the site would not be subject to unmitigated risk of exposure to contaminated soil during phased development or ongoing remediation (remediation would be complete, utilizing any combination of remedies identified in this chapter - including in-situ treatment). In addition, groundwater monitoring is required in the existing RAP to ensure impacts to groundwater do not result. Please refer to Impact 5.8-2 for further discussion of potential impacts during development of the Cutis Park Village project. The updated RAP would not include placing any uses (the site would remain vacant) on the project site after remediation. Therefore, site occupants (the updated RAP would not result in any site occupants) would not be exposed to any hazards from non-residential uses. Additionally, State law requires the site to be cleaned to the appropriate standards prior to any on-site development. As a result, the implementation of any of the remedies contemplated for inclusion in the RAP update would result in a ***less than significant*** impact to public health and hazards.

Mitigation Measure(s)
None required.

5.8-2 Exposure of future residents and construction workers to contaminated soil.

Development of the Curtis Park Village project would not begin until the site has been cleaned to DTSC standards, pursuant to the updated RAP. All single-family residential areas would be cleaned to an unrestricted use standard. Unrestricted standards are intended to allow residents to eat plants grown in their soil, and for children to be able to come into contact with the soil on a daily basis without adverse effect. For areas that are not cleaned to the unrestricted land use standards, soils would be remediated to the construction worker (restricted use) DTSC Target Cleanup Level standards, which would include the non-residential uses. At that point DTSC would issue certifications of completion and record a deed restriction for the property. Any restricted use areas would be subject to DTSC deed restrictions intended to protect users from exposure to hazardous chemicals. Deed restrictions include the following:

- Groundwater cannot be extracted without DTSC approval;
- Industrial and commercial land uses, including construction and maintenance of utility corridors and street rights-of-way, are allowed under an appropriate management plan;
- Landscaping is allowed, provided clean soil to appropriate depths is placed in areas where direct soil contact can occur; and
- Post-certification excavation or soil removal is not permitted without prior DTSC approval.

In addition, compliance with SB 120 ensures that the DTSC approved standards are consistent with the planned land uses of the Curtis Park Village project. Therefore, implementation of the updated RAP would protect future residents, workers, and patrons from increased exposure to contaminated soils. It should be noted that groundwater levels (currently being treated pursuant to the existing RAP) are approximately 25 to 35 feet below the surface, and construction activities associated with the development of the Curtis Park Village project would not include excavation to those depths. Thus, dewatering would not be required for the construction of the proposed project.

The construction of the proposed project would be phased. Depending on market conditions the residential portion of the project may be developed prior to the commercial component. If the encapsulation treatment remedies are utilized in the updated RAP, the encapsulated soils are placed under the commercial land use, and the proposed residential uses are occupied prior to construction of the commercial use, the potential exists for future residents to be in place adjacent to the capped soil. However, construction activities would not be hindered by soils above the membrane and capped soils. Furthermore, DTSC deed restrictions would require the commercial construction to include a management plan for DTSC approval to protect future users from exposure to contaminated soils only if construction would excavate passed the membrane level. In addition, training and equipment requirements would be included in a long-term maintenance agreement with the DTSC, which would be periodically reviewed and updated. Implementation of the regulations governing capped soils would ensure that

implementation of the proposed project would not result in adverse impacts to future residents and construction workers. It should be noted that if in-situ treatment were used, persons involved in construction, demolition, or excavation of restricted soils would not require any additional training, nor are any special precautions required. Therefore, a ***less than significant*** impact would result.

Mitigation Measure(s)
None required.

5.8-3 Exposure of construction workers and future residents to rail line-associated hazards (including loss of service) during construction.

The proximity of the proposed project to an existing rail line creates the public safety issue of potential train derailment. The current train operations on these tracks consist of approximately 20 trains per day. The National Transportation Safety Board has indicated that derailed rail cars may travel as much as 100 feet from the tracks.

The proposed project setback from the rail main line is consistent with other urbanized areas adjacent to train tracks throughout the City. Train derailments typically occur on a bend in the rail line; the rail line in the vicinity of the proposed project is straight. In addition, the rail line located in the vicinity of the project is a switching station, which causes trains to slow down, further reducing any probability of derailment. Furthermore, the residential and commercial uses associated with the proposed project would be located more than 100 feet from the centerline of the main rail line. During construction activities, workers would be within 100 feet of the rail lines; however, the trains intermittently pass by the site and the construction workers would only be temporarily within 100 feet. Therefore, the impact related to hazards associated with rail line operations would be considered ***less than significant***.

Mitigation Measure(s)
None required.

5.8-4 Impacts related to exposure to asbestos and lead-based paint.

Development of the Curtis Park Village project would not begin until the site has been cleaned to DTSC standards (including asbestos contaminated soils), pursuant to the existing and updated RAP. All existing buildings would be removed as part of the RAP activities (See Impact 5.8-1 above). Therefore, impacts related to exposure to asbestos and lead-based paint during Curtis Park Village project development would be ***less than significant***.

Mitigation Measure(s)
None required.

5.8-5 Impacts related to inadvertent or accidental releases of hazardous substances.

The proposed project would include residential, commercial, and open space/park uses. These land uses would not involve the routine use, transport, or disposal of hazardous materials. In addition, the truck routes designated for the commercial uses would not utilize the proposed residential roadways. Therefore, the proposed project would not increase the risk of exposure of site occupants to inadvertent or accidental releases of hazardous substances from non-residential uses or substances transported on adjacent roadways, resulting in a ***less than significant*** impact.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

5.8-6 Long-term hazards-related impacts from the proposed project in combination with existing and future developments in the Sacramento area.

Impacts associated with hazardous materials are site-specific and generally do not affect or are not affected by cumulative development. Cumulative effects could be of concern if the project was, for example, part of a larger development in which industrial processes that would use hazardous materials were proposed. However, this is not the case with this project, and project-specific impacts were found to be less than significant with the implementation of the recommended mitigation measures. In addition, surrounding development would be subject to the same federal, State, and local hazardous materials management requirements as would the proposed project, which would minimize potential risks associated with increased hazardous materials use in the community, including potential effects, if any, on the proposed project. Therefore, implementation of the proposed project would have a ***less than significant*** impact associated with cumulative hazardous materials use and remediation activities.

Mitigation Measure(s)
None required.

Endnotes

[1] City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
[2] City of Sacramento, *Sacramento 2030 General Plan Master EIR*, March 2009.
[3] Dames & Moore, *Final Remedial Action Plan, Union Pacific Railroad Yard, Sacramento, California*, June 1995.

5.9 HYDROLOGY, WATER QUALITY, AND DRAINAGE

5.9 HYDROLOGY, WATER QUALITY, AND DRAINAGE

5.9.0 INTRODUCTION

The Hydrology, Water Quality, and Drainage chapter of the EIR describes existing drainage and water resources for the project site, and evaluates potential impacts of the project with respect to flooding, surface water resources (e.g., changes to surface water absorption rates, drainage patterns, quality, and/or volume), and groundwater resources (e.g., changes to groundwater quality, volume, and/or flows). The chapter is based primarily on the *Final Remedial Action Plan*[1] prepared by Dames and Moore and submitted by the Union Pacific Railroad Company to the California Environmental Protection Agency, Department of Toxic Substances Control. In addition, information was drawn from the *Sacramento 2030 General Plan*[2] and the *Sacramento 2030 General Plan EIR*.[3]

Comments provided on the Notice of Preparation (NOP), the revised NOP, the second revised NOP, and the associated NOP scoping meetings for the proposed project have been integrated into the analysis. Comments regarding the project's impacts to surface and groundwater and the impacts of contaminated groundwater to project residents are addressed in Impact Statements 5.9-4 through 5.9-6.

5.9.1 EXISTING ENVIRONMENTAL SETTING

The following setting information provides an overview of the existing conditions of the water supply, drainage systems, water quality, as well as stormwater runoff on the proposed project site and drainage area.

Regional Geography and Climate

The City of Sacramento is located within the Sacramento River Basin at the confluence of two major rivers: the Sacramento and the American. The Sacramento River Basin is composed of approximately 26,500 square miles, and is bound by the Sierra Nevada Mountain Range to the east, the Coast Range to the west, the Cascade Range and Trinity Mountains to the north, and the Sacramento-San Joaquin Delta (Delta)/Central Sierra Nevada area to the south. The American River watershed encompasses approximately 1,900 square miles and is a tributary to the Sacramento River. The American River watershed is situated on the western slope of the Sierra Nevada, extending from the spine of the Sierra Nevada westward to the City of Sacramento. The Sacramento River flows south from Shasta Lake in Northern California, and the American River flows west from the Sierra Nevada Mountains. The American River meets the Sacramento River at the western boundary of the City. Forty miles south of the City, the Sacramento River is joined by the San Joaquin River. The combined rivers flow into the Delta and San Francisco Bay.

The Sierra Nevada snowfields are 70 miles east of Sacramento. Approximately ninety-five percent of the annual precipitation occurs between November and April as both rain and snow. Although the mountains and reservoir system serve to arrest the full brunt of winter storms, runoff from mountain snowmelt and rainstorms occasionally flood the Sacramento River and associated tributaries.

The climate of Sacramento is characterized by hot, dry summers and cool, rainy winters. The mean maximum July temperature in Sacramento is 93 degrees Fahrenheit (°F) and the mean minimum is 60°F. The mean maximum January temperature in Sacramento is 54°F and the mean minimum is 40°F. The Sacramento climate is arid with an average annual rainfall of 17.22 inches; with most of the rain occurring during the months of November through March. Major storm events can produce high flows throughout the Sacramento and American River systems. Flood control facilities along these rivers consist of a comprehensive system of dams, levees, overflow weirs (diversion structures intended to ensure that flows in the river do not exceed an identified maximum level), drainage pumping plants, and flood control bypass channels. The flood control network seeks to control water flows by regulating the amount of water passing through a particular reach of the river. Urban runoff flows are directed into this system by the City via two systems: (1) conveyance to the Sacramento River and American River through sumps, pipelines, and treatment facilities; or (2) conveyance by the City's Combined Sewer Service System (CSS), along with sewage to the Sacramento Regional Wastewater Treatment Plant (SRWTP) located near Elk Grove.

In the past two decades, Sacramento has experienced two declared droughts, alternating with periods of record high rainfalls. A drought occurred from 1975 to 1977 when an average of 7.5 inches of rain fell per year. In recent years, four major floods in the Sacramento and San Joaquin River Basins have occurred in 1983, 1986, 1995, and 1997. Water year 1983 was one of the wettest this century in California, a result of the "El Nino" weather phenomenon. Northern and Central California experienced flooding incidents from November to March due to numerous storms. In early May, snow water content in the Sierra exceeded 230 percent of normal, creating a runoff that was four times the average volume for Central Valley Rivers.

Combined Sewer System

The Combined Sewer System (CSS) serves the project area and vicinity. The pipelines that comprise the CSS collect and convey both sanitary sewage and storm drainage (runoff). The area served by this system extends from the Sacramento River on the west, to the vicinity of Sutterville Road and 14th Avenue on the south, to about 65th Street on the east, and to North B Street and the American River on the north.

As part of the CSS Improvement Plan, the City-approved Curtis Park Combined Sewer Storage project is planning on installing CSS detention facilities on the Curtis Park Village site. The Curtis Park Combined Sewer Storage project system would accommodate flows from areas outside the project site and be provided in a series of underground pipes located in a portion of the project's proposed open space area. During high flow periods, the excess would be detained, and then pumped back into the Donner Interceptor when flows subside.

Project area flows are conveyed into the CSS to a pumping station located at 11th Avenue and Riverside Boulevard. From there, flows are pumped to the Sacramento Regional Wastewater Treatment Plant in Elk Grove. When CSS flows during storm periods exceed 60 million gallons per day (mgd), the excess flow receives primary treatment, until the passage of the peak flow, at the Combined System Treatment Plant and the Pioneer Reservoir Treatment Plant.

Local Drainage

Surface flow at the project site is limited to stormwater, which generally drains to the east along the middle part of the inactive portion of the site next to residences along 24th Street and to the southwest towards railroad tracks. Drainage along the western boundary of the site is directed to street culverts. The flow from both portions of the site is directed into the above-mentioned CSS drains, which carry the stormwater to the Sacramento Regional Wastewater Treatment Plant. The stormwater is treated at the plant prior to being discharged into the Sacramento River.

Local Flooding

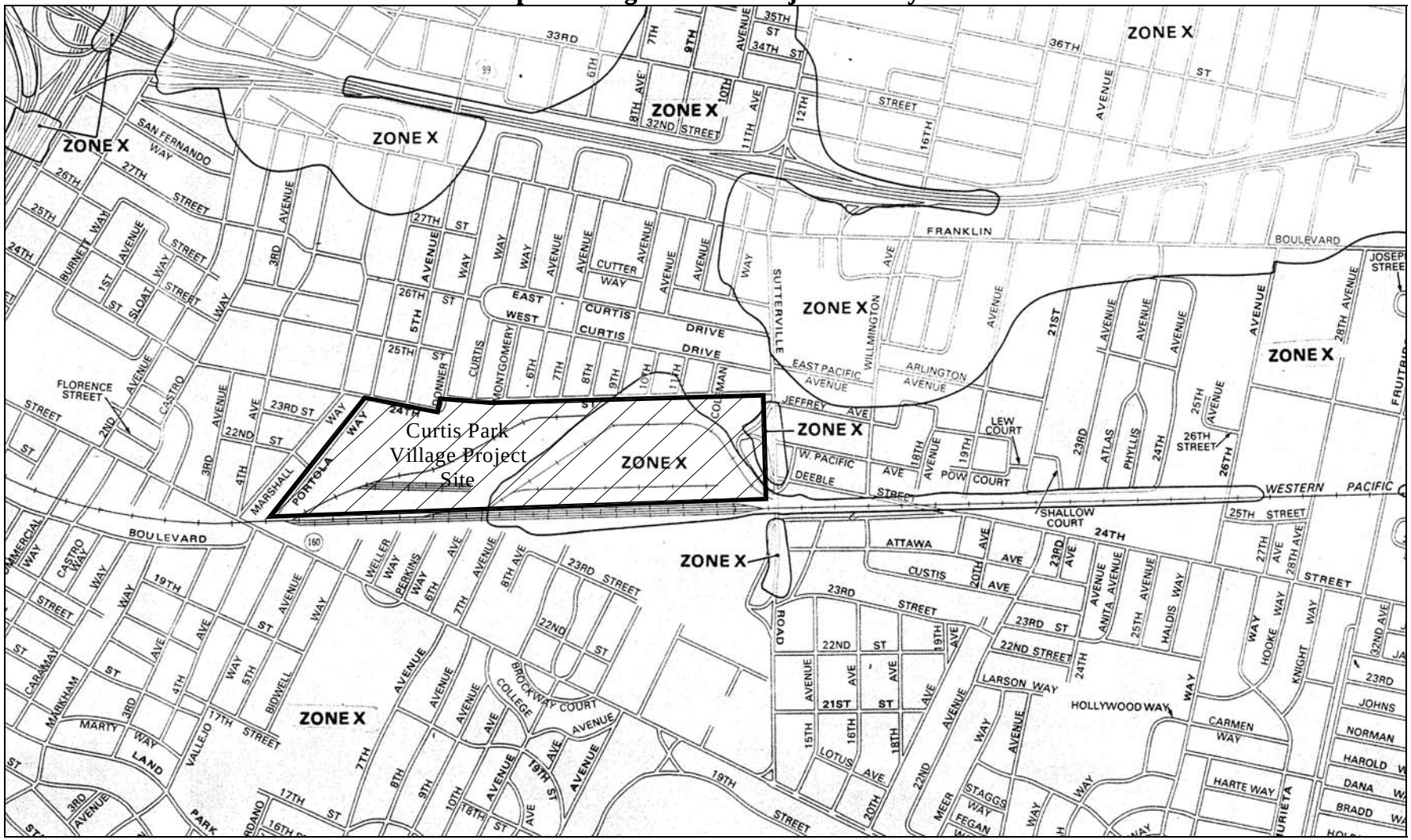
The Flood Insurance Rate Map (FIRM Map Number 0602660025F, revised February 18, 2005) indicates that the entire project site is currently designated as Zone X. Zone X is the flood insurance rate zone that corresponds to areas outside the 100-year floodplains, areas of 100-year sheet flow flooding where average depths are less than 1 foot, areas of 100-year stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 100-year flood by levees (See Figure 5.9-1). The Sacramento River is located approximately one mile west of the project site, and the American River is approximately three miles north.

Water Quality

The City's municipal water is received from the American River and Sacramento River. The *Sacramento 2030 General Plan* states that the water quality of the American River is considered to be very good. The Sacramento River water is considered to be of good quality, although higher sediment loads and extensive irrigated agriculture upstream of Sacramento tends to degrade the water quality. During the spring and fall, irrigation tailwaters are discharged into drainage canals that flow to the Sacramento River. In the winter, runoff flows over these same agricultural areas. In both instances, flows are highly turbid and introduce large amounts of herbicides and pesticides into the drainage canals, particularly rice field herbicides in May and June. The turbidity (i.e., clarity) of the river is changed from relatively clear to turbid from sediment laden discharges.

The Central Valley Regional Water Quality Control Board (CVRWQCB) has primary responsibility for protecting the quality of surface and groundwater within the City. The CVRWQCB's efforts are generally focused on preventing either the introduction of new pollutants or an increase in the discharge of existing pollutants into bodies of water that fall under the CVRWQCB's jurisdiction.

Figure 5.9-1
Floodplain Designations in Project Vicinity



The CVRWQCB is concerned with all potential sources of contamination that may reach both these subsurface water supplies and rivers through direct surface runoff or infiltration. Stormwater runoff is collected in City drainage facilities and is sent directly to the Sacramento River. The CVRWQCB implements water quality standards and objectives in keeping with the State of California Standards.

The City of Sacramento has received a municipal National Pollutant Discharge Elimination System (NPDES) permit from the CVRWQCB. Under this permit, the permitees are required to develop, administer, implement, and enforce a Comprehensive Stormwater Management Program (CSWMP) in order to reduce pollutants in urban runoff to the Maximum Extent Practicable (MEP). The CSWMP emphasizes all aspects of pollution control, including, but not limited to, public awareness and participation, source control, regulatory restrictions, water quality monitoring, and treatment control.

Controlling urban runoff pollution during and after construction is critical to the success of the Sacramento Comprehensive Stormwater Management Program. The New Development Management Program (NDMP) is an element of the Comprehensive Stormwater Management Program being implemented by the City to specifically control post-construction urban runoff pollutants from new development or redeveloped areas. The goal of the NDMP is to minimize runoff pollution typically caused by land development and to protect the beneficial uses of receiving waters by employing a sensible combination of pollutant source control and site-specific treatment control measures.

Groundwater

The groundwater aquifer system underlying the Sacramento region is part of the larger Central Valley groundwater basin. Deep percolation of precipitation and surface water applied to irrigated cropland, recharge the groundwater system. Groundwater is depleted by pumped extractions of groundwater for municipal, industrial, and agricultural purposes. Groundwater levels in the region have been declining since 1940. The pattern of pumping has continued over the years and the recent rate of decline has been approximately 1.5 feet per year (SGPU EIR (1987), w-9). However, neither of the subbasins that compose the local aquifer has been described to be in overdraft by the Department of Water Resources (DWR), nor has DWR projected that either basin will become overdrafted with current management of the subbasins.[4] The groundwater supplements municipal water supplies in areas north of the American River, but the area south of the American River is primarily supplied by surface water. Approximately 85 percent of the total water supply is supplied by surface waters of the Sacramento and American Rivers, while groundwater supplies the remainder.

The City of Sacramento currently provides water service from a combination of surface and groundwater sources. The City has the rights to enough quality surface water to supply all planned growth within the city limits until buildout. However, surface water is not being fully utilized. According to the Sacramento *2030 General Plan Master EIR*, should the City of Sacramento cease to use groundwater, the City has surface water entitlements that exceed the current needs of the City, and possibly future requirements as well.

Surface Water

As described above, the two main surface water resources for the project site are the Sacramento and American Rivers. The Sacramento flows in a general north to south direction until the River diverts westward towards the San Francisco Bay Delta. The American River meets the Sacramento River approximately four miles north of the project site. The proximity of the project site to the Sacramento River is approximately one and a half miles distance east of the River. Both rivers have a series of flood control facilities to aid in the controlled release of surface water flows, especially during major storm events that influence the local flood waters. As mentioned, stormwaters are ultimately discharged into the Sacramento River, and the anticipated water supply for the proposed project is addressed in Chapter 5.10 of this EIR.

5.9.2 REGULATORY BACKGROUND

The following is a description of federal, State, and local environmental laws and policies that are relevant to the California Environmental Quality Act (CEQA) review process.

Federal

Federal Clean Water Act

The National Pollutant Discharge Elimination System (NPDES) permit system was established in the federal Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the U.S. Each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that EPA must consider in setting effluent limits for priority pollutants.

Nonpoint sources are diffuse and originate over a wide area rather than from a definable point. Nonpoint pollution often enters receiving water in the form of surface runoff, but is not conveyed by way of pipelines or discrete conveyances. As defined in the federal regulations, such nonpoint sources are generally exempt from federal NPDES permit program requirements.

However, two types of nonpoint source discharges are controlled by the NPDES program: nonpoint source discharge caused by general construction activities and the general quality of stormwater in municipal stormwater systems. The 1987 amendments to the CWA directed the federal EPA to implement the stormwater program in two phases. Phase I addressed discharges from large (population 250,000 or above) and medium (population 100,000 to 250,000) municipalities and certain industrial activities. Phase II addresses all other discharges defined by EPA that are not included in Phase I.

Construction Site Runoff Management

In accordance with NPDES regulations, in order to minimize the potential effects of construction runoff on receiving water quality, the State requires that any construction activity affecting one (1) acre or more must obtain a General Construction Activity Stormwater Permit. Permit

applicants are required to prepare a Stormwater Pollution Prevention Plan (SWPPP) and implement Best Management Practices (BMPs) to reduce construction effects on receiving water quality by implementing erosion and sediment control measures. Construction activities for the Curtis Park Village project would collectively disturb more that one care or land; therefore, the proposed project would be subject to permit requirements. Implementation of such measures would be included in contract specifications.

Examples of typical BMPs included in SWPPPs may include, but not be limited to, the use of temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; the proper storage of materials and equipment to ensure that spills or leaks can not enter the storm drain system or any local surface waters; the development and implementation of a spill prevention and cleanup plan; the installation of traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and the usage of barriers (e.g. straw bales or plastic) to minimize the amount of uncontrolled runoff that could enter storm drains or surface waters.

State

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) are responsible for ensuring implementation and compliance with the provisions of the federal CWA and California's Porter-Cologne Water Quality Control Act. As discussed above in the water quality discussion, the project site is situated within the jurisdiction of the Central Valley Region of the RWQCB (Region 5). The CVRWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within the CVRWQCB's jurisdiction.

Water quality objectives for the Sacramento River and the associated tributaries (e.g., Cache Creek, Willow Slough, and Yolo Bypass) are specified in the Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin (Basin Plan) prepared by the CVRWQCB in compliance with the federal CWA and the Porter-Cologne Act. The Basin Plan establishes water quality objectives, and implementation programs to meet stated objectives and to protect the beneficial uses of water in the Sacramento-San Joaquin River Basin. Because the City of Sacramento is located within the CVRWQCB's jurisdiction, all discharges to surface water or groundwater are subject to the Basin Plan requirements.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The following *Sacramento 2030 General Plan* goals and policies are applicable to hydrology, water quality, and drainage:

Environmental Resources

Goal ER 1.1 Water Quality Protection. Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American Rivers, and their shorelines.

Policy ER 1.1.4 New Development. The City shall require new development to protect the quality of water bodies and natural drainage systems through site design, storm water treatment, and best management practices (BMPs) consistent with the city's NPDES Permit.

Policy ER 1.1.5 Post-Development Runoff. The City shall impose requirements to control post-development peak storm water runoff discharge rates and velocities to prevent or reduce downstream erosion and protect stream habitat.

Policy ER 1.1.6 Construction Site Impacts. The City shall continue to require construction contractors to comply with the City's erosion and sediment control and stormwater management and discharge control ordinances.

City of Sacramento Stormwater Management and Control Code

The City Stormwater Management and Control Code (Chapter 13.16 of the City Code) is intended to control non-stormwater discharges to the stormwater conveyance system; eliminate discharges to the stormwater conveyance system from spills, dumping, or disposal of materials other than stormwater; and reduce pollutants in urban stormwater discharges to the maximum extent practicable. Non-stormwater discharges are prohibited except where the discharge is regulated under a NPDES permit (See the descriptions of the NPDES in the discussions of federal and State water quality regulations above). Specified activities that do not cause or contribute to any violation of any plan standard and are exempt from this prohibition include: landscape irrigation, lawn watering and flows from fire suppression activities, are also exempt from this prohibition.

City of Sacramento Grading, Erosion, and Sediment Control Ordinance

The City Grading, Erosion, and Sediment Control Ordinance (Title 15, Chapter 15.88 of the City Code) sets forth rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from construction activities. With limited exceptions, grading approval must be received from the City Department of Utilities before construction. All project applicants, regardless of project location, are required to prepare and submit separate erosion and sediment control plans applicable to the construction and post-construction periods.

City of Sacramento Stormwater Quality Improvement Plan (2004)

The City of Sacramento Stormwater Management Program is a comprehensive program comprising various program elements and activities designed to reduce stormwater pollution to the maximum extent practicable and eliminate prohibited non-stormwater discharges in accordance with federal and State laws and regulations. These laws and regulations are implemented through NPDES municipal stormwater discharge permits. An element of the program, the Construction Element (CE), was designed to reduce the discharge of stormwater pollutants to the maximum extent practicable by requiring construction sites to reduce sediment in site runoff and reduce other pollutants such as litter and concrete wastes through good housekeeping procedures and proper waste management. The CE strategy includes the following components:

- Ensure each grading permit or Improvement Plan includes an erosion and sediment control plan detailing erosion, sediment, and pollution control measures to be used during construction of the project;

- Ensure applicable projects obtain a State General Construction Permit and prepare a SWPPP containing:

    1) A vicinity map;
    2) A site map;
    3) A site-specific listing of potential sources of stormwater pollution;
    4) The type and location of erosion and sediment control BMPs to be employed;
    5) The name and telephone number of the person responsible for implementing the SWPPP; and
    6) A certification/signature by the landowner or authorized representative; and

- Inspect and enforce the project's erosion and sediment control plan, the Grading, Erosion, and Sediment Control Ordinance, and the Stormwater Discharge Control Ordinance.

Another element of the program, the New Development Element (NDE), was designed to specifically control post-construction urban runoff pollutants from new development or redeveloped areas. The NDE strategy for reducing stormwater pollutants from new development includes the following:

- Employing applicable source controls on all projects; and
- Employing regional water quality treatment control measures, such as water quality detention basins, for areas of large development (i.e., areas generally greater than 20 acres), where the opportunity exists.

5.9.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this EIR, impacts are considered potentially significant if implementation of the proposed project would:

- Violate any water quality standards or waste discharge requirements;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion, siltation, or flooding on- or off-site;
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- Place within a 100-year flood hazard area structures that would impede or redirect floodflows; or
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Method of Analysis

The information contained in the Hydrology, Water Quality, and Drainage chapter of this EIR was derived primarily from the *Sacramento 2030 General Plan*, the City's Urban Water Management Plan (2000), and the *Final Remedial Action Plan* prepared by Dames and Moore and submitted by the Union Pacific Railroad Company to the City of Sacramento, June 1995. In addition, impacts to water quality were assessed in relation to regulations to determine the potential for adverse impacts related to project implementation affecting the aforementioned standards of significance. The proposed project was compared to the standards of significance listed above to determine whether the activities related to the continued remediation of the project site and the construction and operation of Curtis Park Village would have significant impacts to the environment.

Project Impacts and Mitigation Measures

5.9-1 Impacts to hydrology, water quality, and drainage related to the update of the Remedial Action Plan.

Under the approved RAP, the contaminated soils would be excavated, disposed of at an appropriately certified landfill, and clean fill dirt would be brought in to return the site to the current grade. The approved RAP includes the requirement for continued monitoring of groundwater after remediation. Updates to the remedies in the RAP would potentially allow for contaminated soils to be remediated on-site and/or concentrated and capped with a membrane and clean soils. Residential areas would still be cleaned to unrestricted use standards. The remediation of the site under the updated RAP would include ongoing

groundwater monitoring on-site, which would continue even after remediation is complete, in order to ensure that groundwater quality is not impacted.

The potential siting of the encapsulated soils within the proposed park area would result in changes to current plans for providing stormwater detention/retention; however, alternatives to the park location are available for stormwater facilities. The encapsulated soil would be covered with an impervious membrane, which would prevent water percolation through the contaminated soils. Furthermore, the soil contaminants are heavy metals that are not water-soluble. If this remedy were chosen, the contaminated soils in question would be sufficiently contained. It should be noted that DTSC would require, as part of the Operation and Maintenance Agreement for the updated RAP, ongoing monitoring and maintenance of the impervious membrane.

Currently the site is undergoing remediation and surface drainage is collected and treated in excavation pits on-site. The stormwater runoff does not leave the site; therefore, any discharges that could affect water quality do not occur. Updates to the remedies in the RAP update would not create any additional potential for contamination of stormwater because the stormwater runoff would still be collected and treated on-site. However, updated RAP activities could include the removal of additional contaminated soils and import of clean fill soil (approximately 200,000 cubic yards more than anticipated in the existing RAP) or in situ treatment. Such activities could subject additional soils to erosion processes. Soil moved by wind or precipitation could enter into the local surface waters and potentially impact water quality. The project's potential impact related to soil erosion are discussed and analyzed within Chapter 5.7, Geology and Soils, of this Draft EIR.

The updated RAP remedies, including containment of soils on-site or treatment of soils on-site, would not result in adverse impacts to either surface waters or groundwater (See Chapter 5.8, Public Health and Hazards, for additional details). Therefore, updating the RAP would result in ***less than significant*** impacts related to hydrology, water quality, and drainage.

Mitigation Measure(s)
None required.

5.9-2 Exposure of people and structures to 100-year flood event on the project site.

The project site is located outside the FEMA 100-year floodplain, as indicated on FEMA Flood Insurance Rate Map (FIRM) 0602660025F, revised February 18, 2005 (See Figure 5.9-1). According to this FIRM, the entire project site is located in an area with a Zone X designation, which are areas identified by FEMA as being outside of a 100-year flood event. Therefore, the proposed project would not expose people and/or structures to flood hazards on the project site and would result in ***less-than-significant*** flood impacts.

Mitigation Measure(s)
None required.

5.9-3 Project impacts to existing drainage facilities.

Currently, surface flow at the project site is limited to stormwater, which generally drains to the east, next to residences along 24th Street, and to the southwest, toward the railroad tracks. Drainage along the western boundary of the site is directed to street culverts. The flow is then directed into the above-mentioned CSS drains, which carry the stormwater to the Sacramento Regional Wastewater Treatment Plant. The stormwater is treated at the plant prior to being discharged into the Sacramento River.

Implementation of the proposed project would create additional impervious surfaces on the project site and stormwater runoff from the site would increase. However, as analyzed in Chapter 5.11, Public Services and Utilities, Impact Statement 5.11-3, the proposed project would include the construction of on-site stormwater detention/retention facilities. The proposed project's stormwater systems would connect to the City's CSS system for eventual conveyance to the Sacramento Regional Wastewater Treatment Plant in Elk Grove. As noted in the Public Services and Utilities chapter, the proposed on-site stormwater drainage system would provide adequate capacity to ensure that implementation of the proposed project would not result in adverse impacts related to stormwater drainage.

Although the project would increase impervious surfaces on the project site, the project would provide retention/detention facilities for increased stormwater runoff, as well as make the necessary improvements to CSS infrastructure within the project site. Therefore, the proposed project would have a ***less-than-significant*** impact on existing drainage facilities.

Mitigation Measure(s)
None required.

5.9-4 Construction-related impacts to surface water quality.

Prior to any grading or construction activities associated with development of the Curtis Park Village, the project site would be fully remediated to the satisfaction of DTSC standards and guidelines. Upon soil remediation, the proposed project would involve the construction of houses, commercial buildings, roadways, parking lots, and infrastructure, which would require grading, excavation, and other construction-related activities that could cause soil erosion at an accelerated rate during storm events. All of these activities have the potential to affect water quality by contributing to localized violations of water quality standards if stormwater runoff from construction activities enters receiving waters.

Construction activities such as grading, excavation, and trenching for site improvements would result in disturbance of soils at the project site. Construction site runoff can contain soil particles and sediments from these activities. Spills or leaks from heavy equipment and machinery, staging areas, or building sites can also enter runoff. Typical pollutants could include petroleum products and heavy metals from equipment and

products such as paints, solvents, and cleaning agents, which could contain hazardous constituents. Sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products could result in water quality degradation if runoff containing the sediment entered receiving waters in sufficient quantities to exceed water quality objectives. Because the proposed project would require construction activities resulting in a land disturbance of more than one acre, the applicant is required by the State to obtain the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit), which pertains to pollution from grading and project construction. Compliance with the Permit requires the project applicant to file a Notice of Intent (NOI) with the SWRCB and prepare a Storm Water Pollution Prevention Plan (SWPPP) prior to construction. The SWPPP would incorporate Best Management Practices (BMPs) in order to prevent, or reduce to the greatest feasible extent, adverse impacts to water quality from erosion and sedimentation. BMPs may include: scheduling or limiting activities to certain times of year, prohibitions of practices, inspection and maintenance procedures, and other management practices.

In addition, the applicant must comply with the City of Sacramento's Grading, Erosion, and Sediment Control Ordinance which requires that the applicant prepare an erosion and sediment control plan for both during and after construction of the proposed project to be included in the Improvement Plans. The City of Sacramento also requires that post-construction stormwater quality control measures be incorporated into development plans to minimize the increase of urban run-off pollution caused by development of the area.

In compliance with the Grading, Erosion, and Sediment Control Ordinance, the applicant must prepare and submit an Erosion and Sediment Control Plan (ESC) and a Post-construction Erosion and Sediment Control Plan (PC) for the review and approval of the City of Sacramento. The preparation and implementation of the SWPPP, ESC, and PC would ensure the quality of stormwater runoff. Therefore, the proposed project would have a ***less than significant*** impact to surface water quality due to construction activities.

Mitigation Measure(s)
None required.

5.9-5 Operational water quality degradation associated with urban runoff from the project site.

The increased impervious area created by the development of the proposed project would alter the types and levels of pollutants that could be present in project site runoff. Runoff from streets, driveways, parking lots, and landscaped areas typically contains nonpoint source pollutants such as oil, grease, heavy metals, pesticides, herbicides, fertilizers, and sediment. Concentrations of pollutants carried in urban runoff are extremely variable, depending on factors such as the following:

- Volume of runoff reaching the storm drains;
- Time since the last rainfall;

- Relative mix of land uses and densities; and
- Degree to which street cleaning occurs.

The *Sacramento 2030 General Plan Master EIR* notes that water quality impacts due to urban runoff generated by General Plan buildout would be an on-going concern, and requires mitigation for the effects of development on water quality associated with urban runoff. On-going water quality impacts require runoff control measures to trap pollutants, reduce flows, and promote infiltration. Such measures include provision for on-site retention and detention storage; design of storm drainage to slow water flows and depress peak flow volumes; minimize impervious surfaces; and maximize percolation, evaporation, and evapotranspiration of stormwater.

The proposed project would incorporate appropriate Best Management Practices (BMPs) for minimizing long-term urban runoff impacts, including but not limited to the following:

- On-site drainage system design including stormwater detention system;
- Street and parking lot cleaning;
- Oil traps on stormwater inlets;
- Vegetated swales; and
- Public outreach and education materials.

In addition, the proposed project would be required to comply with the Stormwater Quality Improvement Plan and the Stormwater Management and Control Code. Compliance with the applicable City and State ordinances and regulations would ensure that the potential for long-term adverse impacts from urban runoff generated by the proposed project would be considered ***less than significant***.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

5.9-6 Long-term increases in peak stormwater runoff flows from the proposed project in combination with existing and future developments in the Sacramento area.

Implementation of the proposed project would result in the construction of residential units (both single- and multi-family), circulation improvements, and commercial uses, creating impervious surfaces where none currently exist. The addition of impervious surfaces to the project site would increase peak stormwater runoff rates and volumes on and downstream of the site. However, as discussed above and in Chapter 5.11, Public Services, the proposed project would include the construction of on-site stormwater detention/retention facility. The City of Sacramento operates under a Phase I NPDES permit for stormwater municipal discharges to surface waters. The permit requires that the City impose water quality and watershed protection measures for all new

development projects. New development projects would be required to mitigate additional inflow of stormwaters to the CCS. In addition, other new, similar development projects would be required to evaluate potential peak flow rates and provide the necessary on-site drainage infrastructure(s); and contribute, through the payments of development fees and applicable assessments, the funding of off-site infrastructure. In addition, implementation of development proposed under the 2030 General Plan would improve and maintain stormwater protection measures through maintenance of existing stormwater facilities, and implementation of new development requirements in the Policy Area to meet the City's water quality design criteria. Therefore, because the proposed project is consistent with the type and intensity of development planned for the project site in the General Plan and the General Plan concluded a less than significant impact would occur from buildout of the planned land uses, the proposed project would result in a ***less than significant*** impact.

Mitigation Measure(s)
None required.

5.9-7 Cumulative impacts related to degradation of water quality.

Implementation of the proposed project, in conjunction with other new development projects in the area, could contribute to the cumulative increase of urban pollutant loading, which could adversely affect water quality. Future development could impact the existing drainage patterns and surface runoff affecting the regional water quality. The primary sources of water pollution typically include runoff from roadways and parking lots, runoff from landscaping areas, non-stormwater connections to the drainage system, accidental spills, and illegal dumping. In addition, cumulative development in the Sacramento area could result in increased impervious surfaces that could increase the rate and amount of runoff, thereby potentially adversely affecting existing surface water quality through increased erosion and sedimentation.

As stated in Chapter 5.9 of this EIR, the proposed project would be consistent with the goals and policies set forth in the *Sacramento 2030 General Plan* and other applicable local, State, and federal regulations. Future development projects would also be required to adhere to the applicable local, State, and federal regulations, including the development and implementation an on-site SWPPP, ECP, and the implementation of on-site BMPs (comparable to those identified for the proposed project for both pre- and post-construction activities). Post-construction stormwater quality controls for new development are set forth in the City's Stormwater Quality Design Manual. All new development projects would also be required to adhere to the local, State, federal policies and guidelines which would reduce the potential for a cumulative contribution to water quality impacts. A ***less than significant*** cumulative impact to water quality would occur.

Mitigation Measure(s)
None required.

Endnotes

[1] Dames and Moore, *Final Remedial Action Plan, Union Pacific Railroad Yard, Sacramento, California*, June 1995.
[2] City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
[3] City of Sacramento, *Sacramento 2030 General Plan Master EIR*, March 2009.
[4] West Yost Associates, *City of Sacramento Urban Water Management Plan*, November 2006.

5.10 POPULATION, EMPLOYMENT, AND HOUSING

5.10 POPULATION, EMPLOYMENT, AND HOUSING

5.10.0 INTRODUCTION

The Population, Employment, and Housing chapter of the EIR compares the proposed project population increase to the planned population for the site in the City's General Plan to determine if the proposed project or Remedial Action Plan (RAP) updated would induce substantial growth that is inconsistent with the approved land use plan for the area. In addition, the chapter describes the existing setting of the site and determines if any existing affordable housing would be displaced by development of the proposed project or RAP.

Cumulative effects of the proposed project are also evaluated in conjunction with other planned development within the City. Documents and information sources referenced to prepare this chapter include the *Sacramento 2030 General Plan*,[1] the *Sacramento 2030 General Plan Master EIR*,[2] *the City of Sacramento June 2003 Housing Element*,[3] the *City of Sacramento 2008-2013 Housing Element Update*,[4] the Sacramento Area Council of Government (SACOG) website,[5] the City of Sacramento website,[6] the California Department of Finance website,[7] and the applicant's Inclusionary Housing Plan.[8]

Pertinent comments received in response to the original Notice of Preparation (NOP), the revised NOP, the second revised NOP, and the associated NOP scoping meetings for the proposed project have been integrated into the analysis. Comments related to population, employment, and housing are addressed in Impact Statements 5.10-1, 5.10-2, 5.10-3, and 5.10-4.

5.10.1 EXISTING ENVIRONMENTAL SETTING AND PROJECT DESCRIPTION

Population
The vacant site currently does not contain any housing or residents.

Employment
The vacant site currently does support any employment generating uses. According to the 2030 General Plan EIR, the City's existing jobs-housing ratio is 1.89:1.

Housing
The proposed project would include a total of 470 residential units. The project applicant would dedicate 1.32 acres to the Sacramento Housing and Redevelopment Agency so the property can be developed to house 80 units of Senior Housing. Of the 80 units, at least 20 units would have income restrictions greater than 50 percent and less than or equal to 60 percent of Area Median Income (AMI). An additional 27 of the 80 units would have income restriction greater than 40 percent and less than or equal to 50 percent of AMI, and 12 of the units would have income restrictions less than or equal to 40 percent of AMI.

5.10.2 REGULATORY BACKGROUND

Existing policies, laws and regulations that would apply to the proposed project are summarized below.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The following Sacramento 2030 General Plan goals and policies are applicable to population, employment, and housing:

Growth and Change

Goal LU 1.1 Support sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses, ensures the effective and equitable provision of public services, and makes efficient use of land and infrastructure.

Policy LU 1.1.2 Building Intensity and Population Density: The City shall regulate the levels of building intensity and population density according to the standards and land use designations set out in the General Plan and the Sacramento City Code. Within these designations, cumulative development shall not exceed 650,000 persons and 474,000 employees by 2030.

Policy LU 1.1.3 Growth and Change Evaluation: The City shall review and adjust, as needed, the General Plan's land use, population, and employment capacities every five years, subject to the evaluation of their impacts.

City of Sacramento 2008-2013 Housing Element Update

The City's existing Housing Element Update includes the following applicable goals and policies:

Production (H-2)

Goal H-2.1 Adequate Sites: Provide adequate housing sites and opportunities for all households.

Policy H-2.1.2 The City shall promote policies and programs by the Sacramento Area Council of Governments (SACOG) and other regional entities to facilitate the equitable distribution of affordable housing throughout the region.

Mixed-Income Housing Ordinance, Chapter 17.190 – City of Sacramento Zoning Ordinance

The City's Mixed-Income Housing Ordinance requires 10 percent of residential units in the new residential developments to be affordable to households with incomes at or below 50 percent of the area median ($35,500 for a four-person household), which is the definition of a "very low income" household. Five percent of residential units in the entire development must be affordable to households with incomes at or below 80 percent of the area median ($56,800 for a four-person household), which is the definition of a "low income" household.

Units can be single-family, alternative ownership housing, duplex, multi-family, or a combination of these types. The developer should take full advantage of multiple housing types and target average densities in the applicable Community Plan.

The Housing Element Update identifies the Curtis Park Village project site as an area subject to the Mixed-Income Housing Policy.

5.10.3 IMPACTS AND MITIGATION MEASURES

This section provides the standards of significance and method of analysis used to determine impacts to population, employment, and housing.

Standards of Significance

For the purposes of this EIR, an impact is considered significant if the project would induce substantial growth that is inconsistent with the approved land use plan for the area or displace existing affordable housing.

Method of Analysis

The following section compares proposed project population increase to planned population for the site to determine if the proposed project or updated RAP would induce substantial growth that is inconsistent with the approved land use plan for the area or displace existing affordable housing.

Project Impacts and Mitigation Measures

5.10-1 Impacts related to the update of the Remedial Action Plan.

The update of the existing Remedial Action Plan (RAP) would address the need to remediate additional contaminated soils due to the discovery of more contamination of the site than considered in the previously approved RAP. Per Department of Toxic

Substances Control (DTSC) regulations and the current RAP, no development can occur on the proposed project site until the site is remediated. Therefore, updating the RAP would result in a ***less than significant*** impact on population, employment, and housing.

Mitigation Measure(s)
None required.

5.10-2 Inconsistency with City of Sacramento housing policies and Mixed-Income Housing Ordinance.

The site is currently vacant and the implementation of the proposed project would not displace any households. The Mixed-Income Ordinance requires ten percent of new housing to be affordable to very low-income households and five percent affordable to low-income households in the Curtis Park area. The proposed project would include a total of 470 residential units. In compliance with the Mixed-Income Housing Ordinance, the proposed Curtis Park Village project would include the dedication of 1.32 acres of land to Sacramento Housing and Redevelopment Agency for the development of an 80-unit senior complex. The senior facility would have at least (47) units with very low-income and (24) units with low-income. A minimum of 71 units would have income restrictions applied for a period of at least 55 years. The proposed project would comply with the Mixed-Income Housing Ordinance 17.190 to ensure better income integration in the proposed project with a wide range of housing to services and jobs. Therefore, the proposed project would comply with City of Sacramento housing policies, and provide affordable housing to achieve the Regional Housing Needs Plan (RHNP) allocation. As a result, the proposed project would have a ***less than significant*** impact on housing and housing policies.

Mitigation Measure(s)
None required.

5.10-3 Impacts to population and employment.

The 2008-2013 Housing Element Update indicates the average household size in the City of Sacramento as 2.54 persons per household. The Sacramento 2030 General Plan anticipated 549 units to be developed and 2,400 employees for the buildout of Curtis Park Village (p. 5-12), resulting in a population of approximately 1,395 persons (549 X 2.54 = 1,394.46). According to the 2030 General Plan EIR, the City expects Sacramento's employment base in 2030 to be 475,000 with a total of 276,000 residential units in the Policy Area, anticipating a 1.72:1 housing-to-jobs ratio.

However, the proposed project would result in the development of 178 single-family residential units, and 292 multi-family units with a total of 470 units. As such, the anticipated number of residents introduced by the proposed project would be approximately 1,202 persons (See Table 5.10-16). In addition, the proposed project would construct 470 residential units, including the development of 260,000 square feet

(s.f.) of retail and commercial uses. Implementation of the project would create approximately 520 jobs (See Table 5.10-17). Within the proposed project, the resulting employee-per-unit ratio would be at least 1.1:1.

Table 5.10-16
Projected Population Growth Generated by the Curtis Park Village Project

	Population Density	Total Number of Units	Estimated Population
Single Family	2.65 per unit	178	472
Multi-Family	2.50 per unit	292	730
Total		470	1,202

Source: City of Sacramento Housing Element, June 10, 2003.

Table 5.10-17
Project-Related Permanent Employment Generation

Land Use Category	Proposed Square Feet/Units	Square Feet per Employee	Number of Potential Employees
Retail (includes restaurants and dinner theater)	260,000	500	520

Source for square feet per employee: Bay Area Economics, 2004.

As a result, the Sacramento 2030 General Plan expected greater population and employee growth than the projected population and employee growth generated by the Curtis Park Village Project. Therefore, the proposed project would not result in an increase of population that is in excess of the Sacramento 2030 General Plan. In addition, the lower population for the proposed project provides a substantially higher employee-per-unit ratio than the City's 2030 anticipated ratio. Therefore, the proposed project would be expected to have a ***less than significant*** impact on the housing-to-jobs ratio within the City of Sacramento.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

5.10-4 Long-term impacts to population, housing, employment, and jobs-to-housing ratio from the proposed project in combination with existing and future developments in the Sacramento area.

The 2030 General Plan includes a number of goals and policies designed to support infill development. General Plan Policies LU 1.1.2 require that the City regulates the levels of building intensity and population density according to the standards and land use designations set out in the General Plan, which requires that cumulative development not exceed 650,000 persons and 474,000 employees by 2030.

The 2030 General Plan EIR expected buildout for Curtis Park Village Project would result in a population of 1,395 persons and 549 dwelling units. However, implementation of the proposed project would result in the additional 470 additional dwelling units; 79 less dwelling units expected from the 2030 General Plan EIR. The completion of the proposed Curtis Park Village project would add approximately 1,202 persons to the Curtis Park area; 192 less persons expected from the 2030 General Plan EIR.

The 2030 General Plan EIR projected buildout for Curtis Park Village Project would result in 475,000 employees. However, implementation of the proposed project would result in the addition of 520 employees; 474,480 less employees expected from the 2030 General Plan EIR. The proposed project would result in a 1.1:1 employee-per-unit ratio.

Therefore, the implementation of the proposed project would result in an infill development that would reduce the population, employee, and increase the jobs-to-housing ratio planned for the project site in the General Plan to help ensure that the City's cumulative development does not exceed 650,000 persons and 474,000 employees by 2030. Thus, a ***less than significant*** cumulative impact to population, housing, and employment would result.

Mitigation Measure(s)
None required.

Endnotes

1 City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
2 City of Sacramento, *Sacramento 2030 General Plan Master EIR*, March 2009.
3 City of Sacramento, *Housing Element*, June 10, 2003.
4 City of Sacramento, *2008-2013 Housing Element Update*, November 18, 2008.
5 Sacramento Area Council of Governments (SACOG), http://www.sacog.org, accessed May 2008.
6 http://www.cityofsacramento.org, accessed May 2008.
7 California Department of Finance, www.dof.ca.gov, accessed May 2008.
8 Petrovich Development, *Draft Inclusionary Housing Plan Curtis Park Village*, October 24, 2008.

5.11 PUBLIC SERVICES AND UTILITIES

5.11 PUBLIC SERVICES AND UTILITIES

5.11.0 INTRODUCTION

The Public Services and Utilities chapter of the EIR describes the public service and utility systems and facilities within the project area and the associated potential impacts resulting from the proposed project. Utilities and services considered in the analysis will include water supply, stormwater drainage and wastewater treatment and collection, law enforcement, fire protection, schools, libraries, solid waste collection and disposal, electric power, natural gas, and communications systems. Parks and recreational facilities are discussed separately in Chapter 4.13. The Public Services and Utilities chapter will also discuss thresholds of significance for such impacts, and will develop mitigation measures and monitoring strategies. Consideration will be given to on-site as well as off-site infrastructure facilities. Information for this chapter is based upon the *Sacramento 2030 General Plan,*[1] the *Sacramento 2030 General Plan Master EIR*,[2] and the *City of Sacramento Urban Water Management Plan.*[3]

Pertinent comments received in response to the original Notice of Preparation (NOP), the revised NOP, the second revised NOP, and the associated NOP scoping meetings for the proposed project have been integrated into the analysis. Comments related to water supply are addressed in Impact Statement 5.11-2, comments related to stormwater conveyance are addressed in Impact Statement 5.11-3, comments related to police protection are addressed in Impact Statement 5.11-4, comments related to fire protection are addressed in Impact Statement 5.11-5, comments related to schools are addressed in Impact Statement 5.11-6, and comments related to electronic transmission are addressed in Impact Statement 5.11-9.

5.11.1 EXISTING ENVIRONMENTAL SETTING

The setting section describes the existing water system for the City of Sacramento, wastewater collection and treatment, law enforcement, fire protection, schools, libraries, solid waste collection and disposal, and other public utilities related to the proposed project site.

Water Supply

Supply Sources

The City of Sacramento is the water purveyor for the proposed project. The City relies on both surface water and groundwater for municipal and industrial uses. The City's water supply is obtained from three sources:

- Surface water obtained from the American River;
- Surface water obtained from the Sacramento River; and
- Groundwater.

The City owns and operates two water diversion and treatment facilities; the E.A. Fairbairn Water Treatment Plant (FWTP) and the Sacramento River Water Treatment Plant (SRWTP) divert water from the American River and Sacramento River, respectively. In 2003, the City finished an expansion of the SRWTP increasing its maximum capacity from 110 million gallons per day (mgd) to 160 mgd. An expansion of the FWTP was finished in May of 2005. The expansion increased the maximum capacity of the FWTP from 100 mgd to 200 mgd. The ultimate maximum combined design capacity of the two plants is approximately 545 mgd.

The City of Sacramento has a Sacramento River permit (Permit 992) to divert up to 225 cubic feet per second (cfs) and 81,800 acre-feet annually (afa) from the Sacramento River. In addition the City has four water right permits authorizing diversions of up to 589,000 afa of American River water. However, the City's American River water rights scale and the maximum diversion for the year 2030 is 245,000 afa. The City's maximum annual diversion allowance is shown in Table 5.11-1.

Table 5.11-1
Maximum Annual Diversion Allowed per Year

Year	Sacramento River	American River	Combined Diversion
2005	81,800	154,000	205,000
2010	81,800	170,500	227,500
2015	81,800	189,000	252,000
2020	81,800	208,500	278,000
2025	81,800	228,000	304,000
2030	81,800	245,000	326,800

Source: City of Sacramento Urban Water Management Plan, 2006.

The City overlies two sub-basins of the Sacramento Valley Groundwater Basin. According to the 2006 City of Sacramento Urban Water Management Plan (UWMP), the City currently operates 32 active municipal groundwater supply wells within the Sacramento Valley Groundwater Basin. The total pumping capacity of the City's groundwater wells is approximately 30 mgd or approximately 33,600 afa. In 2005, the groundwater supply wells pumped approximately 22,521 acre-feet (af) of groundwater for potable water consumption. The City also operates 14 wells for irrigation purposes.

In 2005, the City of Sacramento supplied 138,974 acre-feet (af) of potable water to approximately 136,347 water services in the City of Sacramento water service area. Approximately 49 percent of the City's water production was from the American River; approximately 33 percent from the Sacramento River; and the remaining 18 percent from groundwater wells.

In addition to supplying water to domestic retail customers, the City also provides water on a wholesale and wheeling basis to other districts and purveyors.

Storage

The City operates ten storage reservoirs, each with a capacity of three million gallons (MG), except for the Florin Reservoir, which has a capacity of 15 MG. In addition to the reservoirs, the treatment plants together maintain an on-site storage of over 32 MG. This water is used to meet the water demand for fire flows, emergencies, and peak hours. The amount of storage capacity currently existing in the City is adequate to serve emergency situations, even at full projected build out of the City.

Water Conservation

Water conservation practices were institutionalized through City ordinances as early as 1967, and have constantly evolved. In 1991, the City became a signatory to the California Urban Water Conservation Council's (CUWCC's) Memorandum of Understanding (MOU). The purpose of the MOU is to expedite implementation of reasonable water conservation measures in urban areas and to establish appropriate assumptions for use in calculating estimates of reliable future water conservation savings.

The City's water conservation program currently includes the following: residential plumbing retrofit; system water audits; leak detection and repair; conservation programs for large landscape, commercial, industrial and institutional accounts; rebate programs for high-efficiency washing machines and ultra low flush toilets; public information and school education programs; a water waste prohibition ordinance; and a water conservation coordinator. Previous passage of Assembly Bill 2572 mandates the installation of water meters on all water service connections not later than the year 2025. All new water connections include water meters.

Water Supply Availability

In 2003, SB 610 and SB 221 were signed into law by then Governor Gray Davis. These laws are intended to coordinate local land use and water supply planning. SB 610 requires each public water system that would supply water to a proposed project determine whether the projected water demand associated with the proposed project could be met when existing and planned future uses are considered. For the purposes of SB 610, Water Code Section 10912 (a)(2) requires all projects with a water demand equivalent to 500 or more dwelling units, or which include over 250,000 square feet of commercial office building, to obtain a Water Supply Assessment (WSA). In addition, SB 610 requires a quantification of water received by the water provider (City of Sacramento) in prior years from water rights, water supply entitlements, and water service contracts.

The City of Sacramento is subject to the requirements of the Urban Water Management Planning Act, which was established in 1983 by Assembly Bill 797. The Sacramento UWMP compared the City's projected supply and demand for multiple (three) dry years ending in 2006, 2013, 2018, 2023, and 2028, assuming scenarios of No Conservation, Conservation Savings of 7.5 percent, and Conservation Savings of 25.6 percent. Multiple droughts were assumed to consist of three consecutive years, two consecutive years with Hodge Flow Criteria governing at all times and followed by a single dry year. Table 5.11-2 shows that under the No Conservation and 7.5

Percent Conservation scenarios the City would not have sufficient water supplies to meet projected water demand in the year 2030 for both the Single Dry Year and Multiple Dry Year conditions.

Availability

The City of Sacramento has long-term surface water entitlements that exceed current demand. Based on the 2006 City of Sacramento Urban Water Management Plan, the City has an authorized surface water supply of 205,500 afa, which will increase to 227,500 afa in 2010. During the 2004/2005 fiscal year, the City's demand was 135,575.8 afa, including groundwater. Therefore, even if the City relied entirely on surface water supplies, an excess supply of 69,924 afa currently exists.[4]

Water Transmission

City Water Infrastructure

The City operates pumping facilities throughout the City. Water mains are separated by the City into two distinct categories: distribution mains are typically four inches to 12 inches in diameter and utilized for water services, fire services and fire hydrants; transmission mains larger than 12 inches are used to convey large volumes of water from the treatment plants to selected points throughout the distribution system and to transfer water to and from the storage reservoirs to meet fluctuating daily and seasonal demands.

Project Area Water Infrastructure

The project area is served by a system of water mains that provide key connection points that would serve the Curtis Park Village site. The City College Reservoir is situated west of the project between 11th and 12th Avenues and north of Hughes Stadium.

An 18-inch main runs southward from the tank to Sutterville Road. The 18-inch main then runs east-west in Sutterville Road. A 10-inch main is located in 24th Street from Sutterville Road north to 6th Avenue, where the pipe increases to a 12-inch pipe. At Donner Way, the main increases to a 14-inch pipe and runs northward to the alley between 3rd and 4th Avenues. A 16-inch main runs through this alley to connect to a 24-inch main that runs southward to the City College Reservoir. A 6-inch main is located in Portola Way and provides a smaller diameter connection point along the north edge of the project site, if necessary.

Project Site Water Infrastructure

Water would be provided to the project site by tapping new pipes into water infrastructure that exists around the project site. Pipelines would range in size from 8 inches to 12 inches in diameter. The typical grid pattern would be used to ensure adequate flow to all portions of the project for both domestic use and fire protection.

Table 5.11-2
Sacramento Water Supply and Demand

	2006	2010	2015	2020	2025	2030
Normal Year						
Surface Water Supply	209,500	227,500	252,000	278,000	304,000	326,800
Groundwater	22,400	22,400	22,400	22,400	22,400	22,400
Total Water Supply	**231,900**	**249,900**	**274,400**	**300,400**	**326,400**	**349,200**
Water Demand (No Conservation)	147,800	183,000	227,000	271,000	315,000	359,400
Difference	84,100	66,900	47,400	29,400	11,400	(10,200)
Water Demand (7.5% Conservation)	146,800	178,000	217,000	256,000	295,000	333,300
Difference	85,100	71,900	57,400	44,400	31,400	15,900
Water Demand (25.6% Conservation)	144,300	165,500	192,000	218,500	245,000	271,000
Difference	87,600	84,400	82,400	81,900	81,400	78,200
Single Dry Year						
Surface Water Supply	209,500	214,013	252,000	278,000	295,813	295,813
Groundwater	22,400	22,400	22,400	22,400	22,400	22,400
Total Water Supply	**231,900**	**236,413**	**274,400**	**300,400**	**318,213**	**318,213**
Water Demand (No Conservation)	147,800	183,000	227,000	271,000	315,000	359,400
Difference	84,100	53,413	47,400	29,400	3,213	**(41,187)**
Water Demand (7.5% Conservation)	146,800	178,000	217,000	256,000	295,000	333,300
Difference	85,100	58,413	57,400	44,400	23,213	**(15,087)**
Water Demand (25.6% Conservation)	144,300	165,500	192,000	218,500	245,000	271,000
Difference	87,600	70,913	82,400	81,900	73,213	47,213
Multiple Dry Years[1]						
Surface Water Supply	209,500	214,013	242,000	268,000	293,500	295,813
Groundwater	22,400	22,400	22,400	22,400	22,400	22,400
Total Water Supply	**231,900**	**236,413**	**264,400**	**290,400**	**315,900**	**318,213**
Water Demand (No Conservation)	147,800	183,000	227,000	271,000	315,000	359,400
Difference	84,100	53,413	37,400	19,400	900	**(41,187)**
Water Demand (7.5% Conservation)	146,800	178,000	217,000	256,000	295,000	333,300
Difference	85,100	58,413	47,400	34,400	20,900	**(15,087)**
Water Demand (25.6% Conservation)	144,300	165,500	192,000	218,500	245,000	271,000
Difference	87,600	70,913	72,400	71,900	70,900	47,213

[1]Due to the methodology used in the Urban Water Management Plan water supply figures are for the nearest multiple dry year, and demand is for the year in question. See Table 7-4 of the Urban Water Management Plan.

Source: City of Sacramento Urban Water Management Plan, 2006.

Wastewater Collection and Treatment

City of Sacramento Combined Sewer System

The central Sacramento area is primarily served by a system in which sanitary sewage and storm drainage are collected and conveyed in the same system of pipelines, referred to as the Combined Sewer System (CSS). The project site is located in an area of Sacramento served by the CSS. A 114-inch combined sewer crosses the site from Donner Way on the east to a rear lot line between Bidwell Way and Weller Way on the west. This pipeline, known as the Donner Interceptor, would be the destination for sanitary sewage and storm drainage originating on the project site. The CSS is a combined wastewater collection system designed to convey domestic sewage, commercial and industrial wastewater, and surface stormwater runoff in a single pipeline.

The City of Sacramento's CSS consists of pipelines and other facilities. Facilities include pumping stations, an off-line storage facility known as Pioneer Reservoir that also functions as a primary treatment plant and the Combined Wastewater Treatment Plant (CWTP), another primary treatment plant with a capacity of 130 mgd. In addition, there are other off-line and in-line storage facilities that have been constructed at locations in the system that are vulnerable to flooding of combined sewage. The collection system is divided into networks consisting of trunks, interceptors, reliefs, force mains, laterals, and other pipelines

The off-line storage facility, Pioneer Reservoir, is a 3.5-acre, pile-supported, covered, reinforced-concrete structure located near Front and U Streets. Pioneer Reservoir was constructed in 1980 to provide 23 MG of temporary storage in order to reduce SSOs to approximately five to six events per year. The reservoir has a peak hydraulic capacity of approximately 350 mgd and a treatment capacity of approximately 250 mgd. Pioneer Reservoir was converted to a primary treatment in 1999. Flows from Pump Station 2/2A can be routed to Pioneer Reservoir via the Pioneer Inceptor, a 120-inch diameter, 8,800-foot long pipe. The Interceptor can also provide an additional five mgd of storage.

The Sacramento Regional Wastewater Treatment Plant (SRWTP) has an existing wastewater treatment capacity of approximately 400 mgd of wet weather flow during peak wet weather conditions. The SRWTP currently receives an average 165 mgd during dry weather conditions and 220 mgd during wet weather conditions.

Currently, the discharge rates to the SRWTP are restricted to 60 mgd peak flow from Sump 2/2A by a Master Interagency Agreement with the Sacramento Regional Community Services District (SRCSD). Approximately 20 to 30 mgd of dry weather sewer flows to the SRWTP from Sump 2.

Operation of the Combined Sewer System

The City operates two pump stations, known as Sump 1/1A and Sump 2/2A. Initially, all combined wastewater is sent to Sump 1/1A and Sump 2/2A where the wastewater is pumped to SRWTP and to Pioneer Reservoir and the CWTP to receive secondary and primary treatment, respectively, before being discharged to the Sacramento River.

During dry weather and during small storm events, flows are sent to Sump 2A, which pumps the combined wastewater, up to 60 mgd, to the SRWTP. During storm events when the CSS flows are greater than 60 mgd, these flows greater than 60 mgd are routed to CWTP and Pioneer Reservoir for storage. As flow volume exceeds storage capacity, City operators release flows to the Sacramento River after receiving primary treatment, including chlorination and de-chlorination. After treatment capacity (SRWTP, CWTP, and Pioneer Reservoir) and the hydraulic capacity of Pioneer Reservoir is reached, additional CSS flows are discharged directly into the Sacramento River from Sump 2 or Sump 1. In addition, if the capacities of the upstream pipeline system are surpassed, untreated combined sewage (called CSS outflows) can flood local streets in the CSS through manholes and catch basins.

The City produced a Long Term Control Plan (LTCP) that includes system improvements to reduce CSOs to the Sacramento River and CSS outflows to the city streets. To address impacts to the system from development, the City, on March 15 2005, approved an ordinance amending Chapter 13.08 of the City Code and established a Combined System Development Fee to provide funds to construct projects to mitigate downstream impacts.

Combined Sewer System for the Proposed Project Site

Three separate detention systems are proposed for the project site, including one for flows originating from off-site, and two for flows originating on-site.

First, the City's Curtis Park CSS project would reduce sewer outflows for the Donner Interceptor, which is overtaxed during storm periods. This storage project would store some flows from areas outside the project site and storage would be provided in a series of underground pipes or a vault located in a portion of the Curtis Park Village open space area. During high flow periods, the excess would be detained, then pumped or sent via gravity flow back into the Donner Interceptor when flows subside. This system would be the result of a long-planned City project consistent with the Combined Sewer System Rehabilitation and Improvement Plan, and would be separately administered by the City. Three potential options have been studied for the location of the storage facility: (1) underground vault or underground installation of concrete pipes or vaults within the park area; (2) underground installation of pipes or vaults on one or both sides of the Donner Interceptor located in the 0.7-acre parkway included in the proposed extension of Donner Way; and (3) a combination of 1 and 2. Encapsulation of soils under the revised RAP underneath the park area would require the City's CSS project to be relocated.

The proposed project's sewer and storm drain systems would be separate systems. The option that includes underground installation of pipes or vaults on one or both sides of the Donner Interceptor would provide some storage for off-site flows and, at the same time, provide adequate storage for the proposed project's sanitary sewer flows. If the City's CSS project is constructed as planned, the proposed project would contribute the project's fair share to the City's CSS project. However, if the construction of the City's CSS project is delayed or eliminated, the proposed project would provide underground storage of project sewer and stormwater on-site.

Sewage would be conveyed in a system of pipelines that serve only the project site, and additional flows would not enter from off-site. Pipelines would range in size from eight to 10 inches in diameter. Sewage generated from the project area north of the Donner Interceptor would flow directly to the Donner Interceptor. Sewage generated from the project area south of the Donner Interceptor would flow to the Donner Interceptor when the flows in Donner Interceptor are moderate, or would be temporarily stored in the detention system described above, prior to the Donner Interceptor.

Drainage Basins

City Drainage Basins

The City is divided into 120 drainage basins. Drainage from most of these basins flows to local rivers or creeks or drainage channels through pumping. The City owns and operates 105 storm drainage pumping stations throughout the City. The drainage canals and local creeks eventually drain into the Sacramento and American Rivers.

It should be noted that the potential for flooding on the project site is addressed in Chapter 5.9, Hydrology, Water Quality, and Drainage, in this Draft EIR.

Project Site Storm Drainage

As discussed above under the "City of Sacramento Combined Sewer System" section, storm drainage would be conveyed to the detention facilities by underground pipeline system during a 10-year storm event. In a 100-year storm event, the runoff would be conveyed in underground pipes and via street and sheet flow into the detention basin for the proposed project, which would be located either within the park or in an alternate location stored below grade. The conveyance system will be designed to handle 10-year 6-hour storm events and the detention basin would be sized to handle 100-year 10-day storm events, as required by the Department of Utilities. Under the updated RAP, the storm drainage retention could be located in the open space area in conjunction with oversized conveyance pipes or private detention basins located within the park on-site or in an alternate underground location on-site. Development is proposed on both sides of the Donner Interceptor. The total combined runoff allowed to enter the Donner Interceptor has been set not to exceed eight cfs. The eight cfs is the estimated existing discharge prior to development; flows in excess of this would be diverted to storage (flows in excess of eight cfs would be any flows associated with buildout of the Curtis Park Village project). Pipelines would range in size from 12 to 30 inches in diameter. Currently the site is undergoing remediation and surface drainage is collected in excavation pits. After remediation and prior to development of the proposed project, surface drainage would primarily infiltrate into the soil, as surface drainage on vacant, undeveloped land would. During large storm events, most stormwater would sheet flow into the City's CSS.

Wastewater Treatment

Wastewater treatment within the City of Sacramento is provided by the Sacramento Regional County Sanitation District (SRCSD). SRCSD operates all regional interceptors and wastewater

treatment plants serving the City except for the combined sewer and storm drain treatment facilities, which are operated by the City of Sacramento. The City provides wastewater collection to about two thirds of the area within the City Limits, which is comprised of two distinct areas: the area served by the combined sewer system (CSS), and the areas served by a separated sewer system. The project site is served by the City's CSS facilities.

Wastewater Treatment Plant

The Sacramento Regional Wastewater Treatment Plant (SRWTP), which is located just south of the city limits, provides sewage treatment for the entire City of Sacramento. All of the flows from the CSS are treated by the SRWTP; the City only uses the CWTP during large storm events. The City uses the basins at the CWTP to store wastewater until capacity becomes available at the SRWTP, and then the stored volume is conveyed to the SRWTP.

The SRWTP is a high-purity oxygen-activated sludge facility, permitted to treat an average dry weather flow (ADWF) of 181 mgd and a daily peak wet weather flow of 392 mgd. Currently, the facility's ADWF is approximately 150 mgd. After secondary treatment and disinfection, a portion of the effluent from the plant is further treated in SRCSD's Water Reclamation Facility and then used for landscape irrigation within the City of Elk Grove. The majority of the treated wastewater is dechlorinated and discharged into the Sacramento River. The SRCSD maintains the regional interceptors that convey sewage to the SRWTP.

Law Enforcement

City of Sacramento Police Department

Police protection services are provided by the Sacramento Police Department (SPD) for areas within the City. As of May 2008, the SPD was staffed by approximately 798 sworn police officers, 438 civilian staff, and 27 part-time non-career employees. The project site would be served by the South Area station, the Joseph E. Rooney Police Facility at 5303 Franklin Boulevard. The South Command is responsible for the area bounded by Highway 50 to the north, the Sacramento River to the west, Highway 99 to the east and Sheldon Road to the south..

The SPD uses a goal of 2.0 to 2.5 sworn police officers per 1,000 residents and one civilian support staff per two sworn officers for its master planning. The department is currently funded for 1.7 officers per 1,000 residents. The Sacramento PD is in the process of preparing a Master Plan, which is expected to provide more specific information regarding the needs of the department and plans for determining appropriate levels of service.

Response Times

Response time is one of the primary means of measuring the adequacy of police services. Priority 1 calls (P1) are classified as life threatening situations. The urgency of the call descends as the priority level changes. For example, Priority 2 calls (P2) are less urgent than P1 calls and Priority 3 calls (P3) are less urgent than P2 calls. The SPD does not have an adopted response time standard. In 2003, the SPD responded to P1 calls in less than nine minutes.

Projected Needs

The SPD does not have any currently funded projects for the remodeling or construction of facilities. As the City grows in the south and north areas and traffic congestion correspondingly increases, the SPD is expected to continue to decentralize to maintain adequate response times to areas near the City's borders. New police facilities, with adequate staffing and equipment, would be required as buildout of the General Plan occurs. Adequate staffing requires not only sworn staff, but also civilian employees with technical abilities (including crime scene investigators and dispatchers) to support the SPD's services.

Fire Protection

City of Sacramento Fire Department

The Sacramento Fire Department (SFD) provides fire protection services to the entire City and some small areas just outside the City boundaries within the County limits. In 2007, the SFD employed 635 personnel (535 fire suppression personnel and 100 fire prevention personnel and support staff) providing protection and response services to the City's residents and visitors. The SFD currently operates 23 fire stations, which house 23 engine companies, eight truck companies, one heavy rescue company, and 12 ambulance units.

Fire Station Locations

Fire stations are strategically located throughout the City to provide assistance to area residents. Each fire station operates within a specific district that comprises the immediate geographical area around the station. Stations are staffed by four-person companies for engine and truck companies and two-person companies for each medic unit. At a full station, which would include an engine, a truck, and a medic unit, there would be 10 staff per shift, for three shifts per day. The project site would be served by Station 12, located at 4500 24th Street, which is approximately 0.5 mile south of the project site.

Fire and Medical Incidents

During 2006, the SFD responded to over 69,000 incidents calls. An acceptable service level, defined by the SFD, requires paramedic response to an incident in eight minutes or less, 90 percent of the time. The average response time for all SFD engine companies in 2006 was 4.5 minutes, except in cases where additional resources are needed, which currently takes more than nine minutes. In recent years, response times have increased in some areas due to increasing population.

As stated in the 1993 SFD Master Plan, an activity level of 3,000 calls per year is considered extremely high for a fire company and is used as a "maximum desirable" workload. When the emergency call volume for a company exceeds this level, the SFD Master Plan indicates that the ability to meet training requirements, conduct pre-fire planning and fire prevention activities and perform other non-emergency functions can be compromised. Additionally, above 3,000 calls per year, company availability (the probability that a company will be available to respond to a

call in its area) can affect average response times. A maximum company activity level of 3,500 calls per year is often quoted as a practical limit, although some companies operate with even higher activity levels. According to the 2004 SFD Annual Report, on average, the 2004 dispatches for each of the 21 engine companies ranged from a low of 768 to a high of 4,694, with an average of 2,707 dispatches.

Schools

The Sacramento City Unified School District (SCUSD) is the primary provider of school services within the City. The SCUSD operates more than seventy schools throughout the City; the district includes traditional elementary, middle, and high schools, as well as alternative education and charter school facilities. The SCUSD area covers the Central City, east to the City Limits. The proposed project is located within the assignment areas of Crocker Riverside Elementary, California Middle School, and C.K. McClatchy High School.

Capacity

During the 2007-2008 school year, the District had an enrollment of 26,308 elementary, 7,697 middle school, and 14,441 high school students.[5] The SCUSD considers a school overcrowded when the school is operating at 90 percent of capacity. Using this standard, 52 of the district's 79 schools are overcrowded and 11 of the SCUSD's schools are operating with more students than they can accommodate.

The total enrollment in the SCUSD has declined from a 2001-2002 peak of 52,850 students to the 2007-2008 total of 48,446 students. The decreasing enrollment projection was attributed to three factors: the drop in amounts of local births, the relatively stable amount of people moving in and out of the area, and the relatively insignificant amount of local residential development.

Libraries

The Sacramento Public Library (SPL) is a joint powers agency of the City of Sacramento and the County of Sacramento. The main branch of the SPL, also known as the Central Library, is located in downtown Sacramento at 8th and I Street. The branches nearest to the project site are the Belle Coolidge Community Library at 5600 South Land Park Drive and Colonial Heights Community Library at 4799 Stockton Boulevard.

Projected Needs

According to the 2007-2025 Library Master Plan, the Belle Coolidge Community Library maintained 0.15 square feet of library space per capita (persons within the service area) within the service area, and 1.00 library volumes per capita. The Colonial Heights Community Library maintained 0.12 square feet of library space per capita, and 1.5 library volumes per capita. Currently, the library does not have per capita standards to define adequate levels of library space or holdings. The Facilities Master Plan identified the need for renovation and expansion of both the Belle Coolidge Community Library and the Colonial Heights Community Library.

Construction of the new facilities is planned to occur before 2015, and the existing facilities are to be renovated by 2025.

Solid Waste Collection and Disposal

Currently, the City collects all residential solid waste and about a third of the commercial solid waste for customers within the City and transports the waste to the Sacramento Recycling and Transfer Station on Fruitridge Road, and then to the Lockwood Landfill in Sparks, Nevada. The residential portion of the proposed project would be served by the City of Sacramento. Commercial facilities would be served by either the City or private waste haulers. The City takes 500 tpd to BLT Enterprises Landfill, with approximately another 500 received from Commercial Franchise Haulers. When checking on total tons per day, the LEA estimated it to be about 1700 tpd. Their permit is for 2500 tpd. This includes disposal and recyclables, all waste received.

The Lockwood Landfill is the regional landfill for five western states including Nevada, California, Oregon, Utah, and Idaho. The Lockwood Landfill accepts between 8,000 and 9,000 tons of solid waste per day, over 500 tons of which come from Sacramento. The Lockwood Landfill in Sparks, Nevada is owned and operated by Waste Management, Inc. and is the primary location for the disposal of waste by the City of Sacramento. The landfill accepts municipal waste, industrial waste and special waste. Most of the municipal waste disposed of at the landfill is imported from outside of the county in Nevada.

Waste Generation

The waste stream generated in the City of Sacramento is in excess of 1.13 million tons per year and includes everything from recycling to construction demolition material to garden refuse. The City collects approximately 30 percent of this waste and the remainder is collected by private parties, including franchised haulers and individual residents. The City delivered to BLT approximately 117,000 tons with another 25,000 to NARs for a total of 142,000 tons in 2008 (disposal only).

Landfill Capacity

The Lockwood Landfill is estimated to have enough capacity to remain open until the year 2035; however, an expansion is being planned that would add approximately 100 years to the useful life of the landfill. Private haulers of solid waste within the City can deliver the waste to a variety of landfills. The Kiefer Landfill is the primary municipal solid waste disposal facility in Sacramento County and is the only landfill facility in Sacramento County permitted to accept household waste from the public. The landfill facility sits on 1,084 acres, but currently uses only 250 acres as landfill. The landfill currently contains about 31 million cubic yards of waste, but has a permitted capacity of over 117 million cubic yards and should be able to serve the area for many years to come.

In addition, as part of remediation activities, contaminated soils that are excavated and hauled away from the project site will be taken to the East Carbon Development Corporation (ECDC)

landfill located in East Carbon, Utah. This landfill is a 2,000-year landfill that has a capacity of 300,000,000 cubic yards. Currently, approximately 90 percent of the contents of the landfill are non-hazardous contaminated soils.

Other Public Utilities

Electric power, cable television, gas, and telephone have been provided to the areas surrounding the project site and would tie into the Curtis Park Village site.

Electricity

The Sacramento Municipal Utility District (SMUD) provides electrical service to customers generally within the City of Sacramento and Sacramento County. SMUD-owned power generation resources supply approximately 50 percent of its customers energy needs.

SMUD produces power through hydroelectric, thermal (natural gas), wind, and solar resources. The majority of SMUD's generated power is produced by the Upper American River Project, a hydroelectric facility on the western slope of the Sierra Nevada. This project, consisting of eleven reservoirs and eight powerhouses, generates enough electricity to meet about 20 percent of SMUD's customer demand. In addition, the Cosumnes Power Plant, located on the now decommissioned Rancho Seco nuclear power plant site, provides 500-megawatts of power.

In addition to the above power sources, SMUD operates the Solano Wind Project, two photovoltaic generating facilities and two geothermal units. These power sources account for a small but important portion of the electricity generated by SMUD, because the power projects are part of an effort to expand SMUD's renewable energy supplies. SMUD provides multiple Green Power programs for residential and commercial customers to help preserve natural resources and reduce pollution.

According to the *Sacramento 2030 General Plan Master EIR* (p. 6.11-85), in order to serve buildout of the General Plan through 2030, SMUD has proposed several projects to accommodate the increase in demand for electricity.

Natural Gas

Pacific Gas & Electric (PG&E) supplies natural gas service to the Sacramento Planning Area. According to the *Sacramento 2030 General Plan Master EIR* (p. 6.11-85), PG&E has stated that natural gas can be supplied upon buildout of the General Plan without jeopardizing other existing or projected service commitments in the City.

5.11.2 REGULATORY BACKGROUND

State Regulations

Water Planning

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610 – 10656). The Act requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually shall prepare and adopt an urban water management plan. The Act states that urban water suppliers should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Act also states that the management of urban water demands and the efficient use of water shall be actively pursued to protect both the people of the State and their water resources.

Water Quality

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) manages all water rights and water quality issues in California under the terms of the Porter-Cologne Water Quality Control Act (1969). The California Department of Health Services (DHS) has been granted primary enforcement responsibility for the SDWA (see above). Title 22 of the California Administrative Code establishes DHS authority and stipulates drinking water quality and monitoring standards. These standards are equal to or more stringent than the federal standards.

Water Supply

SB 610/SB 221

Senate Bills 610 and 221, which took effect January 1, 2002, require, specific information about water availability be presented and considered by land use agencies during the processing of certain land use entitlement applications. SB 610 and SB 221 apply to projects that include more than 500 residential units, or that would result in water demand that is equivalent to 500 residential units.

Energy

State Building Energy Efficiency Standards, Title 24

The energy consumption of new buildings in California is regulated by State Building Energy Efficiency Standards, Title 24. These are contained in the California Code of Regulations, Title

24, Part 2, Chapter 2-53. Enforcement of the regulations is addressed in the California Code of Regulations, Title 20, Chapter 2, Subchapter 4, Article 1. Title 24 applies to all new construction of both residential and non-residential buildings, and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. Title 24 is the minimum requirement for energy efficiency.

Fire Services

Uniform Fire Code

The Uniform Fire Code contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Code contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, include regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

Schools

California Code of Regulations

The California Code of Regulations, Title 5 Education Code, governs all aspects of education within the State.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The following policies from the recently adopted *Sacramento 2030 General Plan* are applicable to public services:

Police Services

Policy PHS 1.1.2 Response Time Standards. The City shall strive to achieve and maintain appropriate response times for all call priority

levels to provide adequate police services for the safety of all city residents and visitors.

Policy PHS 1.1.4 Timing of Services. The City shall ensure that development of police facilities and delivery of services keeps pace with development and growth in the City.

Policy PHS 1.1.7 Development Review. The City shall continue to include the Police Department in the review of development projects to adequately address crime and safety, and promote the implementation of *Crime Prevention through Environmental Design* principles.

Policy PHS 1.1.8 Development Fees for Facilities and Services. The City shall require development projects to contribute fees for police protection services and facilities.

Fire Services

Policy PHS 2.1.4 Response Units and Facilities. The City shall provide additional response units, staffing, and related capital improvements, including constructing new fire stations, as necessary, in areas where a company experiences call volumes exceeding 3,500 in a year to prevent compromising emergency response and ensure optimum service to the community.

Policy PHS 2.1.5 Timing of Services. The City shall ensure that the development of fire facilities and delivery of services keeps pace with development and growth of the city.

Policy PHS 2.1.11 Development Fees for Facilities and Services. The City shall require development projects to contribute fees for fire protection services and facilities.

Policy PHS 2.2.2 Development Review for New Development. The City shall continue to include the Fire Department in the review of development proposals to ensure projects adequately address safe design and on-site fire protection and comply with applicable fire and building codes.

Policy PHS 2.2.3 Fire Sprinkler Systems. The City shall promote installation of fire sprinkler systems for both commercial and residential use and in structures where sprinkler systems are not currently required by the City Municipal Code or Uniform Fire Code.

Policy PH2 2.2.4 Water Supplied for Fire Suppression. The City shall ensure that adequate water supplies are available for fire-suppression equipment and material, and be served by fire stations containing truck companies with specialized equipment for high-rise and/or emergency incidents.

Libraries

Policy ERC 3.1.1 Adequate Services and Facilities. The City shall ensure adequate library services and facilities are maintained for all residents.

The following goals and policies from the recently adopted *Sacramento 2030 General Plan* are applicable to utilities:

Citywide Utilities

GOAL U1.1 High-Quality Infrastructure and Services. Provide and maintain efficient, high quality public infrastructure facilities and services throughout the city.

Policy U1.1.5 Timing of Urban Expansion. The City shall assure that new public facilities and services are phased in conjunction with the approved urban development it is intended to service.

Policy U1.1.6 Growth and Level of Service. The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth.

Water Systems

GOAL U2.1 High-Quality and Reliable Water Supply. Provide water supply facilities to meet future growth within the City's Place of Use and assure a high-quality and reliable supply of water to existing and future residents.

Policy U2.1.8 New Development. The City shall ensure that water supply capacity is in place prior to granting building permits for new development.

Policy U2.1.10 Landscaping. The City shall continue to require the use of water-efficient landscaping in all new development.

Wastewater Systems

GOAL U3.1 Adequate and Reliable Sewer and Wastewater Facilities. Provide adequate and reliable sewer and wastewater facilities that collect, treat, and safely dispose of wastewater.

Policy U3.1.2 New Developing Areas. The City shall ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future.

Stormwater Drainage

GOAL U4.1 Adequate Stormwater Drainage. Provide adequate stormwater drainage facilities and services that are environmentally-sensitive, accommodate growth, and protect residents and property.

Policy U4.1.1 Adequate Drainage Facilities. The City shall ensure that all new drainage facilities are adequately sized and constructed to accommodate stormwater runoff in urbanized areas.

Policy U4.1.4 Watershed Drainage Plans. The City shall require developers to prepare watershed drainage plans for proposed developments that define needed drainage improvements per City standards, estimate construction costs for these improvements and comply with the City's (National Pollutant Discharge Elimination System) NPDES permit.

Solid Waste

GOAL U5.1 Solid Waste Facilities. Provide adequate solid waste facilities, meet or exceed State law requirements, and utilize innovative strategies for economic and efficient collection, transfer, recycling, storage, and disposal of refuse.

Policy U5.1.7 Diversion of Waste. The City shall encourage recycling, composting, and waste separation to reduce the volume and toxicity of solid wastes sent to landfill facilities.

Policy U5.1.12 Recycling and Reuse of Construction Wastes. The City shall require recycling and reuse of construction wastes, including recycling materials generated by the demolition and remodeling of buildings, with the objective of diverting eighty-five percent to a certified recycling processor.

City of Sacramento Zoning Ordinance

Solid Waste

Section 34 of the City's Zoning Ordinance requires multi-family and other non-residential development projects to incorporate mitigation measures that address the recycling and reduction of solid waste for new land development.

City of Sacramento Municipal Code - Chapter 2.24 (Fire Department)

This chapter sets forth the guidelines for the SFD and includes such regulations associated with the powers and duties of the fire chief and the general organization of the SFD, tampering with fire alarm systems, false alarms, and interference with fire alarm systems. In addition, this chapter establishes the SFD rates and fees for associated services.

Fire Services

Chapter 15.36 of the City Code adopts the Uniform Fire Code with such deletions, amendments, and additions thereof as set forth in the chapter. This is also known as the "fire prevention code" of the City.

5.11.3 IMPACTS AND MITIGATION MEASURES

Method of Analysis

This section evaluates the project impacts on the existing utilities. In order to assist the impact discussion, the agencies and organizations responsible for the utilities were contacted.

Standards of Significance

For the purposes of this report an impact would be considered significant if the project would:

- Increase demand for potable water in excess of existing supplies or result in inadequate capacity in the City's water supply facilities to meet the water supply demand, so as to require the construction of new water supply facilities;
- Result in the determination that adequate sewer or storm drainage capacity is not available to serve the project's demand in addition to existing commitments;
- Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts;
- Require or result in the construction of new energy production and/or transmission facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Require or result in either the construction of new telecommunication facilities or the expansion of existing telecommunication facilities, the construction of which could cause significant environmental effects;

- Require, or result in, the construction of new, or the expansion of existing, facilities related to the provision of police or fire protection;
- Generate students that would exceed the design capacity of existing or planned schools that would result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts; or
- Require, or result in, the construction of new, or the expansion of existing, facilities related to the provision of library services.

Project-Specific Impacts and Mitigation Measures

5.11-1 Impacts to public services and utilities associated with the update of the Remedial Action Plan.

Under the current Remedial Action Plan (RAP), contaminated soils would be excavated and disposed of at an appropriately certified landfill, and clean fill dirt would be brought in to return the site to the current grade. Updates to the remedies allowed under the proposed RAP would potentially allow for contaminated soils to be remediated on-site or concentrated and capped with a membrane and clean soils. Similar to the current RAP, the remedies associated with the updated RAP would involve extensive excavation and grading. It should be noted that stormwater drainage for the project site under both the existing RAP and the updated RAP would remain the same; drainage patterns on-site would not be affected by any of the remedies associated with the updated RAP and impervious surfaces on-site would not increase. In addition, after remediation of the site and prior to development of the proposed project, surface drainage would primarily infiltrate into the soil, as surface drainage on vacant, undeveloped land would. During large storm events, most stormwater would sheet flow into the City's CSS.

As discussed in the Existing Environmental Section above, the contaminated soils would be removed and disposed of at the East Carbon Development Corporation (ECDC) landfill in East Carbon, Utah. The ECDC landfill is a 2,000-year landfill with a capacity of 300,000,000 cubic yards. The landfill is currently at approximately five percent of capacity, with 100 of a total of 2,100 acres developed. The maximum amount of contaminated soils that would be sent to the ECDC landfill is approximately 200,000 cubic yards, which represents only a small fraction of the landfill's capacity.

Because remediation of the site under the updated RAP would not introduce any new structures or residents to the project site, remediation would not result in an increased demand for any of the following: water supply, treatment, or conveyance; stormwater and wastewater collection and treatment; solid waste disposal services; energy or telecommunication services; or police, fire, school, or library services. In addition, shipment of the site's contaminated soils to a landfill facility would not result in any adverse impacts to public services and utilities. Therefore, impacts to public services and utilities associated with updating the RAP would be ***less than significant***.

Mitigation Measure(s)
None required.

5.11-2 Impacts related to increased demand for water supply, treatment, and/or conveyance.

Water Supply

According to the demand calculations prepared for the proposed project, the project would result in an estimated water demand of approximately 225.0 acre-feet/year, while water demand for the project site pursuant to buildout of existing zoning would be approximately 285.2 acre-feet/year (See Table 5.11-3). The UWMP included the estimated demand from the existing zoning of project site, which is for industrial uses. Therefore, the project would result in an approximately 60.2 acre-feet/year net decrease in water demand as compared to buildout pursuant to the existing zoning for the site.

Therefore, the City of Sacramento has sufficient water to supply the proposed project in conjunction with the existing and planned uses (with 7.5 percent conservation) for the 20-year projection in Normal, Single-Dry, and Multiple-Dry Years, and the proposed project would not result in adverse impacts related to water supply.

Water Treatment Facilities

The combined reliable production capacity of the FWTP and the SRWTP, along with groundwater, is 255 mgd. The average production rate of the two plants over the 2004/2005 fiscal year was 107.3 mgd, with a combined maximum demand of 209 mgd; therefore, sufficient capacity exists to serve the proposed project. In addition, the proposed project would pay applicable connection fees for the upkeep and expansion of treatment facilities. It should be noted that the proposed project would use less water than the industrial uses that would be built out per the site's existing zoning. Implementation of the proposed project would not result in adverse impacts to water treatment facilities.

Conveyance

Water would be provided to the project site by tapping new pipes into water infrastructure that exists around the project site. Pipelines would range in size from eight inches to 12 inches in diameter (or larger if required by a water distribution system analysis). The typical grid pattern would be used to ensure adequate flow to all portions of the project for both domestic use and fire protection.

Table 5.11-3
Proposed Project vs. Existing Zoning Water Demand

Type of Development	Demand Factor (acre feet per year)	Proposed Project		Existing Zoning	
		Acres	Total Demand	Acres	Total Demand
Residential – Low and Medium Density	3.05	35.6 acres	108.6 acre-feet/year		
Commercial	2.78	25.7 acres	71.5 acre-feet/year		
Industrial	3.70			71.7 acres	265.3 acre-feet/year
Parks and Recreation	3.89	7.5 acres	29.2 acre-feet/year		
Non-Irrigated Open Space And Agriculture	0.00	2.9 acres	0.0 acre-feet/year		
Subtotal		**71.7 acres**	**209.3 acre-feet/year**	**71.7 acres**	**265.3 acre-feet/year**
Losses – 7.5% of Subtotal			15.7 acre-feet/year		19.9 acre-feet/year
Total Demand			**225.0 acre-feet/year**		**285.2 acre-feet/year**

In addition, the City's policy is to require new commercial areas to install 12-inch mains in order to maintain fire flow capacity. The City determines placement of new water distribution facilities as development plans are formulated. According to the utility plan for the proposed project, water mains of various sizes (six to 24 inches) would be installed along the north, south, east, and west boundaries of the project site. All of the new water mains would be installed within the proposed project site.

Through the City's approval process, the project applicant would be required to provide proof that adequate fire flow exists to serve the project site. Because the project would connect to existing adjacent water infrastructure and the project would be required by the City to provide adequate fire flow to the project site, adverse impacts would not result.

Conclusion

As discussed above, the proposed project would not result in water demand that would exceed the City's available water supply. In addition, adequate water treatment facilities exist to serve the proposed project site. Furthermore, the project applicant would be required to provide adequate fire flow to serve the project site, and all new water infrastructure would be constructed on-site. It should be noted that through the project approval process, the applicant will also be required to submit further proof that potable water exists for the proposed project. Therefore, impacts related to adequate water supply, water treatment, and water conveyance (including fire flows) would be ***less than significant.***

Mitigation Measure(s)
None required.

5.11-3 Increased demand for stormwater and wastewater collection and treatment.

Stormwater Collection and Treatment

The Donner Interceptor, a 114-inch combined sanitary and storm drain pipeline is located across the northern part of the Curtis Park Village project. This pipeline serves the area surrounding the project site and would serve the project site's sanitary sewage and storm drainage as well, with some modifications because the Donner Interceptor capacity is currently exceeded during peak flow conditions. The City's proposed Curtis Park Combined Sewer Storage project will reduce flooding of CSS from existing flows in the project area and to mitigate new sewer flows from the Curtis Park Village project. It should be noted that if the capped soil containment cell remedy is selected, the scope of the City's project, and the options and location of the planned storage vault or pipes may change.

The storm drain and sanitary sewer collection systems for the proposed project would be separate, and the stormwater originating from the Curtis Park Village project

would be retained separately from the combined sewer originating from off-site (See Figure 5.11-1).

At buildout, the addition of up to 178 single-family homes, 292 multi-family units, and 260,000 square feet of commercial and retail uses would contribute new sewer flow originating from the project site. The sewer flow would be conveyed in an underground system of pipes eight to 10 inches in diameter and would be discharged in the Donner Interceptor. Due to the limited capacity available in the Donner Interceptor at peak flow conditions, the project's sewer flow will need to be mitigated. The proposed project would provide its own sewer storage by paying to expand the City's CSS project or by providing alternate underground storage on-site. The City's CSS project has undergone environmental review and would be constructed with or without the development of the Curtis Park Village project.

If the City's CSS project is not constructed prior to the proposed project, the proposed project would provide private on-site storage for sewer flows, which would be held on-site until the Donner Interceptor could accept the flows. The private sewer storage facility would be reviewed and approved by the Department of Utilities, prior to its construction, in order to ensure that facility is adequate for accommodation of the project's sewer flows.

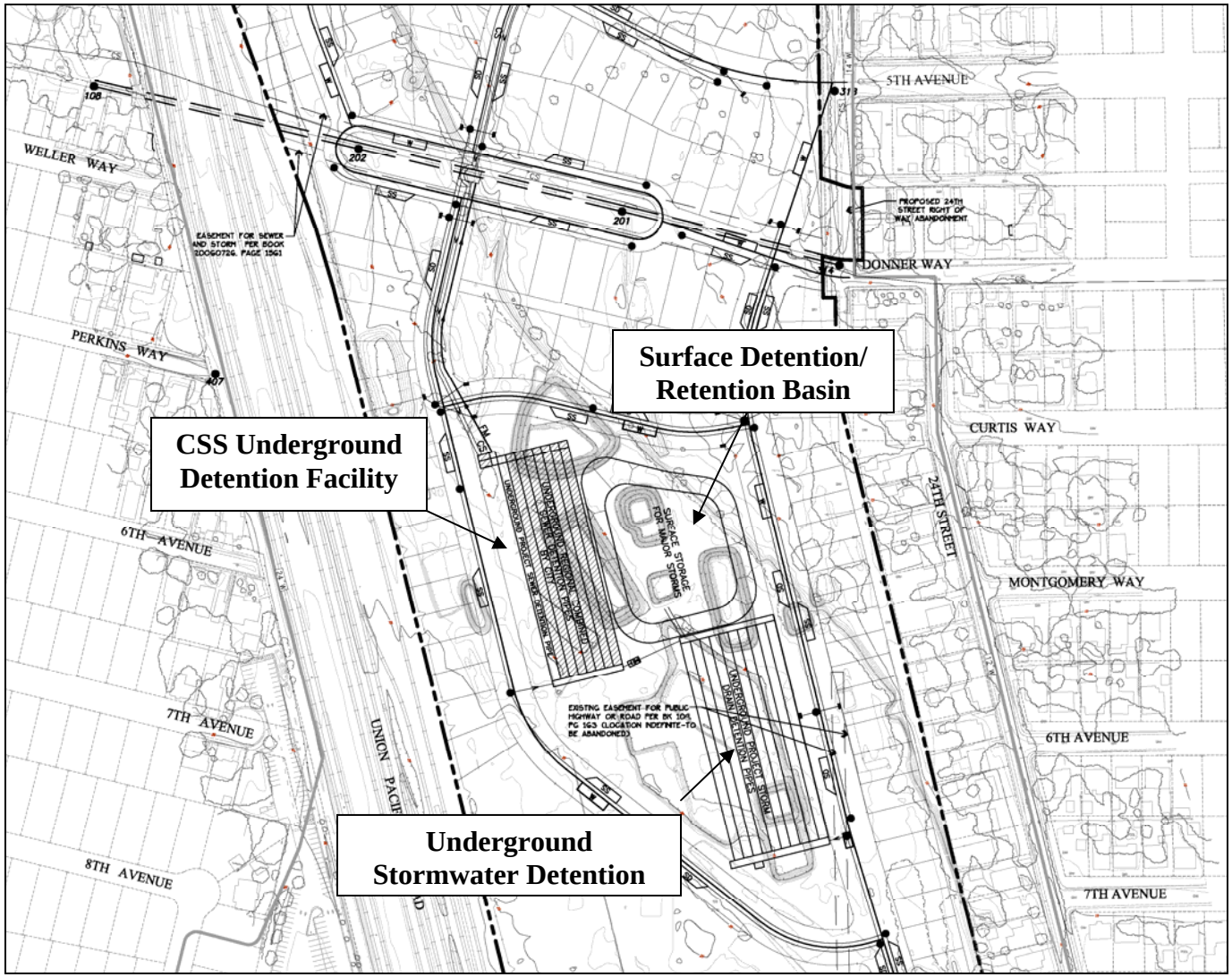
Implementation of City's CSS project or the proposed project's private sewer storage facility (if the City's CSS project is not built) would be sufficient to accommodate projected flows from the project site, and adverse impacts to stormwater collection would not result.

Stormwater Runoff

Site runoff generally drains to the east along the middle part of the inactive portion adjacent to 24th Street residences and to the southwest towards the active rail yard. At buildout, the proposed project would include the construction of 178 single-family homes, 292 multi-family units, and 260,000 square feet of commercial and retail uses. The addition of residential and commercial uses would increase the amount of impervious surfaces on the project site, which would, in turn, increase stormwater runoff generated by the site. Currently, runoff is not generated by the project site due the lack of impervious surfaces on-site.

According to the utility plan for the proposed project, the project would include a neighborhood park area that would be designed as a joint-use facility to help the City with retention/detention on the City's existing combined storm/sewer system in the Curtis Park neighborhood. Additional storage for sanitary sewage and storm drainage for up to a 10-year storm would be integrated into the City's project. The storm drain detention pipes would detain/retain stormwater collected from the entire project site for eventual conveyance to the City's Combined Detention System, which would also be located within the park. The proposed storm drainage system would also include a retention/detention facility under a portion of the park.

Figure 5.11-1
Curtis Park Village Conceptual Sewer & Storm Drainage Detention System



The project's stormwater runoff would be conveyed to the detention facilities by an underground pipeline system, with pipes ranging in size from 12 to 30 inches in diameter, which would be designed to accommodate 10-year 6-hour storm events. The detention facilities would be one of the following: 1) a surface detention to be located in the planned open space area or 2) a private detention basin or underground vaults in the commercial parking areas or 3) detention located in private or public oversized underground pipe systems or 4) a combination of 1), 2), and 3). The detention facilities will be designed for current City's standard of 100 year 10 day or a 100-year 24-hour storm event with the allowable discharge rate of eight cfs into Donner Interceptor. Depending on the remedies associated with the updated RAP, a pump station, which would be constructed on-site, may be required. In addition, if the chosen remedy is encapsulated soil under the park site, the project would relocate the detention facility underground in an alternate on-site location. The Department of Utilities will review and approve the design of the detention facilities and the pump station, if needed.

As described above, the stormwater collection facilities would be designed to meet the City's standards and would be required to be reviewed and approved by the City Department of Utilities. Because the infrastructure constructed as part of the project would be required by the City to accommodate the additional stormwater runoff resulting from the addition of impervious surfaces to the project site, adverse impacts would not result.

Wastewater Collection and Treatment

The total projected dry weather wastewater treatment demand from the proposed project is 128,240 gallons per day (See Table 5.11-4). Currently, the SRWTP is permitted an average dry weather flow of 181 mgd, and current average dry weather flows are approximately 150 mgd; therefore, the WWTP has a current excess capacity of 31 mgd.

Table 5.11-4
Wastewater Generation

Use	Square Footage/Units	Generation Rate	ESD (1 ESD=400gpd)	Wastewater (gpd)
Residential	470	1ESD/Unit	470	188,000
Retail, Restaurant, and Entertainment	260,000	0.2 ESD/1,000 s.f.	52	20,800
Total				**208,800**

It should be noted that buildout of the proposed project site under the site's current zoning designation, General Industrial, would result in wastewater generation; however, it is not possible to determine the amount of wastewater because the City

does not have a specific generation factor for industrial uses due to the variation that can occur in wastewater usage among different industrial uses.

The project's contribution of 128,240 gallons per day, or approximately 0.21 mgd, would be significantly less than the WWTP's excess capacity of 31 mgd. Therefore, the existing WWTP would have enough capacity to accommodate the proposed project. In addition, the project applicant would be required by the City to pay sewer connection fees. As a result, adverse impacts to wastewater collection and treatment would not result.

Conclusion

As discussed above, the proposed project would not result in significant impacts related to the collection and conveyance of stormwater and wastewater, the creation of stormwater runoff, or the ability of the SRWTP to treat wastewater. Therefore, the proposed project would have ***less than significant*** impacts related to stormwater and wastewater collection and treatment.

Mitigation Measure(s)
None required.

5.11-4 Increased demand for solid waste disposal services.

Both the residential and commercial portions of the proposed project would result in the generation of solid waste. As noted in Table 5.11-5, below, based on the solid waste generation rates used by the City of Sacramento, the proposed project would generate approximately 1,730 tons of solid waste per year.

Table 5.11-5
Project Solid Waste Generation

Waste Generator	Generation Rate	Totals
Residential Units (470)	1.5 tons/unit/year	705 tons per year
Project Employees (520)	10.8 lbs/employee/day	1,024.9 tons per year
Total		**1,729.9 tons per year**

As noted in the existing setting information for solid waste, the City generates over 1.13 million tons of refuse per year, a large portion of which is sent to Lockwood Landfill. The landfill is estimated to have enough capacity to remain open until the year 2035; however, expansion plans would substantially expand the landfill capacity. The Kiefer Landfill is the primary municipal solid waste disposal facility in Sacramento County and is the only landfill facility in Sacramento County permitted to accept household waste from the public. The landfill facility sits on 1,084 acres, but currently uses only 250 acres as landfill. Kiefer Landfill currently contains about 31 million cubic yards of waste, but has a permitted capacity of over 117 million cubic yards and should be able to serve the area for many years to come.

According to the *Sacramento 2030 General Plan Master* EIR (p. 6.11-74), with the remaining capacity and expected lifespan at the Lockwood and Kiefer Landfills, the increase in solid waste generated by development under the proposed General Plan would not exceed capacity of the landfills, and adverse impacts would not result.

Although the proposed project would be expected to generate approximately 1,730 tons of solid waste per year, the project is consistent with the *Sacramento 2030 General Plan*; therefore, impacts related to increased demand for solid waste disposal services would be ***less than significant***.

Mitigation Measure(s)
None required.

5.11-5 Impacts to gas and electric facilities.

The proposed project site is currently provided gas and electric service by PG&E and SMUD. The proposed project would result in the construction of 470 residential units and 260,000 square feet of commercial and retail uses. As a result, the proposed project would require gas and electric service for the many residences and businesses proposed for the project site. The project would require construction of new natural gas and electric connections on the project site. Natural gas lines to serve the project site would be located underground and would be constructed in accordance with California Public Utilities Commission approved PG&E policies. As required by law, all utility connections would be constructed in accordance with all applicable Uniform Codes, City Ordinances, and Public Works standards to ensure an adequately sized and properly constructed electrical transmission and conveyance system.

According to the *Sacramento 2030 General Plan Master EIR*, implementation of the *Sacramento 2030 General Plan* would create an increase in demand for electricity, especially the demand to light, heat, and air-condition new residential and commercial uses. To serve this anticipated new development through 2030, SMUD has proposed several projects.

Implementation of the *Sacramento 2030 General Plan* would also result in an increase in demand for natural gas. As indicated in the existing environmental setting section, PG&E provides natural gas service to the Sacramento Planning Area. Because PG&E's demand projections are continuously updated, and PG&E's system has ample capacity to ensure continued levels of service to all customers within the region, PG&E has stated that natural gas can be supplied upon buildout of the General Plan without jeopardizing other existing or projected service commitments. Because adequate electrical supply exists and new electrical production facilities would be constructed as needed, impacts to energy resources associated with buildout of the General Plan were determined not to be significant.

Because the proposed project is consistent with the *Sacramento 2030 General Plan* and the project would not require the construction of new energy production and/or transmission facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, impacts would be ***less than significant***.

Mitigation Measure(s)
None required.

5.11-6 Impacts to telecommunication facilities.

The proposed project, which would include 470 residential units and 260,000 square feet of commercial and retail uses, would require the extension of telephone and cable telecommunication services to the project site.

According to the *Sacramento 2030 General Plan Master EIR*, implementation of the proposed General Plan would result in growth in the Policy Area resulting in the need for expansion of telecommunication services and the construction of new telecommunication facilities. However, the *Sacramento 2030 General Plan Master EIR* (p. 6.11-93) indicates that buildout of the General Plan would not result in adverse impacts to telecommunication facilities.

Because the proposed project is consistent with the *Sacramento 2030 General Plan* and would not require the construction of new telecommunication facilities or the expansion of existing telecommunication facilities, the construction of which could cause significant environmental effects, impacts would be ***less than significant***.

Mitigation Measure(s)
None required.

5.11-7 Increased demand for law enforcement services.

The proposed project involves the construction of 178 single-family residential units and 292 multi-family units, which would result in a population increase in the City of Sacramento by approximately 1,202 persons (See Chapter 5.9, Population, Employment, and Housing, of this Draft EIR for estimated population calculations). Therefore, the project would increase the demand for service currently experienced by the SPD.

However, the project site has already been anticipated for development in the *Sacramento 2030 General Plan*, which determined that upon implementation of the various police-related goals and policies included in the General Plan, a less than significant impact would result from General Plan buildout (*Sacramento 2030 General Plan Master EIR*, p. 6.10-12). The proposed project would comply with the various goals and policies related to police services. For example, the project would comply with General Plan Policy PHS 1.1.8 by paying development fees for police protection facilities and services. In addition, the project would be subject to a

development review under General Plan Policy 1.1.7 to address crime and safety design. Because the proposed project is consistent with the *Sacramento 2030 General Plan*, and the project would not require the construction of new, or the expansion of existing, facilities related to the provision of police protection, impacts would be ***less than significant***.

Mitigation Measure(s)
None required.

5.11-8 Increased demand for fire protection services, including emergency medical personnel.

The proposed project involves the construction of 178 single-family residential units and 292 multi-family units, which would result in a population increase in the City of Sacramento by approximately 1,202 persons (See Chapter 5.9, Population, Employment, and Housing, of this Draft EIR for estimated population calculations). In addition, the project would include the construction of substantial commercial and retail square footage, which would require additional fire and emergency services. Therefore, the project would increase the demand for service currently experienced by the SFD.

However, the project site has already been anticipated for development in the recently adopted *Sacramento 2030 General Plan*, which determined that upon implementation of the various fire-related goals and policies included in the General Plan, a less than significant impact would result from General Plan buildout. The proposed project would comply with the various goals and policies related to fire services. For example, the project would comply with General Plan Policy PHS 2.1.11 by paying development fees for fire protection facilities and services.

It should be noted that all of the buildings constructed as part of the proposed project would be required to comply with the California Fire Code. Prior to issuance of each building permit, the proposed fire protection system for each building would be reviewed and approved by the Sacramento Fire Department, and any additions and/or modifications identified by the Department would be incorporated into the proposed fire systems. As a result, the project would comply with General Plan Policies PHS 2.2.3 and PHS 2.2.4.

Because the proposed project is consistent with the *Sacramento 2030 General Plan*, and the project would not require the construction of new, or the expansion of existing, facilities related to the provision of fire protection, impacts would be ***less than significant***.

Mitigation Measure(s)
None required.

5.11-9 Increased demand for school resources.

The proposed project includes the development of 470 residential units, which would result in the introduction of additional students to the Sacramento Unified School District. Table 5.11-6 shows the number of students that would be expected to be generated by the Curtis Park Village project.

Table 5.11-6
Sacramento Unified School District Student Generation Estimates for Proposed Project

Housing Type	# of Units	K-6 Enrollment	7-9 Enrollment	10-12 Enrollment	Total Enrollment
Single Family	178	0.42 / 75	0.3 / 53	0.3 / 53	1.02 / 181
Multi-Family	292	0.1 / 29	0.02 / 6	0.03 / 9	0.15 / 44
Total	**216**	**104**	**59**	**62**	**225**

Source: Raney Planning & Management, Inc., 2009.

It should be noted that the numbers shown in Table 5.11-6 are conservative, as the 80 affordable senior units are not likely to result in the generation of additional students within the SCUSD.

Using City of Sacramento student generation rates, the proposed project would be expected to generate 225 additional students, the majority of which are assumed to attend the within the SCUSD. Pursuant to SB 50 and AB 16, the project applicant would be required to pay school impact fees. SB 50 indicates that payment of school impact fees is considered full mitigation for any impacts that would result from a project. Therefore, because the project applicant would comply with SB 50 and AB 16, impacts to school resources in the SCUSD would be considered ***less than significant***.

Mitigation Measure(s)
None required.

5.11-10 Increased demand for library services.

The proposed project, which would include 470 residential units and generate approximately 1,202 new residents, would be expected to increase demand for library services in the City.

According to the *Sacramento 2030 General Plan Master EIR* (p. 6.10-55), the Sacramento Public Library Authority is currently pursuing plans to construct two new libraries in the City: North Natomas and Pocket-Greenhaven. The *Sacramento 2030 General Plan* includes policies to accommodate for growth and increased library service demands. According to the *Sacramento 2030 General Plan Master EIR*, because future development anticipated under the General Plan would be required to

comply with the general plan policies, adequate library services would be provided to serve any anticipated increase in demand that could result from the increased population associated with buildout of the General Plan. Because the proposed project is consistent with the *Sacramento 2030 General Plan*, impacts related to the construction of new, or expansion of existing, facilities related to the provision of library services would be ***less than significant***.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

5.11-11 Long-term impacts to public services and utilities from the proposed project in combination with existing and future developments in the Sacramento area.

As stated in the above project-level impact discussions, implementation of the proposed project would contribute to an increased demand for public services and utilities within the City of Sacramento. Public service and utilities needs for the City of Sacramento were evaluated in the *Sacramento 2030 General Plan*, which includes goals and policies to ensure that adequate services will be available for buildout of the General Plan. The proposed project's land use designations would be consistent with the General Plan land use designations for the site, which are Traditional Neighborhood Low Density, Traditional Neighborhood High Density, and Traditional Center.

According to the *Sacramento 2030 General Plan Master EIR*, cumulative impacts related to increased demand for the following public services and utilities would be less than significant with implementation of the goals and policies in the General Plan related to public services and utilities: water supply, treatment, and/or conveyance; stormwater collection and treatment; solid waste disposal services; energy and telecommunication facilities; law enforcement and fire protection services; and school and library resources. Cumulative impacts related to increased demand for wastewater collection and treatment were found to be significant and unavoidable; however, the Sacramento City Council adopted a Statement of Overriding Considerations at the time of certification of the *Sacramento 2030 General Plan Master EIR*, which asserts that even though implementation *Sacramento 2030 General Plan Master EIR* of the would result in one or more unavoidable adverse impacts, specific economic, social or other stated benefits were sufficient to warrant approval. The proposed project would not have impacts to wastewater collection and treatment beyond the extent of the impacts that were considered in the *Sacramento 2030 General Plan Master EIR* and subject to the adopted Statement of Overriding Considerations.

Although implementation of the proposed project would contribute to an increased demand for public services and utilities, the project would be consistent with the

Sacramento 2030 General Plan, and cumulative impacts to public services and utilities would be ***less than significant***.

Mitigation Measure(s)
None required.

Endnotes

[1] City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
[2] City of Sacramento, *Sacramento 2030 General Plan Master EIR*, March 2009.
[3] *City of Sacramento Urban Water Management Plan*, 2006.
[4] City of Sacramento Utilities Department, *Annual Report, Operational Statistics Fiscal Year 2004/2005*.
[5] California Department of Education, Dataquest District Level Enrollment Reports, http://dq.cde.ca.gov/dataquest/page2.asp?level=District&subject=Enrollment&submit1=Submit, accessed May 2008.

5.12 PARKS AND RECREATION

5.12 PARKS AND RECREATION

5.12.0 INTRODUCTION

The Parks and Recreation chapter of the EIR describes the recreation facilities within the project area and the associated potential impacts to the facilities that would result from the proposed project. This chapter also discusses thresholds of significance for such impacts, and develops mitigation measures and monitoring strategies, if necessary. Information for this analysis is drawn from the *Sacramento 2030 General Plan*,[1] the *Sacramento 2030 General Plan Master EIR*,[2] and the *City of Sacramento Parks and Recreation Master Plan 2005-2010*.[3]

Pertinent comments received in response to the original Notice of Preparation (NOP), the revised NOP, the second revised NOP, and the associated NOP scoping meetings for the proposed project have been integrated into the analysis. Comments related to recreation are addressed in Impact Statements 5.12-2 and 5.12-3.

5.12.1 EXISTING ENVIRONMENTAL SETTING

The Department of Parks and Recreation maintains more than 2,400 acres of developed parkland and manages more than 212 parks, 79 miles of road bikeways and trails, 17 lakes, ponds or beaches, and over 20 aquatic facilities and provides park and recreation services at City-owned facilities within the City of Sacramento. Parks are generally categorized by the Parks Department into the following four distinct park types: 1) neighborhood; 2) community; 3) regional; and 4) Open Space/Parkways. Neighborhood and community parks contribute to a sense of community by providing gathering places for recreation, entertainment, sports, or quiet relaxation, while regional parks tend to be larger and serve the needs of the entire City. The proposed project would include a neighborhood park area – this type of park is further described below.

Neighborhood Parks are generally five to ten acres in size and are intended for use of residents within a half-mile radius. Some neighborhood parks are situated adjacent to elementary schools, and improvements are generally oriented toward the recreation needs of children. In addition to landscaping, improvements might include a tot lot, adventure area, and unlighted sport fields or courts.

Project Area Recreational Facilities

The following describes the existing parks and recreational facilities located within the proposed project site vicinity.

Figure 5.12-1
Parks in the Vicinity of the Project Site

William Land Regional Park

Bordered by Freeport Boulevard, Sutterville Road, and Riverside Boulevard, William Land Regional Park is one of the regional parks within the Sacramento city limits and covers several blocks within the established community of Land Park. The park is 166 total acres and runs about 10 blocks in length. Amenities include softball, baseball and little league fields, bantam and adult soccer fields, a basketball court Other facilities include a play pool, lakes and ponds, picnic areas, tot lot and adventure play areas, and many restrooms and parking areas. The park also includes the Sacramento Zoo, Fairy Tale Town, and a 9-hole golf course operated by the City's Convention, Culture and Leisure Department

William Curtis Park

Bordered by East Curtis Park Drive to the East, Donner Way to the north, and Sutterville Road to the south, Curtis Park is located less than a mile from the proposed project site. The park is 18 total acres, and is located within the established community of Curtis Park. Amenities include youth softball fields and an unlighted little league field, two tennis courts and a basketball court, picnic tables, tot lot and adventure play areas. A one-mile footpath borders the park, providing room for jogging and walking.

Brockway Park and Plaza Cervantes

Located at 2025 Brockway Court, Brockway Park is located approximately 5 blocks west from the proposed project site. The park is 1 acre and includes picnic tables, a tot lot and adventure play areas, and a nature area. Plaza Cervantes is located at 2115 11th Avenue and is approximately 4 blocks west from the proposed project site. The park is 0.66 acres.

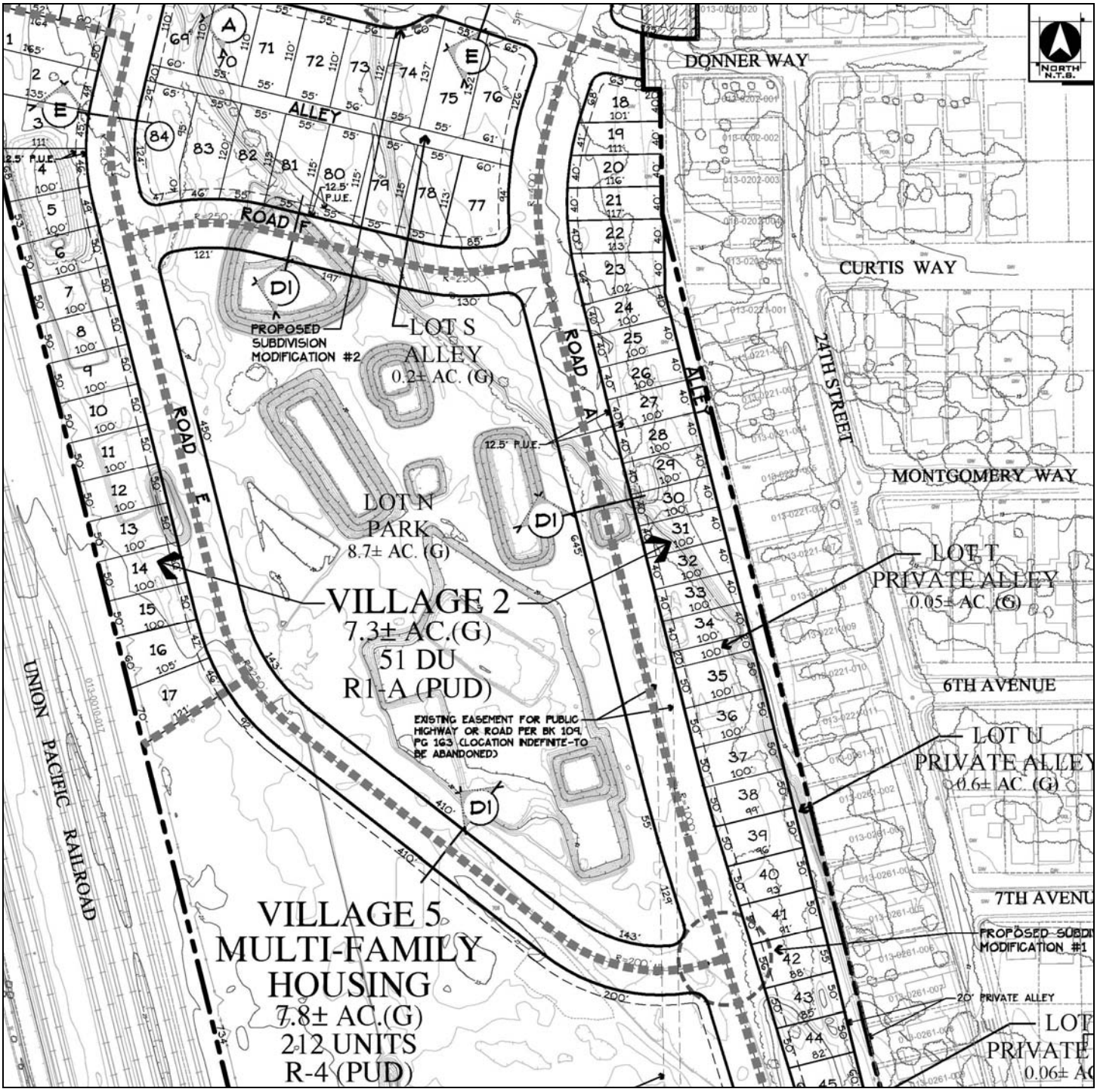
Sierra 2 Park

Located at 2471 4th Avenue, Sierra 2 Park is located about four blocks north from the proposed project site. The park is 6 acres and includes full sized soccer field, basketball courts, tot lot and adventure play areas.

Proposed Project Recreational Facilities

The purpose of the recreational facilities on the project site is to preserve open space for outdoor recreation, and as a visual amenity. The current proposal for Curtis Park Village envisions an approximately 8.7-acre (6.8 net acres because of the planned adjacent roadways) neighborhood park area to be located in the center of the project site, with accessibility provided by public streets that border four sides of the park area (See Figure 5.12-2). The neighborhood park area may include such uses as turf areas, a tot lot area, an adventure area, unlighted sport fields or sports courts, or a group picnic area. Parking for the neighborhood park area would be limited to on-street.

Figure 5.12–2
Site Plan with Park Location



In addition to the recreation opportunities, the park would be designed as a joint-use facility to aid the City of Sacramento's existing combined storm/sewer system in the Curtis Park neighborhood. The Curtis Park Village storm drainage system will also include a retention/detention facility under a portion of the park. Both the City of Sacramento and the Curtis Park Village facilities are shown on the utilities plan that has been submitted to the City. The facilities include the following:

- A depressed area for stormwater detention for Curtis Park Village in an event exceeding a 10-year storm event (See Chapter 5.9, Hydrology, Water Quality, and Drainage, for further detail).

One remediation option of the contaminated soils under the revised RAP is an encapsulated containment cell. One potential location identified is beneath the park site. Should the park site be the ultimate location, the detention/retention facility as well as the City's combined sewer system improvements would be relocated. The use of the park would remain the same. The impacts of the potential containment cell beneath the park are addressed in Chapter 5.8, Public Health and Hazards, of this EIR.

5.12.2 REGULATORY BACKGROUND

State Regulations

Quimby Act

California Government Code section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fee are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public school grounds.

Local Regulations

The following are the local government environmental goals and policies relevant to the CEQA review process.

Sacramento 2030 General Plan

The Sacramento 2030 General Plan contains extensive discussion, goals, and policies relating to the provision of recreation and open space areas. The following goals and policies are applicable to the proposed project:

GOAL ERC 2.1 Integrated Parks and Recreation System. Provide an integrated system of parks, open space areas, and recreational facilities that are safe and connect the diverse communities of Sacramento.

Policy ERC 2.2.2 Timing of Services. The City shall ensure that the development of parks and community and recreation facilities and services keeps pace with development and growth within the city.

Policy ERC 2.2.3 Service Level Goals. The City shall develop and maintain parks and recreational facilities in accordance with the goals in Table ERC 1 (See Table 5.12-1 below).

Table 5.12-1
Parks, Community Facility, and Recreation Facility Service Level Goals

Park Types	**Acres per 1,000 Residents**
Neighborhood Serving: Urban plazas, pocket parks and/or Neighborhood Parks	2.5
Community Serving: Community Parks	2.5
Citywide/Regionally Serving: Regional Parks, Parkways, and/or Open Space	8.0
Linear Parks/Parkways and Trails/Bikeways	0.5 linear miles
Community Facilities	**Number of Units**
Neighborhood Centers (Clubhouses)	1 per neighborhood[1]
Multi-Use Recreation Complexes (including Community Centers)	1 per 30,000 residents
Recreation Facilities	**Number of Units per Resident**
Aquatic Facilities: Play Pool/Water Spray Feature Outdoor Complex: Swimming and Wading Pool	 1 per 15,000 1 per 30,000
Off Leash Dog Parks (Neighborhood/Community)	1 per 60,000
Picnic Areas (Large Group/Class I)	1 per 30,000
Playgrounds: Tot Lots, Adventure Play Areas	1 per 2,500
Skateboard Parks (Neighborhood/Community)	1 per 35,000
Community Gardens	1 per 50,000
Nature Interpretation Centers	2 total[2]
Fields	
Softball, including: Adult, Youth Lighted	1 per 7,500 (total) 1 per 45,000
Baseball, including: Adult, Youth (Little League) Lighted	1 per 7,500 (total) 1 per 45,000
Soccer, including: Bantam, Full Size Lighted	1 per 7,500 (total) 1 per 30,000
Courts	
Volleyball	1 per 10,000
Basketball, including Youth, High School	1 per 5,000
Tennis	1 per 10,000

[1] As defined by the service area of all public elementary schools.
[2] One north and one south of the American River.

Policy ERC 2.2.4	Meeting Service Level Goals. The City shall require new residential development to dedicate land, pay in-lieu fees, or otherwise contribute a fair share to the acquisition and development of parks or recreation facilities to meet the service level goals in Table ERC 1. For development in urban infill areas were land dedication is not feasible, the City shall explore creative solutions in providing park and recreation facilities that reflect the unique character of the area it serves.

City of Sacramento Municipal Code

Chapter 12.72 – Park Buildings and Recreational Facilities

The City's Municipal Code includes regulations associated with building and park use, fund raising, permit procedures, and various miscellaneous provisions related to parks. Park use regulations include a list of activities that require permits for organized activities that include groups of 50 or more people for longer than 30 minutes; amplified sound; commercial and business activities; and fund raising activities. This code also includes a list of prohibited uses within parks such as unleashed pets; firearms of any type; and drinking alcoholic beverages, or smoking near children's playground areas. Activities such as golfing, swimming, and horseback riding are only permitted within the appropriate designated areas.

Chapter 16.64 – Parks and Recreational Facilities

Chapter 16.64 of the Municipal Code provides standards and formulas for the dedication of parkland and in-lieu fees. These policies help the City acquire new parkland. This chapter sets forth the standard that five acres of property for each 1,000 persons residing within the city be devoted to local recreation and park purposes. Where a recreational or park facility has been designated in the general plan or a specific plan, and is to be located in whole or in part within a proposed subdivision to serve the immediate and future needs of the residents of the subdivision, the subdivider shall dedicate land for a local recreation or park facility sufficient in size and topography to serve the residents of the subdivision. The amount of land to be provided shall be determined pursuant to the appropriate standards and formula contained within the chapter. Under the appropriate circumstances, the subdivider shall, in lieu of dedication of land, pay a fee equal to the value of the land prescribed for dedication to be used for recreational and park facilities which will serve the residents of the area being subdivided.

Chapter 18.44 – Park Development Impact Fee

Chapter 18.44 of the City's Code imposes a park development fee on residential and nonresidential development within the city. Fees collected pursuant to Chapter 18.44 are primarily used to finance the construction of park facilities. The park fees are assessed upon landowners developing property in order to provide all or a portion of the funds which will be necessary to provide neighborhood or community parks required to meet the needs of and

address the impacts caused by the additional persons residing or employed on the property as a result of the development.

City of Sacramento Parks and Recreation Master Plan 2005-2010

The following City of Sacramento Parks and Recreation Master Plan 2005-2010 policies are applicable to recreation:

1.0 Community Engagement and Outreach

1.1 Provide a variety of venues and activities for the public to build a sense of community and ownership for its social and physical quality of life.

3.0 Economic Vitality

3.5 Encourage integration of park and recreational amenities into the design of commercial, infill, employment, redevelopment, and transit oriented development.

15.0 Safety and Access

15.1 Ensure both physical and psychological safety in design, management, and use of all Department facilities and programs, considering safety the highest priority for our users, employees, and volunteers.

5.12.3 IMPACTS AND MITIGATION MEASURES

Standards of Significance

The proposed Curtis Park Village project would be considered to have a significant impact to recreation if the project would:

- Cause or accelerate a substantial physical deterioration of existing area parks or recreational facilities; or
- Create the need for construction or expansion of recreational facilities beyond what was anticipated in the General Plan.

Method of Analysis

This section evaluates the proposed project's impacts on parks and other recreational facilities in the project area, as well as the project's cumulative impact related to recreation in the City of Sacramento.

Project-Specific Impacts and Mitigation Measures

5.12-1 Impacts related to the update of the Remedial Action Plan.

The Initial Study/Mitigated Negative Declaration that was approved for the 1995 Remedial Action Plan (RAP) for the project site determined that remediation of the project site under the RAP would not create increased demand for recreational facilities, nor would remediation of the site affect any existing recreational facilities. Although the remedies contained in the RAP are currently being updated, changes to the remedies in the RAP would also not result in increased demand for recreational facilities or affect any existing recreational facilities. It should be noted that one of the updated remedies could include encapsulating contaminated soils located underneath the site of the proposed neighborhood park; however, any impacts related to this encapsulation were found to be less than significant and are addressed in Chapter 5.8, Public Health and Hazards, of this Draft EIR. Therefore, impacts related to the update of the RAP would be ***less than significant***.

Mitigation Measure(s)
None required.

5.12-2 Impacts related to the project creating the need for construction or expansion of recreational facilities beyond what was anticipated in the General Plan.

The City of Sacramento Code Chapter 16 requires five acres of neighborhood and community park facilities per 1,000 residents. The proposed project would involve the construction of 178 single-family residential units, 292-units of multi-family housing, Recreational uses designated for the proposed project include approximately 8.7 acres (6.8 net acres) of park space on a centrally located parcel within the planned community. Implementation of the proposed project would result in approximately 1,202 new residents (See Chapter 5.10, Population, Employment, and Housing for calculations). Based on the estimated number of residents, the proposed project would be required to provide 5.2 acres of park space for neighborhood and community parkland. It should be noted that the project might not receive full credit for the area that would also serve stormwater detention/retention purposes. If the project does not receive full credit for the parklands from the City, the project applicant would be required by law to pay in-lieu fees, pursuant to the State Quimby Act. In addition, the proposed project is consistent with the development planned for the site in the General Plan. Therefore, because the project would provide more acres of parkland than required by the City, or would pay in-lieu fees to meet the park requirements, and is consistent with the General Plan, impacts related to the need for construction or expansion of recreational facilities beyond what was anticipated in the General Plan would be ***less than significant***.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

5.12-3 Impacts related to the provision of adequate recreational facilities on the project site in combination with existing and future development in the Sacramento area.

The City's *Parks and Recreation Master Plan 2005-2010* indicates that the applicant shall dedicate land for a local recreation or park facility sufficient in size and topography to serve the residents of the subdivision. As discussed in Impact 5.12-2, the proposed project would meet the requirements of the City, and would fund through payment of Quimby Act in-lieu fees or provide sufficient parkland to serve the residents of the project site. Individual residential development projects would be required under City Code and the Parks and Recreation Master Plan to provide adequate recreational facilities according to the projects' individual contributions to population. Therefore, development of the Curtis Park Village proposed recreational facilities would result in a ***less than significant*** cumulative impact.

Mitigation Measure(s)
None required.

Endnotes

[1] City of Sacramento, *Sacramento 2030 General Plan*, March 2009.
[2] City of Sacramento, *Sacramento 2030 General Plan Master EIR*, March 2009.
[3] City of Sacramento, *Parks and Recreation Master Plan 2005-2010*, December 7, 2004.

6. CEQA CONSIDERATIONS

6 CEQA CONSIDERATIONS

6.0 INTRODUCTION

The CEQA Considerations chapter includes brief discussions regarding the topics that are required to be included in an EIR, pursuant to CEQA Guidelines Section 15126.2. The chapter first includes a discussion of the proposed project's potential to induce economic or population growth. In addition, the chapter includes a list of cumulative impacts, significant irreversible environmental impacts, and significant and unavoidable environmental impacts which cannot be avoided if project is implemented.

6.1 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of CEQA Guidelines requires that the EIR discuss the growth-inducing impacts of the proposed project. Specifically, CEQA states:

> Discuss the ways in which the Proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects, which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities, which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

Growth-inducing impacts can result from development that directly or indirectly induces additional growth pressures that are more intense than what is currently planned for in general and community plans. An example of this would be the redesignation of property planned for agriculture uses to urban uses. The growth inducement that could result, in this example, would be the development of services and facilities that could encourage the transition of additional land in the vicinity to more intense urban uses.

Potential Growth Inducing Effects

The proposed project would add 470 houses, 280,000 square feet of commercial use space, an open/park space, and an internal roadway network. As a result, potential growth inducing effects may occur when rezoning existing industrial use to mixed-use residential, commercial and open space. The growth inducement could result in the additional development of services and facilities that encourage the development of urban uses in surrounding areas. However, the Curtis Park Village PUD intends for this urban growth, which is adopted by the City of

Sacramento. Therefore the proposed project would not induce additional growth pressures that are more intense than what is currently planned for the general and community plans.

The proposed project would connect to existing roadways. While the proposed mitigation requires improvements which would marginally improve traffic flow, the project is located within a developed area and traffic improvements would not induce growth elsewhere. The proposed project would be able to tie into existing utility infrastructure and would not require the expansion of utilities infrastructure. Furthermore, the proposed project is located in an existing urban area, and is surrounded on all sides by existing development. As a result, the proposed project would be considered an infill project that would redevelop a site on which previous development occurred. Therefore, neither the proposed project, nor the alternatives considered, would result in growth inducing effects.

6.2 CUMULATIVE IMPACTS

According to CEQA Guidelines, Section 15355, "Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines, Section 15355(a) requires that cumulative impacts be discussed when the project's incremental effect is cumulatively considerable, as defined in Section 15065(c). "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. This section of the EIR identifies those significant cumulative impacts associated with development and operation of the proposed project. Section 15130 of the CEQA Guidelines states that "the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone."

Cumulative Environment

The CEQA Guidelines provide that a lead agency may describe the cumulative environment by either a listing of pending, proposed, or reasonably anticipated projects, or through a summary of projections contained in an adopted general plan or a related planning document that describes area-wide or regional cumulative conditions.

For the purposes of this EIR, a projection of cumulative build-out based on the 2030 General Plan is used. The cumulative environment projection is based on the Sacramento Area Council of Governments (SACOG) information. SACOG information is developed from an estimate of full build-out of the Sacramento region under adopted plans. The Sacramento Area Council of Governments uses the projected increases in population and employment derived from regional population projections to create the SACMET Transportation Model. Cumulative traffic volumes were derived from the SACMET 2027 model. The model reflects approved land use changes in the project area. The traffic volume forecasts for cumulative conditions assume full buildout of the community, which is likely to be a conservative assumption. Other effects such as noise and air quality, which are based in large part on vehicle trips, also reflect these cumulative assumptions.

Some cumulative impacts have an impact area that is smaller than the region as a whole. For example, local circulation impacts would be limited to the portion of the City of Sacramento that is served by the existing street system. Other cumulative impacts, such as air quality, have a wider impact area.

The following are the significant cumulative impacts that would result from the proposed project and alternatives, plus long-range cumulative development without applying mitigation. The potential cumulative impacts are numbered according to the respective chapters in which the issues are discussed.

Transportation and Circulation

Cumulative impacts regarding transportation and circulation are discussed in Chapter 5.2, Impact 5.2-10 (Intersections), Impact 5.2-11 (Roadway Segments), and Impact 5.2-12 (Freeway Ramps).

In Impact 5.2-10 (Intersections), the EIR concluded that the proposed project would add traffic to study intersections and cause significant impacts for cumulative conditions at the following intersections:

(a) 24th Street / 2nd Avenue
(b) 24th Street / Portola Way
(c) Sutterville Road / Freeport Boulevard (north)
(d) Sutterville Road / City College Drive
(e) Sutterville Road / Road A
(f) Sutterville Road / Curtis Drive West
(g) Sutterville Road / Franklin Boulevard
(h) Sutterville Road / SR 99 Northbound Ramps
(i) Road A / Area 1

The Proposed Project would cause traffic operations at all of the intersections listed to drop from LOS C or better to LOS D or worse, or would increase the delay by 5 seconds or more for intersections that would operate below LOS C without the project. This is considered a significant impact.

Access Scenario 2 (two northeast connections) and Access Scenario 3 (10th Avenue connection) would have significant impacts for cumulative conditions at the same locations as the Proposed Project.

If the realignment of Pacific Avenue is implemented, the Sutterville Road / Road A / Pacific Avenue intersection would operate within City standard at LOS C in the a.m. peak hour but would operate at LOS D (41.5 seconds of average delay) in the p.m. peak hour.

In Impact 5.2-11 (Roadway Segments), the EIR concluded that the proposed project would add traffic to roadway segments in 2027 and cause significant impacts for cumulative conditions on the following roadway segments:

(a) Sutterville Railroad Overcrossing
(b) Sutterville Road between E. Curtis Drive and W. Curtis Drive
(c) 24th Street between Portola Way and Marshall Way
(d) Freeport Boulevard north of 21st Street
(e) Road A north of Road G
(f) Road A north of Road C
(g) Road A north of Area 2
(h) Road A north of Area 1

The Proposed Project would cause traffic operations at all of the roadway segments listed to drop from LOS C or better to LOS D or worse, or would increase the v/c ratio by 0.02 or more for roadway segments that would operate below LOS C without the project. This is considered a significant impact.

Access Scenario 2 (two northeast connections) would have significant impacts for cumulative conditions at the same locations as the Proposed Project.

Access Scenario 3 (10th Avenue connection) would have significant impacts for cumulative conditions at the same locations as the Proposed Project except Road A north of Road C, where it would operate at acceptable level.

In Impact 5.2-12 (Freeway Ramps), the EIR concluded that the proposed project and all access scenarios would add traffic to the Sutterville Road 99 freeway ramps. The southbound 12th Avenue off-ramp would operate below standard during the p.m. and Saturday peak hours without the project. The project would increase the density in the area where the ramp diverges from the freeway. The freeway operates at LOS F in the southbound direction during the p.m. peak hour and LOS E during the Saturday peak hour. The project would cause the diverge area to be worse than the freeway level of service during the Saturday peak hour and the project would add significant traffic to the freeway mainline. This is considered a significant impact.

The project would increase the density in the northbound 12th Avenue off-ramp diverge area and would cause the diverge area to degrade from LOS E to LOS F during the a.m. peak hour. The diverge area of the off-ramp would operate at worse than the freeway level of service during the a.m. peak hour without the project; however, the project would add significant traffic to the freeway mainline. This is considered a significant impact.

The Proposed Project and all access scenarios would also cause the traffic queue for the right-turn movement at the northbound 12th Avenue off-ramp to exceed the storage capacity by one car length during the p.m. peak hour. This is considered a significant impact.

While the traffic queue from traffic signal at the southbound 12th Avenue off-ramp would exceed the storage capacity of the ramp without the project, the Proposed Project and all access

scenarios would add traffic to the ramp and further extend the length of the queue during all three peak hours. This is considered a significant impact.

Air Quality

Cumulative impacts regarding Air Quality are discussed in Chapter 5.3, Impact 5.3-8 (Regional Air Quality).

In Impact 5.3-8 (Regional Air Quality), the EIR concluded that the proposed project's emissions of ROG and NO_X both exceed the SMAQMD's significance threshold of 65 pounds per day. Based on this criterion, the proposed project would have a significant cumulative impact to regional air quality conditions.

6.3 IRREVERSIBLE (UNAVOIDABLE) ENVIRONMENTAL IMPACTS

The CEQA Guidelines require that an EIR address any significant irreversible environmental changes that would be involved in the proposed action, should it be implemented (State CEQA Guidelines, Section 15126.2 (c)). An impact would fall into this category if:

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g., a highway provides access to a previously remote area);
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing of the proposed consumption of resources is not justified (e.g., the project involves a wasteful use of energy).

Determining whether the proposed project would result in significant irreversible environmental changes requires a determination of whether key resources, such as agricultural, biological, cultural and historical resources, would be degraded or destroyed such that there would be little possibility of restoring them.

Based on the analyses presented in the previous technical chapters of this Draft EIR and the fact that the proposed project is an infill project, no irreversible environmental impacts would result from development of the proposed project.

6.4 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

According to the State CEQA Guidelines (Section 15126.2[b]), an EIR must include a description of those impacts identified as significant and unavoidable should the proposed action be implemented. Such impacts are unavoidable because it has been determined that either mitigation, or only partial mitigation is not feasible, without imposing an alternative design on the project.

Transportation and Circulation

Baseline Conditions

5.2-2 Impacts to study roadway segments under baseline plus project conditions.

The proposed project and all access scenarios would add traffic to roadway segments. During the weekday, the Sutterville overcrossing roadway segment would operate at LOS D without the project and the project would cause the v/c ratio to increase by more than 0.02. The project would also cause the level of service of the roadway segment on Sutterville Road between E. Curtis Drive and W. Curtis Drive to drop from LOS C to LOS E during the p.m. peak hour and from LOS A to LOS D during Saturday peak hour. These are considered significant impacts.

Mitigation was not identified which was able to reduce the significant impact for baseline conditions on roadway segments to less than significant. To reduce the impact to less than significant would require widening Sutterville Road. That mitigation is not considered to be feasible. Therefore, the impact would be significant and unavoidable.

5.2-3 Impacts to freeway ramps under baseline plus project conditions.

The Proposed Project and all access scenarios would cause the traffic queue from the traffic signal at the southbound 12th Avenue off-ramp to exceed the right-turn storage capacity of the ramp. This is considered a significant impact.

Implementation of Mitigation Measure 5.2-1(c) would reduce the traffic queue at the southbound 12th Avenue off-ramp for baseline conditions for the Proposed Project and all access scenarios. However, the reduction would not be sufficient to fully mitigate the project impacts and no other feasible mitigation measure was identified. Therefore, the impact shall remain significant and unavoidable.

Cumulative Conditions

5.2-10 Cumulative impacts to study intersections.

The Proposed Project would add traffic to study intersections and cause significant impacts for cumulative conditions at the following intersections:

(a) 24th Street / 2nd Avenue
(b) 24th Street / Portola Way
(c) Sutterville Road / Freeport Boulevard (north)
(d) Sutterville Road / City College Drive
(e) Sutterville Road / Road A
(f) Sutterville Road / Curtis Drive West
(g) Sutterville Road / Franklin Boulevard
(h) Sutterville Road / SR 99 Northbound Ramps

(i) Road A / Area 1

The Proposed Project would cause traffic operations at all of the intersections listed to drop from LOS C or better to LOS D or worse, or would increase the delay by 5 seconds or more for intersections that would operate below LOS C without the project. This is considered a significant impact.

Access Scenario 2 (two northeast connections) and Access Scenario 3 (10th Avenue connection) would have significant impacts for cumulative conditions at the same locations as the Proposed Project.

If the realignment of Pacific Avenue is implemented, the Sutterville Road / Road A / Pacific Avenue intersection would operate within City standard at LOS C in the a.m. peak hour but would operate at LOS D (41.5 seconds of average delay) in the p.m. peak hour.

The required mitigation measures would help reduce the impacts to less-than-significant impacts for the studied intersections except for Sutterville Road / Curtis Drive West. No feasible mitigation measure was identified for the Sutterville Road / Curtis Drive West intersection. Adding a southbound right turn lane to the intersection would mitigate the impact but was not considered to be feasible because of the need for demolishing several existing buildings to provide additional right-of-way. The cumulative impact for the Proposed Project and all access scenarios at the Sutterville Road / Curtis Drive West intersection would remain significant and unavoidable.

5.2-11 Cumulative impacts to study roadway segments.

The Proposed Project would add traffic to roadway segments in 2027 and cause significant impacts for cumulative conditions on the following roadway segments:

(a) Sutterville Railroad Overcrossing
(b) Sutterville Road between E. Curtis Drive and W. Curtis Drive
(c) 24th Street between Portola Way and Marshall Way
(d) Freeport Boulevard north of 21st Street
(e) Road A north of Road G
(f) Road A north of Road C
(g) Road A north of Area 2
(h) Road A north of Area 1

The proposed project would cause traffic operations at all of the roadway segments listed to drop from LOS C or better to LOS D or worse, or would increase the v/c ratio by 0.02 or more for roadway segments that would operate below LOS C without the project. This is considered a significant impact. The required mitigation measures would help reduce the impact on roadway segments; however, the impact after mitigation would remain significant and unavoidable.

5.2-12 Cumulative impacts to freeway ramps.

Implementation of Mitigation Measure 5.2-1(c) would reduce the traffic queue at the southbound 12th Avenue off-ramp for the Proposed Project and all access scenarios, but it will not fully mitigate the impact to the less than significant level. No other feasible mitigation measure was identified; therefore the impact to the southbound 12th Avenue off ramp would remain significant and unavoidable.

No feasible mitigation measure was identified that would reduce the impact of the project on SR 99. Widening the freeway would reduce the impact but was not considered feasible. Although implementation of Mitigation Measure 5.2-2(a) would reduce the impact of the project on SR 99, the impact after mitigation would remain significant and unavoidable.

Air Quality

5.3-5 Impacts related to long-term increases of criteria air pollutants.

Construction of the proposed project would result in the development of commercial and office uses, which would generate emissions of ozone-precursor pollutants (i.e., ROG and NO_X). Long-term increases in area and mobile-source emissions associated with the proposed land uses were estimated using the CARB-approved URBEMIS2002 computer program, which is designed to model emissions for land use development projects. Based on the modeling conducted, development of the proposed project would result in total predicted emissions of ROG or NO_X that would exceed the corresponding SMAQMD threshold of 65 lbs/day. Implementation of the proposed mitigation measures would reduce the project's impact related to increases in emissions of ROG and NO_X by a minimum of 15 percent. However, the mitigation measure would not reduce the project's emissions of ROG and NO_X to levels below the SMAQMD thresholds of significance for ozone precursors; therefore, the proposed project's regional air quality impacts would be significant and unavoidable.

5.3-8 Cumulative contribution to regional air quality conditions.

Because the SVAB is classified as non-attainment status for ozone and PM_{10}, if project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO_X) or PM_{10} would exceed the long-term thresholds, then the cumulative impacts would be considered significant. Implementation of Mitigation Measure 5.3-2(a) and (b), and Mitigation Measure 5.3-5 would reduce short-term and long-term increases in emissions attributable to the proposed project by a minimum of 15 percent. However, as noted in Impact 5.3-5, long-term operational increases in emissions would still be anticipated to exceed SMAQMD's significance threshold. As a result, the impact would be considered significant and unavoidable.

7. ALTERNATIVES

7 PROJECT ALTERNATIVES

7.0 INTRODUCTION

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126.6(a) of the California Environmental Quality Act (CEQA) Guidelines, is to "[…] describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Furthermore, Section 15126.6(f) states, "The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice."

The CEQA Guidelines provide the following guidance for discussing alternatives to a proposed project:

- An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section15126.6[a]).

- Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which 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 (CEQA Guidelines Section15126.6[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. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination […] Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts (CEQA Guidelines Section15126.6[c]).

- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A

matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison (CEQA Guidelines Section15126.6[d]).

- The specific alternative of "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decisionmakers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (CEQA Guidelines Section15126.6[e][1]).

- If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section15126.6[e][2]).

In addition, Section 15126.6(d) of the CEQA Guidelines states, "If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed."

7.1 PURPOSE OF ALTERNATIVES

The primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained while reducing the magnitude of, or avoiding, the environmental impacts associated with the proposed project. Alternatives that are included and evaluated in this EIR must be feasible alternatives. The CEQA Guidelines provides the definition for "a range of reasonable alternatives" and, thus, limits the number and type of alternatives that may need to be evaluated in a given EIR. According to the CEQA Guidelines Section 15126.6(f), "[…] the alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project." In addition, alternatives must be feasible. Section 15126.6(f)(1) defines feasible as "[…] 'capable' of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

Additionally, factors such as site suitability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and site accessibility and control should also be considered and evaluated in the assessment of the feasibility of alternatives. Finally, CEQA Guidelines Section 15126.6(f)(3) indicates that an EIR is not required to analyze an alternative "[…] whose effect cannot be reasonably ascertained and whose implementation is remote and speculative."

The following project objectives have been identified by the applicant:

1. Complete environmental cleanup of the property, to levels that commensurate with the proposed uses of the property.

2. Plan and locate new single-family residences in areas immediately adjacent to existing single-family residences in an effort to enhance the historic fabric of the neighborhood.

3. Minimize traffic and circulation impacts from development to the existing neighborhoods by routing vehicles through the interior of the site and creating additional pedestrian and alternative access to transit.

4. Define other uses including single and multi-family housing, neighborhood serving commercial and retail uses, entertainment opportunities, and park space that are consistent with the mission statement to add vibrant, supportive components to the existing neighborhood structure.

The project alternatives need to feasibly attain most of the basic objectives of the project, but avoid or substantially lessen any of the significant effects of the project. Potentially significant environmental impacts of the Curtis Park Village project include:

- ***Traffic and Circulation.*** The proposed project would result in potential increased traffic congestion related to construction of the project. In addition, the project could have adverse impacts to on-site traffic circulation and safety.

- ***Air Quality.*** The proposed project would potentially bring additional vehicles to the area, resulting in increased long-term emissions. In addition, construction activities would increase temporary emissions.

- ***Noise and Vibration.*** The proposed project would result in potential noise and vibration from construction, operation, project-generated traffic, and mobile and stationary sources.

- ***Biological Resources.*** The proposed project would result in potential impacts to burrowing owls, Swainson's hawks, nesting raptors and migratory birds.

- ***Cultural Resources.*** The proposed project would result in potential impacts to unknown cultural resources that could be located within the project site.

- ***Geology and Soils.*** The importation of fill materials could result in potential impacts related to expansive soils.

7.2 ALTERNATIVES CONSIDERED BUT DISMISSED FROM FURTHER CONSIDERATION

The following section describes the alternatives considered but dismissed from further analysis in this EIR. The following two alternatives were considered but dismissed:

Off-Site Alternative

The updated RAP is site specific and would not be applicable for an off-site alternative.

Section 15126.6(f)(2)(B) of the CEQA Guidelines states, "If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reason in the EIR." A feasible alternative location for the proposed project that would result in substantially reduced impacts does not exist.

The CEQA Guidelines (Section 15126.6[b]) requires that only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR. The Off-Site Alternative would involve the construction of the proposed project on an alternative location. The Off-Site Alternative would have the same type and intensity of uses as the proposed project. However, the Applicant does not own an alternative location in which to construct the proposed project. Furthermore, although other vacant properties are located in the City of Sacramento, infill parcels of substantial size like the project site are limited. It should also be noted that, by definition, CEQA states that an alternative should avoid or substantially lessen one or more of the environmental effects of the project. Alternative locations within the City would generally contain similar characteristics as the project site, and the development of greenfield sites located outside the City would likely result in greater impacts than the proposed project. Therefore, development of the project on an alternative location would be expected to result in at least the same level of impacts as the proposed project. As a result, an environmentally feasible off-site location that would meet the requirements of CEQA, as well as meet the basic objectives of the proposed project, does not exist.

Village Green Alternative

The Village Green Alternative was proposed during community consultation. A conceptual figure of the Village Green Alternative is shown in Figure 7-1 and the general characteristics of the Alternative are listed in Table 7-1.

The stated purpose of the Alternative is to create a more human scale environment with activities centered on a village green as a means of reducing the emphasis on the automobile and the visual impacts of parking lots. Overall, the Village Green Alternative would result in the construction of 126,000 square feet of commercial space and 602 residential units. By comparison, the proposed project includes approximately 260,000 square feet of commercial uses and 470 residential units.

As shown in Table 5.2-10 in the Transportation and Circulation chapter of this Draft EIR, the mix of commercial uses included in the proposed project would result in traffic throughout the day, whereas residential traffic typically is concentrated at the peak morning and evening commute hours. Therefore, the substantial number of additional residential units included in the Village Green Alternative would result in greater impacts to traffic. In addition, due to the increased population associated with the additional residential units, this Alternative would increase the demand for police and fire protection services, as well as park and school facilities, beyond what is anticipated for the proposed project.

Figure 7-1
Village Green Alternative

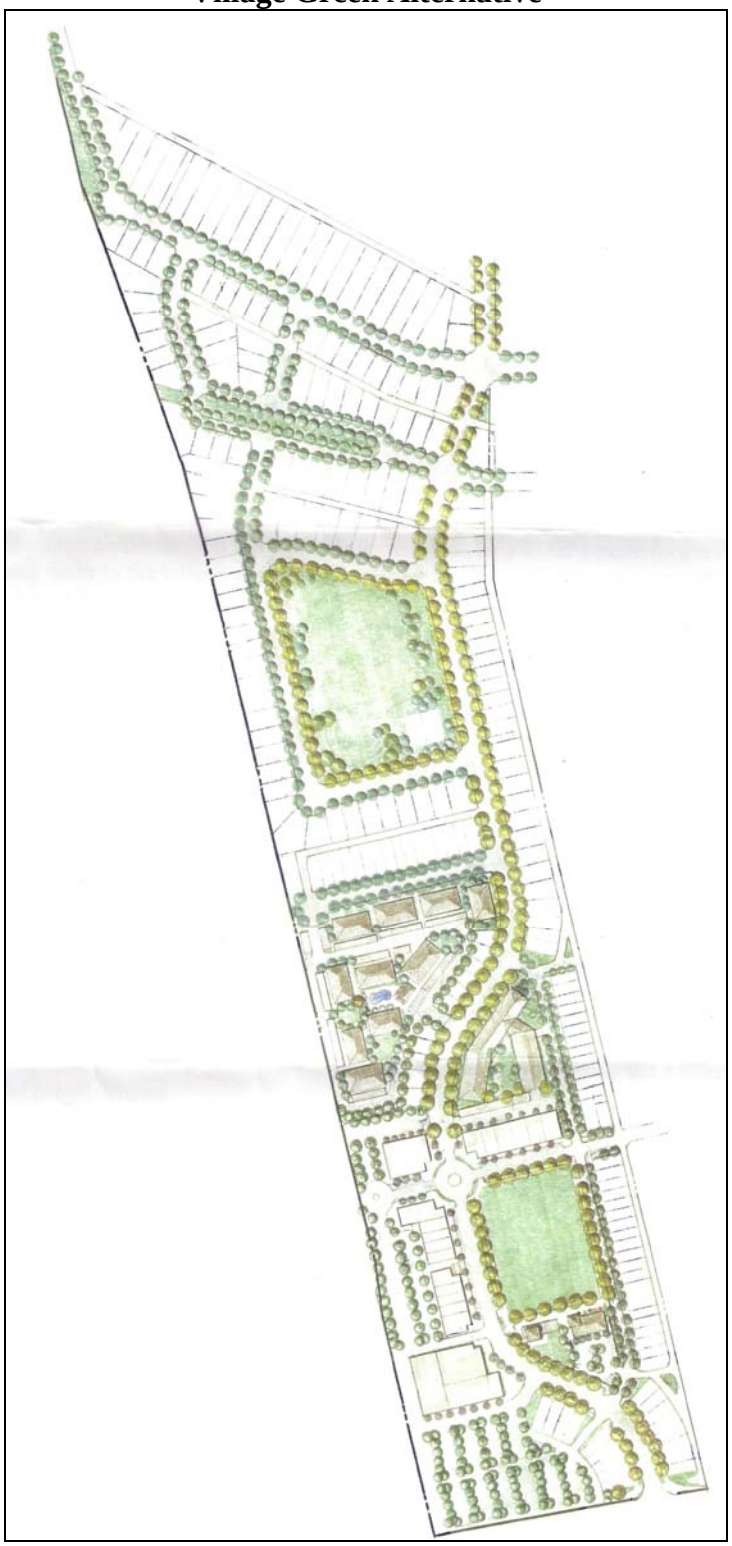


Table 7-1 Village Green Alternative		
Land Use Area	**Use**	**Square Feet/Units**
Commercial Use Area	Commercial	40,000 s.f.
Restaurant	Commercial	6,000 s.f.
Tower Coffee House	Commercial	2,000 s.f.
Mixed Use Area	Commercial	62,000 s.f.
	Multi-Family	145 units
Live/Work Units	Commercial	16,000 s.f.
	Multi-Family	22 units
Senior Apartments/Condos	Multi-Family	55 units
Multi-Family Area	Multi-Family	160 units
Single-Family Area	Single-Family	220 units
Parks/Open Space	Parks/Open Space	8.7 acres (6.8 net acres)
Roadways	N/A	N/A
Parking	N/A	816 spaces

With respect to the other alternatives included in this DEIR, the Village Green Alternative uses are substantially similar to Reduced Commercial Alternative A, though Reduced Commercial Alternative A would have slightly more commercial space and fewer residential units. In addition, Reduced Commercial Alternative B would contain less commercial space than the Village Green Alternative, and has fewer residential units. The Multi-Family Alternative assesses a similar number of residential units, 545 versus 602 for the Village Green Alternative, while including a larger commercial area. In addition, the Village Green Alternative would require additional park space based on an increase in the number of units. The alternatives included in the analysis below include a range of commercial square footages with the lowest total being lower than the Village Green Alternative. None of the alternatives would include as many residential units as the Village Green Alternative. Therefore, the Village Green Alternative would not reduce impacts to a greater extent than the alternatives included in the analysis, and may increase impacts as a result of the high number of residential units included in the Alternative. Furthermore, the Village Green Alternative is not anticipated to reduce any environmental impacts that would result from implementation of the proposed project. Therefore, because the Village Green Alternative would increase some environmental impacts and would not reduce any impacts, the Alternative is dismissed from further consideration.

Existing Zoning Alternative

Under the Existing Zoning Alternative, the project site would be built out pursuant to the existing zoning designation for the site. The site is currently zoned Heavy Industrial (M-2), which allows for the "manufacture or treatment of goods from raw materials." It should be noted that the proposed changes to the RAP would also occur under this alternative. The Existing Zoning Alternative is not a feasible alternative for the project because the existing M-2 zoning for the project site is not consistent with the General Plan land use designations (Traditional Neighborhood Low Density, Traditional Neighborhood High Density, and Traditional Center)

for the site and buildout of the project site with industrial uses would not meet any of the proposed project's objectives.

7.3 ALTERNATIVES CONSIDERED IN THIS EIR

For this EIR, the following alternatives considered include the following:

- No Project/No Build Alternative;
- Reduced Commercial Alternative A;
- Reduced Commercial Alternative B;
- Single-Family Alternative; and
- Multi-Family Alternative (2004 Proposed Project).

Table 7-7, at the end of the chapter, summarizes the level of significance of the impacts for the proposed project and each of the project alternatives.

No Project/No Build Alternative

Section 15126.6 (e)(1) of the State CEQA Guidelines requires that a "no project alternative" be evaluated in comparison to the proposed project. The No Project/No Build Alterative is defined in this section as the continuation of the existing condition of the project site. The No Project/No Build Alternative would allow the project site to continue in the existing undeveloped vacant state and would meet only one of the project objectives.

Remedial Action Plan Update

The remediation of the site to DTSC standards, pursuant to the updated Remedial Action Plan (RAP), will be completed with or without the development of the Curtis Park Village project. Therefore, all the activities associated with the remedies contemplated for potential inclusion in the updated RAP would not change from what was analyzed in the in EIR. Thus, the impacts identified for the remedies to be included in the update of the RAP would remain for this alternative, resulting in equal impacts as compared to the analyses in this EIR for Aesthetics; Transportation and Circulation; Air Quality; Noise; Biological Resources; Cultural Resources; Geology and Soils; Public Health and Hazards; Hydrology and Water Quality; Population, Employment, and Housing; Public Services and Utilities; and Parks and Recreation. It should be noted that although remediation of the site would continue until complete pursuant to the updated RAP, DTSC could not issue a No Further Action letter certifying the site as clean until the City has approved a land use plan, pursuant to SB 120.

Curtis Park Village Project

Aesthetics

The proposed project site is currently vacant. Although the nature of aesthetic value is subjective, and the project site contains certain positive aesthetic features, the project site as a whole would generally not be considered an aesthetic resource. Under the No Project/No Build Alternative,

the project site would not contain buildings that would emit new sources of light and glare. Therefore, under the No Project/No Build Alternative, impacts to aesthetics would be fewer; however, construction of the proposed project would enhance the aesthetic value of the site. Overall, because this Alternative would not introduce new sources of light and glare, the alternative would have fewer impacts related to aesthetics, as compared to the proposed Curtis Park Village project.

Transportation and Circulation

The No Project/No Build Alternative would result in traffic and circulation patterns increasing and changing over time only in association with other growth in the area. The No Project/No Build Alternative would eliminate the need for construction of roadways within the project site and expansion of surrounding roadways to accommodate new and increased traffic needs resulting from buildout of the project site. Therefore, the No Project/No Build Alternative would result in fewer impacts to transportation and circulation than the proposed Curtis Park Village project.

Air Quality

Under the No Project/No Build Alternative, existing air quality conditions would remain, as the project site would not experience increased emissions of criteria air pollutants and greenhouse gases due to construction of the project, operation of the project, and new vehicle trips associated with the project. Because the No Project/No Build Alternative would not result in increased emissions, as would the proposed project, air quality impacts under the No Project/No Build Alternative would be fewer than impacts to air quality under the proposed Curtis Park Village project.

Noise

The No Project/No Build Alternative would not create noise and vibration impacts to sensitive receptors, such as residences, because the construction and operation of the project would not occur. In addition, the site would remain vacant and sensitive receptors to noise would not be constructed on-site. Therefore, noise and vibration impacts would not ensue, and the No Project/No Build Alternative would result in fewer impacts related to noise than the proposed Curtis Park Village project.

Biological Resources

The No Project/No Build Alternative would not result in grading or construction on the currently vacant project site. It should be noted that although biological resources potentially exist on the project site, these resources have already been highly disturbed as a result of previous grading and cleanup activities on-site. Because the project site has been disturbed, potential habitat for special-status plant and wildlife species on-site is minimal. However, the No Project/No Build Alternative would result in the disturbance of fewer acres than would the proposed project; therefore, the No Project/No Build Alternative would result in fewer impacts to biological resources, as compared to the proposed Curtis Park Village project.

Cultural Resources

The No Project/No Build Alternative would not result in grading or construction on the currently vacant project site. It should be noted that although unknown cultural resources could exist on the project site, the site is already highly disturbed as a result of previous grading and cleanup activities on-site, and the likelihood of discovering cultural resources on-site is low. However, the No Project/No Build Alternative would result in the disturbance of fewer acres than would the proposed project; therefore, the No Project/No Build Alternative would result in fewer impacts to cultural resources, as compared to the proposed Curtis Park Village project.

Geology and Soils

The No Project/No Build Alternative would not include the potential grading and construction activities associated with development of the proposed project, and impacts related to soil erosion or exposure of people to hazards related to seismic activity, liquefaction, or expansive soils on-site would not occur because the project site would remain vacant. Although impacts related to geology and soils would be less than significant under the proposed project, impacts would still be fewer under this Alternative, as compared to the proposed Curtis Park Village project because the No Project/No Build Alternative would not include grading and construction on-site.

Public Health and Hazards

Under the No Project/No Build Alternative, the project site would remain vacant and sensitive receptors would not be developed on the site. The No Project/No Build Alternative would not expose construction workers, occupants, and/or site visitors to contaminated soils or hazardous substances. Therefore, because this Alternative would not include on-site sensitive receptors that could be exposed to hazardous materials, the No Project/No Build Alternative would have fewer impacts related to public health and hazards, as compared to the proposed Curtis Park Village project.

Hydrology and Water Quality

The No Project/No Build Alternative would not result in the potential for violation of water quality standards or waste discharge requirements, nor would the Alternative affect groundwater recharge or existing drainage patterns in the project area. In addition, the No Project/No Build Alternative would not result in an increase in impervious surfaces on-site, thereby not increasing stormwater runoff. Furthermore, this Alternative would not place structures or people on the project site that could be exposed to flood hazards. Although the proposed project's impacts related to hydrology and water quality would be less than significant, the No Project/No Build Alternative would still have fewer impacts because the project site would remain vacant and undeveloped. Therefore, impacts under the No Project/No Build Alternative would be fewer, as compared to the proposed Curtis Park Village project.

Population, Employment, and Housing

The No Project/No Build Alternative would not result in an increase in housing or a subsequent increase in the population of the City of Sacramento. However, it should be noted that because the No Project/No Build Alternative does not involve the construction of new housing, affordable housing units would not be added to the City. Overall, the No Project/No Build Alternative would result in similar impacts as compared to the proposed Curtis Park Village project, because although the City's population would not be increased, the City would also lose the benefit of adding affordable housing units to the City.

Public Services and Utilities

The No Project/No Build Alternative would not result in the introduction of new residents to the City. Therefore, unlike the proposed project, the No Project/No Build Alternative would not result in the need for construction or expansion of existing facilities for water, stormwater, wastewater, energy, or telecommunication facilities or additional law enforcement, fire protection, schools, or libraries. Although the proposed project's impacts related to public services and utilities would be less than significant, this Alternative would still result in fewer impacts, as compared to the proposed Curtis Park Village project, because new uses and new residents would not be introduced to the project site.

Parks and Recreation

The current plan for the proposed project includes a 8.7-acre (6.8 gross acres) neighborhood park area. The proposed neighborhood park area is substantially larger than the amount of park space required for the additional residents that would result from the proposed project. Therefore, the neighborhood park area would provide an amenity to the surrounding neighborhoods that is currently not available on the project site. It should be noted, however, that the No Project/No Build Alternative would not introduce additional residents to the project area; therefore, an increased demand for recreational facilities would not occur under the No Project/No Build Alternative. Overall, impacts related to parks and recreation would be similar under this Alternative and the proposed Curtis Park Village project.

Reduced Commercial Alternative A

The Reduced Commercial Alternative A would include a reduction in the commercial land use area from approximately 260,000 square feet to 100,000 square feet. A conceptual figure of the Alternative is shown in Figure 7-2 and the general characteristics of the Alternative are listed in Table 7-2.

The reduction in square footage in the commercial land-use area from the proposed project alternative would instead be developed as single-family residential lots. It should be noted that the proposed changes to the RAP would also occur under this alternative.

Figure 7-2
Reduced Commercial Alternative A

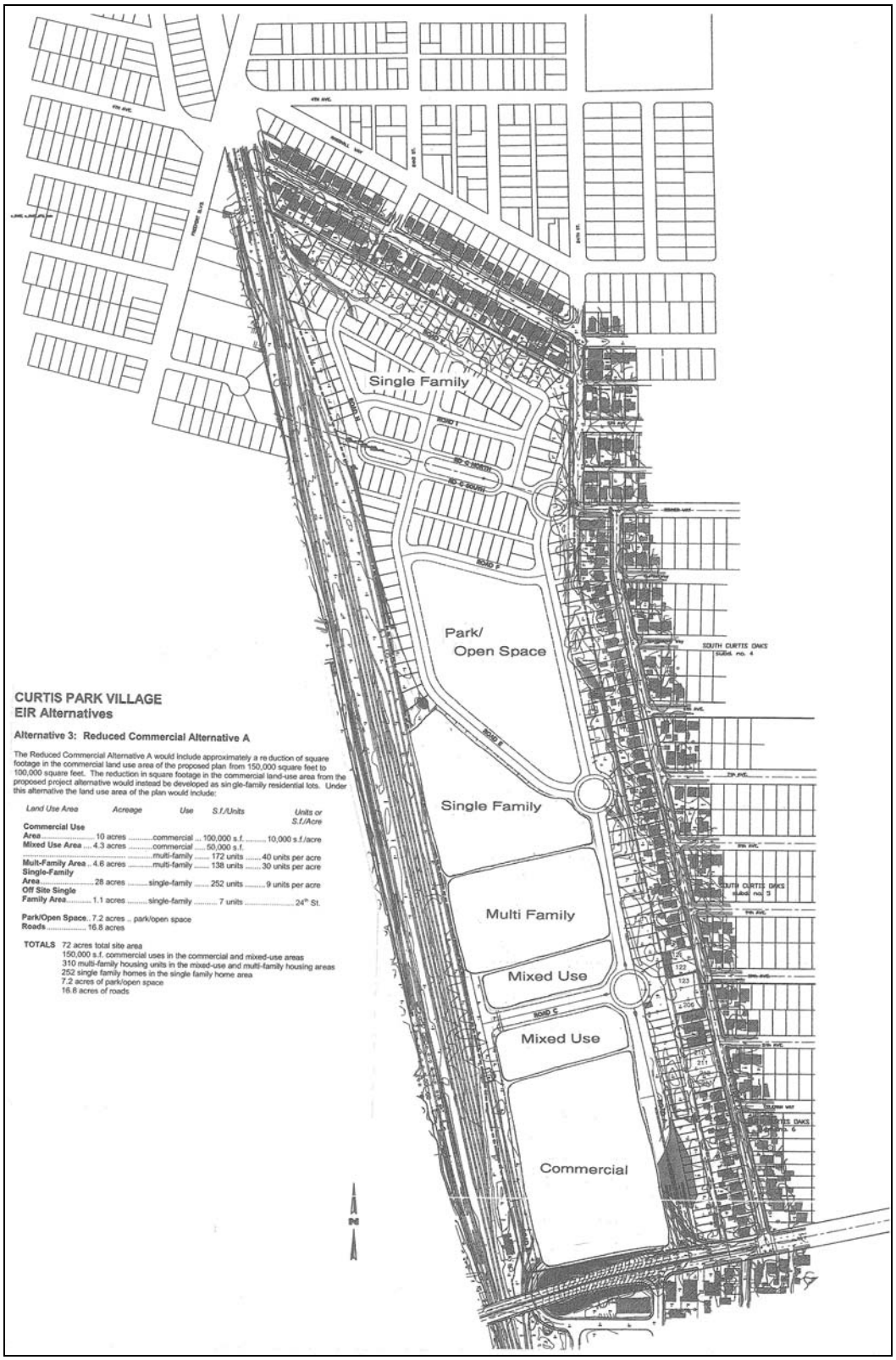


Table 7-2 Reduced Commercial Alternative A				
Land Use Area	**Acreage**	**Use**	**Square Feet/Units**	**Units or Square Feet/Acre**
Commercial Use Area	10	Commercial	100,000 s.f.	10,000 s.f./acre
Mixed Use Area	4.3	Commercial	50,000 s.f.	N/A
		Multi-Family	172 units	40 units per acre
Multi-Family Area	4.6	Multi-Family	138 units	30 units per acre
Single-Family Area	28 acres	Single-Family	252 units	9 units per acre
Off-Site Single-Family Area	1.1	Single-Family	7 units	6.4 units per acre
Parks/Open Space	6.4 net acres	Parks/Open Space	N/A	N/A
Roadways	16.8 acres	N/A	N/A	N/A

Remedial Action Plan Update

The remediation of the site to DTSC standards, pursuant to the updated Remedial Action Plan (RAP), will be completed prior to development of the Curtis Park Village project. Therefore, all the activities associated with the remedies contemplated for potential inclusion in the updated RAP would not change from what was analyzed in the in EIR. Thus, the impacts identified for the remedies to be included in the update of the RAP would remain for this alternative, resulting in equal impacts as compared to the analyses in this EIR for Aesthetics; Transportation and Circulation; Air Quality; Noise; Biological Resources; Cultural Resources; Geology and Soils; Public Health and Hazards; Hydrology and Water Quality; Population, Employment, and Housing; Public Services and Utilities; and Parks and Recreation. It should be noted that the additional residential uses included in this alternative would result in the remediation of more acres of the site to be cleaned to unrestricted standards (under the residential areas), pursuant to SB 120. However, all remedies would still be viable options.

Curtis Park Village

Aesthetics

The Reduced Commercial Alternative A would result in the development of 252 single-family residential units on the project site, as opposed to 178 single-family units under the proposed project. In addition, the Alternative would include 310 multi-family residential units, which would be 18 more than included in the proposed project. However, the same amount of acreage would be disturbed through implementation of the Reduced Commercial Alternative A because the entire project site would be built out under both plans. Under both the proposed project and the Reduced Commercial Alternative A, the current vacant and undeveloped project setting would be developed with residential and commercial uses, and the addition of light and glare resulting from buildout of the project site could impact the surrounding areas. It should be noted that, under this Alternative, less commercial uses would be built out, resulting in fewer new sources of light and glare. In addition, similar to the proposed project, the Alternative would

result in the removal of many of the existing trees. Therefore, the impacts associated with this Alternative would be similar to those associated with the proposed Curtis Park Village project.

Transportation and Circulation

As shown below in Table 7-3, the Reduced Commercial Alternative A would reduce new external traffic trips by approximately 5,643 trips. As shown in Tables 7-4 and 7-5, the reduction in vehicle trips would eliminate some impacts to the roadway network; however, several impacts to intersections would remain under this Alternative. Although potentially significant baseline and cumulative impacts related to transportation and circulation would result under both this Alternative and the proposed project, the Reduced Commercial Alternative A would result in impacts to less intersections; therefore, impacts would be fewer, as compared to the proposed Curtis Park Village project.

Air Quality

As noted above, the Reduced Commercial Alternative A would decrease the total number of vehicle trips that would be associated with the proposed project. The reduction in vehicle trips would result in a decrease in emissions of ozone precursors and criteria air pollutants. In addition, the reduction in vehicle trips would result in less project emissions of greenhouse gases. It should be noted, however, that the reduction in vehicle trips and associated emissions would not be expected to reduce impacts to a less-than-significant level. Although potentially significant impacts related to air quality would result under both this Alternative and the proposed project, the Reduced Commercial Alternative A would result in reduced impacts to air quality, as compared to the proposed Curtis Park Village project.

Noise

As noted above, the Reduced Commercial Alternative A would decrease the total number of vehicle trips that would be associated with the proposed project. The reduction in vehicle trips would result in a reduction in traffic noise, as compared to the proposed project. However, the vehicle noise reduction would not be substantial. In addition, this Alternative would include more sensitive receptors that could be exposed to construction and operational noise on-site. Overall, impacts under this Alternative would be substantially similar to those associated with the proposed Curtis Park Village project because both would result in potentially significant impacts related to construction noise, railroad noise and vibration, and commercial- and park-generated noise levels.

Biological Resources

The Reduced Commercial Alternative A would result in the disturbance of the same number of acres of development as the proposed Curtis Park Village project; therefore, the Reduced Commercial Alternative A would result in similar impacts to biological resources.

Table 7-3
Reduced Commercial Alternative A - Trip Generation

Land Use	Amount		Trips Generated									
				AM Peak Hour			PM Peak Hour			Saturday		
			Weekday	In	Out	Total	In	Out	Total	In	Out	Total
Reduced Commercial Alternative A												
Retail	94	KSF	6,501	92	59	150	288	311	599	431	398	829
Retail / Grocery Store	57	KSF	5,174	140	90	230	303	291	594	324	312	636
Multi-Family Residential	316	Units	2,050	32	127	159	124	67	191	91	78	169
Single-Family Residential	270	Units	2,593	50	149	198	165	97	262	136	115	251
Park/Open Space	7	Acres	11	0	0	0	0	0	0	1	1	2
Total Project Trips			16,329	314	425	737	880	766	1,646	983	904	1,887
Transit Adjustments												
Retail (-1.8%)			-117	-2	-1	-3	-5	-6	-11	-8	-7	-15
Grocery Store (-1.8%)			-93	-2	-1	-3	-5	-6	-11	-8	-7	-15
Residential (Daily -3.1%, a.m. -3.7%, p.m. -3.6%, Sat. -3.1%)			-144	-3	-10	-13	-10	-6	-16	-7	-6	-13
Total Transit Adjustments			-354	-7	-12	-19	-20	-18	-38	-23	-20	-43
Internal Trips			-3,878	-36	-36	-71	-181	-181	-362	-241	-241	-481
Pass-by Trips (40% of net retail trips)			-2,633	-53	-53	-105	-141	-141	-281	-166	-166	-331
New External Trips			**9,464**	**218**	**324**	**542**	**538**	**426**	**965**	**553**	**477**	**1,032**
Proposed Project New External Trips			**15,107**	**321**	**328**	**648**	**827**	**666**	**1,493**	**1,008**	**798**	**1,807**
Transit Trips												
Retail (2.2%)			143	2	1	3	6	7	13	9	9	18
Residential (Daily 3.8%, a.m. 4.5%, p.m. 4.5%, Sat. 3.8%)			176	4	12	16	13	7	20	9	7	16
Total Transit Trips			319	6	13	19	19	14	33	18	16	34

Source: Dowling Associates, Inc., 2008.

Table 7-4
Roadway Levels of Service for Project Alternatives – Baseline Conditions

Roadway Segment	Lanes	No Project Alternative			Proposed Project			Reduced Commercial Alternative A			Reduced Commercial Alternative B			Multi-Family Alternative		
		ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]
Weekday																
Sutterville Rd Railroad Overcrossing	4	28,864	D	0.80	**31,692**	**D**	**0.88**	**30,496**	**D**	**0.85**	**30,334**	**D**	**0.84**	**30,954**	**D**	**0.86**
Sutterville Rd btw E. Curtis Dr & W. Curtis Dr	4	27,346	C	0.76	**32,967**	**E**	**0.92**	**30,861**	**D**	**0.86**	**30,548**	**D**	**0.85**	**31,685**	**D**	**0.88**
24th St north of 10th Av	2	3,690	A	0.42	736	A	0.08	736	A	0.08	736	A	0.08	782	A	0.09
24th St btw Portola Wy & Marshall Wy	2	3,685	A	0.42	5,288	B	0.60	4,938	A	0.56	4,889	A	0.56	5,092	A	0.58
Donner Wy btw 24th St & 25th St	2	636	A	0.13	1,302	A	0.26	1,227	A	0.25	1,217	A	0.24	1,202	A	0.24
Freeport Boulevard north of 21st St	2	10,654	C	0.71	10,970	C	0.73	10,842	C	0.72	10,847	C	0.72	10,880	C	0.73
21st St north of 4th Av	3	12,140	A	0.54	12,632	A	0.56	12,494	A	0.56	12,460	A	0.55	12,578	A	0.56
Portola Wy btw 21st St & 24th St	2	481	A	0.10	485	A	0.10	485	A	0.10	481	A	0.10	485	A	0.10
Marshall Wy btw 21st St & 24th St	2	778	A	0.16	1,005	A	0.20	586	A	0.12	508	A	0.10	772	A	0.15
4th Av btw 21st St & 24th St	2	632	A	0.13	632	A	0.13	632	A	0.13	632	A	0.13	632	A	0.13
3rd Av btw 21st St & 24th St	2	360	A	0.07	360	A	0.07	360	A	0.07	360	A	0.07	360	A	0.07
24th St just south of Donner Wy	2	1,799	A	0.21	709	A	0.08	757	A	0.09	757	A	0.09	750	A	0.09
10th Av just east of 24th St	2	94	A	0.02	94	A	0.02	94	A	0.02	94	A	0.02	94	A	0.02
11th Av just east of 24th St	2	98	A	0.02	98	A	0.02	98	A	0.02	98	A	0.02	98	A	0.02
5th Av just east of 24th St	2	401	A	0.08	1,257	A	0.25	1,203	A	0.24	1,095	A	0.22	1,288	A	0.26
W. Pacific Av north of Wilmington Av	2	1,311	A	0.26	3,034	B	0.61	2,134	A	0.43	2,081	A	0.42	2,447	A	0.49
E. Pacific Av just north of Wilmington Av	2	633	A	0.13	633	A	0.13	633	A	0.13	633	A	0.13	633	A	0.13
Road A north of Road G	2				5,057	A	0.58	4,546	A	0.52	4,489	A	0.51	4,808	A	0.55
Road A north of Road E	2				4,596	A	0.53	4,075	A	0.47	4,028	A	0.46	4,331	A	0.49
Road A north of Area 3	2				4,647	A	0.53	4,149	A	0.47	4,142	A	0.47	4,388	A	0.50
Road A north of Road C	2				5,612	B	0.64	4,156	A	0.47	4,062	A	0.46	4,502	A	0.51
Road A north of Area 2	2				6,109	B	0.70	4,758	A	0.54	4,684	A	0.54	5,114	A	0.58
Road A north of Area 1	2				6,288	C	0.72	5,111	A	0.58	4,606	A	0.53	5,481	B	0.63
Road A north of Sutterville Road	4				8,429	A	0.48	6,557	A	0.37	6,210	A	0.35	7,394	A	0.42

Table 7-4
Roadway Levels of Service for Project Alternatives – Baseline Conditions

Roadway Segment	Lanes	No Project Alternative			Proposed Project			Reduced Commercial Alternative A			Reduced Commercial Alternative B			Multi-Family Alternative		
		ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]	ADT[1]	LOS[2]	V/C[3]
Saturday																
Sutterville Rd Railroad Overcrossing	4	21,692	B	0.60	28,332	C	0.79	25,202	C	0.70	24,639	B	0.68	26,543	C	0.74
Sutterville Rd btw E. Curtis Dr & W. Curtis Dr	4	20,009	A	0.56	**29,245**	**D**	**0.81**	25,188	B	0.70	24,369	B	0.68	26,914	C	0.75
Freeport Boulevard north of 21st St	2	8,073	A	0.54	8,685	A	0.58	8,408	A	0.56	8,396	A	0.56	8,597	A	0.57
21st St north of 4th Avenue	3	8,729	A	0.39	9,750	A	0.43	9,389	A	0.42	9,252	A	0.41	9,016	A	0.40

Source: Dowling Associates, Inc., 2008.

[1]ADT = Average daily traffic

[2]LOS = Level of service

[3]V/C = Volume/Capacity

Shaded and bold values indicate potential significant impacts.

Table 7-5
Intersection Levels of Service for Project Alternatives – Cumulative Conditions

Intersection	Traffic Control	Peak Hour	No Project Alternative		Proposed Project		Reduced Commercial Alternative A		Reduced Commercial Alternative B		Multi-Family Alternative	
			LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]
1. 24th St / Broadway	Signal	AM	B	18.1	B	18.4	B	18.4	B	18.4	B	18.4
		PM	D	41.0	D	44.2	D	43.2	D	43.1	D	43.7
		Saturday	B	14.1	B	15.0	B	14.6	B	14.6	B	14.8
2. Freeport Bl / 2nd Av	Signal	AM	C	32.0	B	15.7	C	34.0	C	34.1	C	34.1
		PM	F	100.1	D	48.7	**F**	**106.6**	**F**	**106.6**	**F**	**108.3**
		Saturday	C	20.1	B	14.1	C	21.0	C	21.0	C	21.3
3. 21st St / 2nd Av	Signal	AM	B	11.9	B	12.5	B	12.5	B	12.6	B	12.5
		PM	B	14.6	B	15.3	B	15.0	B	15.0	B	15.1
		Saturday	A	9.7	B	10.5	B	10.2	B	10.2	B	10.3
4. 24th St / 2nd Av	4-Way Stop	AM	E	46.2	**F**	**67.8**	**F**	**69.3**	**F**	**70.8**	**F**	**69.5**
		PM	E	39.3	**F**	**63.8**	**F**	**55.4**	**F**	**54.9**	**F**	**58.3**
5. 21st St / 4th Av	Stop Sign	AM	A	1.3	A	1.4	A	1.4	A	1.4	A	1.4
		PM	A	0.5	A	0.9	A	0.8	A	0.7	A	0.8
		Saturday	A	0.8	A	1.3	A	1.2	A	1.1	A	1.3
6. Freeport Bl / 21st St	Signal	AM	E	62.9	E	63.8	E	63.9	E	63.9	E	63.7
		PM	F	84.5	F	86.1	F	85.2	F	85.0	F	85.3
		Saturday	C	22.4	C	23.0	C	22.7	C	22.7	C	22.8
7. Freeport Bl / Vallejo Wy	Signal	AM	B	19.6	C	21.0	C	20.1	C	20.1	C	20.2
		PM	B	12.0	B	12.9	B	12.5	B	12.4	B	12.7
		Saturday	A	7.1	A	7.5	A	7.3	A	7.2	A	7.3
8. 24th St / Portola Wy	4-Way Stop	AM	D	32.6	**F**	**52.0**	**F**	**52.8**	**F**	**53.3**	**F**	**53.2**
		PM	C	22.4	**F**	**61.4**	**E**	**41.8**	**E**	**39.9**	**E**	**49.1**
9. 24th St / 5th Av	Stop Sign	AM	A	1.7	A	2.0	A	1.9	A	2.0	A	2.0
		PM	A	1.2	A	2.2	A	1.8	A	1.8	A	2.1
10. 24th St / Donner Wy	Stop Sign	AM	A	1.7	A	2.9	A	2.8	A	2.8	A	2.8
		PM	A	1.0	A	2.7	A	2.4	A	2.4	A	2.4
11. Franklin Bl / 5th Av	Signal	AM	A	5.8	A	6.0	A	6.0	A	6.0	A	6.0
		PM	A	6.2	A	6.3	A	6.3	A	6.3	A	6.3
		Saturday	A	4.8	A	4.7	A	4.7	A	4.7	A	4.7
12. 24th St / 10th Av	Stop Sign	AM	A	1.0	A	2.4	A	2.3	A	2.3	A	2.4
		PM	A	0.7	A	3.9	A	3.7	A	3.7	A	3.8

Table 7-5
Intersection Levels of Service for Project Alternatives – Cumulative Conditions

Intersection	Traffic Control	Peak Hour	No Project Alternative		Proposed Project		Reduced Commercial Alternative A		Reduced Commercial Alternative B		Multi-Family Alternative	
			LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]
13. 24th St / 11th Av	Stop Sign	AM	A	1.1	A	2.6	A	2.5	A	2.5	A	2.5
		PM	A	1.2	A	5.2	A	5.0	A	5.0	A	5.1
14. Sutterville / Freeport (North)	Signal	AM	E	68.8	E	68.8	E	68.7	E	68.7	E	68.7
		PM	C	34.3	**D**	**38.8**	**D**	**36.6**	**D**	**36.2**	**D**	**37.5**
		Saturday	B	17.7	B	18.5	B	18.1	B	18.1	B	18.3
15. Sutterville / 21st St	Signal	AM	B	11.2	B	11.7	B	11.5	B	11.5	B	11.6
		PM	A	6.6	A	7.3	A	6.9	A	6.9	A	7.1
		Saturday	A	4.8	A	4.8	A	4.8	A	4.8	A	4.8
16. Sutterville / City College Dr	Signal	AM	E	73.8	F	82.6	**E**	**79.5**	**E**	**79.1**	F	80.4
		PM	D	46.7	**E**	**67.7**	**E**	**57.4**	**E**	**56.1**	**E**	**61.4**
		Saturday	B	17.2	B	18.4	B	18.6	B	18.4	B	17.8
17. Sutterville / Road A	Yield or Signal[3]	AM	C	0.5	C	22.2	C	21.0	C	34.8	C	23.4
		PM	C	0.3	**E**	**57.3**	**D**	**46.5**	**E**	**79.9**	**E**	**65.6**
		Saturday	B	0.5	C	27.8	B	17.3	B	18.4	C	25.2
18. Sutterville / 24th St	Signal or Stop Sign[4]	AM	C	19.9	A	2.0	A	4.9	A	4.8	A	5.2
		PM	D	32.9	A	0.5	A	0.9	A	1.0	A	1.0
		Saturday	A	6.3	A	0.2	A	0.3	A	0.4	A	0.4
19. Sutterville / Curtis Dr West	Stop Sign	AM	A	0.7	A	0.8	A	0.8	A	0.8	A	0.8
		PM	C	21.0	**F**	**54.6**	**E**	**37.1**	**D**	**35.0**	**E**	**43.2**
		Saturday	A	7.6	**D**	**34.2**	C	20.1	C	17.9	**D**	**25.4**
20. Sutterville / Franklin Bl	Signal	AM	D	46.7	**E**	**57.3**	**D**	**54.2**	**D**	**48.6**	**E**	**55.4**
		PM	D	43.4	**E**	**75.4**	**E**	**60.8**	**D**	**48.6**	**E**	**65.4**
		Saturday	C	29.3	**D**	**36.9**	C	32.9	C	31.1	C	34.4
21. Sutterville / SR 99 SB Ramp	Signal	AM	D	41.1	C	29.2	C	28.7	C	28.7	C	28.9
		PM	D	51.6	D	52.2	D	44.4	D	43.5	D	47.5
		Saturday	D	54.8	D	52.8	D	44.4	D	43.2	D	48.0
22. Sutterville / SR 99 NB Ramps	Signal	AM	C	20.4	C	23.4	C	22.9	C	22.9	C	23.1
		PM	C	26.4	**D**	**37.2**	C	31.1	C	30.5	C	33.0
		Saturday	C	23.5	**D**	**38.7**	C	29.9	C	28.8	C	33.2

Table 7-5
Intersection Levels of Service for Project Alternatives – Cumulative Conditions

Intersection	Traffic Control	Peak Hour	No Project Alternative		Proposed Project		Reduced Commercial Alternative A		Reduced Commercial Alternative B		Multi-Family Alternative	
			LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]
23. Sutterville / Freeport (South)	Signal	AM	D	44.9	D	48.2	D	46.7	D	46.5	D	47.1
		PM	E	64.2	E	69.1	E	66.8	E	66.3	E	67.7
		Saturday	D	45.9	D	48.4	D	47.2	D	47.0	D	47.7
24. Road A / Donner Wy / Road G	Signal	AM	na	na	A	8.7	A	8.7	A	8.7	A	8.7
		PM	na	na	A	5.7	A	5.5	A	5.5	A	5.6
		Saturday	na	na	A	4.5	A	4.8	A	4.9	A	4.6
25. Road A / Road E	Stop Sign	AM	na	na	A	0.3	A	0.4	A	0.5	A	0.3
		PM	na	na	A	0.1	A	0.3	A	0.4	A	0.2
		Saturday	na	na	A	0.3	A	0.4	A	0.7	A	0.3
26. Road A / Area 3	Stop Sign	AM	na	na	A	3.3	A	2.2	A	1.8	A	2.3
		PM	na	na	C	18.5	A	2.2	A	1.1	A	3.0
		Saturday	na	na	A	7.1	A	2.8	A	1.5	A	3.4
27. Road A / Road C	Round-about	AM	na	na	A	5.2	A	4.8	A	4.7	A	4.8
		PM	na	na	B	11.6	A	7.8	A	7.4	A	8.6
		Saturday	na	na	A	5.1	A	4.1	A	4.0	A	4.3
28. Road A / Area 1	Signal or Stop Sign[5]	AM	na	na	A	4.1	A	1.6	A	1.7	A	1.9
		PM	na	na	**F**	**62.4**	A	7.5	A	6.8	**E**	**42.8**
		Saturday	na	na	B	14.1	A	5.7	A	5.6	B	14.0
29. Road A / Area 2	Stop Sign	AM	na	na	A	0.8	A	0.9	A	0.6	A	1.0
		PM	na	na	B	14.4	A	3.9	A	1.9	A	7.8
		Saturday	na	na	A	4.9	A	3.1	A	1.9	A	4.1
30. Franklin Bl / 5th Av (South)	Stop Sign	AM	A	0.9	A	1.0	A	1.2	A	1.2	A	1.2
		PM	A	1.1	A	2.5	A	2.0	A	1.9	A	2.4
		Saturday	A	1.8	A	2.6	A	2.3	A	2.3	A	2.5

Source: Dowling Associates, Inc., 2008.
[1] LOS = Level of Service
[2] Weighted average control delay in seconds
[3] Existing Ramp is controlled by a yield sign; New Road A will be signalized.
[4] Existing intersection is signalized; the Project would convert the intersection to stop sign control.
[5] Intersection is signalized under the Proposed Project Alternative.
Mitigation measures for baseline conditions are assumed to be in place under cumulative conditions analysis.
Shaded values indicate a potential significant impact.

Cultural Resources

The Reduced Commercial Alternative A would result in the disturbance of the same number of acres of development as the proposed Curtis Park Village project; therefore, the Reduced Commercial Alternative A would result in similar impacts to historical and cultural resources.

Geology and Soils

Under the Reduced Commercial Alternative A, buildout of the entire 72-acre project site would still occur. Buildout would include the same grading and construction activities that would be associated with the proposed project, and impacts related to soil erosion or exposure of people to hazards related to seismic activity, liquefaction, or expansive soils on-site would still occur. Because the Reduced Commercial Alternative A would result in the grading and construction of the same number of acres of development as the proposed project, impacts related to geology and soils would be similar to the impacts that would result from the proposed Curtis Park Village project.

Public Health and Hazards

The Reduced Commercial Alternative A would result in the development of the project site with more sensitive receptors than would the proposed project. The Public Health and Hazards chapter determined that impacts related to public health and hazards would be less than significant for the proposed project. Although this Alternative would include the placement of more sensitive receptors on-site, impacts would still be expected to be less than significant because this Alternative would not involve the routine use, transport, or disposal of hazardous materials, and the site would still need to be cleaned to DTSC standards. Therefore, the Reduced Commercial Alternative A would result in similar impacts related to public health and hazards, as compared to the proposed Curtis Park Village project.

Hydrology and Water Quality

Under the Reduced Commercial Alternative A, the project site would be developed with a greater number of residences. The residences would have yards, and would not require large paved parking areas. Therefore, the Reduced Commercial Alternative A would result in less impervious surfaces such as roofs and pavement. As a result, the amount of stormwater runoff attributed to these surfaces would be less than the runoff that would be associated with the proposed project, and this Alternative would result in a reduced need for drainage of the runoff. Therefore, the Reduced Commercial Alternative A would result in fewer impacts related to hydrology and water quality, as compared to the proposed Curtis Park Village project.

Population, Employment, and Housing

The Reduced Commercial Alternative A would result in the reduced development of commercial uses on the project site, and an increase in the number of single-family residences associated with the project. Therefore, the Reduced Commercial Alternative A would create an increase in population, as compared to the proposed project, and would result in a further imbalance in the

jobs/housing ratio for the City. Therefore, impacts related to population, employment, and housing under the Reduced Commercial Alternative A would be greater than those associated with the proposed Curtis Park Village project.

Public Services and Utilities

The Reduced Commercial Alternative A would result in a reduction in the total square footage of commercial land uses on the project site and would increase the total number of residential units by 92 (81 additional single-family and 11 additional multi-family units). The addition of 92 residential units would be expected to result in a greater demand for public services and utilities, potentially resulting in the need for construction of new or expansion of existing facilities for water, stormwater, wastewater, energy, or telecommunication facilities or additional law enforcement, fire protection, schools, or libraries. Therefore, impacts related to public services and utilities would be greater under the Reduced Commercial Alternative A, as compared to the proposed Curtis Park Village project.

Parks and Recreation

The current plan for the proposed project includes a 8.7-acre (6.8 gross acres) neighborhood park area, which would meet the City's requirement of five acres of parkland per 1,000 people. The Reduced Commercial Alternative A would include less acreage (6.4 net acres) for park/open space. The Reduced Commercial Alternative A would have an approximate population of 1,461 people and, based on the City's requirement, this Alternative would be required to provide 7.3 acres of parkland. Because this Alternative would not meet the City's requirement for park/open space area, as would the proposed project, impacts related to parks and recreation would be greater under this Alternative, as compared to the proposed Curtis Park Village project.

Reduced Commercial Alternative B

The Reduced Commercial Alternative B would include a reduction of square footage in the commercial land use area from the proposed plan of 260,000 square feet to 100,000 square feet. In addition, the Reduced Commercial Alternative B would result in the development of 112 more single-family residential units and 18 more multi-family residential units than the proposed project (See Figure 7-3 and Table 7-6). The reduction in square footage in the commercial land-use area from the proposed project alternative would instead be developed as single-family residential lots. It should be noted that the proposed changes to the RAP would also occur under this alternative.

Figure 7-3
Reduced Commercial Alternative B

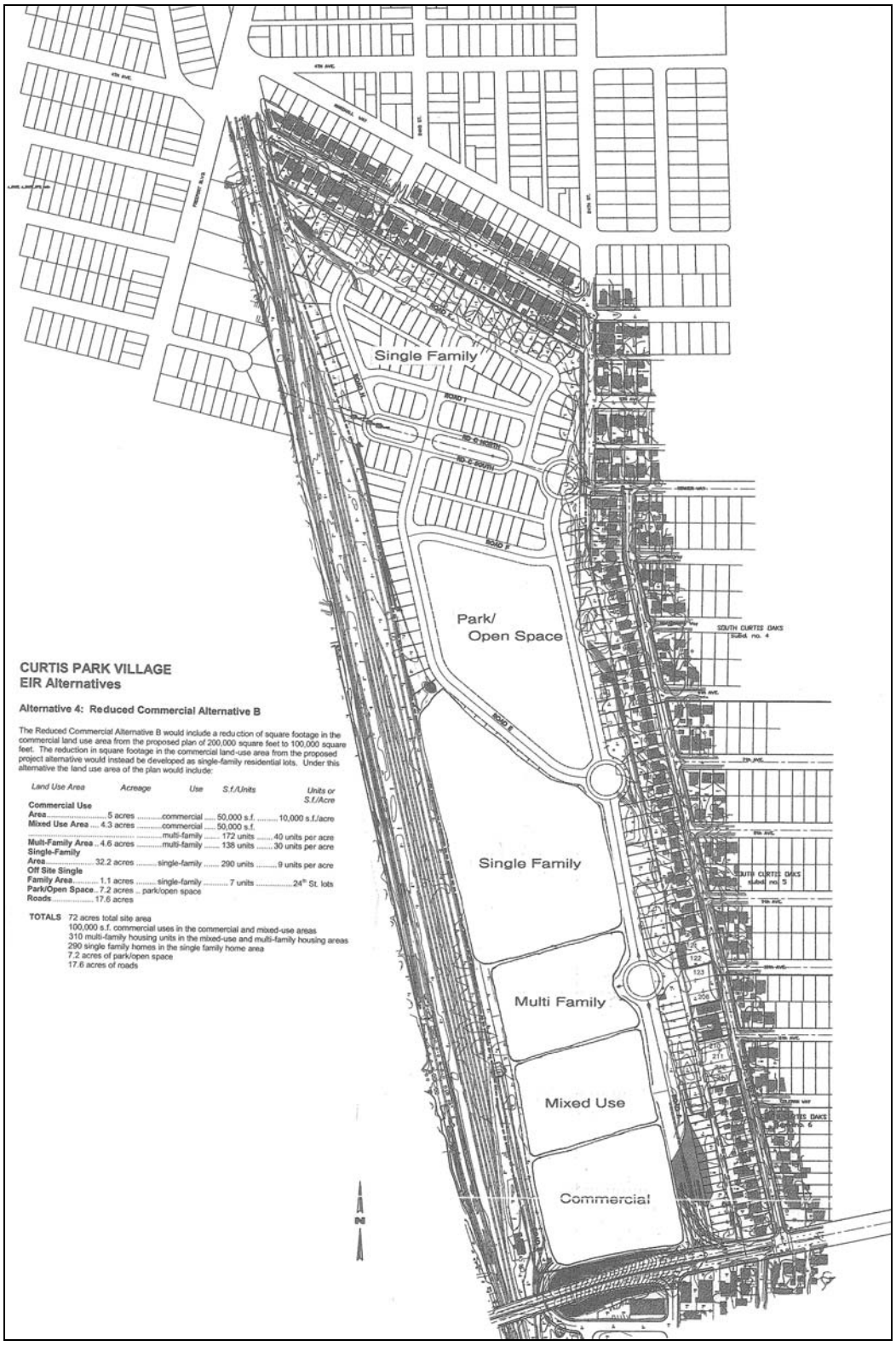


Table 7-6 Reduced Commercial Alternative B				
Land Use Area	**Acreage**	**Use**	**Square Feet/Units**	**Units or Square Feet/Acre**
Commercial Use Area	5	Commercial	50,000 s.f.	10,000 s.f./acre
Mixed Use Area	4.3	Commercial	50,000 s.f.	11,628 s.f./acre
		Multi-Family	172 units	40 units per acre
Multi-Family Area	4.6	Multi-Family	138 units	30 units per acre
Single-Family Area	32.2 acres	Single-Family	290 units	9 units per acre
Off-Site Single-Family Area	1.1	Single-Family	7 units	6.4 units per acre
Parks/Open Space	7.0 net acres	Parks/Open Space	N/A	N/A
Roadways	17.6	N/A	N/A	N/A

Remedial Action Plan Update

The remediation of the site to DTSC standards, pursuant to the updated Remedial Action Plan (RAP), will be completed prior to development of the Curtis Park Village project. Therefore, all the activities associated with the remedies contemplated for potential inclusion in the updated RAP would not change from what was analyzed in the in EIR. Thus, the impacts identified for the remedies to be included in the update of the RAP would remain for this alternative, resulting in equal impacts as compared to the analyses in this EIR for Aesthetics; Transportation and Circulation; Air Quality; Noise; Biological Resources; Cultural Resources; Geology and Soils; Public Health and Hazards; Hydrology and Water Quality; Population, Employment, and Housing; Public Services and Utilities; and Parks and Recreation. It should be noted that the additional residential uses included in this alternative would result in the remediation of more acres of the site to be cleaned to unrestricted standards (under the residential areas), pursuant to SB 120. However, all remedies would still be viable options.

Curtis Park Village

Aesthetics

The Reduced Commercial Alternative B would result in the development of 290 single-family residential units on the project site, as opposed to 178 single-family units with the proposed project. In addition, the Alternative would include 310 multi-family residential units, an increase of 18 units over the proposed project. However, the same amount of acreage would be disturbed through implementation of the Reduced Commercial Alternative B because the entire project site would be built out under both plans. Under both the proposed project and the Reduced Commercial Alternative B, the current vacant and undeveloped project setting would be developed with residential and commercial uses, and the addition of light and glare resulting from buildout of the project site could impact the surrounding areas. It should be noted that, under this Alternative, less commercial uses would be built out, resulting in fewer new sources of light and glare. In addition, similar to the proposed project, the Alternative would result in the

removal of many of the existing trees. Therefore, the impacts associated with this Alternative would be similar to those associated with the proposed Curtis Park Village project.

Transportation and Circulation

As shown below in Table 7-7, the Reduced Commercial Alternative B would reduce new external traffic trips by approximately 6,613 trips, as compared to the proposed project. As shown in Tables 7-4 and 7-5, the reduction in vehicle trips would eliminate some impacts to the roadway network; however, several impacts to intersections would remain under this Alternative. Although potentially significant baseline and cumulative impacts related to transportation and circulation would result under both this Alternative and the proposed project, the Reduced Commercial Alternative B would result in impacts to less intersections; therefore, impacts would be fewer, as compared to the proposed Curtis Park Village project.

Air Quality

As noted above, the Reduced Commercial Alternative B would decrease the total number of vehicle trips that would be associated with the proposed project. The reduction in vehicle trips would result in a decrease in emissions of ozone precursors and criteria air pollutants. In addition, the reduction in vehicle trips would result in less project emissions of greenhouse gases. It should be noted, however, that the reduction in vehicle trips and associated emissions would not be expected to reduce impacts to a less-than-significant level. Although potentially significant impacts related to air quality would result under both this Alternative and the proposed project, the Reduced Commercial Alternative B would result in reduced impacts to air quality, as compared to the proposed Curtis Park Village project.

Noise

As noted above, the Reduced Commercial Alternative B would decrease the total number of vehicle trips that would be associated with the proposed project. The reduction in vehicle trips would result in a reduction in traffic noise, as compared to the proposed project. However, the vehicle noise reduction would not be substantial. In addition, this Alternative would include more sensitive receptors that could be exposed to construction and operational noise on-site. Overall, impacts under this Alternative would be substantially similar to those associated with the proposed Curtis Park Village project because both would result in potentially significant impacts related to construction noise, railroad noise and vibration, and commercial- and park-generated noise levels.

Biological Resources

The Reduced Commercial Alternative B would result in the disturbance of the same number of acres of development as the proposed Curtis Park Village project; therefore, the Reduced Commercial Alternative B would result in similar impacts to biological resources.

Table 7-7
Reduced Commercial Alternative B – Trip Generation

Land Use	Amount		Trips Generated									
				AM Peak Hour			PM Peak Hour			Saturday		
			Weekday	In	Out	Total	In	Out	Total	In	Out	Total
Reduced Commercial Alternative B												
Retail	44	KSF	3,953	58	37	95	173	188	361	262	242	504
Retail / Grocery Store	57	KSF	5,174	140	90	230	303	291	594	324	312	636
Multi-Family Residential	316	Units	2,050	32	127	159	124	67	191	91	78	169
Single-Family Residential	308	Units	2,927	56	169	225	186	109	295	154	131	285
Park/Open Space	7	Acres	11	0	0	0	0	0	0	1	1	2
Total Project Trips			14,115	286	423	709	786	655	1,441	832	764	1,596
Transit Adjustments												
Retail (-1.8%)			-71	-1	-1	-2	-3	-3	-6	-5	-4	-9
Residential (Daily -3.1%, a.m. -3.7%, p.m. -3.6%, Sat. -3.1%)			-154	-3	-11	-14	-11	-6	-17	-8	-6	-14
Total Transit Adjustments			-225	-4	-12	-16	-14	-9	-23	-13	-10	-23
Internal Trips			-3,053	-29	-29	-58	-144	-144	-288	-193	-193	-386
Pass-by Trips (50% of net retail trips)			-2,343	-52	-52	-103	-129	-129	-258	-146	-146	-291
New External Trips			8,494	201	330	532	499	373	872	480	415	896
Proposed Project New External Trips			**15,107**	**321**	**328**	**648**	**827**	**666**	**1,493**	**1,008**	**798**	**1,807**
Transit Trips												
Retail (2.2%)			87	1	1	2	4	4	8	6	5	11
Residential (Daily 3.8%, a.m. 4.5%, p.m. 4.5%, Sat. 3.8%)			189	4	13	17	14	8	22	9	8	17
Total Transit Trips			276	5	14	19	18	12	30	15	13	28

Source: Dowling Associates, Inc., 2008.

[1] The trip generation for the Saturday peak hour was based on the data for Low-Rise Apartments (ITE 221).
[2] Transit adjustments and transit trips for industrial use, restaurant, theater, and health spa are assumed to be the same percentage as for retail use.
[3] Pass-by adjustments are not made for restaurant, theater, health spa, and hotel uses

Cultural Resources

The Reduced Commercial Alternative B would result in the disturbance of the same number of acres of development as the proposed Curtis Park Village project; therefore, the Reduced Commercial Alternative B would result in similar impacts to historical and cultural resources.

Geology and Soils

Under the Reduced Commercial Alternative B, buildout of the entire 72-acre project site would still occur. Buildout would include the same grading and construction activities that would be associated with the proposed project, and impacts related to soil erosion or exposure of people to hazards related to seismic activity, liquefaction, or expansive soils on-site would still occur. Because the Reduced Commercial Alternative B would result in the grading and construction of the same number of acres of development as the proposed project, impacts related to geology and soils would be similar to the impacts that would result from the proposed Curtis Park Village project.

Public Health and Hazards

The Reduced Commercial Alternative B would result in the development of the project site with more sensitive receptors than would the proposed project. The Public Health and Hazards chapter determined that impacts related to public health and hazards would be less than significant for the proposed project. Although this Alternative would include the placement of more sensitive receptors on-site, impacts would still be expected to be less than significant because this Alternative would not involve the routine use, transport, or disposal of hazardous materials, and the site would still need to be cleaned to DTSC standards. Therefore, the Reduced Commercial Alternative B would result in similar impacts related to public health and hazards, as compared to the proposed Curtis Park Village project.

Hydrology and Water Quality

Under the Reduced Commercial Alternative B, the project site would be developed with a greater number of residences. The residences would have yards, and would not require large paved parking areas. Therefore, this Alternative would result in less impervious surfaces such as roofs and pavement. As a result, the amount of stormwater runoff attributed to these surfaces would be less than the runoff that would be associated with the proposed project, and this Alternative would result in a reduced need for drainage of the runoff. Therefore, the Reduced Commercial Alternative B would result in fewer impacts related to hydrology and water quality, as compared to the proposed Curtis Park Village project.

Population, Employment, and Housing

The Reduced Commercial Alternative B would result in the reduced development of commercial uses on the project site, and an increase in the number of single-family residences associated with the project. Therefore, this Alternative would create an increase in population, as compared to the proposed project, and would result in a further imbalance in the jobs/housing ratio for the

City. Therefore, impacts related to population, employment, and housing under the Reduced Commercial Alternative B would be greater than those associated with the proposed Curtis Park Village project.

Public Services and Utilities

The Reduced Commercial Alternative B would result in a reduction in the total square-footage of commercial land uses on the project site, but would increase the total number of residential units by 130 units (112 single-family and 18 multi-family units). The addition of 130 residential units would be expected to result in a greater demand for public services and utilities, potentially resulting in the need for construction of new or expansion of existing facilities for water, stormwater, wastewater, energy, or telecommunication facilities or additional law enforcement, fire protection, schools, or libraries. Therefore, impacts related to public services and utilities would be greater under the Reduced Commercial Alternative B, as compared to the proposed Curtis Park Village project.

Parks and Recreation

The current plan for the proposed project includes a 8.7-acre (6.8 gross acres) neighborhood park area, which would meet the City's requirement of five acres of parkland per 1,000 people. The Reduced Commercial Alternative B would include more acreage (7.0 net acres) for park/open space. The Reduced Commercial Alternative B would have an approximate population of 1,562 people and, based on the City's requirement, this Alternative would be required to provide 7.8 acres of parkland. Because this Alternative would not meet the City's requirement for park/open space area, as would the proposed project, impacts related to parks and recreation would be greater under this Alternative, as compared to the proposed Curtis Park Village project.

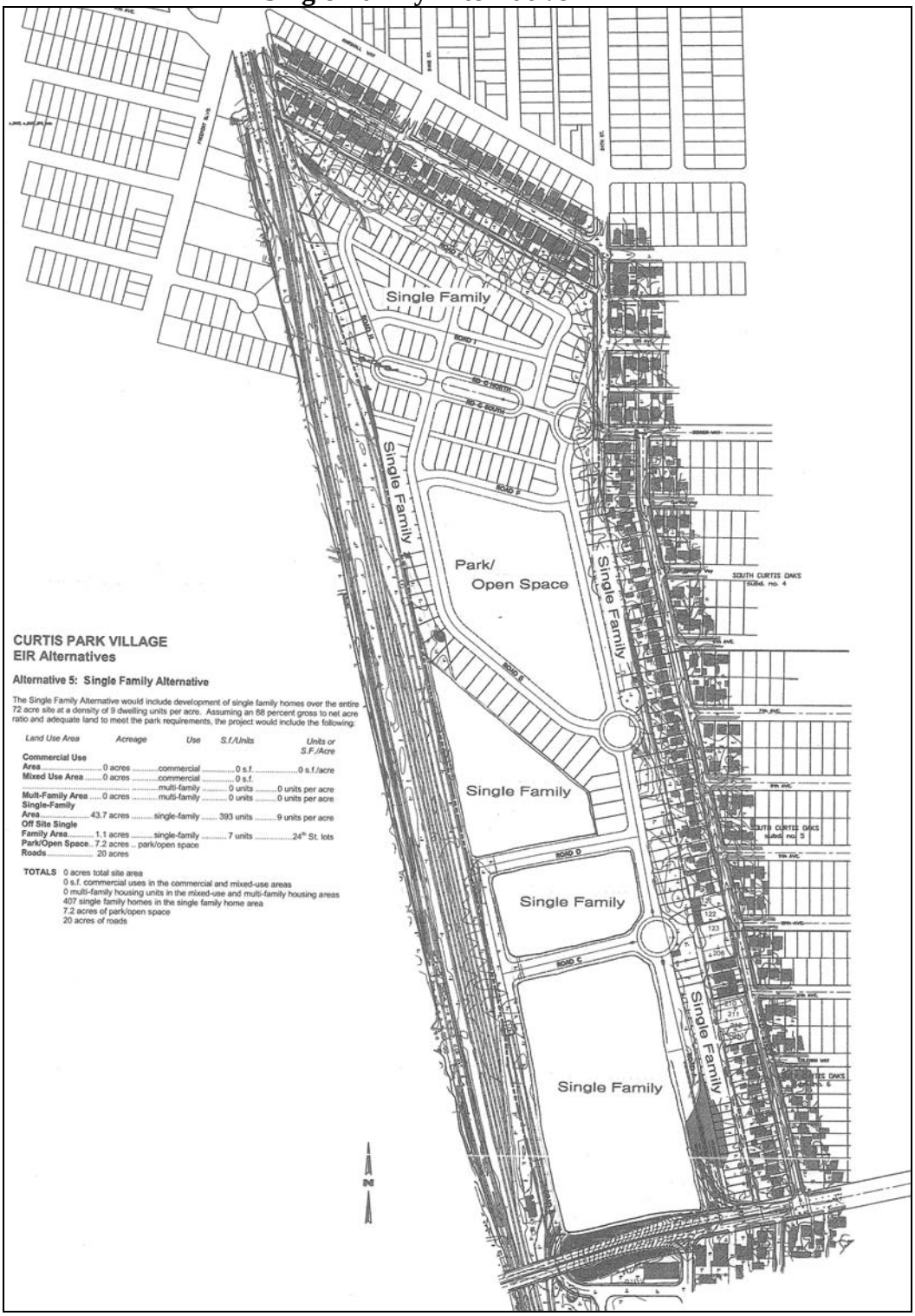
Single-Family Alternative

The Single-Family Alternative would include development of single-family homes over the entire 72-acre site at a density of nine dwelling units per acre (See Table 7-8 and Figure 7-4). Under the Single-Family Alternative the land uses would include the following:

Table 7-8
Single-Family Alternative

Land Use Area	Acreage	Use	Square Feet/Units	Units or Square Feet/Acre
Commercial Use Area	0	Commercial	N/A	N/A
Mixed Use Area	0	Commercial	N/A	N/A
Multi-Family Area	0	Multi-Family	N/A	N/A
Single-Family Area	43.7 acres	Single-Family	393 units	9 units per acre
Off-Site Single-Family Area	1.1	Single-Family	7 units	6.4 units per acre
Parks/Open Space	5.8 net acres	Parks/Open Space	N/A	N/A
Roadways	20	N/A	N/A	N/A

Figure 7-4
Single-Family Alternative



Remedial Action Plan Update

The remediation of the site to DTSC standards, pursuant to the updated Remedial Action Plan (RAP), will be completed prior to development of the Curtis Park Village project. Therefore, all the activities associated with the remedies contemplated for potential inclusion in the updated RAP would not change from what was analyzed in the in EIR. Thus, the impacts identified for the remedies to be included in the update of the RAP would remain for this alternative, resulting in equal impacts as compared to the analyses in this EIR for Aesthetics; Transportation and Circulation; Air Quality; Noise; Biological Resources; Cultural Resources; Geology and Soils; Public Health and Hazards; Hydrology and Water Quality; Population, Employment, and Housing; Public Services and Utilities; and Parks and Recreation. It should be noted that the residential use included in this alternative would result in the remediation of the entire site to unrestricted standards, pursuant to SB 120. However, all remedies would still be viable options. The capped soils, if chosen as a remedy in the RAP update, would be restricted to placement under the park area.

Curtis Park Village

Aesthetics

The Single-Family Alternative would include development of the same type and intensity as the surrounding communities. The Single-Family Alternative would include the construction of 43.7 acres of single-family residential units and would not include any commercial development, whereas the proposed project would include 21.1 acres of commercial development, 33.5 acres of single-family housing development, and 9.5 acres of multi-family development. Because the Single-Family Alternative would be entirely residential, the Alternative would be consistent with the surrounding areas. In addition, because commercial uses would not be developed, impacts related to new sources of light and glare would be fewer under this Alternative. Therefore, under the Single-Family Alternative, impacts related to aesthetics would be fewer, as compared to the proposed Curtis Park Village project.

Transportation and Circulation

As shown in Table 7-9, the Single-Family Alternative would reduce new external traffic trips by approximately 11,397 trips. In addition, peak hour trips would be reduced by approximately 56 percent during the a.m. peak hour, approximately 75 percent during the p.m. peak hour, and approximately 80 percent during the Saturday peak hour. Therefore, implementation of the Single-Family Alternative would reduce the number and magnitude of transportation and circulation impacts as compared to the proposed Curtis Park Village project.

Table 7-9
Single-Family Alternative – Trip Generation

Land Use	Amount	Trips Generated									
			AM Peak Hour			PM Peak Hour			Saturday		
		Weekday	In	Out	Total	In	Out	Total	In	Out	Total
Single-Family Alternative											
Single-Family Residential	411 Units	3,817	74	223	297	241	142	383	204	173	377
Park/Open Space	7 Acres	11	0	0	0	0	0	0	1	1	2
Total Project Trips		3,828	74	223	297	241	142	383	205	174	379
Transit Adjustments											
Residential (Daily -3.1%, a.m. -3.7%, p.m. -3.6%, Sat. -3.1%)		-118	-3	-8	-11	-9	-5	-14	-6	-5	-12
New External Trips		3,710	71	215	286	232	137	369	199	169	367
Proposed Project New External Trips		**15,107**	**321**	**328**	**648**	**827**	**666**	**1,493**	**1,008**	**798**	**1,807**
Transit Trips											
Residential (Daily 3.8%, a.m. 4.5%, p.m. 4.5%, Sat. 3.8%)		145	3	10	13	11	6	17	8	7	14

Source: Dowling Associates, Inc., 2008.

Air Quality

As noted above, the Single-Family Alternative would decrease the total number of vehicle trips associated with the proposed project. The reduction in vehicle trips would result in a decrease in emissions of ozone precursors and criteria air pollutants. In addition, the reduction in vehicle trips would reduce emissions of greenhouse gases; however, it should be noted that by eliminating the commercial portion of the project site, many of the commercial vehicle trips would be redirected to commercial venues located further away. This redirection of trips could result in increases in greenhouse gases, as compared to the proposed project. Overall, because the Single-Family Alternative could reduce the magnitude of impacts related to ozone precursors and criteria air pollutants, this Alternative would result in fewer impacts related to air quality, as compared to the proposed Curtis Park Village project.

Noise

As noted above, the Single-Family Alternative would decrease the total number of vehicle trips associated with the proposed project, which would reduce the amount of traffic noise, as compared to the proposed project. It should be noted that because this Alternative would place residential uses along a longer portion of the railroad line, noise impacts to sensitive receptors associated with the project would be greater, and a longer soundwall would be required. Overall, impacts under the Single-Family Alternative would be similar to those associated with the proposed Curtis Park Village project because both would result in potentially significant impacts related to construction noise, railroad noise and vibration, and park-generated noise levels; however, the impacts would be slightly fewer because the Single-Family Alternative would not result in any noise generated by commercial uses.

Biological Resources

The Single-Family Alternative would result in the disturbance of the same number of acres of development as the proposed Curtis Park Village project; therefore, the Single-Family Alternative would result in similar impacts to biological resources.

Cultural Resources

The Single-Family Alternative would result in the disturbance of the same number of acres of development as the proposed Curtis Park Village project; therefore, the Single-Family Alternative would result in similar impacts to historical and cultural resources.

Geology and Soils

Under the Single-Family Alternative, buildout of the entire 72-acre project site would still occur. Buildout would include the same grading and construction activities that would be associated with the proposed project, and impacts related to soil erosion or exposure of people to hazards related to seismic activity, liquefaction, or expansive soils on-site would still occur. Because the Single-Family Alternative would result in the grading and construction of the same number of

acres of development as the proposed project, impacts related to geology and soils would be similar to the impacts that would result from the proposed Curtis Park Village project.

Public Health and Hazards

The Single-Family Alternative would result in the development of the project site with more sensitive receptors than would the proposed project. The Public Health and Hazards chapter determined that impacts related to public health and hazards would be less than significant for the proposed project. Although this Alternative would include the placement of more sensitive receptors on-site, impacts would still be expected to be less than significant because this Alternative would not involve the routine use, transport, or disposal of hazardous materials, and the site would still need to be cleaned to DTSC standards. Therefore, the Single-Family Alternative would result in similar impacts related to public health and hazards, as compared to the proposed Curtis Park Village project.

Hydrology and Water Quality

Under the Single-Family Alternative, the project site would be developed with a greater number of residences. The residences would have yards, and would not require large paved parking areas. Therefore, this Alternative would result in less impervious surfaces such as roofs and pavement. As a result, the amount of stormwater runoff attributed to these surfaces would be less than the runoff that would be associated with the proposed project, and this Alternative would result in a reduced need for drainage of the runoff. Therefore, the Single-Family Alternative would result in fewer impacts related to hydrology and water quality, as compared to the proposed Curtis Park Village project.

Population, Employment, and Housing

The Single-Family Alternative would result in a decrease in the number of residences, as compared to the proposed project. Therefore, this Alternative would create an decrease in population, as compared to the proposed project, and would result in a better jobs/housing ratio for the City. Therefore, impacts related to population, employment, and housing under the Single-Family Alternative would be fewer than those associated with the proposed Curtis Park Village project.

Public Services and Utilities

The Single-Family Alternative would result in the elimination of commercial land uses on the project site and would decrease the total number of residential units by 70 units. The proposed project's impacts related to public services and utilities were found to be less than significant, and impacts associated with the Single-Family Alternative would be fewer still, due to the reduction in residential development and the associated population under this Alternative.

Parks and Recreation

The current plan for the proposed project includes a 8.7-acre (6.8 gross acres) neighborhood park area, which would meet the City's requirement of five acres of parkland per 1,000 people. The Single-Family Alternative would include less acreage (5.8 net acres) for park/open space. The Single-Family Alternative would have an approximate population of 1,060 people and, based on the City's requirement, this Alternative would be required to provide 5.3 acres of parkland. Because this Alternative would meet the City's requirement for park/open space area, as would the proposed project, impacts related to parks and recreation would be similar under this Alternative and the proposed Curtis Park Village project.

Multi-Family Alternative

The Multi-Family Alternative would include a reduction of the total commercial land use area of the proposed project from approximately 260,000 square feet to 200,000 square feet (See Table 7-10 and Figure 7-5). Under the Multi-Family Alternative the land uses would include the following:

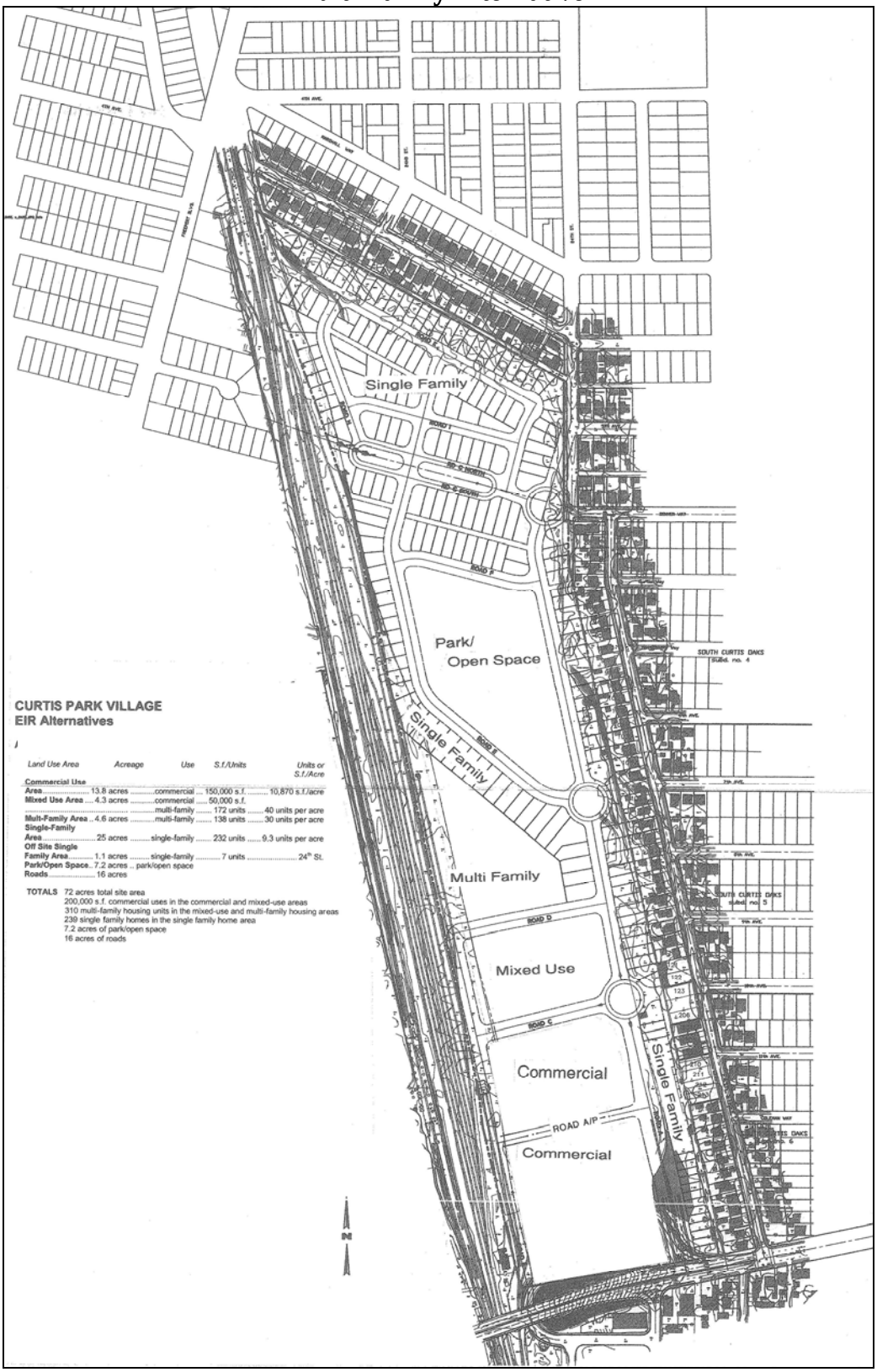
Table 7-10
Multi-Family Alternative

Land Use Area	Acreage	Use	Square Feet/Units	Units or Square Feet/Acre
Commercial Use Area	13.8	Commercial	150,000 s.f.	10,870 s.f. per acre
Mixed Use Area	4.3	Commercial	50,000 s.f.	11,628 s.f. per acre
		Multi-Family	172 units	40 units per acre
Single-Family Area	25 acres	Single-Family	232 units	9 units per acre
Multi-Family Area	4.6 acres	Multi-Family	138 units	30 units per acre
Off-Site Single-Family Area	1.1	Single-Family	7 units	6.4 units per acre
Parks/Open Space	7.2 net acres	Parks/Open Space	N/A	N/A
Roadways	16	Roads	N/A	N/A

Remedial Action Plan Update

The remediation of the site to DTSC standards, pursuant to the updated Remedial Action Plan (RAP), will be completed prior to development of the Curtis Park Village project. Therefore, all the activities associated with the remedies contemplated for potential inclusion in the updated RAP would not change from what was analyzed in the in EIR. Thus, the impacts identified for the remedies to be included in the update of the RAP would remain for this alternative, resulting in equal impacts as compared to the analyses in this EIR for Aesthetics; Transportation and Circulation; Air Quality; Noise; Biological Resources; Cultural Resources; Geology and Soils; Public Health and Hazards; Hydrology and Water Quality; Population, Employment, and Housing; Public Services and Utilities; and Parks and Recreation.

Figure 7-5
Multi-Family Alternative



It should be noted that the additional residential uses included in this alternative would result in the remediation of more acres of the site to be cleaned to unrestricted standards (under the residential areas), pursuant to SB 120. However, all remedies would still be viable options.

Curtis Park Village

Aesthetics

The Multi-Family Alternative would result in the development of 239 single-family units and 310 multi-family units, as compared to the 178 single-family units and 292 multi-family units that would be included in the proposed project. However, the same number of acres would be developed under the Multi-Family Alternative as under the proposed project. In addition, the types of uses on-site would be similar, though the proportions would be different. Furthermore, similar to the proposed project, this Alternative would result in the removal of many of the existing on-site trees. Therefore, the impacts associated with the Multi-Family Alternative would be similar to those of the proposed Curtis Park Village project.

Transportation and Circulation

As shown in Table 7-11, the Multi-Family Alternative would reduce new external traffic trips by approximately 2,978 trips. Therefore, implementation of the Single-Family Alternative would reduce the number and magnitude of transportation and circulation impacts as compared to the proposed Curtis Park Village project.

Air Quality

As noted above, the Multi-Family Alternative would decrease the total number of vehicle trips associated with the proposed project. The reduction in vehicle trips would result in a decrease in emissions of ozone precursors and criteria air pollutants. In addition, the reduction in vehicle trips would reduce emissions of greenhouse gases; however, it should be noted that by eliminating the commercial portion of the project site, many of the commercial vehicle trips would be redirected to commercial venues located further away. This redirection of trips could result in increases in greenhouse gases, as compared to the proposed project. Overall, because the Multi-Family Alternative could reduce the magnitude of impacts related to ozone precursors and criteria air pollutants, this Alternative would result in fewer impacts related to air quality, as compared to the proposed Curtis Park Village project.

Table 7-11
Multi-Family Alternative – Trip Generation

Land Use	Amount		Trips Generated									
				AM Peak Hour			PM Peak Hour			Saturday		
			Weekday	In	Out	Total	In	Out	Total	In	Out	Total
Multi-Family Alternative												
Retail	118.5	KSF	7,583	106	67	173	336	364	700	503	464	967
Retail / Grocery Store	56.5	KSF	5,174	140	90	230	303	291	594	324	312	636
Retail / Bookstore	25	KSF	5,286	74	47	121	254	234	488	282	251	533
Multi-Family Residential	316	Units	2,050	32	127	159	124	67	191	91	78	169
Single-Family Residential	250	Units	2,416	46	138	184	154	91	245	126	107	233
Park/Open Space	7	Acres	11	0	0	0	0	0	0	1	1	2
Total Project Trips			22,520	398	469	867	1,171	1,047	2,218	1,327	1,213	2,540
Transit Adjustments												
Retail (-1.8%)			-136	-2	-1	-3	-6	-7	-13	-9	-8	-17
Grocery Store (-1.8%)			-93	-2	-2	-4	-6	-5	-11	-6	-5	-11
Bookstore (-1.8%)			-95	-1	-1	-2	-5	-4	-9	-5	-5	-10
Residential (Daily -3.1%, a.m. -3.7%, p.m. -3.6%, Sat. -3.1%)			-138	-3	-10	-13	-10	-6	-16	-7	-6	-12
Total Transit Adjustments			-462	-8	-14	-22	-27	-22	-49	-27	-24	-50
Internal Trips			-6,275	-56	-56	-111	-277	-277	-554	-332	-332	-665
Pass-by Trips (32% of net retail trips)			-3,654	-65	-65	-129	-191	-191	-382	-229	-229	-458
New External Trips			12,129	269	334	605	676	557	1,233	739	628	1,367
Proposed Project New External Trips			**15,107**	**321**	**328**	**648**	**827**	**666**	**1,493**	**1,008**	**798**	**1,807**
Transit Trips												
Retail (2.2%)			397	7	5	12	19	20	39	24	23	47
Residential (Daily 3.8%, a.m. 4.5%, p.m. 4.5%, Sat. 3.8%)			189	4	170	4	11	15	13	7	20	8
Total Transit Trips			567	11	16	27	32	27	59	32	30	62

Source: Dowling Associates, Inc., 2008.

[1] The trip generation for the Saturday peak hour was based on the data for Low-Rise Apartments (ITE 221).
[2] Transit adjustments and transit trips for industrial use, restaurant, theater, and health spa are assumed to be the same percentage as for retail use.

Noise

As noted above, the Multi-Family Alternative would decrease the total number of vehicle trips associated with the proposed project, which would reduce the amount of traffic noise, as compared to the proposed project. It should be noted that because this Alternative would place residential uses along a longer portion of the railroad line, noise impacts to sensitive receptors associated with the project would be greater, and a longer soundwall would be required. Overall, impacts under the Multi-Family Alternative would be similar to those associated with the proposed Curtis Park Village project because both would result in potentially significant impacts related to construction noise, railroad noise and vibration, and park-generated noise levels; however, the impacts would be slightly fewer because the Multi-Family Alternative would not result in any noise generated by commercial uses.

Biological Resources

The Multi-Family Alternative would result in the disturbance of the same number of acres of development as the proposed Curtis Park Village project; therefore, the Multi-Family Alternative would result in similar impacts to biological resources.

Cultural Resources

The Multi-Family Alternative would result in the disturbance of the same number of acres of development as the proposed Curtis Park Village project; therefore, the Multi-Family Alternative would result in similar impacts to historical and cultural resources.

Geology and Soils

Under the Multi-Family Alternative, buildout of the entire 72-acre project site would still occur. Buildout would include the same grading and construction activities that would be associated with the proposed project, and impacts related to soil erosion or exposure of people to hazards related to seismic activity, liquefaction, or expansive soils on-site would still occur. Because the Multi-Family Alternative would result in the grading and construction of the same number of acres of development as the proposed project, impacts related to geology and soils would be similar to the impacts that would result from the proposed Curtis Park Village project.

Public Health and Hazards

The Multi-Family Alternative would result in the development of the project site with more sensitive receptors than would the proposed project. The Public Health and Hazards chapter determined that impacts related to public health and hazards would be less than significant for the proposed project. Although this Alternative would include the placement of more sensitive receptors on-site, impacts would still be expected to be less than significant because this Alternative would not involve the routine use, transport, or disposal of hazardous materials, and the site would still need to be cleaned to DTSC standards. Therefore, the Multi-Family Alternative would result in similar impacts related to public health and hazards, as compared to the proposed Curtis Park Village project.

Hydrology and Water Quality

Under the Multi-Family Alternative, the project site would be developed with a greater number of residences. The residences would have yards, and would not require large paved parking areas. Therefore, this Alternative would result in less impervious surfaces such as roofs and pavement. As a result, the amount of stormwater runoff attributed to these surfaces would be less than the runoff that would be associated with the proposed project, and this Alternative would result in a reduced need for drainage of the runoff. Therefore, the Multi-Family Alternative would result in fewer impacts related to hydrology and water quality, as compared to the proposed Curtis Park Village project.

Population, Employment, and Housing

The Single-Family Alternative would result in an increase in the number of both single-family and multi-family residences on-site, as compared to the proposed project. Therefore, this Alternative would create an increase in population, as compared to the proposed project, and would result in a further imbalance in the jobs/housing ratio for the City. Therefore, impacts related to population, employment, and housing under the Multi-Family Alternative would be greater than those associated with the proposed Curtis Park Village project.

Public Services and Utilities

The Multi-Family Alternative would result in a reduction in the total square-footage of commercial land uses on the project site, but would increase the total number of residential units by 96 units (72 single-family and 24 multi-family units). The addition of 96 residential units would be expected to result in a greater demand for public services and utilities, potentially resulting in the need for construction of new or expansion of existing facilities for water, stormwater, wastewater, energy, or telecommunication facilities or additional law enforcement, fire protection, schools, or libraries. Therefore, impacts related to public services and utilities would be greater under the Multi-Family Alternative, as compared to the proposed Curtis Park Village project.

Parks and Recreation

The current plan for the proposed project includes a 8.7-acre (6.8 gross acres) neighborhood park area, which would meet the City's requirement of five acres of parkland per 1,000 people. The Multi-Family Alternative would include more acreage (7.2 net acres) for park/open space. The Multi-Family Alternative would have an approximate population of 1,453 people and, based on the City's requirement, this Alternative would be required to provide 7.265 acres of parkland. Because this Alternative would not meet the City's requirement for park/open space area, as would the proposed project, impacts related to parks and recreation would be greater under this Alternative, as compared to the proposed Curtis Park Village project.

7.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

In addition to the discussion and comparison of impacts of the alternatives to the proposed project, CEQA requires that an "environmentally superior" alternative be selected and the reasons for such selection disclosed. In general, the environmentally superior alternative is the alternative that would be expected to generate the least adverse impacts. CEQA requires that if the No Project Alternative is the environmentally superior alternative, an additional alternative that is environmentally superior must be identified. Finally, it should be noted that environmental considerations are among other factors that must be considered by the public and the decision makers in deliberations on the proposed project and the alternatives. Other factors of importance include urban design, economics, social factors, and fiscal considerations.

The environmentally superior alternative must reduce the overall impact of the proposed project on the project site. The No Project/No Build Alternative would reduce impacts to the following areas: aesthetics; transportation and circulation; air quality; noise; biological resources; cultural resources; geology and soils; public health and hazards; hydrology and water quality; population, housing, and employment; and public services (See Table 7-14).

However, Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "[…] if the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Of the alternatives analyzed, the Single-Family Alternative provides the greatest reduction in the level of environmental impacts while meeting some of the overall objectives of the project, such as completing the environmental cleanup the project site, locating new single-family residences adjacent to existing single-family residences, and minimizing traffic impacts. By eliminating the commercial uses, the Single-Family Alternative would reduce impacts to the following areas: aesthetics; transportation and circulation; air quality; noise; hydrology, water quality, and drainage; and public services and utilities. Although impacts related to population, employment, and housing would increase under this Alternative, the Single-Family Alternative meets some of the project's objectives while reducing some environmental impacts. Therefore, the Single-Family Alternative is the Environmentally Superior Alternative.

Table 7-12
Environmental Impacts of the Proposed Project and Project Alternatives

	Proposed Project	No Project/No Build Alternative	Reduced Commercial Alternative A	Reduced Commercial Alternative B	Single-Family Alternative	Multi-Family Alternative
Remedial Action Plan Update	Less Than Significant	Equal	Equal	Equal	Equal	Equal
Aesthetics	Less Than Significant	Fewer	Equal	Equal	Fewer	Equal
Transportation and Circulation	Significant and Unavoidable	Fewer	Fewer	Fewer	Fewer	Fewer
Air Quality	Significant and Unavoidable	Fewer	Fewer	Fewer	Fewer	Fewer
Noise	Less Than Significant with Mitigation	Fewer	Equal	Equal	Fewer	Fewer
Biological Resources	Less Than Significant with Mitigation	Equal	Equal	Equal	Equal	Equal
Cultural Resources	Less Than Significant with Mitigation	Equal	Equal	Equal	Equal	Equal
Geology and Soils	Less Than Significant with Mitigation	Fewer	Equal	Equal	Equal	Equal
Public Health and Hazards	Less Than Significant with Mitigation	Equal	Equal	Equal	Greater	Equal
Hydrology and Water Quality	Less Than Significant	Fewer	Fewer	Fewer	Fewer	Fewer
Population, Employment, and Housing	Less Than Significant	Fewer	Greater	Greater	Greater	Greater
Public Services and Utilities	Less Than Significant	Fewer	Greater	Greater	Fewer	Greater
Recreation	Less Than Significant	Equal	Equal	Equal	Equal	Equal

Fewer = Fewer impacts than the proposed project Equal = Similar impacts to the proposed project Greater = More impacts than the proposed project

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8 REFERENCES

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