DRAFT

Prepared For:

City of Glendale
Community Development Dept.
Planning Division
633 E. Broadway, Room 103
Glendale, CA 91206

CCTAN/Colorado Street Mixed Use Project

Environmental Impact Report

SCH No. 2013101009

Meridian Consultants
860 Hampshire Road, Suite P
Westlake Village, CA 91361
(805) 367-5720 FAX (805) 367-5733

February 2014

Draft

Environmental Impact Report

CCTAN/Colorado Street Mixed Use Project

City of Glendale

(SCH No. 2013101009)

Prepared for:

City of Glendale
633 E. Broadway, Room 103
Glendale, California 91206

Prepared by:

Meridian Consultants LLC
860 Hampshire Road, Suite P
Westlake Village, California 91361

February 2014

Table of Contents

A disc containing both the Draft EIR and Appendices is attached on the inside cover.

Appendices

List of Figures

List of Figures (continued)

List of Tables

List of Tables (continued)

1.0 INTRODUCTION

This introduction is intended to provide the reader with important information regarding (1) the purpose and legal authority of an environmental impact report (EIR); (2) a description of the environmental review being conducted by the City of Glendale for this Project; (3) the lead, responsible, and trustee agencies for the Project; (4) availability of the Draft EIR; and (5) the general format and content of this EIR.

PURPOSE AND LEGAL AUTHORITY

This Draft EIR evaluates the proposed CCTAN/Colorado Street Mixed Use Project ("Project"). It was designed to implement the City of Glendale's (hereafter, the "City") and the Successor Agency's (previously the Glendale Redevelopment Agency, hereafter, the "Agency") goals of revitalizing the San Fernando Road Corridor Redevelopment Project area. The Project is a mixed-use residential project consisting of a 5-story apartment building with 18,000 square feet of medical uses and 1,000 square feet of ("restaurant, counter service with limited seating") uses on the ground floor, and 90 multifamily residential units above the ground floor. The Project would also provide 246 parking spaces in a subterranean parking structure. The multifamily residential units would consist of one-bedroom units and two-bedroom units designed in a similar layouts and sizes.

The Project site includes a 1,200 square foot activity room and outdoor terraces on the second and fifth floors. The Project site is designed to include 3,661 square feet of ground floor planting area and 2,900 square feet of terrace planting area on the second through fifth floors. Landscaping on the second floor would be located along the west perimeter and eastern half of the northern perimeter of the structure. A selection of canopy and ground cover plant materials (i.e., trees, shrubbery, flowers) would be located along West Colorado Street and within the northwestern portion of the site. Development of the Project site would require the demolition and removal of a commercial office building, a daycare center, and vacant paved lots.

This Draft EIR has been prepared in accordance with the California Environmental Quality Act (CEQA), the State *CEQA Guidelines*, and the City of Glendale's CEQA documentation procedures and requirements. This EIR identifies and discusses potential Project-specific and cumulative environmental impacts that may occur should the proposed Project be implemented. The intent of this EIR is to: (1) be an informational document, which serves to inform public agency decision makers and the general public of the potential environmental impacts of the Project; (2) identify possible ways to minimize or avoid any potential significant impacts either through mitigation or the adoption of alternatives; and (3) disclose to the public required agency approvals.

The principal use of an EIR is to provide input and information to the comprehensive planning analysis undertaken for this Project. Given the important role of the EIR in this planning and decision-making process, it is important that the information presented in the EIR be factual, adequate, and complete. The standards for adequacy of an EIR, defined in Section 15151 of the *State CEQA Guidelines*, are as follows:

> *An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.*

This EIR has been prepared in accordance with these standards for adequacy of an EIR under CEQA.

SCOPE AND CONTENT

The City determined that an EIR should be prepared for the Project. As a result, a Notice of Preparation (NOP) was prepared and circulated between October 2, 2013 and October 31, 2013 for the required 30-day review period. The purpose of the NOP was to solicit early comments from public agencies with expertise in subjects that would be discussed in the Draft EIR. The NOP is contained in **Appendix 1.0(a)** of this EIR. Comments received during the NOP review period are contained in **Appendix 1.0(b)** of this EIR. Agencies or interested persons who did not respond during the public review period of the NOP will have an opportunity to comment during the public review period for the EIR, as well as at subsequent hearings on the proposed Project.

Topics evaluated in this Draft EIR have been identified based on the responses to the NOP and the review of the Project by City staff. The City determined through this initial review process that impacts related to the following environmental topics are potentially significant and require an assessment in this Draft EIR:

- Aesthetics
- Air Quality
- Greenhouse Gas Emissions
- Land Use & Planning
- Noise
- Population & Housing
- Public Services
- Recreation
- Traffic & Transportation
- Utilities & Service Systems

Issues to Be Resolved

The overall purposes of the CEQA process are to:

- Identify the significant effects to the environment of a project, identify alternatives, and to indicate the manner in which those significant effects can be avoided or mitigated.
- Provide full disclosure of the Project's environmental effects to the public, the agency decision makers who will approve or deny the project, and responsible and trustee agencies charged with managing resources (e.g., recreation, air quality) that may be affected by the project.
- Provide a forum for public participation in the decision-making process with respect to environmental effects.

Section 15123(b) of the *CEQA Guidelines* requires that an EIR contain issues to be resolved, including the choices among alternatives and whether or how to mitigate significant impacts. The major issues to be resolved regarding the Project include decisions by the lead agency as to whether:

- The Draft EIR adequately describes the environmental impacts of the Project
- The recommended mitigation measures should be adopted or modified
- Additional mitigation measures need to be applied

LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

The public agency that has the principal responsibility for carrying out or approving a project is designated as the "Lead Agency" under CEQA. For the CCTAN/Colorado Street Mixed Use Project, the City of Glendale is the Lead Agency. As such, the City is responsible for ensuring that the EIR satisfies the procedural and substantive requirements of CEQA and for considering and certifying the adequacy and completeness of the EIR prior to making any decision regarding the Project. During preparation of the EIR, agencies, organizations, and persons who the City believed might have an interest in the proposed Project were specifically contacted.

"Responsible Agency" means a public agency that proposes to carry out or approve a project for which the Lead Agency is preparing or has prepared an EIR or Negative Declaration. For purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the Lead Agency having discretionary approval authority over the Project. During the NOP review period, no other public agency identified itself as a Responsible Agency.

"Trustee Agency" means a state agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California (e.g., California Department of Fish and Wildlife, State Lands Commission). During the NOP review period, no public agency identified itself as a Trustee Agency.

EIR REVIEW PROCESS

CEQA requires lead agencies to solicit and consider input from other interested agencies, citizen groups, and individual members of the public. This Draft EIR was released by the City for a public review period in accordance with Section 15087 of the *CEQA Guidelines.* A Notice of Availability (NOA) of this Draft EIR for review was provided with copies of the Draft EIR to the State Clearinghouse and regional and local public agencies. In addition, the NOA and Draft EIR were made available on the City of Glendale's website at: www.ci.glendale.ca.us/planning/environmentalreview.asp.

This EIR is being circulated for a 30-day public review and comment period. During this period, written comments concerning the adequacy of the Draft EIR may be submitted by any interested person and/or affected agency, to the City of Glendale Community Development Department, Planning Division, at the address provided below under the heading "Availability of the Draft EIR".

Following the completion of this review period, the City of Glendale will examine all comments received on the Draft EIR and will prepare responses in accordance with Section 15088 of the State *CEQA Guidelines*. All oral and written comments with respect to environmental issues discussed in the EIR will be responded to in writing and will be incorporated into a Final EIR. At least 10 days prior to a hearing to certify the Final EIR, proposed responses to comments on the Draft EIR by responsible agencies will be sent to those agencies. The Final EIR will be reviewed and considered by the City of Glendale Planning Commission and the City Council for certification in accordance with Section 15090 of the State *CEQA Guidelines* prior to considering the proposed Project for approval. No aspect of the proposed Project would be approved until after the Final EIR is certified.

AVAILABILITY OF THE DRAFT EIR

This Draft EIR is being distributed directly to agencies, organizations, interested groups, and persons for comment during a 30-day formal review period in accordance with Section 15087 of the State *CEQA Guidelines.* This Draft EIR and the full administrative record for the Project, including all studies, are available for review during business hours between 7:00 AM and 5:00 PM Monday through Friday or by appointment at the City of Glendale Community Development Department Planning Division (Planning Counter). Interested individuals, organizations, and public agencies can also provide written comments on this Draft EIR to the address listed.

City of Glendale

Community Development Department – Planning Division
633 E. Broadway, Room 103
Glendale, California 91206
Attention: Ms. Vilia Zemaitaitis, AICP, Senior Planner
Planning Division Phone: (818) 937-8154

Comments may also be sent by facsimile to (818) 240-0392 or by email to vzemaitaitis@ci.glendale.ca.us and should include "CCTAN/Colorado Street Mixed Use Project Draft EIR" in the subject line. Agency responses should include the name of a contact person within the commenting agency.

ORGANIZATION OF THE EIR

As stated, a principal objective of CEQA is that the environmental review process be a public one. In meeting this objective, the EIR must inform members of the general public, decision makers, and technically oriented reviewers of the physical impacts associated with a proposed Project.

The content and organization of this Draft EIR are designed to meet the requirements of CEQA; the State *CEQA Guidelines*; the City's standards; as well as to present issues, analyses, mitigation, and other information in a logical and understandable way. A description of the organization of this EIR and the content of each section is provided in the following. This Draft EIR is organized into the following sections:

Section 1.0, Introduction, provides information and a brief overview of the Project, the environmental review process, availability of the Draft EIR, and organization of the Draft EIR.

Section 2.0, Summary, presents a concise summary of the environmental information, analysis, impacts, mitigation measures, and conclusions in this EIR.

Section 3.0, Project Description, presents a description of the Project, which identifies the location of the Project site, the objectives of the Project, the characteristics of the proposed mixed-use building and associated parking, the relationship of the Project to other plans and policies, and the approvals being requested.

Section 4.0, Environmental Impact Analysis, contains a detailed environmental analysis of the potential for the Project to result in significant environmental effects for each of the topics evaluated in this EIR. Each topic is addressed in a separate subsection and contains a description and assessment of the environmental setting, regulatory framework, Project impacts, cumulative impacts, and mitigation measures.

Section 5.0, Alternatives, discusses alternatives to the proposed Project that have been developed and analyzed to provide additional information on ways to avoid or lessen the impacts of the proposed development. The alternatives include the "No Project Alternative" as required by the *State CEQA Guidelines*, along with other alternatives.

Section 6.0, Effects Not Found to Be Significant, presents information used by the City to determine why certain environmental effects of the Project were found not to be significant and are not evaluated in detail in this EIR.

Section 7.0, Other CEQA Sections, contains a discussion of other topics required by the *State CEQA Guidelines* to be included in an EIR, including the potential for the Project to induce additional growth, and a discussion of any potential significant irreversible environmental changes that could result from Project implementation.

Section 8.0, Organizations and Persons Consulted, lists persons involved in the preparation of this Draft EIR or who contributed information incorporated into this Draft EIR.

Section 9.0, References, lists the principal documents, reports, maps, and other information sources referenced in this EIR.

Appendices, provides information and technical studies (provided on CD inside the back cover) that support the environmental analysis contained within the Draft EIR.

2.0 SUMMARY

This section provides information on the background of the Project, as described in **Section 3.0, Project Description**, assessed in this Draft EIR, and a summary of the information in this Draft EIR identifying the potential environmental impacts of the Project, the measures identified to mitigate these impacts, and the alternatives evaluated to provide additional information on ways to avoid or lessen these impacts.

OVERVIEW OF PROPOSED PROJECT

The Project site is located approximately 1,200 feet east of the boundary between the Cities of Glendale and Los Angeles. Interstate (I) 5 (Golden State Freeway), State Route (SR) 134 (Ventura Freeway) and SR-2 (Glendale Freeway) provide regional access to the Project site. The Project site consists of four continuous parcels located adjacent to the north of West Colorado Street and west of South Pacific Avenue. The addresses are: 525 W. Colorado Street, 523 W. Colorado Street, 515 W. Colorado Street, and 507 W. Colorado Street. The Project site is 0.99 acres (43,125 square feet) and is developed with an existing one-story commercial building, daycare center, surface parking lots and a vacant paved lot.

Existing uses surrounding the Project site consist of a three-story commercial building to the west, four single family residences and two three-story multifamily buildings to the north, an existing gas station to the east and W. Colorado Street to the south.

The Project proposes to replace the existing structures with four “structures” connected at the podium level and by the two levels of subterranean parking underneath. The mixed use Project would provide 90 multifamily residential units, a 1,200 square foot activity room, 18,000 square feet of medical office space, 1,000 square feet of restaurant, counter service with limited seating. The subterranean parking structure would accommodate 246 parking spaces and 20 bicycle spaces. The Project site is designed to include 3,661 square feet of ground floor planting area, and 2,900 square feet of terrace planting area.

The site is designated as Mixed Use on the City of Glendale General Plan Land Use Map and Commercial/Residential Mixed Use (SFMU) on the City’s Zoning Map. The SFMU zoning classification allows for a mix of residential and commercial, or just commercial, or just residential. For lots fronting San Fernando Road, Broadway, and Colorado Street, commercial uses must be located along the street frontage.

PROJECT OBJECTIVES

The State *CEQA Guidelines* require an EIR to include a statement of the objectives of the Project that address the underlying purpose. The applicant is proposing to develop 90 multifamily residential units, 18,000 square feet of medical office space, and 1,000 square feet of restaurant, counter service with

limited seating in a five-story building. The development features four "structures" connected at the podium level and by the two levels of subterranean parking underneath. The objectives of the Project are to:

- Redevelop an underutilized property with residential uses for the community of Glendale.
- Provide well-designed development that is compatible and complementary with surrounding land uses.
- Provide affordable housing within the City of Glendale.
- Provide needed medical office space within the City of Glendale due to the loss of medical space from the construction of North Central Avenue Project and the Nexus Project.
- Provide property tax revenues to the City of Glendale.
- Generate construction employment opportunities in the City and in the region.
- Provide housing opportunities in an urban setting in close proximity to employment opportunities, public facilities, goods and services.
- Utilize architectural design, lighting, and landscape design to enhance the architectural character of the proposed buildings and create a gateway building to the City of Glendale.
- Implementation of the Redevelopment Plan Objectives – but without redevelopment agency assistance.

BACKGROUND

In 1992, the Glendale Redevelopment Agency[1] prepared and adopted the Redevelopment Plan for the San Fernando Road Corridor Redevelopment Project Area (the "Redevelopment Plan Area"). The Redevelopment Plan Area includes 750 acres generally extending along the length of the San Fernando Road corridor and bounded by the I-5 Freeway and the Union Pacific Railroad/Los Angeles County Metropolitan Transportation Authority (UPRR/MTA) right-of-way to the west.

ABx126 and AB1484 (collectively "The Dissolution Act") eliminated redevelopment agencies in California effective February 1, 2012. However, the City of Glendale elected to assume the power, duties, and

1 The Glendale Redevelopment Agency was created in 1972 for the purpose of improving, upgrading and revitalizing areas within the City that had become blighted because of deterioration, disuse, and unproductive economic conditions. It was a legal and separate public body, with separate powers and a separate budget from the City. ABx126 and AB1484 (collectively "The Dissolution Act") eliminated redevelopment agencies in California effective February 1, 2012. The City of Glendale elected to assume the power, duties, and obligations of the former Glendale Redevelopment Agency as the Glendale Successor Agency pursuant to the Dissolution Act.

obligations of the former Glendale Redevelopment Agency as the Glendale Successor Agency pursuant to the Dissolution Act. The Successor Agency[2] is responsible for winding down the activities of the former Glendale Redevelopment Agency as required by the Dissolution Act.

The Project site is located within the Redevelopment Plan Area and is subject to its applicable provisions and guidelines. The primary objective of the Redevelopment Plan is to eliminate and prevent the spread of blight and deterioration within the Redevelopment Plan Area.

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

A summary of the potential environmental impacts of the Project and the measures identified to mitigate these impacts is provided in **Table 2.0-1, Summary of Project Impacts** below for each topic addressed in this Draft EIR. **Table 2.0-1** has been arranged in four columns: the identified impact under each EIR issue area; the level of significance prior to implementation of mitigation; mitigation measures that would avoid or reduce the level of impacts, and the level of significance after implementation of mitigation measures, if applicable. Compliance with existing City programs, practices, and procedures are assumed for purposes of determining the level of significance prior to mitigation.

A summary of the alternatives to the Project to promote informed decision-making are provided after **Table 2.0-1**.

2 The Successor Agency undertakes enforceable obligations, performs duties pursuant to the enforceable obligations in compliance with the Dissolution Act. The Successor Agency staff also serves as staff to the Oversight Board.

Table 2.0-1
Summary of Project Impacts

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
Aesthetics			
Existing views across the site would be modified with Project development. Development of the Project would provide views of these visual resources from the upper floors and outdoor terraces on the 2nd and 5th floors. The mass of the proposed structures would potentially impact views across the Project site towards the Verdugo Mountains to the north and the San Rafael Hills to the east. However, existing views across the site towards the Verdugo Mountains are currently obstructed. While portions of the San Rafael Hills are visible from this portion of the City, views of the mountains from the Project site are also obstructed by existing development and vegetation.	Less than significant	No mitigation measures are required.	Less than significant.
The Project would result in a smaller mass and height when compared to the existing five-story, mixed use development (ICIS apartment project) south of the site. The architectural design would result in a visually compatible structure when compared to the surrounding uses while improving site conditions.	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
Furthermore, the Project would provide canopy and ground cover plant materials (i.e trees, shrubbery, flowers) along W. Colorado Street and within the northwestern portion of the Project site, thus improving the visual character of the Project site.			
The lighting proposed would be limited to the amount required to safely light the driveway, the sidewalks along W. Colorado Street, open space and courtyard areas within the Project site. All outdoor lighting would be directed onto the driveway, walkways, and public areas and away from adjacent properties and public rights-of-way to avoid any potential light or glare impacts. Therefore, the new onsite lighting would not result in substantial increases in light or glare that would affect any light-sensitive uses on or near the site, such as the residential units north of the Project site.	Less than significant.	No mitigation measures are required.	Less than significant.
Residential uses adjacent to the north are the closest sensitive uses to the Project site. Shade impacts on these adjacent land uses would increase and/or decrease progressively as the Earth rotates; shadows cast on these sensitive land uses are anticipated to	Less than significant	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
be their greatest during the winter solstice period from 2:00 PM to 3:00 PM. However, the duration of the shadows cast on the adjacent residential development does not exceed the 2-hour standard.			
Air Quality and Greenhouse Gas Emissions			
The Project would generate approximately 255 residents and 47 employment opportunities. These totals are within the growth projections for the City of Glendale as adopted by Southern California Association of Governments. Because the South Coast Air Quality Management District (SCAQMD) has incorporated these same projections into the Air Quality Management Plan, the Project would be consistent with the projections in the 2012 Air Quality Management Plan.	Less than significant.	No mitigation measures are required.	Less than significant.
Construction of the Project would result in maximum unmitigated daily emissions of approximately 20.82 pounds/day of ROG, 30.47 pounds/day of NOx, 24.33 pounds/day of CO, 0.06 pounds/day of SOx, 3.93 pounds/day of PM10, and 2.15 pounds/day of PM2.5, which do not exceed SCAQMD thresholds for criteria pollutants.	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
Operational emissions would be generated by both stationary and mobile sources as a result of normal day-to-day activity on the Project site after occupancy. Stationary emissions would be generated by the consumption of natural gas for space and water heating devices. Mobile emissions would be generated by the motor vehicles traveling to and from the Project site. The emissions associated with the Project would not exceed the SCAQMD's recommended operational emission thresholds.	Less than significant.	No mitigation measures are required.	Less than significant.
Construction emissions would not exceed LSTs for SRA 7 for PM10 and PM2.5. Compliance to SCAQMD Rule 403 for fugitive dust emissions during construction.	Less than significant.	No mitigation measures are required.	Less than significant.
No Project intersection falls under the SCAQMD's criteria requiring a more detailed localized CO impact analysis.	Less than significant.	No mitigation measures are required.	Less than significant.
The residential and medical office uses associated with the Project may contain small amounts of hazardous substances such as household and commercial cleaners and other products. However, the amount of these substances would not be	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
substantial enough to result in a hazard or hazardous waste impact on the environment.			
During Project construction, certain pieces of construction equipment could emit odors associated with exhaust. Any unforeseen odors generated by the Project will be controlled in accordance with SCAQMD Rule 402 (Nuisance). In addition, odors emitted from certain pieces of construction equipment would dissipate quickly and be short term in duration.	Less than significant.	No mitigation measures are required.	Less than significant.
The Project would result in short-term emissions of GHGs during construction. Operational emissions would be generated by both area and mobile sources because of normal day-to-day activities. The sum of the direct and indirect emissions associated with the Project would be 1,768.5 metric tons of carbon dioxide equivalents per year which is less than the SCAQMD's screening threshold of significance for mixed-use and all land use projects of 3,000 $MTCO_2E$ per year.	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
Land Use and Planning			
Since the proposed Project would not introduce new infrastructure (except where required by utility service providers to accommodate anticipated demand by the proposed uses) and the proposed uses would be complimentary to the surrounding land uses, impacts associated with physically dividing an established community (residential, commercial or industrial) would be less than significant.	Less than significant.	No mitigation measures are required.	Less than significant.
The Project would be consistent with applicable goals within the Land Use, Housing Element, Circulation, Safety, Open Space and Conservation, Recreation, Air Quality, and Noise Elements of the General Plan. The Project would also be consistent with the goals of the Redevelopment Plan.	Less than Significant.	No mitigation measures are required.	Less than significant.
Noise			
Since the Project would not increase roadway noise levels by 3 dBA or greater, land uses located along study area roadways, would not be affected by traffic noise.	Less than significant.	No mitigation measures are required.	Less than significant.
Due to the high level of traffic noise	Less than	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
along West Colorado Street on the southern side of the site and the fact that the apartment units would be separated by the medical office and counter service restaurant uses, normal daytime parking structure average noise would not likely be audible due to the masking of noise by these sources. Furthermore, all floors and walls would conform to California Building Code compliant walls, which would further reduce short term noise levels generated within the subterranean parking structure.	significant.		
Other noise sources that may be associated with the parking structure areas include the use of sweepers in the early morning or late evening hours.	Significant.	**4.4-1** On-site sweeper operations shall be restricted to between the hours of 7:00 AM to 10:00 PM.	Less than significant.
Future residents located on the Project site, as well as off-site uses, including nearby sensitive receptors, may experience noise due to an increase in human activity within the area from people living on the premises and utilizing the on-site amenities including common areas.	Less than significant.	No mitigation measures are required.	Less than significant.
Existing plus project exterior noise levels on the Project site due to	Significant.	**4.4-2** Prior to the issuance of occupancy permits, noise sensitive residential land uses proposed	Significant and unavoidable (exterior) due to existing traffic

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
vehicle traffic along W. Colorado Street frontage and near the intersection of W. Colorado Street/Pacific Avenue and W. Colorado Street/Kenilworth Avenue range from 62.3 to 64.6 dBA CNEL. These noise levels are not uncommon for a typical urban setting. Noise levels would be below the City Municipal Code exterior noise threshold of 65 dBA for residential uses and exterior noise impacts would be less than significant. However, for purposes of analysis and because the CNEL along W. Colorado Street is 0.4 dBA CNEL less than the City threshold for exterior noise levels, impacts would be considered significant. Furthermore, interior noise levels in the apartment building along these roadways could be above the interior threshold of 45 dBA CNEL resulting in significant interior noise levels.		in areas exceeding the exterior 65 dBA CNEL (such as those dwelling units facing W. Colorado Street) shall be designed so that interior noise levels attributable to exterior sources do not exceed 55 dBA during the daytime and 45 dBA during nighttime when doors and windows are closed. An acoustical analysis of the noise insulation effectiveness of proposed construction shall be required and documented during permit review, showing that the building materials and construction specifications are adequate to meet the interior noise standard. Examples of building materials and construction specifications which may be used to meet the interior noise standard include but are not limited the following: • Windows along W. Colorado Street shall be doubled paned, mounted in low air filtration rate frames, and have a minimum sound transmission coefficient rating of 30 or greater; • Air conditioning units may be provided to allow for windows to remain closed; and • Roof or attic vents facing southward shall be baffled.	noise, Less than significant (interior).
Large bulldozers are capable of producing approximately 87 VdB at 25 feet, which is the approximate distance to the nearest structure west of the site and multifamily uses northeast of the site. This would	Less than significant.	**4.4-3** Demolition, earthmoving, and ground-impacting operations shall be conducted so as not to occur in the same period. **4.4-4** Select demolition method to minimize vibration, where possible (e.g., sawing masonry into sections rather than demolishing	Significant and unavoidable.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
exceed the threshold of 80 VdB for residences and buildings where people normally sleep. Land uses surrounding the Project site consist mostly of residential and commercial uses. High noise-producing (and vibration-producing) activities during construction would be scheduled to occur between the hours of 7:00 AM and 5:00 PM to minimize disruption on sensitive uses. Nonetheless, potential impacts due to vibration would be considered to be significant.		it by pavement breakers). **4.4-5** Operate earthmoving equipment on the construction site as far away from vibration sensitive sites as possible.	
Equipment used during the construction phases would generate both steady state and episodic noise that would be heard both on and off the Project site. Noise levels generated during construction would primarily affect the commercial and residential uses adjacent to the Project site. Noise levels generated by heavy equipment can range from approximately 73 dBA to noise levels in excess of 80 dBA when measured at 50 feet. Potential construction-related noise impacts are considered significant due to exceeding the noise threshold of 65 dBA for residential and 70 dBA for commercial areas, as allowed by the Municipal Code. Construction traffic would generate	Significant.	**4.4-6** All construction activity within the City shall be conducted in accordance with Section 8.36.080, construction on buildings, structures and projects, of the City of Glendale Municipal Code. **4.4-7** The following construction best management practices (BMPs) shall be implemented to reduce construction noise levels: • Ensure that construction equipment is properly muffled according to industry standards and be in good working condition; • Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible; • Schedule high noise-producing activities between the hours of 7:00 AM and 5:00 PM to minimize disruption on sensitive	Although the mitigation measures identified would reduce noise levels to the maximum extent feasible, impacts during construction would remain significant and unavoidable.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
noise along access routes to the proposed development areas.		uses; • Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources; • Use electric air compressors and similar power tools rather than diesel equipment, where feasible; • Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 30 minutes; and • Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners to contact the job superintendent. If the City or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party. **4.4-8** Construction staging areas along with the operation of earthmoving equipment within the Project area shall be located as far away from vibration-and noise-sensitive sites as possible.	
Population and Housing			
The Project would account for	Less than	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
approximately 5 percent of the anticipated increase in residents within the City between 2013 and 2020, which is consistent with the estimated growth projection. The Project would not result in substantial population growth in the area. The Project does not include any major road improvements or substantial infrastructure modifications that would facilitate additional growth in the general area.	significant.		
Public Services			
Fire Protection & Emergency Services			
The new residential units would create additional demand on the Glendale Fire Department, specifically to Station 21, which would have first response duties. The present firefighter to resident ratio, based on a population of 193,652 persons, is 1 to 807. The Project would increase the City's population to 193,907 residents, which would result in an overall ratio of one firefighter to 808 residents. The increase in residents within the City would not substantially impact the current fire services and would not result in the need for any new or the physical alteration to any existing governmental facility.	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
The additional residents associated with the Project would result in an increase in emergency medical responses. The Project is located within the response district for BLS 21, which currently averages 340 calls per month. The City has no formal service ratios or performance objectives for BLS service, but has considered a performance workload of 350 responses per month for a paramedic rescue ambulance. The Project would generate an additional 22 emergency medical services (EMS) calls every month, which would be above the considered performance workload of 350 responses per month for a basic life support ambulance. The Project site is located within a 1-mile radius of both BLS 21 and BLS 22 and, in the event that BLS 21 is unable to respond to an EMS call from the Project site, BLS 22 would respond to the EMS call. Therefore, BLS 21 and BLS 22 would handle the EMS calls from the Project site and would not result in the need for any new or the physical alteration to any existing governmental facility.	Less than significant.	No mitigation measures are required.	Less than significant.
Fire flow tests were performed by the Glendale Fire Department on August 18, 2006, on a nearby fire hydrant at the 500 block of W. Colorado Street.	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
Test results indicated that the hydrant on W. Colorado Street has a static pressure of 93 psi, residual pressure of 70 psi, and a residual flow of 4,462 gpm at 20 psi. The fire flow requirements are 1,500 gpm for W. Colorado Street hydrants. As such, sufficient fire flow exists to serve the Project site. Water service to the Project site is presently provided by existing water lines on and adjacent to the site. As such, impacts would be less than significant.			
Impacts associated with these additional residents would include an increase in emergency medical responses, fire protection responses, fire prevention inspections, public education activities, participation in community events, and ongoing relations with businesses and homeowners associations. For these reasons, implementation of related projects was considered to result in a significant fire service impact. As discussed previously, the Project would not result in significant impacts to the Glendale Fire Department on a project-specific level. The Project, however, would contribute to the significant impact and would be considered to be cumulatively	Significant	No mitigation measures are available at this time.	Significant and Unavoidable Cumulative impacts.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
considerable. For this reason, fire impacts are considered to be significant.			
Police Protection			
The new residential units would create additional demand on Glendale Police Department, specifically in Reporting District No. 263 in the southern portion of the City. The 2013 officer-to-population ratio within the City is 1.317 sworn officers per 1,000 residents. Based on a target officer-to-population ratio, Project residents would result in a need for 0.25 sworn officers per 1,000 residents. The Project would increase the City's population to 193,907 residents, which would result in an overall ratio of 1.315 sworn officers per 1,000 residents. The increase in residents within the City would not substantially impact the current officer-to-population ratio and would not result in the need for any new or the physical alteration to any existing governmental facility.	Less than significant.	No mitigation measures are required.	Less than significant.
The increase in City residents by the Project would generate additional calls for service. As noted previously, there were 11,519 calls for police services in August 2013. Based on the existing	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
number of calls for police services per 1,000 residents, the Project would generate approximately 15 calls per month and approximately 180 calls per year for police services. The increase in 180 additional calls per year, or approximately 15 calls per month, would not seriously impact police department operations. The Project would not result in the need for any new or the physical alteration to any existing governmental facility.			
Implementation of the related project and associated increase in population would increase the demand for police protection services and could require the need for the construction of new or physically altered facilities to accommodate the increased demand associated with the related projects. This would result in a significant cumulative impact. As discussed previously, the Project would not result in significant impacts to the Glendale Police Department on a project-specific level. The Project, however, would contribute to the significant impact and would be considered to be cumulatively considerable. For this reason, impacts are considered to be significant.	Significant	No mitigation measures are available at this time.	Significant and Unavoidable Cumulative impacts.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
Schools			
The Project would add 28 students to Edison Elementary for a projected enrollment of 850 students which would be above the operating capacity of 751 students; would add 10 students to Roosevelt Middle School for a projected enrollment of 818 students which would be below the operating capacity of 1,206; and would add 21 students to Glendale High School for a projected enrollment of had an enrollment of 2,770 students which is below the operating capacity of 3,802 students. All schools serving the Project site are currently operating under capacity, except for Edison Elementary which is currently operating over capacity, and would not require the provision of new or physically alter existing school facilities. Potential school impacts would be considered to be less than significant for Roosevelt Middle School and Glendale High School.	Significant for Edison Elementary. Less than significant for Roosevelt Middle School and Glendale High School.	**4.6.3-1** As authorized by SB 50, the project applicant shall pay school impact fees to the GUSD prior to the issuance of building permits. The current fee schedule for residential development is $3.20 per square foot and for commercial/industrial development is $0.51 per square foot.	Less than significant.
Recreation			
The City currently has a park land–to–resident ratio of approximately 1.47 acres of parkland for every 1,000 residents. Existing park facilities are currently heavily used due to the	Significant.	**4.7-1** In accordance with the requirements of the City of Glendale Municipal Code Section 4.10 (Ordinance No. 5575 and Resolution No. 07-164 as amended on Resolution 10-199, 11-93, 11-123, 12-86, 13-102), the project applicant	The Project would be required to pay development impact fees to minimize the project's impact on parks and recreation land and facilities. Under CEQA, the

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
deficit in parkland in the City. The increase in use of neighborhood and community parks in the City that would result from the increase in residents associated with the Project is considered significant. The Project increase in population would incrementally increase the use of existing neighborhood and community parks in the City. While Harvard Mini Park, Pacific Park and the Community Center, and the Pacific Community Pool are physically the closest facilities to the Project site, all parks in the city could be affected as residents could use any park and recreation facility anywhere in the City.		shall pay the Development Impact Fee to the City. The current fee schedule is $7,000 per residential unit, which is scheduled to increase to the full fee based on City Council direction.	development impact fee payments constitute mitigation of project-related impacts on parks and recreation land and facilities within Glendale. However, the fee payment is not considered to fully mitigate this impact, because the fee amount to be paid would not equal the full fair-share per-unit fee for multifamily residential projects, which was determined to be $14,251 per multifamily unit in the City's Public Facilities Fee Study. Consequently, impacts would be significant and unavoidable.
The recreational amenities are incorporated into the design of the Project and would be constructed concurrently with the Project. Construction of the recreational amenities would not result in significant impacts, but would contribute to the overall construction impacts.	Less than significant.	No mitigation measures are required.	Less than significant.
Traffic			
Project construction would generate traffic from construction worker travel, as well from the arrival and	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
departure of trucks delivering construction materials, and the removal of debris generated by on-site activities. As the volume of construction-related traffic would be substantially less than that associated with Project operation, construction traffic would not result in a significant impact.			
When compared to existing conditions, implementation of the Project would not result in a significant increase to traffic. Operation of the Project would result in an LOS increase from LOS C to LOS D during evening peak hours at the intersection of Pacific Avenue and W. Colorado Street. However, in the City of Glendale, the impact is considered significant for intersections if the project-related increase in the V/C (ICU) ratio equals or exceeds by 0.02 for an intersection operating at LOS D. The Project would result in a V/C (ICU) ratio of 0.002 and 0.002 during the AM and PM Peak Hour at Kenilworth Avenue and Colorado Street and 0.001 and 0.003 during the AM and PM Peak Hour at Pacific Avenue and Colorado Street.	Less than significant.	No mitigation measures are required.	Less than significant.
Vehicular access to the Project site	Less than	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
would be provided from one driveway on W. Colorado Street. The driveway on W. Colorado Street would be unsignalized and provides full access to the site for entry and exit movements. The Project would not result in an increase of ADTs that would exceed the ADT capacity of 2,500 in each of the scenarios. Therefore, the Project-related increase would not significantly impact local residential streets in the City of Glendale, and the impact of Project-related traffic on these roadways is less than significant.	significant.		
Based on the trip generation and distribution of the Project, it is not expected that 50 or more new trips per hour would be added at these CMP intersections. Furthermore, the Project would add less than 150 new trips per hour in either direction to any freeway segments. Therefore, the Project would have a less than significant impact to intersection monitoring locations that are part of the CMP highway system.	Less than significant.	No mitigation measures are required.	Less than significant.
During the AM Peak Hour there is no queue length under both Existing conditions and Existing Plus Project conditions. During the PM Peak Hour the Existing conditions queue length is	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
9 feet and the Existing Plus Project queue length would be 10 feet, an increase of 1 foot. In terms of the number of vehicles in the queue, a 1 foot increase would be considered less than significant. The Project would generate one net new Project trip during the AM Peak Hour and two new net trips, one in each direction, during the PM Peak Hour on Pacific Avenue. The Project traffic generated at Pacific Avenue and SR-134 would not create any significant impacts to the Pacific Avenue ramp intersections or to SR-134. The Project would result in less than significant impacts to LOS grades near the vicinity of the Project. As a result the Project would result in less than significant impacts on queuing lengths and LOS at the Caltrans controlled intersections.			
The Project would use the existing network of regional and local roadways located in the vicinity of the Project site. Vehicle access to the Project site would be provided by the Project driveway located on Colorado Street. The driveway at Colorado Street would be unsignalized and provide full access to the site for ingress and egress movements. The Project has a high level of accessibility	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
for emergency vehicles, both from a regional and a site perspective.			
Pursuant to the CMP guidelines, over a 24-hour period, the Project is forecast to generate demand for 55 daily transit trips, 1 of which would occur during the AM peak hour and 1 of which would occur during the PM peak hour. Based on the projected increased demand for transit services generated by the Project, it is anticipated that the existing transit service in the Project area would adequately accommodate the Project-generated transit trips.	Less than significant.	No mitigation measures are required.	Less than significant.
There are currently no bicycle paths along the roadways adjacent to the Project site. However, the Glendale Bicycle Transportation Plan indicates that a proposed Class I bicycle route would be implemented along San Fernando Road. The proximity of the Project site to the proposed Class I bicycle route provides an opportunity for residents and customers to use an alternative form of transportation. Sidewalks along the frontages of the Project site would be replaced to improve pedestrian access to the site.	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
Project traffic would not significantly impact any of the study area intersections during the AM or PM peak hour.	Less than significant.	No mitigation measures are required.	Less than significant.
The Cumulative With Project increases in average daily trips along Project area roadways would not exceed the 2,500 ADT capacity. Therefore, the Project-related increase would not result in a cumulatively significant impact on local residential streets during the AM or PM peak hour. The Project's contribution is not cumulatively considerable.	Less than significant.	No mitigation measures are required.	Less than significant.
There would be no queue length for Future conditions Without the Project at Colorado Street during the AM Peak Hour and would be 101 feet during the PM Peak Hour. There would be no queue length for Future With Project conditions during the AM Peak Hour and would be 107 feet during the PM Peak Hour. In terms of the number of vehicles in the queue, a 6 foot increase would be considered less than significant. As previously indicated, the amount of Future With Project traffic projected to use Pacific Avenue and SR-134 was considered minimal. Queuing impacts	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
at the Pacific Avenue and SR-134 ramp intersections would be less than significant			
Utilities and Service Systems			
Water Service			
New development on the Project site would result in an increase in demand for operational uses, including landscape irrigation, maintenance and other activities on the site. Projected water demand for the Project would be 20.41 acre-feet per year. According to the City's UWMP, water supplies in the City would remain adequate through the year 2035, and there would even be a surplus at that time. Even with implementation of the Project, the City would continue to have adequate supply to meet Citywide demand under normal and drought conditions.	Less than significant.	No mitigation measures are required.	Less than significant.
Sewer			
Sewage from the Project site goes to the Hyperion Treatment Plant, which Glendale has access to through the Amalgamated Agreement. With the Hyperion Treatment Plant currently operating 88 million gallons-per-day below capacity, adequate capacity exists to treat Project-generated	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
average effluent of 14,295 gallons-per-day.			
The Project would be responsible for a percentage of the total capital budget for the sewer basin in which it is located, which would result in a capital mitigation fee assessed to the Project.	Significant.	**4.9.2-1** The project applicant shall pay a sewer capacity increase fee for the Project's sewage increase to the lines within the City where the particular project is located to alleviate sewer impacts. These collected fees shall be deposited by the City of Glendale into a specially created account to be used to fund capacity improvements to the City-wide sewer system.	Less than significant.
Solid Waste			
Solid waste generated on the Project site would be deposited at the Scholl Canyon Landfill, which is owned by the City of Glendale, or one of the landfills located within the County of Los Angeles. The annual disposal rate at the Scholl Canyon facility is 200,000 tons per year. Combined with the increase of 86.3 tons per year in solid waste generated by the Project, the annual disposal amount would increase to approximately 200,086.3 tons per year. With a total remaining capacity of 3.4 million tons, the Scholl Canyon facility would meet the needs of the City and the Project for approximately 16 years. Because the Project would be required to implement a waste-diversion program aimed at reducing the amount of solid waste disposed in the landfill, the	Less than significant.	No mitigation measures are required.	Less than significant.

Project Impacts	Impact Without Mitigation	Mitigation Measures	Impact With Mitigation
amount of solid waste generated would likely be less than the amount estimated.			
As part of the Project, the Applicant would implement a waste diversion program in an effort to help the City meet its waste diversion goal of 50 percent as mandated by State law (Senate Bill 1016 and Assembly Bill 939). The proposed Project would enclose trash collection areas and would provide a recycling area to reduce the amount of solid waste sent to the landfill. It is anticipated that waste carts for household trash, recycling, and green waste will be provided.	Less than significant.	No mitigation measures are required.	Less than significant.
There is presently insufficient permitted disposal capacity within the existing system serving Los Angeles County. The Project, in combination with other development, could contribute to insufficient permitted disposal capacity by contributing additional solid waste to regional landfills. Development under the Project would also contribute construction debris to regional landfills, increasing the cumulative effect. Therefore, the Project's contribution to the cumulative impact would be considered cumulatively considerable, and would be a significant and unavoidable impact.	Significant	No feasible mitigation measures exist.	Significant and Unavoidable Cumulative Impact.

SUMMARY OF ALTERNATIVES

This Draft EIR considers a range of Alternatives to the Project were in accordance with State *CEQA Guidelines* §15126.6. This section of the Guidelines requires that an EIR describe and evaluate a range of reasonable alternatives to a project to promote informed decision-making.

The Alternatives to the Project evaluated in this Draft EIR include:

- Alternative 1 – No Project/No Development
- Alternative 2 – No Affordable Housing
- Alternative 3 – 50 Percent Reduced Density
- Alternative 4 – Nonresidential Alternative

A brief description of each of these Alternatives is provided below with a summary of the evaluation of each.

According to the State *CEQA Guidelines*, the discussion of alternatives should focus on alternatives to a project or its location that can feasibly avoid or substantially lessen the significant effects of the proposed Project. **Section 4.0, Environmental Impact Analysis**, of this EIR concludes that Project implementation would result in significant and unavoidable environmental impacts. These include short-term noise and vibration impacts during construction; long-term on-site noise impact due vehicle operations; long-term and cumulative impact to recreation facilities, cumulative impacts to fire, cumulative impacts to police, and cumulative impacts to solid waste. In response to these impacts, the City of Glendale identified and considered several alternatives to the Project to determine if these alternatives could avoid or substantially lessen these significant impacts.

Alternative 1 – No Project/No Development

The No Project/No Development Alternative is required to be evaluated by Section 15126(2)(4) of the State *CEQA Guidelines*. As required by the State *CEQA Guidelines*, the analysis must examine the impacts which might occur if the site is left in its present condition, as well as what may reasonably be expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. Under the No Project/No Development Alternative, the Project site would remain in its current and existing condition.

Alternative 2 – No Affordable Housing

The No Affordable Housing Alternative considers the uses and activities that would be allowed on the site by the existing General Plan land use designations and zoning designations for the site. These existing plans and policies allow for the development of Commercial/Residential Mixed Uses (SFMU) on the Project site. The SFMU zone designation also allows buildings on a site adjacent to the Moderate Density Residential (R-3050) zone to be up to four stories, 60 feet in height, and a maximum density of 87 dwelling units per acre. This Alternative considers only market rate apartment units and would not consider affordable housing units. Given the circumstances, this alternative considers what could reasonably be expected to occur in the future if the Project is not approved.

This Alternative also considers a four story structure, 60 feet in above grade height, and a two and a half level subterranean parking structure on 0.99-acres. Reasonable uses considered would include up to 86 residential apartment units, onsite amenities, and ground floor commercial similar to the Project. The commercial uses would be similar to the medical office space (18,000 square feet) and the restaurant, counter service with limited seating (1,000 square feet) proposed by the Project on the ground floor. The multifamily units would be distributed throughout the four floors, thus reducing the size of the open space in the northwest corner of the site and the size of on-site amenities when compared to the Project. Parking for this Alternative would require 285 parking spaces per Glendale Municipal Code Section 30.32.3

Alternative 3 – 50 Percent Reduced Density

The 50 Percent Reduced Density Alternative considers development of the entire 0.99-acre site with a reduced residential density. This alternative would include the development of 45 multifamily residential units, 9,000 square feet of medical office space, and 500 square feet of restaurant, counter service with limited seating in a 3-story building. This alternative would allow for the Project building to be three levels and a subterranean parking structure to one level consisting of 147 parking spaces[4] assuming a straight 50 percent reduction. The layout of the land uses under this alternative would not change.

By reducing the amount of development, the construction duration of this alternative would also be reduced. In addition, a reduction in the amount of residential dwelling units would reduce the amount of direct population generated under this alternative.

3 181 spaces for the 86 units and guests, 94 spaces for the commercial uses, for a total of 285.

4 The parking spaces are determined according to the Glendale Municipal Code Section 30.32 and would provide 45 spaces for residential units and 102 parking spaces for medical and restaurant with limited seating/counter service space for a total of 147 parking spaces.

Alternative 4 – Nonresidential Alternative

The Nonresidential Alternative includes 71,415 square feet of medical office space and 1,000 square feet of restaurant, counter service with limited seating. Similar to the Project, this Alternative would include 17,933 square feet of medical office space, 1,000 square feet of restaurant, counter service with limited seating, an elevator lobby, and 525 square feet of restrooms on main (ground) floor with 4,325 square feet of landscaping. The second floor would consist of 17,685 square feet of medical office space, a 1,130 square foot for a conference room, 745 square feet of restrooms, 6,694 square feet of terrace area, the elevator lobby and 2,300 square feet of landscaping. The third floor would consist of 18,340 square feet of medical office space, 685 square feet of restrooms, the elevator lobby, and 470 square feet of landscaping. The fourth floor would include 17,300 square feet of medical office space, 685 square feet of restrooms, 4,375 square feet of terrace area, the elevator lobby and 470 square feet of landscaping.

This Alternative includes four building components connected at the podium level and by the two and a half levels of subterranean parking underneath. The subterranean parking structure would accommodate 362 parking spaces and 30 secured bicycle spaces. Of the total amount of parking provided, eight spaces would be designated as handicap-accessible spaces. Vehicle access to the parking structure would be from West Colorado Street.

Similar to the Project, the height of the Alternative building would be 60 feet above ground. This Alternative has been designed as a contemporary structure utilizing various different building materials in conformance with the design guidelines for the San Fernando Mixed Use zone. These elevations illustrate the primary building materials proposed for the exterior of the building, including stucco, concrete, and metal. The size and massing of the Alternative building would be similar to the design of the Project building.

This Alternative would provide 7,095 square feet of landscaping on the ground floor, second floor, and fourth floor.

By eliminating the residential component from the Project and constructing four levels, the above-ground construction period would be reduced by one-fifth of the Project, and result in reduced building loading with reduced underground foundations, which results in a shorter underground construction period. In addition, the medical office space and restaurant, counter service with limited seating, would not directly result in the generation of new residents within the City of Glendale.

Environmentally Superior Alternative

State *CEQA Guidelines* Section 15126.6(e) (2) requires an EIR to identify an environmentally superior alternative among those evaluated in an EIR. Of the alternatives considered in this section, the No Project/No Development Alternative is environmentally superior to the other alternatives, because this alternative would avoid the significant and unavoidable impacts identified for the Project.

According to the State *CEQA Guidelines,* if the No Project/No Development Alternative is identified as the environmentally superior alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Of the other alternatives considered,

Alternative 3 – 50 Percent Reduced Density would be considered environmentally superior, as it would result in the greatest incremental reduction of the overall level of impact when compared to the Project due to the reduction in intensity of medical office space, restaurant, counter service with limited seating, and dwelling units on the Project site. It should be noted, however, that Alternative 3 would not result in the avoidance of a significant environment impact when compared to the Project. Overall, the significant and unavoidable short-term noise impact during construction, the long-term on-site noise impact due to vehicle operations, the long-term and cumulative impact to recreation facilities, and the cumulative impacts to fire, police, and solid waste would not be eliminated by this alternative.

Furthermore, Alternative 3 would not meet certain objectives of the Project. Alternative 3 would not provide for affordable housing within the City when the Project would provide an additional 5 very low income housing units. Alternative 3 would partially meet the objective of providing needed medical office space in the City; however, it would only provide 9,000 square feet when compared to the 18,000 square feet provided by the Project. Alternative 3 would provide 45 fewer residential units, 9,000 fewer square feet of medical office and 500 square feet of restaurant, counter service with limited seating. Less units and floor space would result in 50 percent less property tax revenues to the City than what would be provided by the Project. Fewer housing opportunities in an urban setting would also be provided under Alternative 3, thus partially meeting this objective. Finally, the reduced density under this alternative may not be sufficient to offset the cost of the land and may not be economically feasible for the applicant for this reason.

Alternative 4 – Nonresidential Alternative would also be considered environmentally superior, as it would result in a substantial reduction in the significant and unavoidable recreation impact when compared to the Project. Alternative 4 would also substantially reduce less than significant population and housing and school impacts as a result of the all commercial land uses proposed. The significant and unavoidable short-term noise impact during construction, the long-term on-site noise impact due to

vehicle operations, and the cumulative impacts to fire, police, and solid waste would not be eliminated by this alternative.

Alternative 4 would meet the majority of the Project objectives by providing a well-designed development compatible with surrounding land uses. For example, the Alternative has been designed with a setback from the single family residential uses to the north with an open area for landscaping. Property tax revenues, as well as construction employment opportunities within the City, would be similar to the Project. Alternative 4 would utilize architectural design, lighting, and landscape design to enhance the architectural character of the proposed buildings and create a gateway building to the City of Glendale and implement the Redevelopment Plan Objectives. Alternative 4 would partially meet the first objective by redeveloping an underutilized site for the community of Glendale, albeit with commercial uses instead of mixed uses. Alternative 4 would not meet certain objectives of the Project. Alternative 4 would not provide for affordable housing within the City when the Project would provide an additional 5 very low income housing units nor would the Alternative provide housing opportunities in an urban setting close to employment opportunities, public facilities, goods, and services.

AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Concerns related to the potential environmental effects of the Project were raised include potential air quality impacts from construction and operation of the Project and potential traffic impacts on local and County roadways, as well as on nearby freeway segments and intersections, in the Project vicinity. These concerns have been addressed in **Section 4.0, Environmental Impact Analysis** in the Draft EIR.

3.0 PROJECT DESCRIPTION

The purpose of the Project Description in an environmental impact report (EIR) is to describe the project in a manner that is meaningful to the public, reviewing agencies, and decision makers. As described in Section 15124 of the *California Environmental Quality Act (CEQA) Guidelines*, a complete Project Description must contain the following information: (1) a precise location and the boundaries of the project, which is shown on a detailed map, along with a regional map of the location of the project; (2) a statement of the objectives sought by the project, which should include the underlying purpose of the project; (3) a general description of the project's technical, economic, and environmental characteristics; and (4) a statement briefly describing the intended uses of the EIR. This includes a list of the agencies that are expected to use the EIR in their decision making, a list of permits and other approvals required to implement the project, and a list of related environmental review and consultation requirements imposed by federal, state, or local laws, regulations, and policies. The State *CEQA Guidelines* state that an adequate Project Description need not be exhaustive, but should provide a level of detail necessary for the evaluation and review of the potential significant environmental effects of the project.

The description of the CCTAN/Colorado Street Mixed-Use Project (the "Project"), which is presented in this section, serves as the basis for the environmental analysis contained in this EIR. This section identifies the location, objectives, and characteristics of the Project, and the intended uses of this EIR, as required by Section 15124 of the State *CEQA Guidelines*.

PROJECT LOCATION AND SITE CHARACTERISTICS

As illustrated in **Figure 3.0-1**, **Regional Location and Project Vicinity**, the Project site is located in the western portion of the City of Glendale. The Project site is located approximately 1,200 feet east of the boundary between the Cities of Glendale and Los Angeles. Interstate (I) 5 (Golden State Freeway), State Route (SR) 134 (Ventura Freeway), and SR-2 (Glendale Freeway) provide regional access to the Project site. As illustrated in **Figure 3.0-2, Project Site and Surrounding Uses**, the Project site consists of four continuous parcels located adjacent to the north of West Colorado Street and west of South Pacific Avenue. The addresses are 525 W. Colorado Street, 523 W. Colorado Street, 515 W. Colorado Street, and 507 W. Colorado Street. The Project site is bound on the south by West Colorado Street; on the west by an existing 3-story commercial building; on the north by four existing single-family residences and two, 3-story multifamily buildings; and on the east by an existing gas station.

The site is 0.99 acres (43,125 square feet) and is developed with one single-story commercial building and a daycare center, surface parking lots, and a vacant paved lot. The site is designated as Mixed Use

on the City of Glendale General Plan Land Use Map and Commercial/Residential Mixed-Use (SFMU) on the City's Zoning Map.

PROJECT OBJECTIVES

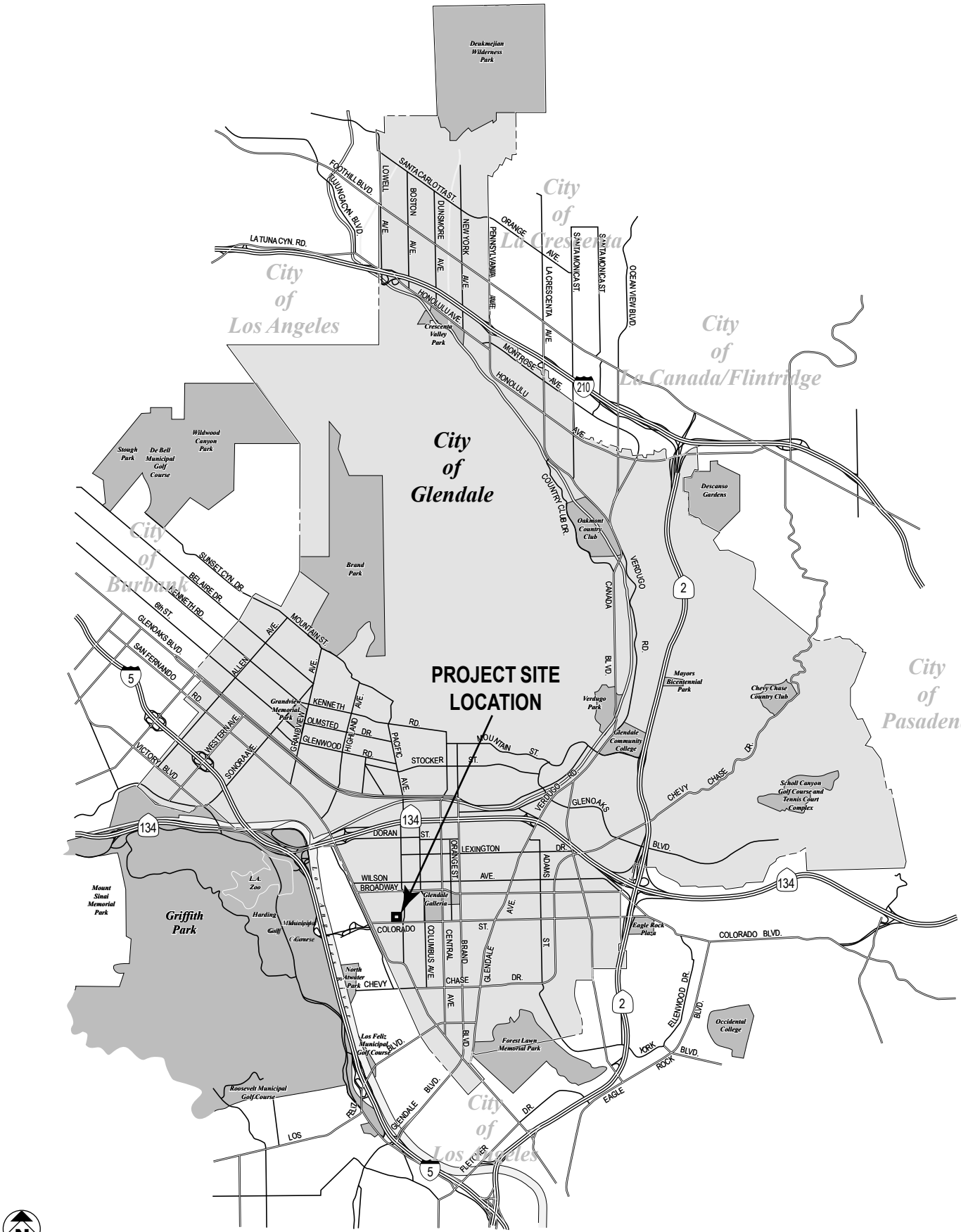
The *CEQA Guidelines* require an EIR to include a statement of the objectives of the Project that address the underlying purpose. The Applicant is proposing to develop 90 multifamily residential units, 18,000 square feet of medical office space, and 1,000 square feet of restaurant, counter service with limited seating in a 5-story building. The development features four "structures" connected at the podium level and by the two levels of subterranean parking underneath. The objectives of the Project are to:

- Redevelop an underutilized property with residential uses for the community of Glendale.
- Provide well-designed development that is compatible and complementary with surrounding land uses.
- Provide affordable housing within the City of Glendale.
- Provide needed medical office space within the City of Glendale due to the loss of medical space from the construction of North Central Avenue Project and the Nexus Project.
- Provide property tax revenues to the City of Glendale.
- Generate construction employment opportunities in the City and in the region.
- Provide housing opportunities in an urban setting in close proximity to employment opportunities, public facilities, goods, and services.
- Utilize architectural design, lighting, and landscape design to enhance the architectural character of the proposed buildings and to create a gateway building to the City of Glendale.
- Implement the Redevelopment Plan Objectives, but without redevelopment agency assistance.

PROJECT BACKGROUND

In 1992, the Glendale Redevelopment Agency[1] prepared and adopted the Redevelopment Plan for the San Fernando Road Corridor Redevelopment Project Area (the "Redevelopment Plan"). The Project site is located within the boundaries of the Redevelopment Plan, which includes 750 acres that generally extends along the length of the San Fernando Road corridor and that is bounded by the I-5 Freeway and the Union Pacific Railroad/Los Angeles County Metropolitan Transportation Authority (UPRR/MTA)

1 The Glendale Redevelopment Agency was created in 1972 for the purpose of improving, upgrading, and revitalizing areas within the City that had become blighted because of deterioration, disuse, and unproductive economic conditions. It was a legal and separate public body, with separate powers and a separate budget from the City. ABx126 and AB1484 (collectively, "The Dissolution Act") eliminated redevelopment agencies in California effective February 1, 2012. The City of Glendale elected to assume the power, duties, and obligations of the former Glendale Redevelopment Agency as the Glendale Successor Agency pursuant to the Dissolution Act.



SOURCE: Meridian Consultants, LLC - November 2013

FIGURE **3.0-1**

Meridian Consultants

Regional Location and Project Vicinity

046-001-13

SOURCE: Google Earth – 2013; Meridian Consultants, LLC – November 2013.

FIGURE **3.0-2**

Meridian Consultants

Project Site and Surrounding Uses

046-001-13

right-of-way to the west. The primary objective of the Redevelopment Plan is to eliminate and prevent the spread of blight and deterioration in the Redevelopment Plan.

The Successor Agency[2] is responsible for winding down the activities of the former Glendale Redevelopment Agency.

According to the Redevelopment Plan, the former Glendale Redevelopment Agency proposed the following actions to meet this objective:

- Participation in the redevelopment process by owners and occupants of properties located in the Redevelopment Plan boundaries, consistent with the Redevelopment Plan and the rules adopted by the Redevelopment Agency
- Acquisition of real property
- Management of property under the ownership and control of the Redevelopment Agency
- Relocation assistance to displaced occupants of property acquired by the Redevelopment Agency in the Redevelopment Plan boundaries
- Demolition or removal of buildings and improvements
- Installation, construction, expansion, addition, extraordinary maintenance, or reconstruction of streets, utilities, and other public facilities and improvements
- Disposition of property for uses in accordance with the Redevelopment Plan
- Redevelopment of land by private enterprise or public agencies for uses in accordance with the Redevelopment Plan
- Rehabilitation of structures and improvements by present owners, their successors, and the Redevelopment Agency
- Rehabilitation, development, or construction of low and moderate income housing within the City
- Retention of controls and the establishment of restrictions or covenants running with the land so that property will continue to be used in accordance with the Redevelopment Plan

As described previously, the Project is located within the Redevelopment Plan boundaries and is subject to the applicable provisions of the Redevelopment Plan for the San Fernando Road Corridor Redevelopment Project Area. Since dissolution of Redevelopment, and specifically pursuant to Health and Safety Code 34173(i), all land use–related plans and functions of the former redevelopment agency were transferred to the City.

2 The Successor Agency undertakes enforceable obligations and performs duties pursuant to the enforceable obligations in compliance with the Dissolution Act. The Successor Agency staff also serves as staff to the Oversight Board.

Consistent with California state law, the City's Comprehensive General Plan serves as a long-term planning guide for future development throughout the City. The Comprehensive General Plan consists of several individual elements, including the Land Use Element, the Circulation Element, the Air Quality Element, the Noise Element, the Housing Element, the Community Facilities Element, the Safety Element, the Recreation Element, the Open Space and Conservation Element, and the Historic Preservation Element. In general, the Elements provide an inventory of existing resources or conditions, specific goals, and policies intended to direct and manage new development, and suggest implementation strategies for the attainment of Element objectives.

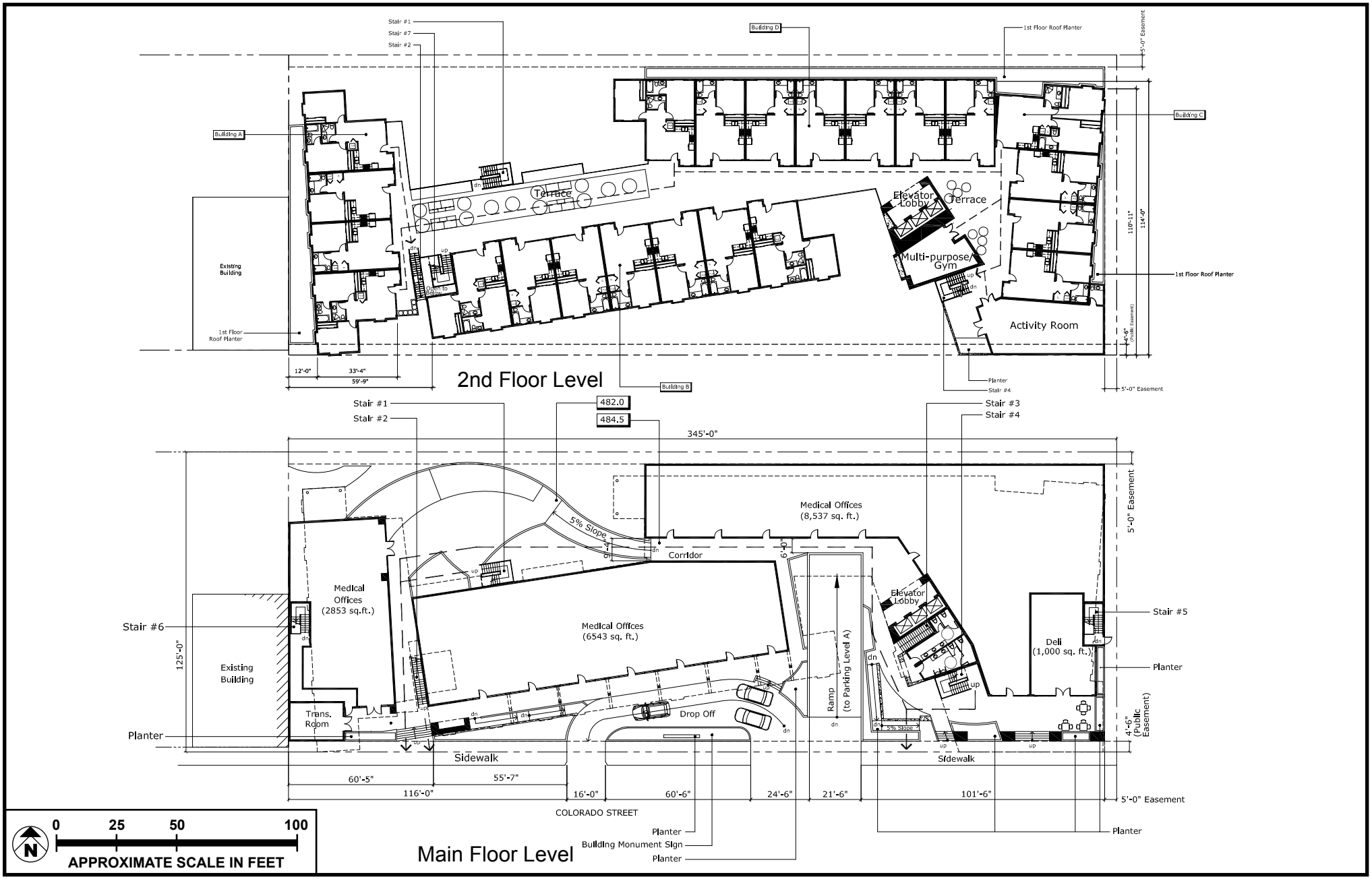
PROJECT CHARACTERISTICS

The State *CEQA Guidelines* require an EIR to include a general description of the technical, economic, and environmental characteristics of a proposed Project. The Project proposes to develop a Mixed-Use Project consisting of a 5-story building that would provide 90 multifamily residential units, 18,000 square feet of medical office space, 1,000 square feet of restaurant counter service with limited seating, a 2-story subterranean parking structure for 246 parking spaces, a 1,200 square foot activity room, and outdoor amenities. The development features four "structures" connected at the podium level and by the two levels of subterranean parking underneath.

Figure 3.0-3, Main and 2nd Level Floor Plans illustrates the general layout for the first floor and second floor. The proposed Project would consist of the medical office and restaurant, counter service with limited seating on the first floor. The restaurant space with limited seating/counter service would be provided on the ground floor of the easternmost corner of the complex. These uses would be located along West Colorado Street to promote pedestrian activity. The Project would provide open space areas in the northwest portion of the site and along West Colorado Street. The maximum height of the structure would be 60 feet above adjacent grade.

The second floor would include 22 residential units, an activity room, and a landscaped terrace area for use by residents. **Figure 3.0-4, 3rd through 5th Level Floor Plans**, illustrates the general layout of the third through fifth floors. The third floor would contain 23 residential units and a management office, the fourth floor would contain 23 residential units and an outdoor terrace area, and the fifth floor would contain 22 residential units. The Mixed-Use Project would include 68 one-bedroom apartment units and 22 two-bedroom apartment units and a landscaped terrace area for use by residents.

The building includes a subterranean parking structure accommodating 246 parking spaces and 20 secured bicycle spaces, 10 on each level of the parking structure. The number of parking spaces for residents would be 112 spaces; for guests, there would be 23 spaces; for the medical office space, there would be 90 spaces; for the restaurant, counter service with limited seating, there would be 4 spaces; and 17 extra spaces for other uses (such as zipcars). Resident parking would be provided on the



SOURCE: ArquiTaller Inc. – October 2013

FIGURE **3.0-3**

Meridian Consultants

Main and 2nd Level Floor Plans

046-001-13

0 25 50 100

APPROXIMATE SCALE IN FEET

SOURCE: ArquiTaller Inc. – October 2013

FIGURE **3.0-4**

Meridian Consultants

3rd through 5th Level Floor Plans

lower level, and medical, guest, restaurant spaces, and other uses (such as zipcars) would be provided on the upper level of the parking structure. Of the total amount of parking provided, seven spaces would be designated as handicap-accessible spaces. Vehicle access to the parking structure would be from West Colorado Street.

Table 3.0-1, Proposed Development, provides a summary of the number of one-bedroom and two-bedroom units proposed on each site along with the parking required for each type of unit.

Table 3.0-1
Proposed Development

Unit Type	Number/ Size of Units	First Floor	Second Floor	Third Floor	Fourth Floor	Fifth Floor
Medical office space	18,000 sq. ft.	18,000 sq. ft.	n/a	n/a	n/a	n/a
Restaurant counter service with limited seating	1,000 sq. ft.	1,000 sq. ft.	n/a	n/a	n/a	n/a
One bedroom	68	n/a	16	17	17	18
Two bedroom	22	n/a	6	6	6	4
Parking structure	246					

Note: sq. ft. = square feet.

Figure 3.0-5, Overall Landscape Site Plan, illustrates the conceptual landscape plan and displays the amenities of the Project on the ground level. The Project site includes a 1,200 -square-foot activity room and outdoor terraces on the second, fourth, and fifth floors. In total, the Project site includes 6,561 square feet of landscaping throughout the property.

DEVELOPMENT CHARACTERISTICS

Residential Apartment Units

As described previously, the site would be developed with 68 one-bedroom units and 22 two-bedroom units. The one-bedroom apartments would consist of similar floor plans and would range in size from approximately 650 square feet to 680 square feet. The two-bedroom apartments would also have similar floor plans, and would range in size from approximately 860 square feet to 940 square feet of livable area.

Architectural Design

Figure 3.0-6, East and South Elevations, and **Figure 3.0-7, West and North Elevations**, provide elevations of the proposed buildings. As shown in **Figure 3.0-6** and **Figure 3.0-7**, the Project has been designed as a contemporary structure utilizing various different building materials in conformance with the SFMU design guidelines. These elevations illustrate the primary building materials proposed for the exterior of the building, including stucco, concrete, and metal.

The site would be developed with a building at a height of five stories (60 feet) and a floor to area (FAR) ratio of 2.60. As previously indicated, the site is located within the SFMU zone designation, which permits by right a maximum of four stories (60 feet) and 87 dwelling units per acre. The applicant is providing affordable housing units and would require a density bonus housing agreement and a density bonus housing plan for this site. As noted previously, the density housing bonus agreement and housing plan provides incentive in the form of height/story and density bonuses to encourage desirable uses and public benefits in the SFMU area.

A complete list of the discretionary actions required is provided under the heading *Intended Uses of the EIR*.

Landscaping

In general, the materials to be used are intended to create a distinct character for the Project site by creating a visual cohesiveness throughout the streetscape, the internal open spaces, and the courtyards. **Figure 3.0-5** provides an overview of the landscaping plan. The landscaping plan includes water-wise landscaping and irrigation design. Where feasible, the Project would include the use of local and sustainable materials.

A selection of canopy and ground cover plant materials (e.g., trees, shrubbery, flowers) would be located along West Colorado Street and within the northwestern portion of the site and would be designed to adhere to the Glendale design guidelines while seeking to compliment adjacent development. The courtyard area in the northwest portion of the site would include furnishing, benches, and/or other seating.

The Project site is designed to include 3,661 square feet of ground floor planting area and 2,900 square feet of terrace planting area. An extensive amount of plants would be provided along the entire perimeter to provide a more attractive view for the tenants, visitors, and the surrounding community.

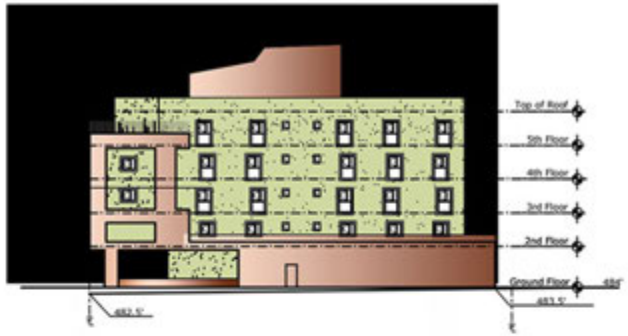
SOURCE: ArquiTaller Inc. – October 2013

FIGURE **3.0-5**

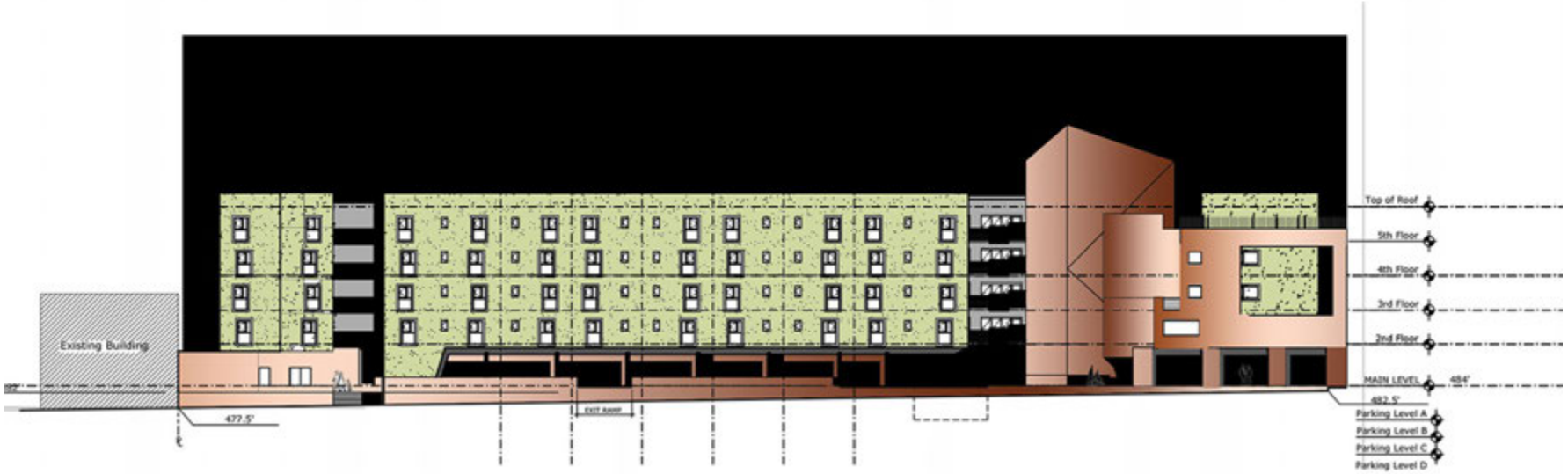
Meridian Consultants

Overall Landscape Site Plan

046-001-13



East Elevation



South Elevation

0 25 50 100

APPROXIMATE SCALE IN FEET

SOURCE: ArquiTaller Inc. – December 2013

FIGURE **3.0-6**

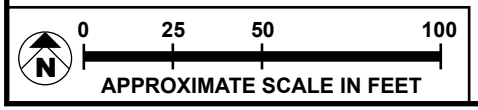
Meridian Consultants

East and South Elevations

046-001-13

West Elevation

North Elevation



SOURCE: ArquiTaller Inc. – December 2013

FIGURE **3.0-7**

Meridian Consultants

West and North Elevations

Traffic, Pedestrian Circulation, and Parking

Access to the subterranean garage would be provided via one driveway on West Colorado Street. A drop-off, circular driveway would be provided for all uses proposed on the site, which would be located adjacent to West Colorado Street.

The site would provide 246 parking spaces with a total of 23 spaces reserved for guest parking. The Project site also includes 20 secure bicycle spaces. Each level of the parking structure would provide pedestrian access to each corresponding floor of the building. Access to the subterranean parking structure would be provided from West Colorado Street. As proposed, this driveway would be approximately 22 feet in width, would accommodate right-turn movements in and out of the Project site, would accommodate left-turn movements out of the driveway except during the afternoon peak period (between 4:00 PM and 6:00 PM), and would be controlled by a stop sign.

Alternative Transportation

Alternative transportation modes are also available in the Project vicinity. The MTA and the City of Glendale presently operate bus routes along Colorado Street and Pacific Avenue. All routes serving the Project connect to additional routes and make a stop at the Glendale Transportation Center (GTC), which provides access to the greater Los Angeles Metropolitan region via bus and commuter trains. The GTC also provides statewide access via Amtrak long-distance trains. The GTC is located approximately 1.25 miles south from the Project site and is accessible via San Fernando Road.

Utilities and Infrastructure

Water and Sewer Service

Utility service providers would include Glendale Water and Power for water service and the Glendale Public Works Department for sewer service. Lateral lines extending from the proposed buildings would connect to existing water and sewer lines. A 4-inch water line on West Colorado Street and an 8-inch sewer line are anticipated to serve the Project. No new water mains are anticipated to be required to serve the Project.

Electrical and Natural Gas

Glendale Water and Power and the Southern California Gas Company provide electricity and natural gas service near the Project site. Electricity and natural gas transmission infrastructure presently exists on and near the Project site.

Overhead utility lines cross the northern portion of the site from east to west.

PROJECT CONSTRUCTION PHASING AND SCHEDULE

Project construction is anticipated to last approximately 18 months and is expected to commence on or about September 2014. The Project would be constructed in three phases: (1) demolition, (2) site preparation/excavation, and (3) building construction/architectural coating and asphalt paving.

Phase I Demolition

This phase of construction would include the demolition and removal of 5,115 square feet of existing commercial use, 8,704 square feet of existing daycare center use, and the associated parking space. Demolition would occur over a 1-month period and would involve the use of standard construction equipment such as loaders, dozers, backhoes, and related equipment. Approximately 6,500 cubic yards of demolition material would be generated. This material would be hauled north on Central Avenue to SR-134 or west along West Colorado Street to I-5 and would be disposed of at the Scholl Canyon Landfill in Glendale.

Phase II Piles/Excavation/Site Preparation/Grading

The site preparation/grading phase would include the removal of existing fill materials over a 4- to 6-month period. Grading on the Project site would require excavation up to depths of 30 feet below the ground surface, and it is anticipated that 55,000 cubic yards of earth material would be removed from the site. Material would be hauled via the same route to the same location as demolition debris. Heavy construction equipment would be located on site during site preparation/grading activities and would not travel to and from the Project site on a daily basis. It is anticipated that equipment associated with these activities would include loaders, dozers, excavators, dump trucks, and related heavy-duty equipment.

Phase III Building Construction

The third phase would include the subterranean parking and above-grade building construction, including shoring, architectural coating, and asphalt paving. It is anticipated that equipment needs associated with above-grade construction activities would include cranes and miscellaneous machinery and related equipment. Material delivery trucks and other miscellaneous trucks are anticipated during this phase of construction. This work would likely produce approximately 5 to 10 material delivery trucks trips per day, although deliveries are not envisioned to occur for each day of this phase. This phase of construction is anticipated to be completed in approximately 11 months.

A truck haul route program would be implemented during all phases of construction to minimize conflicts between haul trucks traveling to and from the Project site and through traffic on roadways adjacent to the Project. The program would specify and delineate approved haul routes. It is anticipated

that trucks would access the Project via West Colorado Street and Central Avenue and would access I-5 via West Colorado Street and SR-134 via Central Avenue.

Temporary street and sidewalk closures within and along the perimeter of the Project site may be required during building construction. Sidewalk and parking areas along West Colorado Street behind the fenced site may be used as staging areas. In order to minimize potential conflicts between construction activity and through traffic, a construction traffic control plan would be developed prior to construction of the Project. The traffic control plan would identify all traffic control measures, signs, and delineators required to be implemented by the construction contractor for the duration of construction activity.

INTENDED USES OF THE EIR

The *CEQA Guidelines* require an EIR to include a brief statement describing the intended uses of the EIR, including a list of agencies expected to use the EIR in their decision making and the list of the permits and other approvals required to implement the Project. The EIR serves as an advisory document and is intended to provide guidance regarding discretionary actions associated with the Project. This Project EIR analyzes the environmental impacts of the Project. The City of Glendale will consider the information in the EIR—including the public comments and staff response to those comments—during the public hearing process. The final decision is made by the City Council, who may approve, conditionally approve, or deny the Project. No aspect of the proposed Project would be approved until after the Final EIR is certified.

This Draft EIR is circulated to responsible agencies, trustee agencies with resources affected by the Project, and interested agencies and individuals. The purposes of a public and agency review of a Draft EIR include sharing expertise, disclosing agency analyses, checking for accuracy, detecting omissions, discovering public concerns, and soliciting comments on mitigation measures and alternatives capable of avoiding or reducing the significant effects of the project, while still attaining most of the basic objectives of the project.

Discretionary Actions

A series of approvals from the City of Glendale and other agencies would be necessary to implement the Project. Discretionary approvals may include, but are not limited to, the actions/permits described as follows.

Stage I/II Design Review

The City of Glendale Community Development Division has a multistage design review process for proposed projects. The Stage I/II Design will be considered for approval after completion of the

environmental analysis. The design of the Project would be subject to the *City of Glendale Comprehensive Design Guidelines*.

Density Bonus Housing Plan

An applicant seeking a density bonus, incentive, or concession is required to submit a Density Bonus Housing Plan identifying the number of dwelling units, the maximum number of dwelling units permitted in the zone, the number of proposed affordable dwelling units meeting the requirements of Section 30.36.060 of the Glendale Municipal Code, the amount of density bonus requested, the number and description of incentives or concession requested, number and description of waivers or modifications of development standards requested, and the amount of parking concession requested. As required in Section 30.36.050 of the *Glendale Municipal Code*, all density calculations resulting in fractional units are rounded up to the next whole number. The Project would include at least 5 percent of the total units (approximately 5 units of the proposed 90 units) for very low income households as described in Section 30.36 of the *Glendale Municipal Code*. State law indicates that if at least 5 percent of the units are designated for very low income households or if 10 percent of the units are designated for low income households, then the project is eligible for a 20 percent density bonus. Increase in Residential Units

Section 30.36 of the *Glendale Municipal Code* allows the maximum density for the site to increase according to the amount by which the percentage of affordable housing units exceeds the 5 percent of very low income households. The Project would provide 5 percent of the units for very low income households and be eligible for a 20 percent density bonus increase. The full implementation of the 20 percent density housing bonus would allow a maximum residential density of 103 units for the Project site. The maximum residential density for the site is an increase of 17 units above the allowed 86 units under the *Glendale Municipal Code*. However, the Project is proposing a total of 90 units, only five percent (5 bonus units) out of the maximum 20 percent (17 units) allowed under the *Glendale Municipal Code*. Accordingly, the Project is taking only partial advantage of the maximum allowed number of bonus units.

Story Incentive

Because the Project will provide five units of very low income housing and because the Project will qualify for a density bonus under state and local law, the Project will also qualify for an incentive, which is a "reduction in site development standards or a modification of zoning code requirements".[3] The

3 *Glendale Municipal Code,* sec. 30.36.30.

incentive requested is a waiver from the story standard for five total stories. Incentives such as the story incentive shall be granted to qualifying projects.[4]

Density Bonus Housing Agreement

Approval of a Density Bonus Housing Agreement would be implemented and would outline the following: (1) restrict the rental or sale of the required percentage of dwelling units in the Project to persons or families of very low households for affordable housing, (2) applicant would enter into a density housing bonus agreement with the City and be recorded as a restriction on any parcels on which the affordable units or density bonus units will be constructed, and (3) record the density bonus housing agreement prior to final or parcel map approval, or where the housing development does not include a map, prior to the issuance of a building permit for any structure in the housing development.

Parking Concession

The Project would provide subterranean parking as required by the *Glendale Municipal Code* for residential uses. Because the Project will qualify for a density bonus under state and local law, the Project will also qualify for a parking concession inclusive of handicapped and guest parking.[5] The parking concession requested is one (1) onsite parking space per one (1) bedroom units and two (2) onsite parking spaces for two (2) bedroom units.

Development Agreement

The Development Agreement provides a prepayment option for the payment of impact fees: The developer may pay 100 percent of the Parks and Library Development Impact Fees at building permit issuance. Instead of 50 percent at building permit issuance and the remaining 50 percent prior to issuance of a certificate of occupancy, the second 50 percent fee payment may be at a rate higher than the first payment if there is a scheduled increase in fees.

4 *Glendale Municipal Code*, sec. 30.36.070.

5 *Glendale Municipal Code*, sec. 30.36.090.

4.0 ENVIRONMENTAL IMPACT ANALYSIS

The purpose of this section is to inform decision makers and the public of the type and magnitude of the change to the existing environment that would result from the Project, plus proposed and approved cumulative development in the City of Glendale. This section provides a detailed discussion of the environmental setting for each topic addressed in this environmental impact report (EIR), the analysis of the potential impacts of the Project, potential cumulative impacts, and other measures identified to mitigate these impacts.

CUMULATIVE IMPACT ANALYSIS

The technical analysis contained in **Section 4.0, Environmental Impact Analysis,** examines both Project-specific impacts and the potential environmental effects associated with cumulative development. The California Environmental Quality Act (CEQA) requires that EIRs discuss cumulative impacts, in addition to Project-specific impacts. In accordance with CEQA, the discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the Project alone. According to Section 15355 of the *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.
>
> (a) The individual effects may be changes resulting from a single project or a number of separate projects.
> (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Section 15130(a)(l) of the *CEQA Guidelines* further states, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts."

Section 15130(a) of the *CEQA Guidelines* also requires that EIRs discuss the cumulative impacts of a project when the project's incremental effect is "cumulatively considerable."[1] Where a Lead Agency is

1 Under Section 15065(a)(3) of the State *CEQA Guidelines*, "cumulatively considerable" means that "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

examining a project with an incremental effect that is not cumulatively considerable, it need not consider the effect significant but must briefly describe the basis for its conclusion. If the combined cumulative impact associated with the Project's incremental effect and the effects of other projects is not significant, Section 15130(a)(2) of the *CEQA Guidelines* requires a brief discussion in the EIR of why the cumulative impact is not significant and why it is not discussed in further detail. Section 15130(a)(3) of the *CEQA Guidelines* requires supporting analysis in the EIR if a determination is made that a project's contribution to a significant cumulative impact is rendered less than cumulatively considerable and, therefore, is not significant. Section 15130(b) of the *CEQA Guidelines* recognizes that the analysis of cumulative impacts need not be as detailed as the analysis of project-related impacts, but instead should "be guided by the standards of practicality and reasonableness." The discussion of cumulative impacts in this Draft EIR focuses on whether the impacts of the Project are cumulatively considerable.

The fact that a cumulative impact is significant does not necessarily mean that the project contribution to the cumulative impact is significant as well. Instead, under CEQA, a project-related contribution to a significant cumulative impact is only significant if the contribution is "cumulatively considerable." To support each significance conclusion, the Draft EIR provides a cumulative impact analysis, and where project-specific impacts have been identified that, together with the effects of other related projects, could result in cumulatively significant impacts, these potential impacts are documented.

Section 15130(b) of the *CEQA Guidelines* defines consideration of the following two elements as necessary to provide an adequate discussion of cumulative impacts: "(a) a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the Agency, or (b) a summary of projections contained in an adopted general plan or related planning document which is designed to evaluate regional or area-wide conditions." In this Draft EIR, a combination of these two methods is used depending on the specific environmental issue area being analyzed.

Related projects within the City are presented in **Table 4.0-1, List of Related Projects,** and includes those projects that are (1) completed but not fully occupied; (2) currently under construction or beginning construction; (3) proposed with applications on file at the City of Glendale or the City of Los Angeles; or (4) reasonably foreseeable.

Specific past, present, and reasonably anticipated future projects, as well as applicable Glendale land use planning documents, are considered when evaluating cumulative impacts in **Sections 4.1** through **4.9** of this EIR, as appropriate for each environmental topic addressed in this EIR.

Table 4.0-1

List of Related Projects

Project Name	Location	Land Use	Size	Unit	Status
Nexus at Central	610 N. Central Avenue[a]	Multifamily	235	du	Under construction
Citi Live/Work Community	210 W. Lexington and 418 N. Central Avenue[a]	Live/work	540	du	Proposed
		Commercial	4,200	sq. ft.	
Legendary Tower	300 N. Central Avenue[a]	Multifamily	72	du	Under construction
		Live/work	8	du	
		Commercial	1,240	sq. ft.	
	301 N. Central Avenue[a]	Multifamily	84	du	Approved
		Commercial	4,397	sq. ft.	
Brand + Wilson	124 W. Wilson Avenue[a]	Multifamily	235	du	Under construction
		Commercial	9,800	sq. ft.	
The Lex on Orange	320-324 N. Central Avenue, 208 W. Lexington Drive, and 317–345 N. Orange Street[a]	Multifamily	307	du	Under construction
		Live/work	3	du	
North Central Avenue Apartments	607–633 N. Central Avenue and 540 N. Central Avenue[a]	Multifamily	507	du	Approved
	463 Salem Street[b]	Multifamily	10	du	Proposed
Orange + Wilson	200 W. Wilson Avenue[a]	Multifamily	166	du	Under construction
Central + Wilson	130 N. Central Avenue[a]	Multifamily	153	du	Approved
		Commercial (Option A)	4,900	sq. ft.	
		Live/work (Option B)	5	du	
	125 N. Central Avenue[a]	Multifamily	167	du	Proposed

Project Name	Location	Land Use	Size	Unit	Status
		Commercial pharmacy (CVS)	15,100	sq. ft.	
Hampton Inn & Suites	315 S. Brand Boulevard[a]	Hotel	94	rooms	Approved
Veterans Village of Glendale	327 Salem Street[b]	Multifamily	44	du	Approved
	604–610 W. Broadway[c]	Office	12,802	sq. ft.	Approved
		Commercial	1,620	sq. ft.	
Louise Gardens	111 N. Louise Street[a]	Multifamily	63	du	Approved
	118 S. Kenwood Street[a]	Multifamily	35	du	Under construction
YMCA Meta Housing Project	127–129 N. Kenwood Street[a]	Multifamily	70	du	Proposed
Laemmle Cinema Lofts	111 E. Wilson Avenue and 215 N. Maryland Avenue[a]	Multifamily	42	du	Approved
		Movie theater	9,690	sq. ft.	
Glendale Triangle Project	3900 San Fernando Road[c]	Multifamily market rate	265	du	Under construction
		Multifamily affordable	22	du	
		Commercial	37,000	sq. ft.	
The Link	3901–3915 San Fernando Road[c]	Multifamily	142	du	Approved
		Commercial	11,600	sq. ft.	
		Studio	5,000	sq. ft.	
Hyatt Place Glendale	225 Wilson Avenue[a]	Hotel	172	rooms	Approved
		Restaurant	1,950	sq. ft.	
	525 W. Elk Avenue[c]	Multifamily	71	du	Proposed
Gwynn Chevrolet	1400 S. Brand Boulevard[b]	Addition to car dealership	2,423	sq. ft.	Under construction
Star Ford Dealership	1101 S. Brand Boulevard[b]	Car dealership	47,977	sq. ft.	Approved
	124 W. Colorado Street[a]	Multifamily	50	du	Approved
	900 W. Glenoaks Boulevard[b]	Commercial shopping center	8,947	sq. ft.	Approved
Public Storage	5500 San Fernando Road[c]	Mini storage facility	180,000	sq. ft.	Proposed

Project Name	Location	Land Use	Size	Unit	Status
	342–344 Myrtle Street[b]	Multifamily	11	du	Proposed
Tropico Apartments	435 W. Los Feliz Boulevard[c]	Multifamily	238	du	Proposed

Source: City of Glendale (December 2013)
Note: du = dwelling units; sq. ft. = square feet.
[a] *Projects in Downtown Specific Plan (DSP).*
[b] *Projects outside DSP.*
[c] *Projects in the San Fernando Road (SFR) Corridor.*

4.1 AESTHETICS

This section addresses the existing visual characteristics of the Project site and the surrounding area and evaluates the significance of the changes in visual character that would result from development of the proposed Project as viewed from the surrounding streets and other public viewpoints. Also evaluated is the impact of light and glare. Information on existing visual resources is incorporated from the City of Glendale Open Space and Conservation Element and field observations.

ENVIRONMENTAL SETTING

Existing Conditions

A description of the existing visual characteristics of the Project site and the surrounding area is presented in the following paragraphs.

Scenic Vistas

The City of Glendale is bordered on the north by the San Gabriel Mountains, on the northwest by the Verdugo Mountains, and on the east by the San Rafael Hills. To the southwest, just beyond the City boundary is the easternmost edge of the Santa Monica Mountains in Griffith Park in Los Angeles. The Repetto Hills are located at the southeast edge of the City.[1] The Verdugo Mountains and the San Rafael Hills are identified in the Open Space and Conservation Element as the most significant physical landmarks in the community as these topographic features flank the central portion of the City.[2] The Open Space and Conservation Element further identifies visual and scenic resources as aesthetic functions that contain natural beauty such as lush or colorful vegetation, prominent topographical stature, unique physical features, and an interesting visual effect.[3] The Verdugo Mountains, San Gabriel Mountains, Santa Monica Mountains, and San Rafael Hills are generally visible from the portion of western Glendale where the Project site is located.

The Verdugo Mountains, located approximately 5 miles north of the Project site, are approximately 2,100 feet above the Project site and 2,600 feet above mean sea level. The Verdugo Mountains are visible from major north–south streets in the Project area. Due to existing development, views of the Verdugo Mountains are limited from the Project site.

1 City of Glendale, Open Space and Conservation Element, 3-2.

2 City of Glendale, 2-1.

3 City of Glendale, 4-37.

Views of the San Rafael Hills, located approximately 2.5 miles northeast of the Project site, are generally visible from major east–west streets in the area. The San Rafael Hills are approximately 400 feet above the Project site and 975 feet above mean sea level. Due to existing development, views of the Verdugo Mountains are limited from the Project site.

Views of the Santa Monica Mountains, located approximately 0.5 miles west of the Project site, are generally visible from major east–west streets in the area. The Santa Monica Mountains are approximately 1,000 feet above the Project site and 1,500 feet above mean sea level. Partial views of the Santa Monica Mountains are visible from W. Colorado Street and Pacific Avenue.

Scenic Routes

There are no designated scenic highways in the City of Glendale. The Open Space and Conservation Element of the General Plan identifies several "urban hikeways" in an effort to provide an opportunity for citizens and visitors to discover Glendale's unique urban form. Three self-guided routes cross through downtown Glendale highlighting the Financial/Fremont Park District, the Brand Shopping District, and the Civic Center District. The Project site is not located along these routes.

Light and Glare

Perceived glare is the unwanted and potentially objectionable sensation experienced from looking directly into a light source (e.g., the sun, its reflection, automobile headlights, other light fixtures or sources). Reflective surfaces on existing buildings, car windshields, etc., can expose people and property to varying levels of glare.

A significant light impact would typically occur if a proposed project would cause a substantial increase in ambient illumination levels beyond the property line and visible glare from either fixtures or illuminated surfaces.

Glare generation within the Project vicinity is limited. The existing commercial office space, daycare center, as well as the vacant lots, on the Project site create a low-to-moderate potential for glare from vehicle windows and surfaces during the daytime hours. The surrounding development consists predominately of buildings that generally lack large expanses of glass or other reflective materials.

The site and surrounding area currently have ambient nighttime light levels that are average for an urbanized area. Commercial uses adjacent to the Project site use typical levels of interior and exterior lighting for security, parking, signage, architectural highlighting, and landscaping. Likewise, the streets in the area also utilize nighttime lighting for visibility and safety purposes. Artificial light sources found on the site and in the surrounding area include security lights associated with parking lots, illuminated

signs, streetlights, stop lights along the major and secondary surface streets, automobile headlights, and associated locomotive lights.

Shade and Shadow

Shadow-sensitive receptors typically include residences (particularly yards), recreational facilities and parks, schools, and/or outdoor restaurants. A shadow is dependent on the height, size, and shape of the building from which shadow is cast and the angle of the sun. The angle of the sun varies with respect to the rotation of the earth and the earth's elliptical orbit. The longest shadows are cast during winter months and the shortest shadows are cast during the summer months. The shortest day of the year (i.e., the shortest day of the year and the longest night) is the winter solstice, which occurs in late December. The closest shadow-sensitive uses located within the vicinity of the Project site are the multifamily residential units and the single-family residential units located to the north.

Existing Visual Character

The Project site is visible from surrounding public streets and sidewalks including W. Colorado Street, S. Pacific Avenue, Kenilworth Avenue, and Oak Street. Although the Project site is visible from the surrounding multistory commercial and office buildings and potentially from the second or third floors of the multifamily residential buildings located on the west and south side of the Project site, these views are not public views.

For the purposes of this analysis, views of the Project are considered to be short-range views ranging from immediately adjacent to one-quarter mile away from the site. The following describes views of the Project site from a variety of perspectives.

Off-Site Views

Land uses surrounding the Project site include a 3-story commercial building to the west, four single-family residences, and two multifamily residences to the north; a gas station to the east; and the ICIS apartments along the southern frontage of W. Colorado Street. Buildings within this area range from one to five stories.

Figure 4.1-1, Photo Location Key, provides the location and viewshed of each photograph. **Figures 4.1-2** through **4.1-7, Existing Off-Site Views**, provide photographs of the surrounding area taken from vantage points along the edges of the Project site.

Figure 4.1-2, Existing Off-Site View 1, provides a view from the southern frontage of W. Colorado Street looking north and northeast, south of the Project site. As shown, short-range views are characterized by the existing day care center, commercial buildings, bushes, shrubs, street lights, and W. Colorado Street.

Midrange views include palm trees, power lines, and multifamily residences. Limited views of the Verdugo Mountains can be seen in the background. However, the view of the mountains is obstructed by the palm trees and the existing development located along W. Colorado Street.

Figure 4.1-3, Existing Off-Site View 2, provides a view from the southwest corner of W. Colorado Street and Pacific Avenue looking northwest towards the Project site. As shown, short-range views are characterized by street lights, landscaping, and W. Colorado Street. Midrange views include commercial structures and a restaurant along the southern frontage of W. Colorado Street and views of the existing day care center, vacated lots, bushes and street lights. Long distance views include the five-story ICIS apartment project, which is also located on the southern frontage of W. Colorado Street and views of the three-story commercial building on the northern frontage of W. Colorado Street. Portions of the Santa Monica Mountains can be seen in the background. However, the views of the mountains are obstructed by trees, the ICIS apartments and the three-story commercial building.

Figure 4.1-4, Existing Off-Site View 3, provides a view from the southeast corner of Kenilworth Avenue-Colorado Street Freeway Extension and W. Colorado Street looking northeast towards the Project site. As shown, short range views are characterized by commercial buildings and W. Colorado Street. Mid-range views include power lines, trees, a car repair shop, street signage, and a three-story commercial building. Long distance views include the view of the existing day care center on the Project site. Views of the Verdugo Mountains and San Rafael Mountains are obstructed by existing development.

Figure 4.1-5, Existing Off-Site View 4, provides a view from the northwest corner of Kenilworth Avenue and Oak Street looking southeast toward the Project site. As shown, short range views are characterized by trees and Oak Street. Midrange views include trees, single family residences, and multifamily residences. Long distance views are obstructed by existing development.

Figure 4.1-6, Existing Off-Site View 5, provides a view from the northern frontage of Oak Street looking directly south toward the Project site. Short distance views are characterized by trees and single-family residences. Midrange views are primarily obstructed by single family residences; however, the top portions of a three-story commercial building and the ICIS apartment project can be seen in the mid-ground. Long distance views are obstructed by existing development.

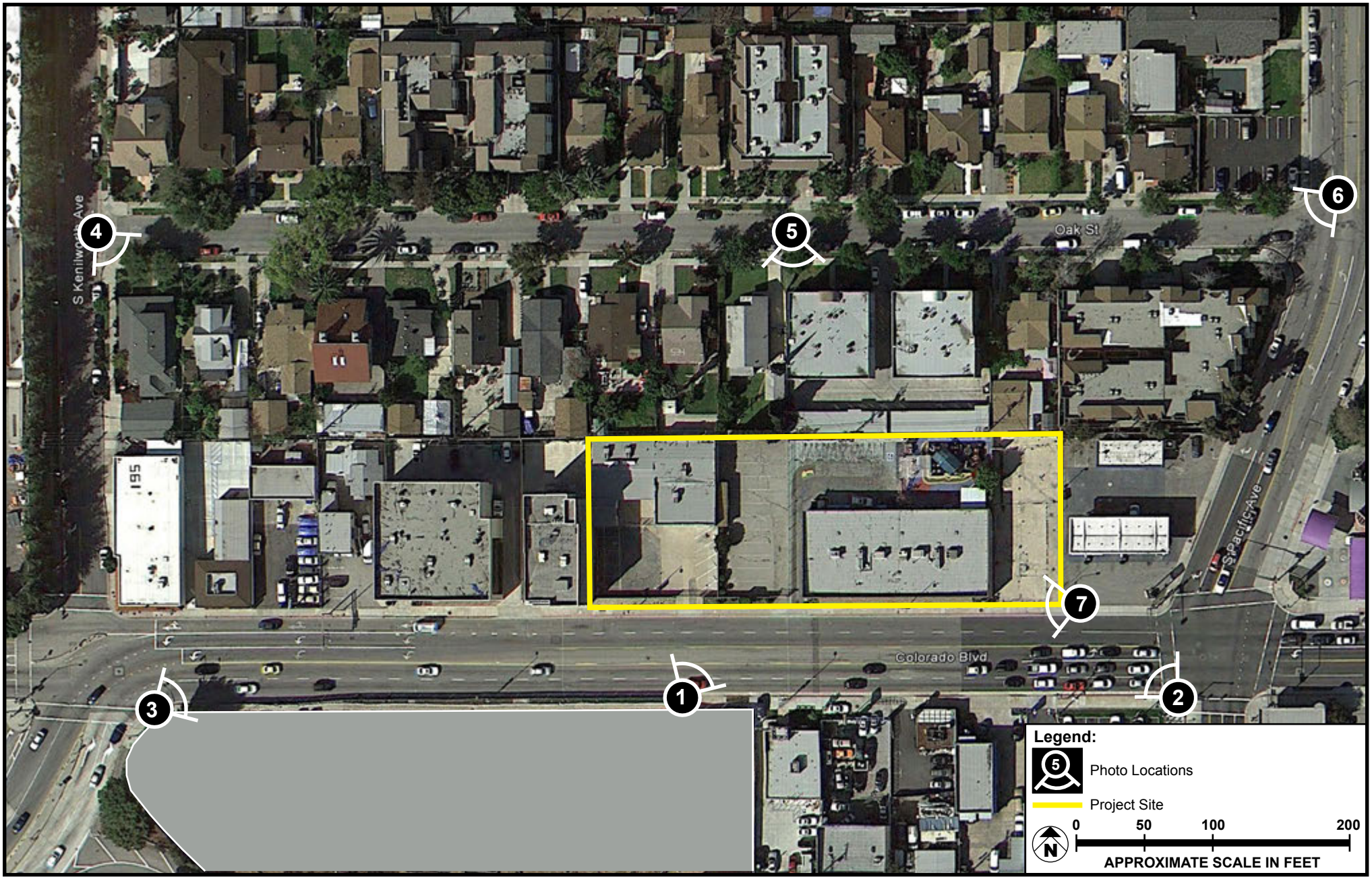
Figure 4.1-7, Existing Off-Site View 6, provides a view from the northeast corner of Oak Street and Pacific Avenue looking southwest toward the Project site. Short distance views are characterized by lights and Pacific Avenue. Midrange views include two-story multifamily residences, trees and lights. Long distance views include signal lights, a gas station and commercial buildings. Limited views of the

Santa Monica Mountains can be seen in the background; however, the views are largely obstructed by existing development.

On-Site Views

Figure 4.1-8, **Existing On-Site View 7**, provides photographs of the Project site from on-site vantage points. Current views from the Project site primarily consist of restaurants, the ICIS apartment project, and portions of the Santa Monica Mountains.

Figure 4.1-8 provides a view from the southern portion of the Project site looking west along W. Colorado Street. Short range views along the northern frontage of W. Colorado Street identify the front facing façade of the day care center, street lights, and street signage. Short range views along the southern frontage of W. Colorado Street include restaurants and a commercial building. Midrange views along the southern frontage of W. Colorado Street show the ICIS apartment project. Long distance views include portions of commercial buildings and a limited view of the Santa Monica Mountains.



SOURCE: Google Earth – 2013; Meridian Consultants, LLC – October 2013.

FIGURE **4.1-1**

Meridian Consultants

Photo Location Key

046-001-13

Located along the southern frontage of W. Colorado St. looking northeast towards the Project site

Located along the southern frontage of W. Colorado St. looking north towards the Project site

SOURCE: Meridian Consultants – October 2013

FIGURE **4.1-2**

Meridian Consultants

Existing Off-Site View 1

Located at the southwestern corner of W. Colorado St/Pacific Ave looking west/northwest towards the Project site

Located at the southwestern corner of W. Colorado St/Pacific Ave looking west towards the Project site

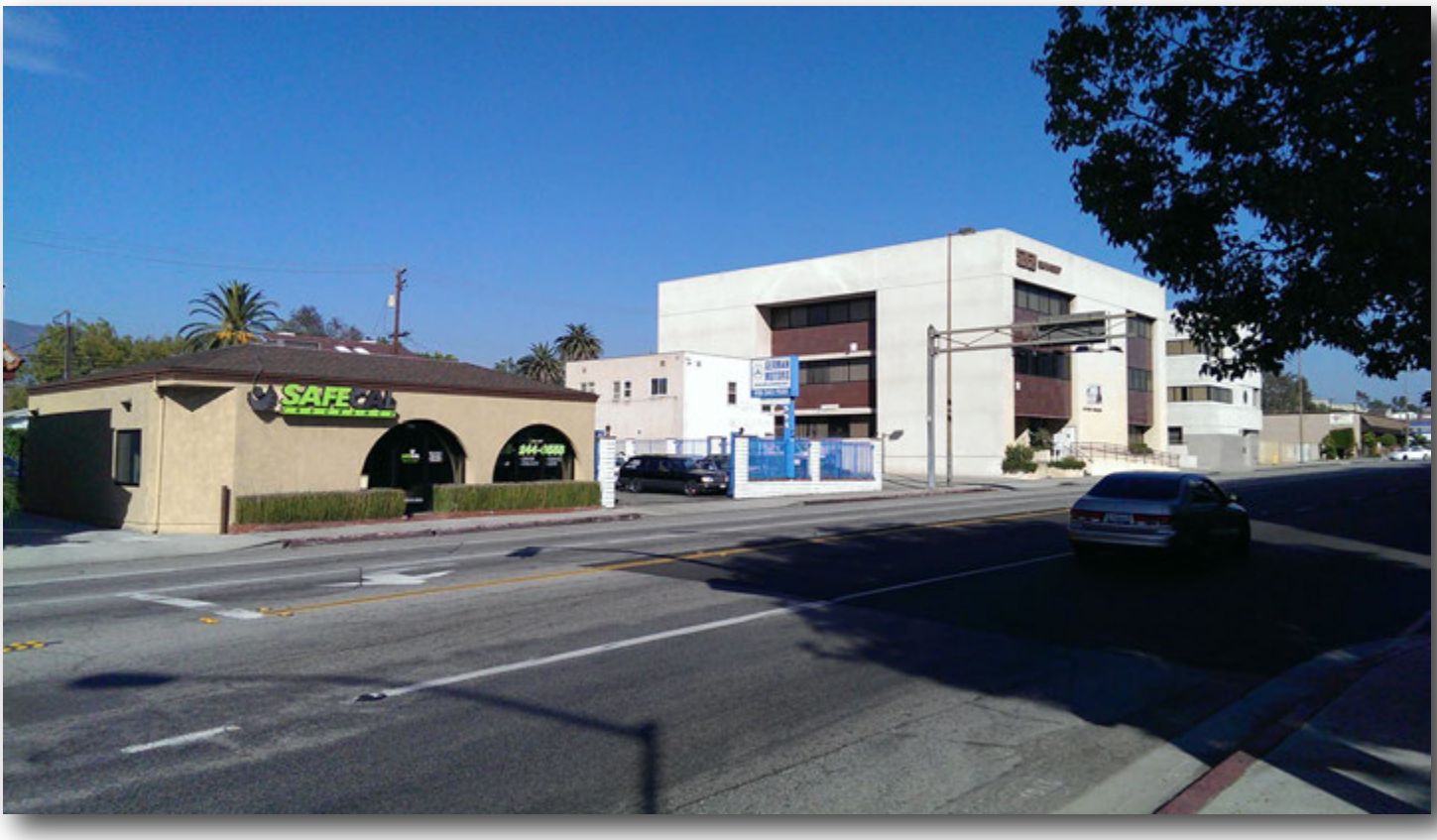
SOURCE: Meridian Consultants – October 2013

FIGURE **4.1-3**

Meridian Consultants

Existing Off-Site View 2

046-001-13



Located at the southeastern corner of W. Colorado St/Kenilworth St. looking northeast towards the Project site

SOURCE: Meridian Consultants – October 2013

FIGURE **4.1-4**

Meridian Consultants

Existing Off-Site View 3

Located at the northwestern corner of Kenilworth St./Oak St. looking southeast towards the Project site

SOURCE: Meridian Consultants – October 2013

FIGURE **4.1-5**

Meridian Consultants

Existing Off-Site View 4

046-001-13

Located along the northern frontage of Oak St looking south towards the Project site

SOURCE: Meridian Consultants – October 2013

FIGURE **4.1-6**

Meridian Consultants

Existing Off-Site View 5

Located at northeast corner of Pacific Ave/Oak St looking southwest towards the Project site

SOURCE: Meridian Consultants, LLC – November 2013.

FIGURE **4.1-7**

Meridian Consultants

Existing Off-Site View 6

046-001-13

Located at the southeast corner of the Project site looking west along W. Colorado St.

SOURCE: Meridian Consultants – October 2013

FIGURE **4.1-8**

Meridian Consultants

Existing On-Site View 7

046-001-13

Regulatory Setting

California Department of Transportation

California's Scenic Highway Program is administered by the California Department of Transportation (Caltrans) to preserve and protect scenic highway corridors from changes that would diminish views of the natural landscape. A scenic corridor is typically identified using a motorist's line of vision within a reasonable boundary. There are no designated State Scenic Highways within the City of Glendale.

City of Glendale

The City's *Urban Design Guidelines* address the aesthetic character of development in the City of Glendale and the San Fernando Road Corridor Redevelopment Project Area. These *Urban Design Guidelines* address the characteristics of open space and street spaces, ground floor uses and building design in relation to pedestrian movement, building height and bulk along with other design characteristics. The Community Development Department reviews projects for consistency with these guidelines through the City's Design Review process.

The guidelines provide qualitative criteria to communicate the design goals and guidelines for Glendale's open space system, building design, and transitions between commercial and residential areas. These standards address issues such as building heights and floor area ratios, building massing and scale, transitional massing, setback, frontage, and open space. As discussed in **Section 4.3, Land Use and Planning**, the proposed Project does not conflict with applicable plans, policies and ordinances related to design and aesthetics.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on aesthetic resources, if it would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway (issue is addressed in **Section 6.0, Effects Found Not To Be Significant**).
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

In addition to these thresholds from Appendix G of the State CEQA Guidelines, the creation of shade and shadow may also impact the environment. For the purposes of this analysis, the City of Glendale considers new shade and shadow patterns to be significant based on the threshold in use by the City in other environmental impact reports (EIRs) prepared and certified by the City:

- Shade currently unshaded uses located off the site that are sensitive to shadow, such as residences, school playgrounds, parks, etc., for more than two continuous hours between 9:00 AM and 3:00 PM during the winter, or 9:00 AM and 5:00 PM during the summer.

Methodology

Each applicable threshold of significance is listed in the following sections followed by analysis of the significance of potential impacts and the identification of mitigation measures that would lessen or avoid potential impacts. Finally, the significance of potential impacts after implementation of all identified mitigation measures is presented.

Project Impacts

Threshold: Have a substantial adverse effect on a scenic vista.

The Project site is located in a highly developed urban area. As indicated in the Glendale Open Space and Conservation Element, the primary scenic vistas throughout Glendale are the Verdugo Mountains and the San Rafael Hills. From the Project area, existing scenic vistas from the Project site are limited to the long-range views of the San Rafael Hills to the east and the Santa Monica Mountains to the west. The Santa Monica Mountains are not considered a valued visual resource according to the Open Space and Conservation Element of the Glendale General Plan, as those mountains do not contain lush or colorful vegetation, distinctive relief features, or an interesting visual effect compared with more prominent mountain ranges in the area (i.e., Verdugo Mountains, San Rafael Hills). As shown in **Figures 4.1-2** to **4.1-7,** due to the highly developed nature of the area, long-distance views of these mountains are mostly limited as existing buildings block or obstruct the views from other locations on and around the site.

Existing views across the site would be modified with Project development. Development of the Project would provide views of these visual resources from the upper floors and outdoor terraces on the second and fifth floors. The mass of the proposed structures would potentially impact views across the Project site towards the Verdugo Mountains to the north and the San Rafael Hills to the east. However, as discussed previously, existing views across the site towards the Verdugo Mountains are currently obstructed. While portions of the San Rafael Hills are visible from this portion of the City, views of the mountains from the Project site are also obstructed by existing development and vegetation.

Some private views may be affected by the site development. In particular, the ICIS apartment project located to the south of the Project site would experience an altered view based on the orientation of their apartment and window placement. These views presently include the existing development at the Project site, the office buildings along W. Colorado Street, and views of the Verdugo Mountains and San Rafael Hills. Under CEQA, an impact on views is considered significant if a view of a public scenic vista or a public object of visual significance is substantially impeded or obstructed from a public vantage point. As discussed previously, the Project would not intrude into views of the mountains from the public right of way.

In addition, the maximum height of the structures associated with the Project would be approximately 60 feet above adjacent grade, which is the maximum height permitted in the Commercial/Residential Mixed Use zone. The height of the proposed structures would not significantly obstruct views across the Project site as existing views of the Verdugo and San Rafael Mountains are already obstructed. As a result, development of the Project, as proposed, would not worsen the availability of on-site views toward the Verdugo and Santa Monica Mountains or the San Rafael Hills.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Substantially degrade the existing visual character or quality of the site and its surroundings.**

Visual character is typically influenced by various landscape attributes including but not limited to color contrasts, repetition of geometric forms, diversity of textures, and landform prominence. The Project site is characterized by a single-story commercial building, a daycare center, and two vacant lots. The nearest sensitive use to the Project site is the multifamily residential buildings and single-family buildings to the north and oriented away from the Project. Commercial businesses and mixed use units which range in height from one to five stories characterize the area to the west, east, and south.

The Project site is located in the western portion of the City of Glendale within the San Fernando Road Corridor Redevelopment Project Area. A main objective of the redevelopment plan is to intensify development on underutilized land.[4] The proposed Project's use and design would be compatible with

4 Glendale Redevelopment Agency, *San Fernando Road Corridor Redevelopment Project Final EIR*, 3.6-7 (1992).

the goals in the San Fernando Road Corridor Redevelopment Project Area and the Commercial/Residential Mixed Use zone. The Project will be required to undergo a joint Stage I/II City design review to ensure conformance. The Project site does not contain any scenic resources or landmark features. The Project would not obstruct any prominent unique public view or result in the creation of an aesthetically offensive site. The visual character of the surrounding area is typical of an urbanized development. Once constructed, the Project would add to the diverse urban style along W. Colorado Street and would maintain the intent and character of the San Fernando Road Corridor Redevelopment Project Area and the Commercial/Residential Mixed Use zone.

Development of the Project would alter the existing visual characteristics of the site and its vicinity by adding new visual elements to the Project site. The Project consists of a five-story building with medical office space and restaurant, counter service with limited seating on the ground floor and multifamily residential units (located on the second through fifth floors), landscaping and a drive -through drop -off area that would be different than existing uses that occupy the Project site. In general, the Project elements to be introduced would improve the aesthetic character of the site given the architectural design of the Project; the use of design elements, such as landscaped view corridors, and walkways; and the comprehensive landscape plan to be implemented. The proposed building would be taller than the existing buildings east, west, and north of the site. The Project would result in a smaller mass and height when compared to the existing five-story, mixed use development (ICIS apartment project) south of the site. The architectural design would result in a visually compatible structure when compared to the surrounding uses while improving site conditions. Furthermore, the Project would provide canopy and ground cover plant materials (i.e., trees, shrubbery, flowers) along W. Colorado Street and within the northwestern portion of the Project site, thus improving the visual character of the Project site.

See **Section 3.0, Project Description, Figure 3.0-6**, **East and South Elevations** and **Figure 3.0-7, West and North Elevations**, which illustrate the general massing of the proposed structure and level of detail along W. Colorado Street. As shown in **Figures 3.0-6** and **3.0-7**, the Project would be designed as a contemporary structure utilizing various building materials in conformance with the Commercial/Residential Mixed Use design guidelines. The Project incorporates a number of angular structures that have been designed to provide privacy for adjacent neighbors, to attract the passerby along W. Colorado Street, and increase open spaces on the ground floor near the northwest portion of the site and along the frontage of W. Colorado Street. In addition, these elevations illustrate the primary building materials proposed for the exterior building, including stucco, concrete and metal. The Project would be developed with a building at a height of five stories (60 feet) and a floor to area ratio (FAR) of 2.60.

The Project would improve the aesthetic character of the site, given the architectural design of the Project and the use of design elements, such as the comprehensive landscape plan to be implemented along the view corridors and in the northwest portion of the Project site, and the structural setback from neighboring properties. The landscaping plan includes drought-tolerant trees, shrubbery, flowers, and ground cover. When and where feasible, the Project would also include the use of local and sustainable materials. Landscaping would be located on the frontage of W. Colorado Street, courtyards, and internal open spaces. All supporting infrastructure, such as telecommunications equipment and utility lines, would be placed underground or screened from public view. While the proposed buildings will be taller than the existing buildings currently located at the site, the architectural design will result in the massing of the buildings being visually compatible and actually improving site conditions. Finally, any form of signage associated with the Project would meet the standards and programs contained in the *Glendale Municipal Code*, and no adverse impact is expected to result.

Given the existing urban aesthetic context and objectives of the Redevelopment Plan for the San Fernando Road Corridor, development of the Project would not substantially degrade the existing visual character or quality of the Project site and its surroundings, and no significant impact to the visual character of the site and the surrounding area would result. Development of the Project, as proposed, would improve the visual character of the site and the surrounding areas of W. Colorado Street, and the change in visual character of the site would not degrade the existing visual character or quality of the site and its surroundings.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.**

Substantial light or glare can result from the installation of high-intensity lighting fixtures or the use of highly reflective glass or other building materials. Headlights from vehicles can also create light or glare if sensitive uses are affected.

Lighting would be established on the site during construction. Lighting used during construction would consist primarily of security lights, although lighting may be used for construction activities occurring during morning or evening hours, particularly in the winter. This lighting would be temporary in nature and would not result in any substantial long-term light or glare impacts.

The proposed structure would consist of light-and cool-colored exterior wall materials balanced with low-reflective glass materials. Primary building materials proposed for the exterior of the building include stucco, concrete, exterior metal, and glass. As illustrated in **Section 3.0, Project Description, Figure 3.0-5**, **Overall Landscape Plan,** the proposed landscaping at the street level would consist of street trees, ground cover, and shrubs to enhance the pedestrian environment. Highly polished materials or highly reflective metal material and glass that could reflect light and create glare are not proposed. No substantial glare impacts from building materials would result from the proposed Project.

Development of the proposed Project would establish new permanent sources of lighting that would increase the current low-intensity level of light on the site. The lighting proposed would be limited to the amount required to safely light the driveway, the sidewalks along W. Colorado Street, the open space and the courtyard areas within the Project site. All outdoor lighting would be directed onto the driveway, walkways, and public areas and away from adjacent properties and public rights-of-way to avoid any potential light or glare impacts. Therefore, the new on-site lighting would not result in substantial increases in light or glare that would affect any light-sensitive uses on or near the site, such as the residential units north of the Project site.

The drive-through drop-off area and driveway entrance for the subterranean parking structure is located opposite the ICIS apartment project, which contains retail uses on the ground floor and apartment units on the second through fifth floors. No substantial light or glare impacts from vehicles entering and exiting the parking garage or drive-through drop-off area would occur as a result of the Project design. Therefore, the Project would not result in substantial light or glare impacts.

Direct and indirect lighting would be used for signage to be placed on building façades. Signage lighting would be focused onto sign surfaces and would generally be of low-to-medium brightness. All proposed signage and associated lighting would be subject to signage regulations and programs included in the *Glendale Municipal Code*. Therefore, lighting associated with signs would not result in substantial light or glare impacts.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Shade currently unshaded uses located off the site that are sensitive to shadow, such as residences, school playgrounds, parks, etc., for more than 2 continuous hours between 9:00 AM and 3:00 PM during the winter, or 9:00 AM and 5:00 PM during the summer.**

The potential shade and shadow impacts of the proposed Project were analyzed by preparing a computer model of the proposed structures on the Project site and simulating the shadows that would be created by these new structures.

Simulations of the shadows that would be created by the proposed buildings were prepared for the summer and winter solstices, June 21 and December 21, from 8:00 AM to 5:00 PM. However, the following periods of time are used as the threshold by the City because they represent the portion of the day during which maximum seasonal shading would occur:

- Summer Solstice June 21 9:00 AM to 5:00 PM
- Winter Solstice December 21 9:00 AM to 3:00 PM

Figure 4.1-9, Summer Solstice 9 AM to 12 PM and **Figure 4.1-10, Summer Solstice 1 PM to 5 PM** present the illustrative graphic findings of shade and shadow patterns cast by the Project at 9:00 AM, 10:00 AM, 11:00 AM, 12:00 PM, 1:00 PM, 2:00 PM, 3:00 PM, 4:00 PM, and 5:00 PM during the summer solstice. **Figure 4.1-11, Winter Solstice 9 AM to 12 PM** and **Figure 4.1-12, Winter Solstice 1 PM to 3 PM,** present the illustrative graphic findings of shade and shadow patterns cast by the Project at 9:00 AM, 10:00 AM, 11:00 AM, 12:00 PM, 1:00 PM, 2:00 PM, and 3:00 PM during the winter solstice. The computer model used for the simulations illustrates that some shadows fall around the adjacent buildings to the north and east shadows would naturally fall around these buildings given that they are shorter than the proposed Project and the Project would not shade open areas as shown in **Figures 4.1-9** through **4.1-12**. If there were no adjacent buildings, then the shadows would fall flat on the plane.

As shown in these figures, shadows cast by the proposed Project would not significantly affect nearby residential uses to the north of the Project site. Commercial and office land uses are located to the west and east of the site. The mixed use ICIS apartment project is located south of W. Colorado Street south of the Project site. No shadow impacts would occur along the southern portion of W. Colorado Street given the placement of the proposed Project relative to the sun's rising and setting patterns. The modeling demonstrates that shadows cast on adjacent sensitive properties during the primary summer and winter daytime periods would not extend beyond the 2-hour standard.

As discussed previously, residential uses adjacent to the north are the closest sensitive uses to the Project site. Shade impacts on these adjacent land uses would increase and/or decrease progressively as the Earth rotates; shadows cast on these sensitive land uses are anticipated to be their greatest during the winter solstice period from 9:00 AM to 11:00 AM and 2:00 PM to 3:00 PM (see **Figures 4.1-11** and **4.1-12**). The single family backyards north of the site would be partially shaded between these hours. The rear portion of the multifamily lots north of the site contains covered parking spaces associated with the multifamily units. However, the duration of the shadows cast on the adjacent residential development does not exceed the 2-hour standard.

Shade cast on land uses that are not considered sensitive uses (i.e., commercial or office buildings, parking structures) are not a part of this analysis given that sunlight is not as important to the function of commercial and office uses. The shading of adjacent residential properties by the proposed buildings would only occur for a short duration during the day and only for a small portion of the year. The impact of shade and shadows cast by the proposed Project on sensitive land uses is considered less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

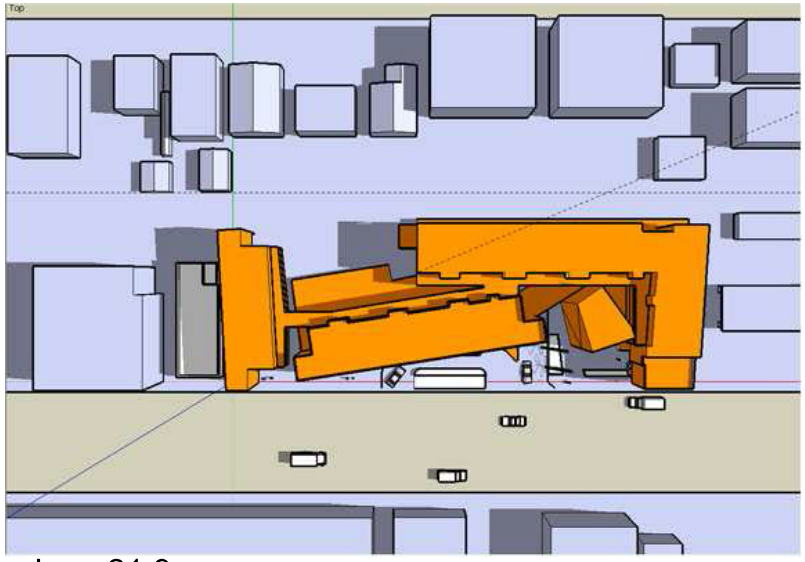
Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

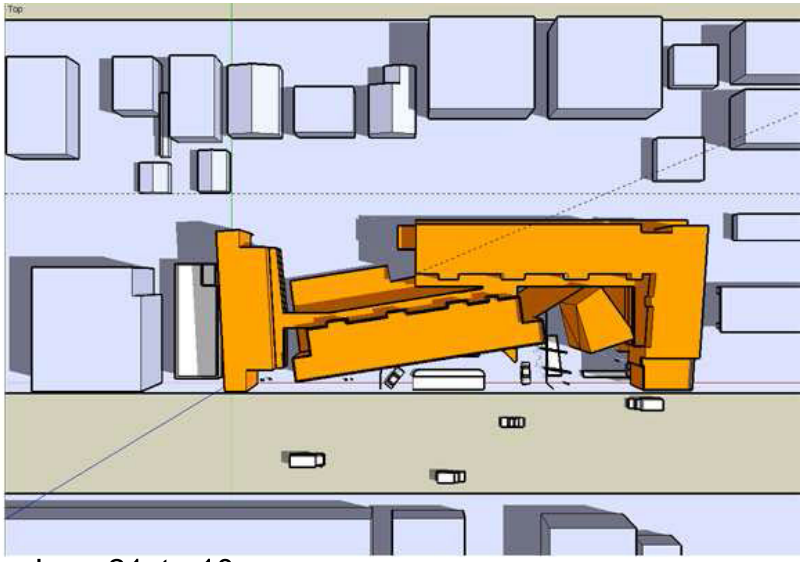
Threshold: **Have a substantial adverse effect on a scenic vista.**

As described in **Section 4.0, Environmental Impact Analysis**, the nearest related project is the Central and Wilson Project located at 130 North Central Avenue and is approximately 0.6 miles northeast from the Project site. The Central + Wilson Project consists of 4,900 square feet of commercial space (Option A) or 5 live/work units (Option B) and 153 multifamily dwelling units. The project has been approved with an approved Development Agreement for a 14-year entitlement period and would have the potential to change the visual character of the surrounding area.

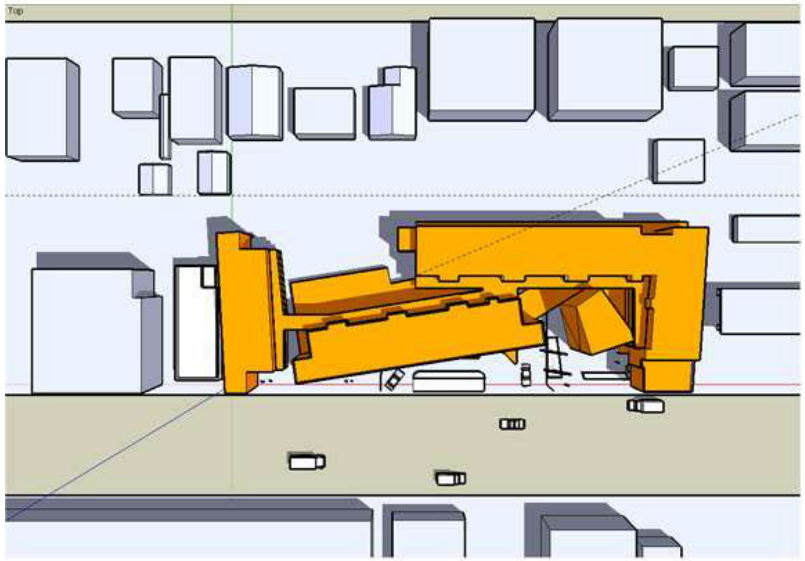
It is anticipated that all other related projects would be designed to include quality architecture and landscape design features in accordance with the City's Design Guidelines based on their location (i.e., outside or inside the downtown area) and their proposed use. As discussed, views of the Verdugo Mountains to the north, the San Rafael Hills to the east and the Santa Monica Mountains to the west of the Project area are partially obstructed by surrounding development. In addition, the Santa Monica



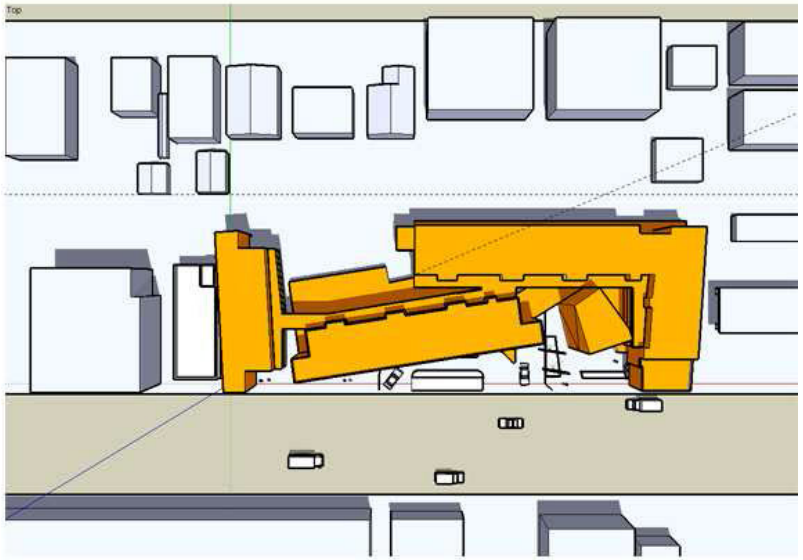
June 21 9am



June 21st 10am



June 21st 11am



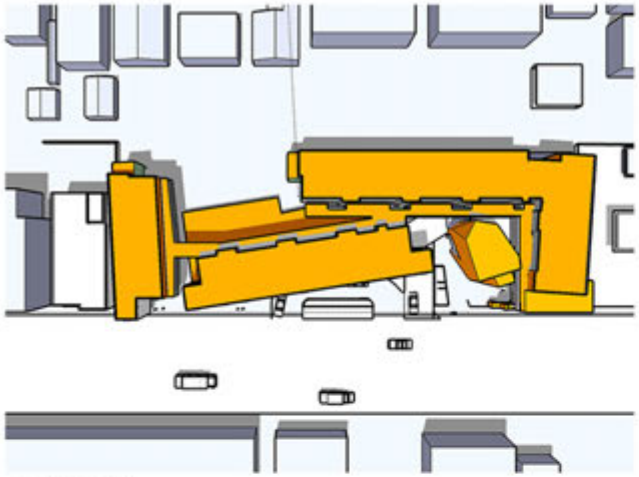
June 21st 12 noon

SOURCE: ArquiTaller Inc. – October 2013

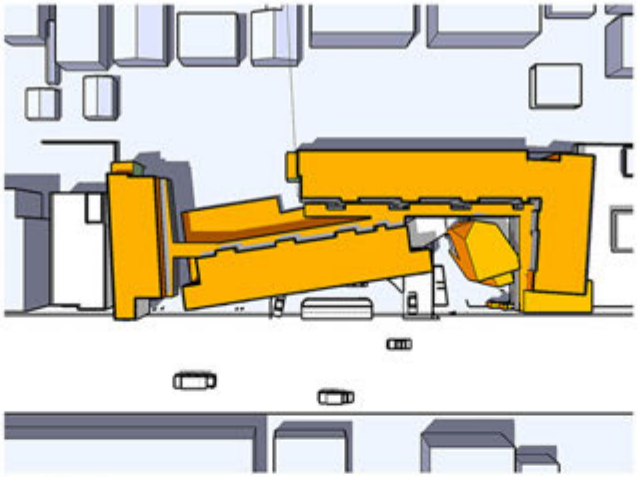
FIGURE **4.1-9**

Meridian Consultants

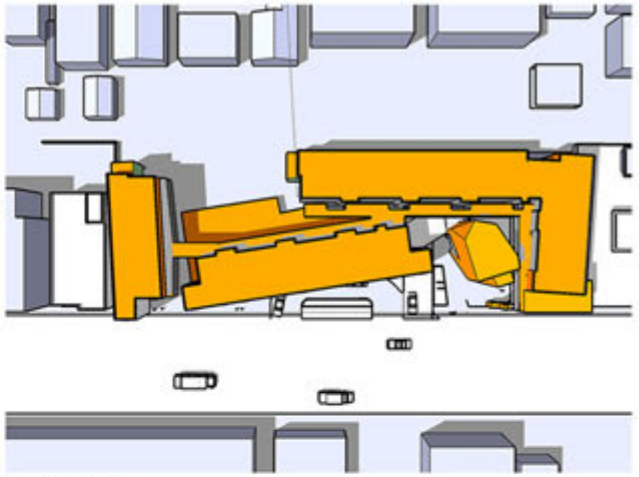
Summer Solstice 9 AM to 12 PM



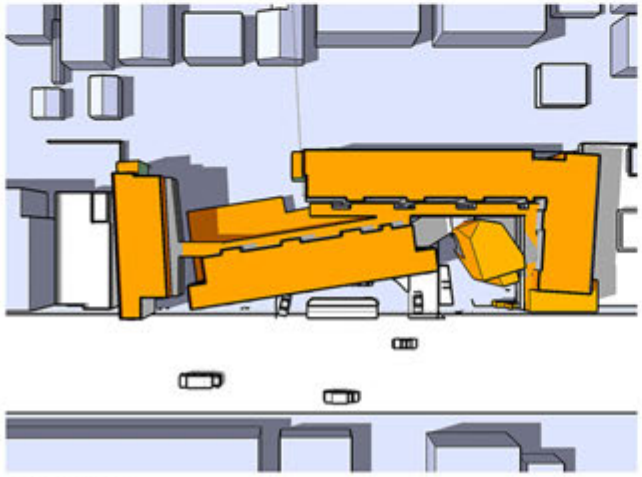
June 21st 1pm



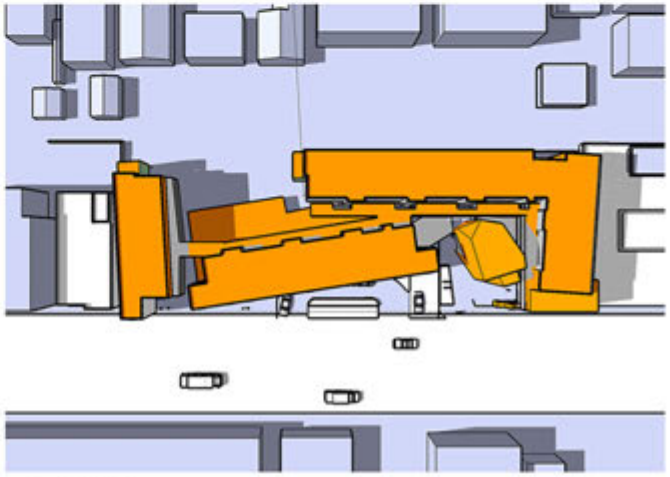
June 21st 2pm



June 21st 3pm



June 21st 4pm



June 21st 5pm

N

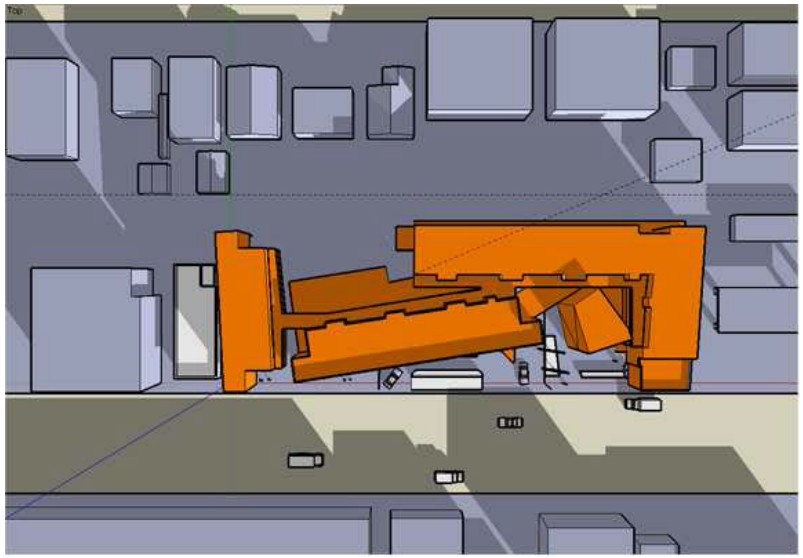
SOURCE: ArquiTaller Inc. – December 2013

FIGURE **4.1-10**

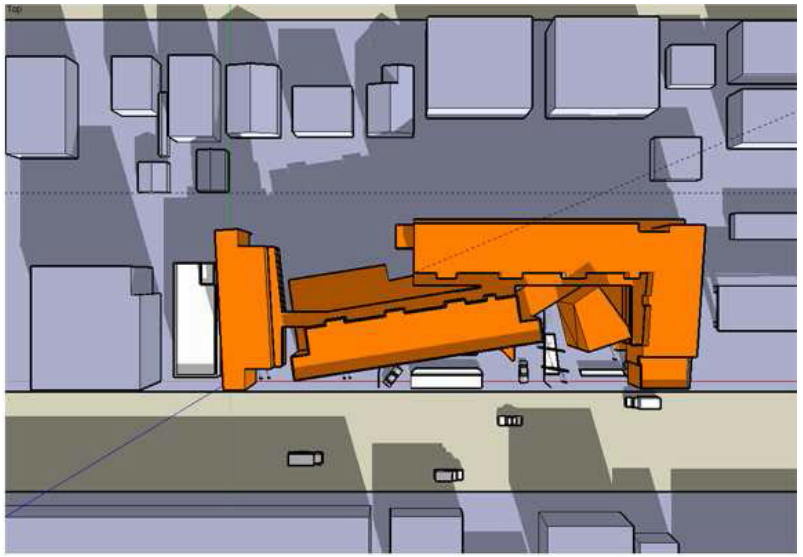
Meridian Consultants

Summer Solstice 1 PM to 5 PM

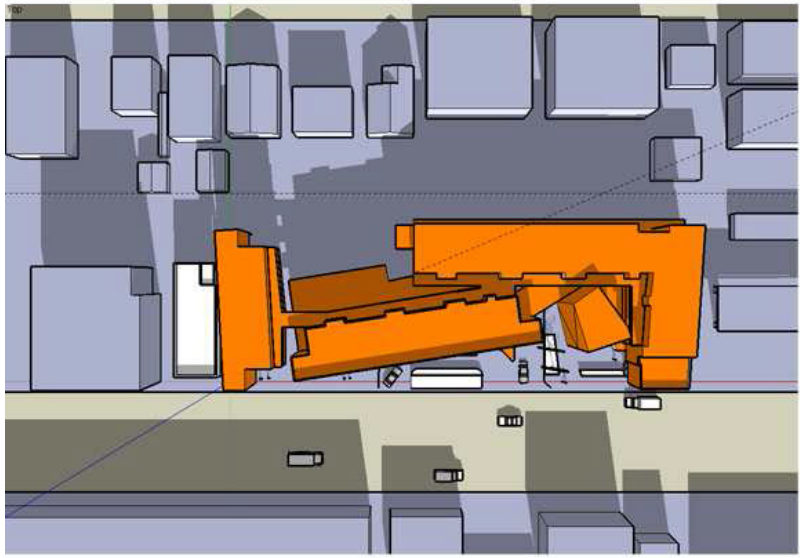
046-001-13



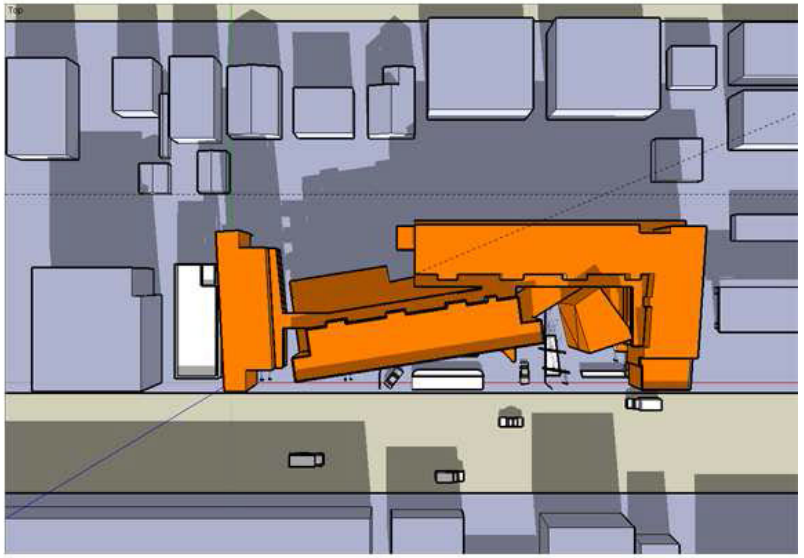
December 21st 9am



December 21st 10am



December 21st 11am



December 21st 12 noon

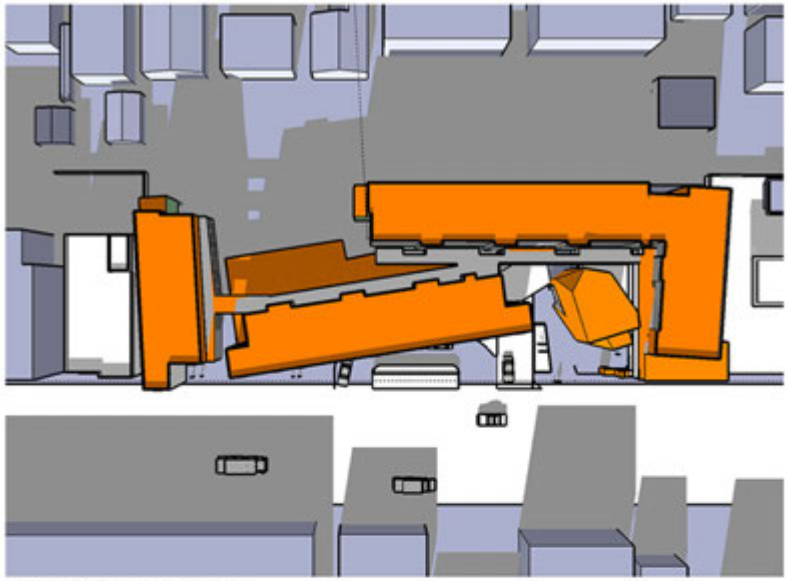
SOURCE: ArquiTaller Inc. – October 2013

FIGURE **4.1-11**

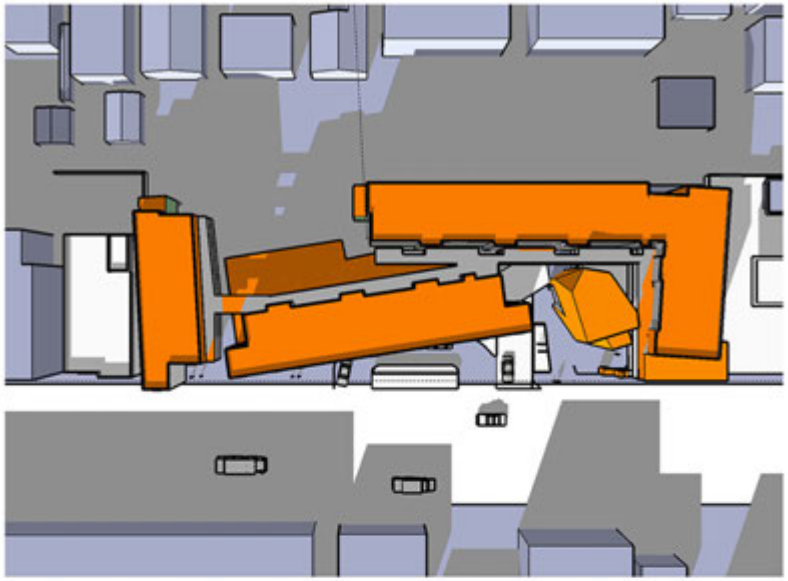
Meridian Consultants

Winter Solstice 9 AM to 12 PM

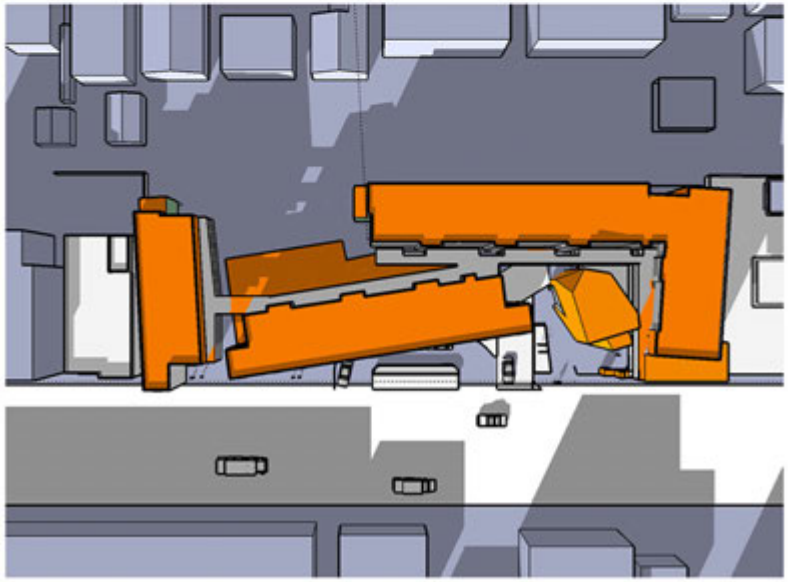
046-001-13



December 21st 1pm



December 21st 2pm



December 21st 3pm

SOURCE: ArquiTaller Inc. – December 2013

FIGURE **4.1-12**

Meridian Consultants

Winter Solstice 1 PM to 3 PM

Mountains are not considered a valued visual resource according to the Open Space and Conservation Element of the *Glendale General Plan*. Therefore, a potential cumulative impact would not result from the development of the Project in combination with other related projects. Therefore, the cumulative impact of the Project would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Substantially degrade the existing visual character or quality of the site and its surroundings.**

The Central + Wilson project would involve the redevelopment of a site that presently contains commercial buildings and associated surface parking. The Central + Wilson Project, like the proposed Project, was subject to the City of Glendale *Urban Design Guidelines* and Agency Design Review process and has already been approved. The combined development on the proposed Project and Central + Wilson sites would improve the local visual character, which is currently characterized by mostly one- to two-story buildings that contain few windows or other architectural design features and minimal landscaping. No significant cumulative impact on the existing local visual character, therefore, would result from the development of these two projects.

Development of the related projects would gradually change the character of the City of Glendale. As noted previously, the related projects would be designed to include quality architecture and landscape design features in accordance with the City's Design Guidelines based on their location and proposed use. Overall, the modifications to the visual character from the related projects would not necessarily result in the degradation of the surrounding area. These related projects would be required to mitigate individual project-level impacts as appropriate. Overall, the visual character in the central and western portion of the City would not change from being a predominately urban environment. Therefore, the Project would result in a less than significant contribution to significant impacts related to cumulative visual character.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.**

The proposed Project and the Central + Wilson Project would add lighting typical of commercial and residential developments in the area. This includes directed lighting for architectural accents, signage, and security focused onto surfaces to be lit, such as building details, landscape elements, signs, and pedestrian areas. The related project is sufficient distance from the proposed Project that cumulative light and glare impact would not result. In addition, lighting plans for both projects would be reviewed by the City of Glendale during the Design Review process and cumulative light or glare impacts would be less than significant (Please note that the Central + Wilson has already been reviewed and approved). As discussed previously, the structures on the proposed Project would consist of light-and cool-colored exterior wall materials and would be balanced with low-reflective glass materials. Proposed building materials associated with the Central + Wilson Project would not be permitted to be highly reflective. No cumulative glare impacts from reflective building materials would result.

Development of the Project in conjunction with other cumulative projects would gradually result in an increase in the light in the City of Glendale. The proposed Project's individual impacts are less than significant. The proposed Project is intensifying land uses within the guidelines and perimeters provided in the San Fernando Road Corridor Redevelopment Project Area and the Commercial/Residential Mixed Use zone. The majority of the related projects are a sufficient distance away from the proposed Project that cumulative light and glare impacts would not result. Each related project is evaluated individually at its proposed location with respect to its potential impact on sensitive land uses. Given that the Project would not result in a Project-level significant impact, it would not contribute to a significant cumulative impact related to light intrusion and glare.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Shade currently unshaded uses located off the site that are sensitive to shadow, such as residences, school playgrounds, parks, etc., for more than 2 continuous hours between 9:00 AM and 3:00 PM during the winter, or 9:00 AM and 5:00 PM during the summer.**

The Central + Wilson Project EIR concluded that the project would not have an individual or cumulative impact on existing residential land uses in the vicinity. The proposed Project does not exceed the 2-hour

standard for shade on sensitive land uses. The Project is not anticipated to result in a Project-level significant impact. No cumulative impacts would result from the development of both projects.

Potential shade and shadow impacts are directly related to the proximity of the Project to adjacent uses. Potential shade and shadow impacts from the related projects, located throughout the City, would not result in a cumulatively considerable impact. Each project would be required to mitigate any project-level impact in accordance with the standards and design guidelines set forth in the City's General Plan and Specific Plan areas. Therefore, the proposed Project, when considered with the related past, present, or reasonably foreseeable future projects, would result in a less than significant cumulative impact.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

4.2 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

This section describes and evaluates the potential air quality and greenhouse gas (GHG) impacts from the Project. The Project Site is located within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). In assessing air quality and GHG impacts, the following sources were considered: emissions from equipment that will be used during construction-related activities, operational-related emissions generated from electricity and water use, and emissions from motor vehicles generated by trips to and from the Project site. This section incorporates information from the air quality emissions calculations contained in **Appendix 4.2**.

ENVIRONMENTAL SETTING

Existing Conditions

Air Quality

Air pollutant emissions within the region are primarily generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack at a facility. Area sources are widely distributed and can include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, parking lots, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles. The main source of pollutants near the Project area includes mobile emissions generated from on-road vehicles. Traffic-congested roadways and intersections have the potential to generate localized high levels of carbon monoxide (CO). Localized areas where ambient concentrations exceed state and/or federal standards are termed CO “hotspots”.

The U.S. Environmental Protection Agency (EPA) is the federal agency responsible for setting the National Ambient Air Quality Standards (NAAQS). Air quality of a region is considered to be in attainment of the NAAQS if the measured ambient air pollutant levels are not exceeded more than once per year, except for ozone, particulate matter (PM10), and fine particulate matter (PM2.5) and those based on annual averages or arithmetic mean. The NAAQS for ozone, PM10, and PM2.5 are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The California Air

Resources Board (CARB) is the state agency responsible for setting the California Ambient Air Quality Standards (CAAQS). Air quality of a region is considered to be in attainment of the CAAQS if the measured ambient air pollutant levels for ozone, CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), PM10, PM2.5, and lead are not exceeded, and all other standards are not equaled or exceeded at any time in any consecutive 3-year period.

A brief description of the criteria pollutants is provided.

- Ozone (O3). O3 is a gas that is formed when volatile organic compounds (VOCs) and oxides of nitrogen (NOX), both byproducts of internal combustion engine exhaust and other sources that undergo slow photochemical reactions in the presence of sunlight. O3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.

- Volatile organic compounds (VOCs). VOCs are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Adverse effects on human health are not caused directly by VOCs, but rather by reactions of VOCs to form secondary air pollutants, including O3. VOCs are also referred to as reactive organic compounds (ROCs) or reactive organic gases (ROGs). VOCs themselves are not "criteria" pollutants; however, they contribute to the formation of O3.

- Nitrogen dioxide (NO2). NO2 is a reddish-brown, highly reactive gas that is formed in the ambient air through the oxidation of nitric oxide (NO). NO2 is also a byproduct of fuel combustion. The principle form of NO2 produced by combustion is NO, but NO reacts quickly to form NO2, creating the mixture of NO and NO2, referred to as oxides of nitrogen (NOX). NO2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NOX is only potentially irritating. NO2 absorbs blue light, the result of which is a reddish-brown cast to the atmosphere and reduced visibility.

- Carbon monoxide (CO). CO is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, and because motor vehicles operating at slow speeds are the primary source of CO in the basin, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

- Sulfur dioxide (SO2). SO2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high–sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO2 oxidizes in the atmosphere, it forms sulfates (SO4).

- Respirable particulate matter (PM10). PM10 consists of extremely small, suspended particles or droplets 10 microns or smaller in diameter. Some sources of PM10, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM10 is caused by road dust, diesel soot, combustion products, the abrasion of tires and brakes, and construction activities.

- Fine particulate matter (PM2.5). PM2.5 refers to particulate matter that is 2.5 micrometers or smaller in size. The sources of PM2.5 include fuel combustion from automobiles, power plants, wood burning, industrial processes, and diesel-powered vehicles such as buses and trucks. These fine particles are also formed in the atmosphere when gases such as SO2, NOx, and VOCs are transformed in the air by chemical reactions.

- Lead (Pb). Pb occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the basin. The use of leaded gasoline is no longer permitted for on-road motor vehicles, so most such combustion emissions are associated with off-road vehicles, such as racecars, that use leaded gasoline. Other sources of Pb include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and secondary lead smelters.

For evaluation purposes, the SCAQMD has divided its territory into 36 source receptor areas (SRA) with operating monitoring stations in most of the SRAs. These SRAs are designated to provide a general representation of the local meteorological, terrain, and air quality conditions within the particular geographical area.

The City of Glendale, within Los Angeles County, California, is within the South Coast Air Basin (SCAB). The SCAB is a 6,600-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, in addition to the San Gorgonio Pass area in Riverside County.

The Project site is within SRA 7 within the South Coast Air Basin. SCAQMD operates an air monitoring station in SRA 7 in the east San Fernando Valley. **Table 4.2-1, Air Quality Monitoring Summary,** summarizes published monitoring data from 2009 through 2011, the most recent 3-year period available. The data shows that, during the past few years, SRA 7 has exceeded the ozone, PM10, and PM2.5 standards.

The EPA and the CARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified”. Federal nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

Table 4.2-1
Air Quality Monitoring Summary

Air Pollutant	Averaging Time (Units)	2009	2010	2011
Ozone (O_3)	Max 1 hour (ppm)	0.145	0.111	0.120
	Days > CAAQS threshold (0.09 ppm)	16	3	8
	Max 8 hour (ppm)	0.096	0.084	0.084
	Days > CAAQS threshold (0.07 ppm)	28	11	10
	Days > NAAQS threshold (0.075 ppm)	14	4	6
Carbon monoxide (CO)	Max 1 hour (ppm)	3	3	ND[a]
	Days > CAAQS threshold (20 ppm)	0	0	0
	Days > NAAQS threshold (35 ppm)	0	0	0
	Max 8 hour (ppm)	2.9	2.4	2.4
	Days > CAAQS threshold (9.0 ppm)	0	0	0
	Days > NAAQS threshold (9 ppm)	0	0	0
Nitrogen dioxide (SO_2)	Mean (ppm)	0.027	0.024	0.022
	Max 1 hour (ppm)	0.09	0.082	0.068
	Days > CAAQS threshold (0.18 ppm)	0	0	0
Sulfur dioxide (SO_2)	Max 24 hour (ppm)	0.003	0.004	0.009
	Days > CAAQS threshold (0.04 ppm)	0	0	0
	Days > NAAQS threshold (0.14 ppm)	0	0	0
Suspended particulate matter (PM10)	Mean ($\mu g/m^3$)	39.2	29.6	28.4
	24 hour ($\mu g/m^3$)	80	51	61
	Days > CAAQS threshold (50 $\mu g/m^3$)	11	1	2
	Days > NAAQS threshold (150 $\mu g/m^3$)	0	0	0
Fine particulate matter (PM2.5)	Mean ($\mu g/m^3$)	14.4	12.5	13.2
	24 hour ($\mu g/m^3$)	67.5	43.7	47.8
	Days > NAAQS threshold (35 $\mu g/m^3$)	4	4	5

Source: South Coast Air Quality Management District, "Historical Data by Year," http://www.aqmd.gov/smog/historicaldata.htm (2013).
Note: > = exceed; CAAQS = California Ambient Air Quality Standard; max = maximum; mean = annual arithmetic mean; $\mu g/m^3$ = micrograms per cubic meter; ND = no data ; NAAQS = National Ambient Air Quality Standard; ppm = parts per million.
[a] *One hour CO is not reported.*

The current attainment designations for the South Coast Air Basin are shown in **Table 4.2-2, South Coast Air Basin Attainment Status**. The South Coast Air Basin is currently designated as being in nonattainment for the federal ozone, carbon monoxide, nitrogen dioxide, lead, PM10, and PM2.5 and unclassified for the federal sulfur dioxide, nonattainment for the State ozone, nitrogen dioxide, lead, PM10 and PM2.5 standards. Areas where air pollution levels persistently exceed the state or national ambient air quality standards may be designated "nonattainment".

Table 4.2-2
South Coast Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone (O_3)	Extreme Nonattainment	Extreme Nonattainment
Carbon monoxide (CO)	Attainment	Serious Nonattainment
Nitrogen dioxide (NO_2)	Nonattainment	Nonattainment
Sulfur dioxide (SO_2)	Attainment	Unclassified
Lead (Pb)	Nonattainment	Nonattainment
Suspended particulate matter (PM10)	Nonattainment	Serious Nonattainment
Fine particulate matter (PM2.5)	Nonattainment	Nonattainment

Sources: CARB, "Area Designations Maps/State and National," http://www.arb.ca.gov/desig/adm/adm.htm (accessed February 22, 2013). EPA, The Green Book Nonattainment Areas for Criteria Pollutants, http://www.epa.gov/air/oaqps/greenbk/index.html (accessed October 24, 2013).

Individuals who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities. Commercial and industrial facilities are not included in the definition because employees do not typically remain on site for 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as NO_2 and CO), commercial and/or industrial facilities would be considered sensitive receptors for those purposes.

The Project site is bound on the south by West Colorado Street, on the west by an existing 3-story commercial building, on the north by four existing single family residences and two 3-story multifamily buildings, and on the east by an existing gas station.

Global Climate Change

Climate change is a change in the average weather of the Earth that may be measured by changes in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes that have occurred in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) considered six alternative future GHG scenarios that would stabilize global temperatures and climate change impacts. The IPCC predicted that global mean temperature change from 1990 to 2100 for the six scenarios considered could range from 1.1 degrees Celsius (°C) to 6.4°C. Global average temperatures and sea levels are expected to rise under all scenarios.[1]

In California, climate change may result in consequences such as the following:

- A reduction in the quality and supply of water to the State from the Sierra snowpack
- An increased risk of large wildfires
- Reductions in the quality and quantity of certain agricultural products
- Exacerbation of air quality problems
- A rise in sea levels resulting in the displacement of coastal businesses and residences
- Damage to marine ecosystems and the natural environment
- An increase in infections, disease, asthma, and other health-related problems
- A decrease in the health and productivity of California's forests

Gases that trap heat in the atmosphere are GHGs. The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide (CO_2), methane, NO_X, chlorofluorocarbons, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), O_3, and aerosols. Without the natural greenhouse effect, the average temperature at Earth's surface would

1 IPCC, Summary for Policymakers, *Climate Change 2007: The Physical Science Basis, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (S. Solomon, D. Qin, M. Manning, et. al. [eds.]). (Cambridge University Press: Cambridge, United Kingdom, 2007).

be below the freezing point of water.[2] However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

The global warming potential (GWP) is the potential of a gas or aerosol to trap heat in the atmosphere. The GWP compares the amount of heat trapped by a certain mass of the gas in question to the amount of heat trapped by a similar mass of CO_2. A GWP is calculated over a specific time interval, commonly 20, 100, or 500 years. GWP is expressed as a factor of CO_2 (whose GWP is standardized to 1). For example, the 100 year GWP of methane is 21, which means that if the same mass of methane and CO_2 were introduced into the atmosphere, that methane will trap 21 times more heat than the CO_2 over the next 100 years.[3] The GHGs of most concern are identified in **Table 4.2-3, Greenhouse Gases**. Of these two primary sources of GHG, CO_2 would be generated by sources associated with the Project, while methane would not be generated in any substantial amount.

Table 4.2-3
Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Carbon dioxide (CO_2)	Carbon dioxide is an odorless, colorless, natural GHG. GWP = 1.	Carbon dioxide is emitted from natural and anthropogenic sources. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The concentration in 2005 was 379 ppm, which is an increase of about 1.4 ppm per year since 1960.
Methane (CH_4)	Methane is a flammable gas and is the main component of natural gas. GWP = 21.	A natural source of methane is from the anaerobic decay of organic matter. Methane is extracted from geological deposits (natural gas fields). Other sources are from landfills, fermentation of manure, and cattle.
Nitrous oxide (N_2O)	Nitrous oxide is also known as laughing gas and is a colorless GHG. GWP = 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.

Source: Intergovernmental Panel on Climate Change, Summary for Policymakers, Climate Change 2007: The Physical Science Basis, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Avery, M. Tignor and H.L. Miller [eds.]). (Cambridge University Press: Cambridge, United Kingdom, 2007).
Notes: GWP = global warming potential; ppm = parts per million; ppt = parts per trillion (measure of concentration in the atmosphere).

2 California Environmental Protection Agency, Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the California Legislature, www.climatechange.ca.gov/climate_action_team /reports/index.html, (March 2006, accessed October 24, 2013).

3 R.K. Pachauri and A. Reisinger (eds.), *Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Geneva, Switzerland, 2007).

Individual GHG compounds have varying GWP and atmospheric lifetimes. The calculation of the CO_2 equivalent is a consistent methodology for comparing GHG emissions, since it normalizes various GHG emissions to a consistent metric. Methane's warming potential of 21 indicates that methane has a 21 times greater warming affect than CO_2 on a molecule per molecule basis. A CO_2 equivalent is the mass emissions of an individual GHG multiplied by its GWP.

Emissions Inventory and Trends

California is the second largest contributor of GHGs in the United States and the 16th largest in the world.[4] In 2009, California produced 452.97 million metric tons of CO_2 equivalents ($MMTCO_2E$),[5] including imported electricity and excluding combustion of international fuels and carbon sinks or storage. The 2004 California GHG inventory was approximately 7 percent of U.S. emissions. The major source of GHGs in California is transportation, contributing to 41 percent of the State's total GHG emissions.[6] Electricity generation (both in and out of state) is the second largest source, contributing to 22 percent of the State's GHG emissions.[7] The statewide inventory of GHGs by sector is shown in **Table 4.2-4, California GHG Inventory 2001-2009**.

Table 4.2-4
California GHG Inventory 2001–2009

	Emissions $MMTCO_2E$								
Transportation	174.79	181.28	179.39	183.18	186.06	186.64	187.07	177.97	172.93
Electric power	122.90	109.71	113.69	116.26	109.01	105.72	115.08	121.22	103.58
Commercial/ residential	40.98	42.96	41.33	42.67	41.04	41.66	41.92	41.53	42.94
Industrial	93.34	94.29	91.58	93.49	92.75	92.31	89.78	87.09	81.36
Recycling and waste	6.65	6.61	6.71	6.68	7.00	7.09	7.06	7.26	7.32
Agriculture	29.10	32.26	30.67	32.34	32.61	33.75	32.91	33.68	32.13
Forestry	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Agriculture and forestry	29.29	32.45	30.86	32.53	32.80	33.94	33.10	33.87	32.32
Forestry net	-4.30	-4.16	-4.16	-4.16	-4.03	-3.87	-3.94	-3.84	-3.80
Total net emissions	474.95	475.02	471.98	484.00	487.52	496.68	484.89	480.88	452.97

Source: CARB (2012).
Notes: Excludes military sector. $MMTCO_2E$ = million metric tons carbon dioxide equivalents.

4 California Energy Commission, "Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004, Staff Final Report, CEC-600-2006-013-SF" (December 2006).

5 CARB, California Greenhouse Gas Inventory for 2000-2009 by Category as Defined in the Scoping Plan, http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-08_2010-05-12.pdf (October 26, 2011).

6 California Energy Commission (December 2006).

7 California Energy Commission (December 2006).

Regulatory Setting

Air quality within the basin is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policymaking, education, and a variety of programs. The agencies primarily responsible for improving the air quality within the basin are discussed in the following paragraphs along with their individual responsibilities.

Air Quality

Federal

At the federal level, the EPA is responsible for the implementation of portions of the Clean Air Act (CAA) dealing with certain mobile sources of air emissions and other requirements. Charged with handling global, international, national, and interstate air pollution issues and policies, the EPA sets national vehicle and stationary source emission standards, oversees the approval of all State Implementation Plans,[8] provides research and guidance for air pollution programs, and sets NAAQS. The NAAQS for six common air pollutants (O_3, PM10 and PM2.5, NO_2, CO, Pb, and SO_2) shown in **Table 4.2-5, Criteria Air Pollutants**, were identified from provisions of the Clean Air Act of 1970.

The NAAQS were set to protect public health, including that of sensitive individuals. For this reason, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. The primary NAAQS define the air quality considered necessary, with an adequate margin of safety, to protect the public health.[9] Other portions of the CAA, such as the portions dealing with stationary source requirements, are implemented by state and local agencies.

8 A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain NAAQS.

9 EPA, "A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions, EPA420-P-02-001" (October 2002). EPA, Office of Air and Radiation, "Nitrogen Oxides: Impact on Public Health and the Environment," www.epa.gov/ttn/oarpg/t1/reports/noxrept.pdf (1997). EPA, "Ozone and Your Health, EPA-452/F-99-003," www.epa.gov/air/ozonepollution/pdfs/health.pdf (1999). EPA, "Particle Pollution and your Health, EPA-452/F-03-001, http://epa.gov/pm/pdfs/pm-color.pdf (September 2003). EPA, "Health and Environmental Impacts of CO," http://www.epa.gov/airquality/carbonmonoxide/ health.html. EPA, "Fact Sheet, Proposed Revisions to the National Ambient Air Quality Standards for Nitrogen Dioxide," www.epa.gov/air/nitrogenoxides/pdfs/20090722fs.pdf (July 22, 2009).

Table 4.2-5
Criteria Air Pollutants

Air Pollutant	Averaging Time	CA Standard	National Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Ozone (O_3)	1 hour 8 hour	0.09 ppm 0.070 ppm	— 0.075 ppm	(a) Decrease of pulmonary function and localized lung edema in humans and animals; (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) increased mortality risk; (d) risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) vegetation damage; and (f) property damage.	O_3 is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between VOC, NOx, and sunlight. O_3 is a regional pollutant that is generated over a large area and is transported and spread by the wind.	O_3 is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NOx) are mobile sources (on-road and off-road vehicle exhaust).
Carbon monoxide (CO)	1 hour 8 hour	20 ppm 9.0 ppm	35 ppm 9 ppm	(a) Aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; (b) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) impairment of central nervous system functions; and (d) possible increased risk to fetuses.	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources.

Air Pollutant	Averaging Time	CA Standard	National Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Nitrogen dioxide (NO_2)[b]	1 hour Annual	0.18 ppm 0.030 ppm	0.100 ppm 0.053 ppm	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) risk to public health implied by pulmonary and extrapulmonary biochemical and cellular changes and pulmonary structural changes; and (c) contribution to atmospheric discoloration.	During combustion of fossil fuels, oxygen reacts with nitrogen to produce NOx (NO, NO_2, NO_3, N2O, $N2O_3$, $N2O_4$, and $N2O_5$). NOx is a precursor to O_3, PM10, and PM2.5 formation. NOx can react with compounds to form nitric acid and related particles.	NOx is produced in motor vehicle internal combustion engines and fossil fuel–fired electric utility and industrial boilers. NO_2 concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.
Sulfur dioxide (SO_2)	1 hour 3 hour 24 hour Annual	0.25 ppm — 0.04 ppm —	— 0.5 ppm 0.14 ppm 0.030 ppm	Bronchoconstriction accompanied by symptoms that may include wheezing, shortness of breath, and chest tightness during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.	SO_2 is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SOx) include SO_2 and sulfur trioxide. Sulfuric acid is formed from SO_2, which can lead to acid deposition and can harm natural resources and materials. Although SO_2 concentrations have been reduced to levels well below State and national standards, further reductions are desirable because SO_2 is a precursor to sulfate and PM10.	Human-caused sources include fossil fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of SO_2. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. SO_2 is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The SO_2 levels in the State are well below the maximum standards.
Particulate matter (PM10)	24 hour Mean	50 µg/m^3 20 µg/m^3	150 µg/m^3 —	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) declines in pulmonary function growth in children; and (c)	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid	Stationary sources include fuel combustion for electrical utilities, residential space heating, and industrial processes; construction and
Particulate	24 hour	—	35 µg/m^3			

Air Pollutant	Averaging Time	CA Standard	National Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
matter (PM2.5)	Annual	12 µg/m^3	15.0 µg/m^3	increased risk of premature death from heart or lung diseases in the elderly. Daily fluctuations in PM2.5 levels have been related to hospital admissions for acute respiratory conditions, school absences, and increased medication use in children and adults with asthma.	coatings. The particles vary in shape, size, and composition. PM10 refers to particulate matter that is 10 microns or less in diameter, (1 micron is 1-millionth of a meter). PM2.5 refers to particulate matter that is 2.5 microns or less in diameter.	demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal; and recycling. Mobile or transportation-related sources are from vehicle exhaust and road dust.
Sulfates	24 hour	25 µg/m^3	—	(a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; (c) aggravation of cardiopulmonary disease; (d) vegetation damage; (e) degradation of visibility; and (f) property damage.	The sulfate ion is a polyatomic anion with the empirical formula SO42−. Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	Sulfates are particulates formed through the photochemical oxidation of SO_2. In California, the main source of sulfur compounds is the combustion of gasoline and diesel fuel.
Lead (Pb)[c]	30 day	1.5 µg/m^3	—	Pb accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction. The more serious effects of lead poisoning include behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs. Pb may also contribute to high blood pressure and heart disease.	Pb is a solid heavy metal that can exist in air pollution as an aerosol particle component. An aerosol is a collection of solid, liquid, or mixed-phase particles suspended in the air. Pb was first regulated as an air pollutant in 1976. Leaded gasoline was first marketed in 1923 and was used in motor vehicles until around 1970. Pb concentrations have not exceeded State or national air quality standards at any	Pb-ore crushing, Pb-ore smelting, and battery manufacturing are currently the largest sources of Pb in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering. Pb can be removed from the atmosphere through deposition to soils, ice caps, oceans, and inhalation.
	Quarter	—	1.5 µg/m^3			
	Rolling 3-month average	—	0.15 µg/m^3			

Air Pollutant	Averaging Time	CA Standard	National Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
					monitoring station since 1982.	
Vinyl chloride[c]	24 hour	0.01 ppm	—	Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, the CARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.	Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.
Hydrogen sulfide (H2S)	1 hour	0.03 ppm	—	High levels of H2S can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headaches, nausea, vomiting, and coughs. Long exposure can cause pulmonary edema.	H2S is a flammable, colorless, poisonous gas that smells like rotten eggs.	Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of H2S. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal).
Volatile organic compounds (VOC)	--	There are no State or national ambient air quality standards for VOCs because they are not classified as criteria pollutants.		Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination;	ROGs, or VOCs, are defined as any compound of carbon—excluding CO, CO_2, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs,	Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the

Air Pollutant	Averaging Time	CA Standard	National Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
				nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants.	the two terms are often used interchangeably.	formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM10 and lower visibility.

Sources: Effects: South Coast Air Quality Management District, "Final 2007 Air Quality Management Plan," www.aqmd.gov/aqmp/07aqmp/index.html (2007). California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, "Health Effects of Diesel Exhaust," http://oehha.ca.gov/public_info/facts/dieselfacts.html (2002). (OEHAA 2002). California Air Resources Board, "Vinyl Chloride," www.arb.ca.gov/research/aaqs/caaqs/vc/vc.htm (2009). (CARB 2009b). EPA, Technology Transfer Network, "Health Effects Notebook for Hazardous Air Pollutants," Air Toxics website, www.epa.gov/ttn/atw/hlthef/hapindex.html (April 5, 2010). (US EPA 2007); US EPA, Technology Transfer Network, "Benzene," Air Toxics website, www.epa.gov/ttn/atw/hlthef/benzene.html (2000). (US EPA 2000).

Sources: Standards: CARB, "California Greenhouse Gas Inventory for 2000-2009 by Category as Defined in the Scoping Plan," http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-08_2010-05-12.pdf (October 26, 2011). (CARB 2010).

Sources: Properties and sources: EPA, Office of Air and Radiation, "Nitrogen Oxides: Impact on Public Health and the Environment," www.epa.gov/ttn/oarpg/t1/reports/noxrept.pdf (2007). (US EPA 1997). EPA, "Ozone and Your Health, EPA-452/F-99-003," www.epa.gov/air/ozonepollution/pdfs/health.pdf (1999). (US EPA 1999). EPA," A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions, EPA420-P-02-001," (October 2002). (US EPA 2002); EPA, "Particle Pollution and your Health, EPA-452/F-03-001," http://epa.gov/pm/pdfs/pm-color.pdf (September 2003). (US EPA 2003a); EPA," Health and Environmental Impacts of CO," http://www.epa.gov/airquality/carbonmonoxide/health.html. (US EPA 2008); EPA, "Fact Sheet, Proposed Revisions to the National Ambient Air Quality Standards for Nitrogen Dioxide," www.epa.gov/air/nitrogenoxides/pdfs/20090722fs.pdf (July 22, 2009). (US EPA 2009d).

Notes: ppm = parts per million (concentration); $\mu g/m^3$ = micrograms per cubic meter; annual = annual arithmetic mean; 30-day = 30-day average; quarter = calendar quarter.

[a] *National standard refers to the primary national ambient air quality standard, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3 hour SO_2, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.*

[b] *EPA established a new 1-hour NO_2 standard of 100 ppb or 188 $\mu g/m^3$, which became effective April 12, 2010. In addition to establishing an averaging time and level, the EPA also is setting a new "form" for the standard. The form is the air quality statistic used to determine if an area meets the standard. The form for the 1-hour NO_2 standard is the 3-year average of the 98th percentile of the annual distribution of daily maximum 1-hour average concentrations. This suite of standards will protect public health by limiting exposures to short-term peak concentrations of NO_2,which primarily occur near major roads, and by limiting community-wide NO_2 concentrations to levels below those that have been linked to respiratory-related emergency department visits and hospital admissions in the United States.*

[c] *The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.*

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and the incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA that are most applicable to the Project include Title I, Nonattainment Provisions, and Title II, Mobile Source Provisions.

The NAAQS were also amended in July 1997 to include an 8-hour standard for O_3 and to adopt a NAAQS for PM2.5. The NAAQS were amended in September 2006 to include an established methodology for calculating PM2.5, as well as revoking the annual PM10 threshold. The CAA includes the following deadlines for meeting the NAAQS within the South Coast Air Basin: (1) PM2.5 by the year 2014 and (2) 8-hour O_3 by the year 2023. Although the deadline for federal 1-hour O_3 standard has passed, the South Coast Air Basin has yet to attain those standards, but is continuing to implement the 2012 Air Quality Management Plan (AQMP) to attain these standards as soon as possible.

State

The California CAA, signed into law in 1988, requires all areas of the State to achieve and maintain the CAAQS by the earliest practicable date. The CARB, a part of the California EPA, is responsible for the coordination and administration of both state and federal air pollution control programs within California. In this capacity, the CARB conducts research, sets State ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. **Table 4.2-5** includes the CAAQS currently in effect for each of the criteria pollutants as well as other pollutants recognized by the State. As shown in **Table 4.2-5**, the CAAQS include more stringent standards than the NAAQS.

Local

The SCAQMD shares responsibility with CARB for ensuring that all State and federal ambient air quality standards are achieved and maintained over an area of approximately 10,743 square miles. This area includes all of Orange County and Los Angeles County except for the Antelope Valley, the nondesert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County.

The Project lies within the jurisdiction of the SCAQMD, and compliance with SCAQMD rules and guidelines is required. SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the South Coast Air Basin.

SCAQMD, in coordination with the Southern California Association of Governments (SCAG), is also responsible for developing, updating, and implementing the AQMP for the SCAB. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as "nonattainment" of the national and/or California ambient air quality standards. The term "nonattainment area" is used to refer to an air basin in which one or more ambient air quality standards are exceeded.

The purpose of the 2003 AQMP is to lead the South Coast Air Basin and portions of the Salton Sea Air Basin under SCAQMD jurisdiction into compliance with the 1-hour O_3 and PM10 national standards.[10] The goal of the 2007 AQMP is to lead the SCAB into compliance with the national 8-hour O_3 and PM2.5 standards.

The 2003 AQMP also replaced the 1997 attainment demonstration for the federal CO standard and provided a basis for a maintenance plan for CO for the future. It also updated the maintenance plan for the federal NO_2 standard that the SCAB has met since 1992.[11] A subsequent AQMP for the basin was adopted by the SCAQMD on June 1, 2007.[12] The 2007 AQMP outlined a detailed strategy for meeting the national health-based standards for PM2.5 by 2015 and 8-hour O_3 by 2024 while accounting for and accommodating future expected growth. The 2007 AQMP incorporated significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling. Most of the reductions were to be from mobile sources, which are currently responsible for about 75 percent of all smog and particulate forming emissions.

The SCAQMD approved the 2012 AQMP on December 7, 2012. The 2012 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories. The 2012 AQMP outlines a comprehensive control strategy that meets the requirement for expeditious progress toward attainment with the 24-hour PM2.5 federal ambient air quality standard with all feasible control measures and demonstrates attainment of the standard by 2014. The 2012 AQMP is also an update to the 8-hour O_3 control plan with new emission reduction commitments from a set of new control measures, which implement the 2007 AQMP's Section 182 (e)(5) commitments.

10 South Coast Air Quality Management District (SCAQMD), "Air Quality Management Plan," www.aqmd.gov/aqmp/AQMD03AQMP.htm, (2003).

11 SCAQMD (2013, p. 1-1).

12 SCAQMD, "Final 2007 Air Quality Management Plan," www.aqmd.gov/aqmp/07aqmp/index.html (2007).

The SCAQMD is responsible for limiting the amount of emissions that can be generated throughout the basin by various stationary, area, and mobile sources. Specific rules and regulations have been adopted by the SCAQMD Governing Board, which limit the emissions that can be generated by various uses/activities and that identify specific pollution reduction measures, which must be implemented in association with various uses and activities. These rules not only regulate the emissions of the federal and state criteria pollutants, but also toxic air contaminants (TACs) and acutely hazardous materials. The rules are also subject to ongoing refinement by SCAQMD.

Among the SCAQMD rules applicable to the Project are Rule 403 (Fugitive Dust), Rule 1113 (Architectural Coatings), and Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). Rule 403 requires the use of stringent best available control measures to minimize PM10 emissions during grading and construction activities. Rule 1113 will require reductions in the VOC content of coatings, with a substantial reduction in the VOC content limit for flat coatings in July 2008. Compliance with SCAQMD Rule 1403 requires that the owner or operator of any demolition or renovation activity to have an asbestos survey performed prior to demolition and to provide notification to the SCAQMD prior to commencing demolition activities. Additional details regarding these rules and other potentially applicable rules are presented in the following.

Rule 403 (Fugitive Dust). This rule requires fugitive dust sources to implement Best Available Control Measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM10 emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust (see also Rule 1186).

Rule 1113 (Architectural Coatings). This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1121 (Control of Nitrogen Oxides from Residential Type, Natural Gas–Fired Water Heaters). This rule prescribes NO_X emission limits for natural gas-fired water heaters with heat input rates less than 75,000 British thermal unit (Btu) per hour. It applies to manufacturers, distributors, retailers, and installers of natural gas–fired water heaters. In lieu of meeting these NO_X limits, this rule allows emission mitigation fees to be collected from water heater manufacturers to fund stationary and mobile source emission reduction projects targeted at offsetting NO_X emissions from water heaters that do not meet Rule 1121 emission standards.

Rule 1146.2 (Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters). This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_X emissions from natural gas–fired water heaters, boilers, and process heaters as defined in this rule.

Rule 1186 (PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations). This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM10 emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Stationary emissions sources subject to these rules are regulated through SCAQMD's permitting process. Through this permitting process, SCAQMD also monitors the amount of stationary emissions being generated and uses this information in developing AQMPs. The Project would be subject to SCAQMD rules and regulations to reduce specific emissions and to mitigate potential air quality impacts.

Greenhouse Gases

Federal

On April 17, 2009, the EPA released a proposed finding that determined climate change poses a risk to public health. The EPA held a 60-day public comment period, which ended June 23, 2009, and which received over 380,000 public comments. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- Endangerment finding: The Administrator found that the current and projected concentrations of the six key well-mixed GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and sulfur hexafluoride (SF_6)—in the atmosphere threaten the public health and welfare of current and future generations.

- Cause or contribute finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not by themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the proposed EPA GHG standards for light-duty vehicles. These standards were jointly proposed by the EPA and the Department of Transportation's National Highway Safety Administration (NHTSA) on September 15, 2009. The two findings were published in the Federal Register Docket ID No. EPA-HQ-OAR-2009-0171. The final rule was effective January 14, 2010.

The EPA has issued the Final Mandatory Reporting of Greenhouse Gases Rule that requires reporting of GHG emissions from large sources and suppliers in the United States. Under the rule (effective December 29, 2009), suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the EPA. The gases covered by the proposed rule are CO_2, CH_4, N_2O, HFC, PFC, SF_6, and other fluorinated gases, including nitrogen trifluoride (NF_3) and hydrofluorinated ethers (HFE).

On September 15, 2009, the EPA and the NHTSA proposed a new national program to reduce GHG emissions and to improve fuel economy for all new cars and trucks sold in the United States. The EPA proposed the first-ever national GHG emissions standards under the CAA, and the NHTSA proposed Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. This proposed national program would allow automobile manufacturers to build a single light-duty national fleet that satisfies all requirements under both federal programs and the standards of California and other states.

State

Significant legislative and regulatory activities that affect climate change and GHG emissions in California that relate to the Project are discussed in the following.

AB 1493. California Assembly Bill 1493 (Pavley), enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. Regulations adopted by the CARB apply to 2009 and later model year vehicles. The CARB estimates that the regulation would reduce climate change emissions from the light-duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030.[13] On June 30, 2009, the US EPA granted a waiver of CAA preemption to California for the State's GHG emission standards for motor vehicles beginning with the 2009 model year. The waiver was published in the Federal Register on July 8, 2009.

Executive Order S-3-05. Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05,[14] the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

13 CARB, "Fact Sheet, Climate Change Emission Control Regulations" (December 10, 2004).

14 State of California, Executive Order S-3-05, http://www.dot.ca.gov/hq/energy/ExecOrderS-3-05.htm (June 1, 2005).

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, midterm target. To meet these targets, the governor directed the secretary of the California EPA to lead a Climate Action Team made up of representatives from the Business, Transportation, and Housing Agency; the Department of Food and Agriculture; the Resources Agency; the CARB; the Energy Commission; and the Public Utilities Commission. The Climate Action Team's Report to the governor in 2006 contains recommendations and strategies to help ensure that the targets in Executive Order S-3-05 are met.[15]

Executive Order S-01-07. The former governor signed Executive Order S-01-07 on January 18, 2007. The order mandated that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. It also established a Low Carbon Fuel Standard for transportation fuels for California.

SB 1368. In 2006, the State Legislature adopted Senate Bill 1368, which was subsequently signed into law by the governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. In an effort to limit carbon emissions associated with electrical energy consumed in California, this bill prohibits purchase arrangements for energy for periods of longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. A coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to lower GHG emissions associated with California's energy demand, by effectively prohibiting California utilities from purchasing power from out-of-state producers that cannot satisfy the required performance standard for GHG emissions.

SB 97. SB 97 was passed in August 2007, and added Section 21083.05 to the Public Resources Code. It states:

> *(a) On or before July 1, 2009, the Office of Planning and Research (OPR) shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR pursuant to subdivision (a).*

15 State of California, EPA, Climate Action Team, "Climate Action Team Report to Governor Schwarzenegger and the California Legislature," www.climatechange.ca.gov/climate_action_team /reports/index.html (March 2006).

CEQA Amendments. As required by SB 97, the Governor's Office of Planning and Research prepared and transmitted recommended Amendments to the State *CEQA Guidelines* for GHG emissions to the California Natural Resources Agency on April 13, 2009. The Office of Administrative Law reviewed the Adopted Amendments and the Natural Resources Agency's rulemaking file. The Adopted Amendments were filed with the Secretary of State, and became effective March 18, 2010.

The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing State *CEQA Guidelines* to reference climate change.

A new section, State *CEQA Guidelines* Section 15064.4, was added to assist agencies in determining the significance of GHG emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. This section does not provide guidance to public agencies on how to determine whether the project's estimated GHG emissions are significant or cumulatively considerable.

Also amended were State *CEQA Guidelines* Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts, respectively. GHG mitigation measures are referenced in general terms, but no specific measures are identified or required. The revision to the cumulative impact guideline directs public agencies to analyze GHG emissions in an environmental impact report (EIR) when the incremental contribution of emissions from a project being reviewed may be cumulatively considerable. However, the determination of when emissions are cumulatively considerable is left to the discretion of the public agency reviewing a proposed project.

The Amendments also added Section 15183.5, which permits programmatic GHG analyses and allows for project-specific analyses to tier off this program-level analysis, and the preparation of GHG reduction plans for a city or county. Compliance with a GHG reduction plan can then be used to support a determination that an individual project's contribution to GHG impacts is not cumulatively considerable.

In addition, the Amendments revised Appendix F of the State *CEQA Guidelines*, which focuses on Energy Conservation, and Appendix G, which includes the sample Environmental Checklist Form.

AB 32. In 2006, the California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHG emissions in California. GHGs, as defined under AB 32, include CO_2, CH_4, NO_2, HFCs, PFCs, and SF_6. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. CARB is the state agency charged with monitoring and regulating sources of emissions of GHGs that cause global warming in order to reduce emissions of GHGs.

The CARB Governing Board approved the 1990 GHG emissions level of 427 $MMTCO_2E$ on December 6, 2007. Therefore, in 2020, emissions in California are required to be at or below 427 $MMTCO_2E$.

Under the current "business-as-usual" scenario, statewide emissions are increasing at a rate of approximately 1 percent per year.

- 1990: 427 $MMTCO_2E$
- 2004: 480 $MMTCO_2E$
- 2008: 495 $MMTCO_2E$
- 2020: 596 $MMTCO_2E$

Under AB 32, the CARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California.[16] The CARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of those early action measures, nine are considered discrete early action measures,[17] as they were adopted by CARB and enforceable by January 1, 2010. The CARB estimates that the 44 early action measures will result in reductions of at least 42 $MMTCO_2E$ by 2020, representing approximately 25 percent of the 2020 target.

CEQA is only mentioned once in the Early Action Measures report. The California Air Pollution Control Officer's Association suggested that CARB work with local air districts on approaches to review GHG impacts under the CEQA process, including significance thresholds for GHGs for projects and to develop a process for capturing reductions that result from CEQA mitigations. CARB's response to this recommendation in the report is as follows:

> *[T]he Governor's Office of Planning and Research is charged with providing statewide guidance on CEQA implementation. With respect to quantifying any reductions that result from project-level mitigation of GHG emissions, we would like to see air districts take a lead role in tracking such reductions in their regions.*[18]

16 CARB, "Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration," www.arb.ca.gov/cc/ejac/ghg_eamcommitteelist.pdf (October 2007).

17 Discrete early actions are regulations to reduce GHG emissions adopted by the CARB Governing Board and enforceable by January 1, 2010.

18 CARB (October 2007).

The CARB approved the Climate Change Proposed Scoping Plan (Scoping Plan) in December 2008. The Scoping Plan:

> *[P]roposes a comprehensive set of actions designed to reduce overall GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health.*[19]

As noted in the Scoping Plan, the projected total business-as-usual emissions for year 2020 (estimated as 506.8 $MMTCO_2E$) must be reduced by approximately 16 percent to achieve the CARB's approved 2020 emission target of 427 $MMTCO_2E$. The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
- Achieving a statewide renewable energy mix of 33 percent
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program.[20] The Scoping Plan states that the

19 CARB, "Climate Change Scoping Plan (a framework for change as approved December 2008), http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf (December 2008).

20 The cap-and-trade program is a central element of AB 32 and covers major sources of GHG emissions in the State such as refineries, power plants, industrial facilities, and transportation fuels. The regulation includes an enforceable GHG cap that will decline over time. CARB will distribute allowances, which are tradable permits, equal to the emission allowed under the cap.

inclusion of these emissions within the cap-and-trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. "Uncapped" strategies include additional reductions that will not be subject to the cap-and-trade emissions requirements. They are provided as a margin of safety to help achieve required GHG emission reductions.

SB 375. SB 375 was signed into law by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which contributes to 40 percent of the total GHG emissions in California. Automobiles and light trucks alone contribute almost 30 percent. SB 375 indicates that GHGs from automobiles and light trucks can be reduced by new vehicle technology but significant reductions from changed land use patterns and improved transportation are necessary. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) it requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) it aligns planning for transportation and housing, and (3) it creates specified incentives for the implementation of the strategies.

Nonlegislative

CAPCOA. On January 8, 2008, the California Air Pollution Control Officers Association (CAPCOA) released a paper to provide a common platform of information and tools for public agencies. The disclaimer states that it is not a guidance document, but rather a resource to enable local decision makers to make the best decisions they can in the face of incomplete information during a period of change. The paper indicates that it is an interim resource and does not endorse any particular approach. It discusses three groups of potential thresholds, including a no significance threshold, a threshold of zero emissions, and a nonzero threshold.[21] The nonzero quantitative thresholds as identified in the paper range from 900 to 50,000 metric tons of CO_2 per year. The CAPCOA paper also identified nonzero qualitative thresholds.[22]

Attorney General. The Office of the California Attorney General maintains a list of CEQA Mitigations for Global Warming Impacts on its website. The attorney general's office has listed some examples of types of mitigations that local agencies may consider to offset or reduce global warming impacts from a project. The attorney general's office states that the lists are examples and not intended to be exhaustive, but instead are provided as measures and policies that could be undertaken. Moreover, the

21 California Air Pollution Control Officers Association, "CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act," www.capcoa.org/ (January 2008).

22 A nonzero threshold could minimize the resources spent reviewing environmental analyses that do not result in real GHG reductions or to prevent the environmental review system from being overwhelmed.

measures cited may not be appropriate for every project, so the attorney general suggests that the lead agency should use its own informed judgment in deciding which measures it would analyze, and which measures it would require, for a given project. The mitigation measures are divided into two groups: generally applicable measures and general plan measures. The attorney general presents "generally applicable" measures in the following areas:

- Energy efficiency
- Renewable energy
- Water conservation and efficiency
- Solid waste measures
- Land use measures
- Transportation and motor vehicles
- Carbon offsets

South Coast Air Quality Management District

In April 2008, the SCAQMD convened a GHG CEQA Significance Threshold Working Group in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents.[23] The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other State agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects, such as residential, nonresidential, industrial, etc. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent ($MTCO_2E$) as a screening numerical threshold.

At the present time, the SCAQMD has not adopted thresholds for projects such as the one analyzed in this Draft EIR. The SCAQMD has considered a tiered approach to determine the significance of

23 For more information see http://www.aqmd.gov/ceqa/handbook/GHG/GHG.html.

residential and commercial projects. The draft approach that was published in October 2008 is as follows:[24]

- **Tier 1**: Is the project exempt from further analysis under existing statutory or categorical exemptions? If yes, there is a presumption of less than significant impacts with respect to climate change.

- **Tier 2**: Are the project's GHG emissions within the GHG budgets in an approved regional plan? (The plan must be consistent with *State CEQA Guidelines* Sections 15064(h)(3), 15125(d), or 15152(s).) If yes, there is a presumption of less than significant impacts with respect to climate change.

- **Tier 3**: Is the project's incremental increase in GHG emissions below or mitigated to less than the significance screening level (10,000 $MTCO_2E$ per year for industrial projects and 3,000 $MTCO_2E$ for commercial/residential projects) and is the project X percent beyond the Title 24 standard and will it achieve Y percent reduction in water use (the X and Y values were not determined at the time the draft approach was published)? If yes, there is a presumption of less than significant impacts with respect to climate change.

- **Tier 4**: Does the project meet one of the following performance standards (the performance standards were not well defined at the time the draft approach was published)? If yes, there is a presumption of less than significant impacts with respect to climate change.

  Option #1: Uniform Percent Emission Reduction Target Objective (e.g., 30 percent) from business as usual (BAU) by incorporating project design features and/or implementing emission reduction measures.

  Option #2: Early Implementation of Applicable AB32 Scoping Plan Measures.

  Option #3: Achieve sector-based standard (e.g., pounds per person, pounds per square foot).

- **Tier 5**: Does the project obtain offsets alone or in combination with the previous to achieve the target significance screening level (offsets provided for 30-year project life, unless project life limited by permit, lease, or other legally binding conditions)? If yes, there is a presumption of less than significant impacts with respect to climate change. Otherwise, the project's impact is significant.

In November 2009, the following revisions were proposed for Tiers 3 and 4:[25]

24 South Coast Air Quality Management District, "Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting #15," http://www.aqmd.gov/ceqa/handbook/GHG/2010/sept28mtg/sept29.html (2010).

25 South Coast Air Quality Management District, "Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting #14," http://www.aqmd.gov/ceqa/handbook/GHG/2009/nov19mtg/nov19.html (2009).

- **Tier 3**: Is the project's incremental increase in GHG emissions below or mitigated to less than the significance screening level (10,000 $MTCO_2E$ per year for industrial projects; 3,500 $MTCO_2E$ for residential projects; 1,400 $MTCO_2E$ for commercial projects; 3,000 $MTCO_2E$ for mixed-use or all land use projects)? If yes, there is a presumption of less than significant impacts with respect to climate change.

- **Tier 4**: Does the project meet one of the following performance standards? If yes, there is a presumption of less than significant impacts with respect to climate change.

  Option #1: Achieve a 28 percent reduction from a base case scenario, including land use sector reductions from AB 32 (total emissions not to exceed 25,000 $MTCO_2E$).
  Option #2: Achieve a project-level efficiency target of 4.6 $MTCO_2E$ per service population (total emissions not to exceed 25,000 $MTCO_2E$) or plan-level efficiency target of 6.6 $MTCO_2E$.

The SCAQMD has not announced when they expect to present a finalized version of these thresholds to the Governing Board. The SCAQMD also has adopted Rules 2700, 2701, and 2702 that address GHG reductions. These rules apply to boilers and process heaters, forestry, and manure management projects.

ENVIRONMENTAL IMPACTS

Methodology

Air Quality

Short-term emissions of criteria air pollutants (e.g., CO, SO_x, PM10, and PM2.5) generated by project construction and ozone precursors (e.g., ROG and NO_x) were assessed in accordance with SCAQMD-recommended methods. Where quantification was required, these emissions were modeled using the CARB-approved California Emissions Estimator Model 2013.2.2 (CalEEMod) computer program as recommended by the SCAQMD. CalEEMod is designed to model construction emissions for land use development projects and allows for the input of project specific information. Project-generated emissions were modeled based on general information provided in the proposed project description and SCAQMD-recommended and default CalEEMod model settings to estimate reasonable worst-case conditions. Emission modeling assumes construction to begin on or about September 2014.

Project-generated, regional area and mobile-source emissions of criteria air pollutants and ozone precursors were also modeled using the CalEEMod computer program. CalEEMod allows land use selections that include project location specifics and trip generation rates. CalEEMod accounts for area-source emissions from the use of natural gas, landscape maintenance equipment, and consumer products and from mobile-source emissions associated with vehicle trip generation. Project-generated

emissions were modeled based on proposed land uses and general information provided in the **Section 3.0, Project Description**.

Other air quality impacts (i.e., CO, TACs, and odors) were assessed in accordance with methodologies recommended by SCAQMD.

Greenhouse Gases

GHG emissions were modeled using the CalEEMod computer program and emission factors from California Climate Action Registry (CCAR), as recommended by SCAQMD, which estimates construction and operations emissions of carbon dioxide, among other air pollutants. Project-generated emissions were modeled based on general information provided in **Section 3.0**.

Thresholds of Significance

Air Quality

In order to assist in determining whether a project would have a significant effect on the environment, the City finds a project may be deemed to have a significant air quality impact if it would:

- Conflict with or obstruct the implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people

Under CEQA, the SCAQMD is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the federal CAA, the SCAQMD has adopted federal attainment plans for O_3 and PM10. The SCAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan.

Construction and Operational Thresholds

The *CEQA Air Quality Handbook* provides significance thresholds for both construction and operation of projects within the SCAQMD jurisdictional boundaries. If the SCAQMD thresholds are exceeded, a

potentially significant impact could result. However, ultimately the lead agency determines the thresholds of significance for impacts. If a project proposes development in excess of the established thresholds, as outlined in **Table 4.2-6, South Coast Air Quality Management District Emissions Thresholds**, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

Table 4.2-6
South Coast Air Quality Management District Emissions Thresholds (pounds/day)

Pollutant	Construction	Operational
Nitrogen dioxide (NO_2)	100	55
Reactive organic gases (ROG)	75	55
Carbon monoxide (CO)	550	550
Sulfur dioxide (SO_2)	150	150
Respirable particulate matter (PM10)	150	150
Fine particulate matter (PM2.5)	55	55

Source: SCAQMD, CEQA Air Quality Handbook(November 1993).

Local Carbon Monoxide Thresholds

The significance of localized project impacts depends on whether ambient CO levels in the vicinity of the proposed project are above or below state and federal CO standards. If the project causes an exceedance of either the State 1-hour or 8-hour CO concentrations, the project would be considered to have a significant local impact. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more, or 8 hour CO concentrations by 0.45 ppm or more pursuant to SCAQMD Rule 1303(b).

Localized Significance Thresholds

The SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Project site as a result of construction activities. This evaluation requires that anticipated ambient air concentrations, determined using a computer-based air quality dispersion model, be compared to localized significance thresholds for PM10, PM2.5, NO_2, and CO. The significance threshold for PM10 represents compliance with Rule 403 (Fugitive Dust), while the thresholds for NO_2 and CO represent the allowable increase in concentrations above background levels in the vicinity of the Project that would not cause or contribute to an exceedance of the relevant ambient air quality

standards. The significance threshold for PM2.5 is intended to constrain emissions so as to aid in progress toward attainment of the ambient air quality standards.

For project sites of 5 acres or less, the SCAQMD Localized Significance Threshold (LST) Methodology includes screening tables that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance criteria (i.e., not cause an exceedance of the applicable concentration limits) without project-specific dispersion modeling. The allowable emission rates depend on (a) the SRA in which the project is located, (b) the size of the project site, and (c) the distance between the project site and the nearest sensitive receptor (e.g., residences, schools, hospitals).

The Project site is 0.99-acres in size. The nearest sensitive receptors are multifamily and single-family residences to the north of the site. The distance used to determine the mass-rate emissions from the screening tables is 25 meters (82 feet), as specified in the LST Methodology. The applicable thresholds are shown in **Table 4.2-7, Localized Significance Thresholds for a 1-Acre Site Located in SRA 7 (East San Fernando Valley)**. It should be noted that LST Methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways.

Table 4.2-7
Localized Significance Thresholds for a 1-Acre Site Located in SRA 7
(East San Fernando Valley)

Pollutant	LST Threshold (pounds per day)
Construction	
Nitrogen dioxide (NO_2)	80
Carbon monoxide (CO)	498
Respirable particulate matter (PM10)	4
Fine particulate matter (PM2.5)	3
Operational	
Nitrogen dioxide (NO_2)	80
Carbon monoxide (CO)	498
Respirable particulate matter (PM10)	1
Fine particulate matter (PM2.5)	1

Cumulative Emissions Thresholds

The SCAQMD's *CEQA Air Quality Handbook* identifies several methods to determine the cumulative significance of land use projects (i.e., whether the contribution of a project is cumulatively

considerable). However, the SCAQMD no longer recommends the use of these methodologies. Instead, the SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds identified previously also be considered cumulatively considerable.[26] The SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

Greenhouse Gases

For the purpose of this analysis, the following qualitative thresholds of significance, as suggested by the State *CEQA Guidelines* (Appendix G), have been used to determine whether implementation of the proposed Project would result in significant GHG or climate change impacts.

A GHG or climate change impact is considered significant if the proposed Project would involve either of the following:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs

As indicated previously, the SCAQMD convened a GHG CEQA Significance Threshold Working Group in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents. The goal of the working group was to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until the CARB, or some other state agency, develops statewide guidance on assessing the significance of GHG emissions under CEQA. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold of 10,000 $MTCO_2E$ for stationary source projects where SCAQMD is the lead agency. To date, the SCAQMD has not formally adopted any threshold or methodology for residential and commercial land use projects. The Working Group has released draft documents that recommend all new land use projects not exceed a screening threshold of 3,000 $MTCO_2E$ per year. Although a significance threshold has not been formally adopted, the Working Group draft recommendations represent the best available information with which to evaluate project significance with respect to GHG emissions and climate change for projects located in the South Coast region. This screening threshold is used in this EIR for the purposes of determining significance.

26 *White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions,* SCAQMD Board Meeting (September 5, 2003, Agenda No. 29, Appendix D, p. D-3).

Project Impacts

Air Quality

Threshold: **Conflict with or obstruct the implementation of the applicable air quality plan.**

The 2012 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects, uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

Demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment), developed by SCAG for their 2012 Regional Transportation Plan (RTP) were used to estimate future emissions within the 2012 AQMP. Projects that are consistent with the growth projections are considered consistent with the AQMP. The Project would result in population and employment growth for the region. According to the California Department of Finance estimates, the current population (2013) within the City of Glendale is 193,652 residents and the current employment number within the City of Glendale is 89,200 jobs.[27] Based on SCAG data, the population projections used to estimate emissions in the 2012 AQMP for year 2020 anticipated a population of 198,900 and anticipated jobs at 98,200 within the City of Glendale. The Project would generate approximately 234 residents and 47 employment opportunities. These totals are within the growth projections for the City of Glendale as adopted by SCAG. Because the SCAQMD has incorporated these same projections into the AQMP, the Project would be consistent with the projections in the 2012 AQMP.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Violate any air quality standard or contribute substantially to an existing or projected air quality violation.**

Construction

27 California Department of Finance, "E-5: City/County Population and Housing Estimates" (January 1, 2013).

Project construction is anticipated to last approximately 18 months and is expected to commence on or about September 2014. The Project would be constructed in three phases: (1) demolition; (2) piles/grading/site preparation/excavation; and (3) building construction/architectural coating and asphalt paving.

Phase I would include the demolition and removal of 5,115 square feet of existing commercial use, 8,704 square feet of existing adult care center use, and the associated parking space. Demolition would occur over a 1-month period and would involve the use of standard construction equipment such as loaders, dozers, backhoes, and related equipment. Approximately 6,500 cubic yards of demolition material would be generated. This material would be hauled north on Central Avenue to SR-134 or west along West Colorado Street to I-5 and would be disposed of at the Scholl Canyon Landfill in Glendale.

Phase II would include the removal of existing fill materials over a 4- to 6-month period. Grading on the Project site would require excavation up to depths of 30 feet below the ground surface and it is anticipated that 55,000 cubic yards of earth material would be removed from the site. Material would be hauled via the same route to the same location as demolition debris. Heavy construction equipment would be located on site during site preparation/grading activities and would not travel to and from the Project site on a daily basis. It is anticipated that equipment associated with these activities would include loaders, dozers, excavators and dump trucks, and related heavy-duty equipment.

Phase III would include the subterranean parking and above grade building construction including architectural coating and asphalt paving. It is anticipated that equipment needs associated with above-grade construction activities would include cranes and miscellaneous machinery and related equipment. Material delivery trucks and other miscellaneous trucks are anticipated during this phase of construction. This work would likely produce approximately 5 to 10 material delivery trucks trips per day, although deliveries are not envisioned to occur for each day of this phase. This phase of construction is anticipated to be completed in approximately 11 months.

Construction emissions were calculated according to the SCAQMD's *CEQA Air Quality Handbook* and construction emission factors contained in the CalEEMod model. The emission calculations assume the use of standard construction practices, such as compliance with SCAQMD Rule 402 (Nuisance) and Rule 403 (Fugitive Dust), to minimize the generation of fugitive dust. Compliance with Rule 402 and 403 are mandatory for all construction projects. In the CalEEMod model, the emission calculations take into account compliance with Rule 402 and Rule 403 by incorporating the following measures:

- Watering of exposed surfaces and unpaved roads three times daily, which is estimated to reduce fugitive dust emissions from this source (both PM10 and PM2.5) by 61 percent, per guidance from the SCAQMD.

- Reduction of vehicle speeds to 15 mile per hour on unpaved roads
- Replacement of onsite ground cover within 30 days of completion of construction activities.

The estimated maximum daily emissions during Project construction are listed in **Table 4.2-8, Construction Emissions (pounds/day)**. These estimates are based on the expected location, size, and development of the Project. The analysis assumes that all of the construction equipment and activities would occur continuously over the day and that activities would overlap. In reality, this would not occur, as most equipment would operate only a fraction of each workday and many of the activities would not overlap on a daily basis. Therefore, **Table 4.2-8** represents a worst-case scenario for construction activities.

Table 4.2-8
Construction Emissions (pounds/day)

Source	ROG	NOx	CO	SOx	PM10	PM2.5
Year 2014						
Maximum	2.89	33.60	24.33	0.06	3.93	2.15
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2015						
Maximum	20.82	30.47	23.10	0.06	3.94	2.05
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2016						
Maximum	20.65	17.72	16.74	0.03	2.19	1.36
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

*Note: Refer to Modeling in **Appendix 4.2.***

Based on the modeling which incorporates standard compliance with SCAQMD rules and regulations, construction of the Project would result in maximum unmitigated daily emissions of approximately 20.82 pounds/day of ROG, 30.47 pounds/day of NO_X, 24.33 pounds/day of CO, 0.06 pounds/day of SO_X, 3.93 pounds/day of PM10, and 2.15 pounds/day of PM2.5, which do not exceed SCAQMD thresholds for criteria pollutants.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Operational

Operational emissions would be generated by both stationary and mobile sources as a result of normal day-to-day activity on the Project site after occupancy. Stationary emissions would be generated by the consumption of natural gas for space and water heating devices. Mobile emissions would be generated by the motor vehicles traveling to and from the Project site.

The analysis of daily operational emissions has been prepared using the data and methodologies identified in the SCAQMD's *CEQA Air Quality Handbook* and current motor vehicle emission factors in the CalEEMoD. Trip rates for these land uses were obtained from the traffic report for the Project (see **Appendix 4.8**). The estimated emissions are based upon development of all the proposed land uses on the Project site, and are presented in **Table 4.2-9, Estimated Operational Emissions**, and are compared to the SCAQMD established operational significance thresholds. As shown, the emissions associated with the Project would not exceed the SCAQMD's recommended operational emission thresholds. As a result, the operational impacts associated with the Project are considered less than significant.

Table 4.2-9
Estimated Operational Emissions (pounds/day)

Source	ROG	NOx	CO	SOx	PM10	PM2.5
Maximum	8.16	15.23	66.27	0.13	9.21	2.64
SCAQMD threshold	55	55	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

*Note: Refer to Modeling in **Appendix 4.2***

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: Expose sensitive receptors to substantial pollutant concentrations.

Localized Significance Threshold

The SCAQMD recommends the evaluation of localized NO_X, CO, PM 10, and PM2.5 impacts as a result of onsite construction and operational activities to sensitive receptors in the immediate vicinity of the Project site. This analysis determines the ambient air quality impacts due to construction and

operational activities on the day with the highest estimated daily mass emission rates as presented in **Table 4.2-7**. The Project-specific localized significance thresholds for SRA 7 (East San Fernando Valley) are shown in **Table 4.2-10, LST Worst-Case Emissions**, and are compared with the maximum daily on-site construction and operational emissions.

Table 4.2-10
LST Worst-Case Emissions (pounds/day)

Source	NOx	CO	PM10	PM2.5
Construction				
Total mitigated maximum emissions	27.09	23.43	2.95	1.40
LST threshold	80	498	4	3
Threshold exceeded?	**No**	**No**	**No**	**No**
Operational				
Area/energy emissions	2.62	7.72	0.04	0.04
LST threshold	80	498	1	1
Threshold exceeded?	**No**	**No**	**No**	**No**

As shown in **Table 4.2-10,** construction emissions which include compliance with SCAQMD Rule 403 for fugitive dust emissions would not exceed LSTs for SRA 7 for PM10 and PM2.5. In general, modeling using CalEEMod is inherently conservative in its forecasting, and thus the proposed Project may in actuality result in lower dust emissions. Additionally, LSTs for PM10 and PM2.5 would be the greatest during the demolition and grading phases which are anticipated to take place over the first five to seven months of construction. All other construction emissions, as well as operational emissions, would not exceed the LSTs for SRA 7. This impact is considered to be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Localized Carbon Monoxide Hotspots

CO is produced in greatest quantities from vehicle combustion, and is usually concentrated at or near ground level because it does not readily disperse into the atmosphere. As a result, potential air quality impacts to sensitive receptors are assessed through an analysis of localized CO concentrations. Areas of vehicle congestion have the potential to create "pockets" of CO called "hotspots". These pockets have the potential to exceed the state ambient air quality 1-hour standard of 20 ppm or the 8-hour standard of 9.0 ppm. Note that the federal levels are based on 1- and 8-hour standards of 35 and 9 ppm,

respectively. Thus, an exceedance condition would occur based on the state standards prior to exceedance of the federal standard. As such, exceeding the State ambient air quality 1-hour standard of 20 ppm or the 8-hour standard of 9.0 ppm would constitute a significant air quality impact from the creation of substantial concentrations of CO.

The SCAQMD suggests that localized CO impacts be evaluated at intersections due to increases in project-related off-site mobile sources. The SCAQMD recommends performing a localized CO impact analysis for intersections that change from level of service (LOS) C to D as a result of the project and for all intersections rated D or worse where the project increases the volume-to-capacity ratio by 2 percent or more. No Project intersection falls under the SCAQMD's criteria requiring a more detailed localized CO impact analysis. As a result, no significant Project-related impacts would occur relative to future carbon monoxide concentrations.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Toxic Air Contaminants

Projects that use hazardous materials or emit toxic air contaminants (TACs) have the potential to expose sensitive receptors to adverse health impacts. The residential land uses associated with the proposed Project are not anticipated to use hazardous or acutely hazardous materials in appreciable quantities. Hazardous substances currently are regulated under the California Accidental Release Prevention (CalARP) Program. The CalARP Program satisfies the requirements of the Federal Risk Management Plan Program, and contains additional state requirements. The CalARP Program applies to regulated substances in excess of specific quantity thresholds. The majority of the substances have thresholds in the range of 100 to 10,000 pounds. The residential and medical office uses associated with the Project may contain small amounts of hazardous substances such as household and commercial cleaners and other products. Moreover, the medical office uses may contain medical type waste such as empty medicine bottles and syringes. These types of waste would be collected, handled, and disposed of in accordance with all appropriate state laws such as the California Health and Safety Code Section 25218. These types of hazardous materials would not emit substantial amounts of toxic air emissions on the Project site. Accordingly, the Project would not result in a significant impact with respect to hazardous materials.

The proposed Project would result in some minor emissions of TACs, primarily from diesel-fueled trucks. The SCAQMD recommends a detailed health risk assessment be performed for diesel exhaust particulate matter (DPM) for facilities that are substantial sources of DPM. Such sources are considered to be land uses such as truck stops and warehouses. As the total number of additional truck trips is very few in comparison to a facility such as a warehouse, for which CARB assumes a minimum of 100 truck trips per day, the proposed Project would not be considered a substantial source of DPM. There are no other substantial sources of other TACs associated with the Project. Therefore, there would be a less than significant impact due to TACs attributed to the proposed Project.

CARB has determined that adverse health effects are generally elevated near heavily traveled roadways. The CARB guidance document, *Air Quality and Land Use Handbook*, recommends that lead agencies, where possible, avoid siting new sensitive land uses within 500 feet of a freeway,[28] urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. This recommendation is not mandated by state law, but only serves as a general guidance to lead agencies when considering land use projects. The *Air Quality and Land Use Handbook* states that it is up to lead agencies to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues. The Project would not locate sensitive land uses within 500 feet of freeways. An analysis of the traffic report for the Project indicated average daily trips much less than the 100,000 vehicle per day limit for urban roads. For these reasons, no significant impacts are anticipated with respect to TACs.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: Create objectionable odors affecting a substantial number of people.

During Project construction, certain pieces of construction equipment could emit odors associated with exhaust. However, odors emitted from certain pieces of construction equipment would dissipate quickly and be short term in duration. Odors resulting from spray coating applications of paint and related materials during construction would be regulated by SCAQMD Rule 481. This rule imposes equipment and operational restrictions during construction for all spray painting and spray coating operations. Compliance with SCAQMD rules and permit requirements would ensure that no objectionable odors are

28 California Air Resources Board, *Air Quality and Land Use Handbook*, (2005, p. 8–9). The 2002 study of impacts along the San Diego (I-405) Freeway and the Long Beach (I-710) Freeway cited by CARB in its *Air Quality and Land Use Handbook* found a substantial reduction in pollutant concentrations, relative exposure, and health risk beyond 300 feet.

created during construction. Therefore, impacts from odors during construction would be less than significant.

According to the SCAQMD, "while almost any source may emit objectionable odors, some land uses will be more likely to produce odors. . .because of their operation." Land uses that are more likely to produce odors include agriculture, chemical plants, composting operations, dairies, fiberglass molding, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants. The proposed Project would not include any of these land uses. Consequently, no significant impacts from odors are anticipated from the Project.

Any unforeseen odors generated by the Project will be controlled in accordance with SCAQMD Rule 402 (Nuisance). Rule 402 prohibits the discharge of air contaminants that cause "injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." Failure to comply with Rule 402 could subject the offending facility to possible fines and/or operational limitations in an approved odor control or odor abatement plan.

The Project would develop additional urban uses on the Project site, similar to uses already existing in the surrounding area, and it does not include uses that would generate significant objectionable odors. Operation of the Project would involve the disposal of refuse. This refuse would be disposed of in outdoor trash receptacles and could generate occasional odors pending regular collection and ultimate disposal into a sanitary landfill. However, Project-generated refuse would be disposed into appropriate garbage collection containers, which would be covered and enclosed as required by the City of Glendale. Additionally, garbage collection containers would be emptied on a regular basis, in compliance with City of Glendale regulations for the collection of solid waste. As a result, impacts from odors would remain less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Greenhouse Gases

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

The SCAQMD has published draft GHG guidelines for assessing the significance of GHG emissions. As described previously, the draft guidelines recommend that all land use or mixed-use projects meet a threshold of 3,000 $MTCO_2E$. If a project exceeds the threshold, it should demonstrate a reduction in GHG emissions equivalent to AB 32 or meet a per service population GHG intensity of 4.8 $MTCO_2E$. The significance of the Project's GHG emissions will be evaluated based on the SCAQMD draft GHG guidelines.

The Project would result in short-term emissions of GHGs during construction. Site-specific or project-specific data were used in the CalEEMod model where available. Although GHGs are generated during construction and are accordingly considered one-time emissions, it is important to include construction-related GHG emissions when assessing all of the long-term GHG emissions associated with a project. Therefore, current practice is to annualize construction-related GHG emissions over a project's lifetime in order to include these emissions as part of a project's annualized lifetime total emissions, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. A project lifetime has generally been defined as 30 years. In accordance with this methodology, the estimated Project's construction GHG emissions have been annualized over a 30-year period and are included in the annualized operational GHG emissions.

The Project would become operational in 2016 and would result in direct annual emissions of GHGs during operation. Operational emissions would be generated by both area and mobile sources because of normal day-to-day activities. Area source emissions would be generated by the consumption of natural gas for space and water heating devices (including residential use water heater and boilers). Area source emissions are based on emission factors contained in the CalEEMod model. Mobile emissions would be generated by the motor vehicles traveling to and from the Project site. Trip generation rates provided in the traffic report for the Project were used to estimate the mobile source emissions.

The Project would also result in indirect GHG emissions due to the electricity demand, water consumption, and waste generation. The emission factor for CO_2 due to electrical demand from Glendale Water and Power, the electrical utility serving the Project, was selected in the CalEEMod model. Electricity consumption was based on default data found in CalEEMod for the respective land use types. In addition to electrical demand, the Project would also result in indirect GHG emissions due to water consumption, wastewater treatment, and solid waste generation. The estimate of Project water

demand, wastewater generation, and solid waste generation is described in **Section 4.9, Utilities and Service Systems**, of the Draft EIR.

The Project incorporates design features that would reduce GHG emissions. The following is a list of project design features that would reduce GHG emissions:

- Residential Density: High-density residential developments would reduce the number of project generated vehicles trips.
- Public Transit: Residential land uses within 0.25 mile of a public transit stop would reduce the number of project-generated vehicles trips and vehicle miles traveled.
- Energy Efficiency: The Project would be designed to meet the requirements of Glendale Ordinances 5714 and 5736, which adopt the California Green Building Standards (CALGreen).
- The Project would be designed to reduce water consumption compared to conventionally designed projects of similar size and scope. Such features would include low flow faucets, toilets, shower, and water efficient irrigation systems.
- The Project would be designed to reduce solid waste generation by including a recycling and composting program per City of Glendale requirements.

The annual net GHG emissions associated with the operation of the Project are provided below in **Table 4.2-11, Estimated Operational Greenhouse Gas Emissions**. The sum of the direct and indirect emissions associated with the Project is compared with the SCAQMD's screening threshold of significance for mixed-use and all land use projects, which is 3,000 $MTCO_2E$ per year. As shown in **Table 4.2-11**, the Project would not result in a significant impact with respect to GHG emissions.

Table 4.2-11
Estimated Operational Greenhouse Gas Emissions

GHG Emissions Source	Emissions ($MT CO_2E$/year)
Construction	19.3
Operational (mobile) sources	1,322.8
Area sources	1.5
Energy	371.0
Waste	19.6
Water	34.3
Annual total	**1,768.5**

*Source: Emissions calculations are provided in **Appendix 4.2***
Note: Totals in table may not appear to add exactly due to rounding in the computer model calculations.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

Air Quality

Threshold: **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).**

In large part, the SCAQMD 2012 AQMP was prepared to accommodate growth, to meet state and federal air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. According to the SCAQMD *CEQA Air Quality Handbook*, projects that are within the mass emission thresholds identified above should be considered less than significant on a cumulative basis unless there is other pertinent information to the contrary.[29] As shown in **Table 4.2-8** and **Table 4.2-9**, construction emissions would not exceed the SCAQMD project-level thresholds of significance, and the operational emissions would not exceed the SCAQMD project-level thresholds of significance.

29 South Coast Air Quality Management District, *CEQA Air Quality Handbook* (9–12).

Therefore, the Project would not be cumulatively considerable and would result in a less than significant impact on a cumulative basis.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Greenhouse Gases

Threshold: **Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.**

The goal of AB 32 is to reduce statewide GHG emissions to 1990 levels by 2020. In December 2008, CARB adopted the *Climate Change Scoping Plan*, which details strategies to meet that goal. The Scoping Plan instructs local governments to establish sustainable community strategies to reduce GHG emissions associated with transportation, energy, and water, as required under SB 375. Planning efforts that lead to reduced vehicle trips while preserving personal mobility should be undertaken in addition to programs and designs that enhance and complement land use and transit strategies. The *Climate Change Scoping Plan* also recommends energy-efficiency measures in buildings such as maximizing the use of energy efficient appliances and solar water heating as well as complying with green building standards that result in decreased energy consumption compared to Title 24 building codes. In addition, the *Climate Change Scoping Plan* encourages the use of solar photovoltaic panels and other renewable sources of energy to provide clean energy and reduce fossil-fuel based energy.

In addition to the measures listed in the *Climate Change Scoping Plan*, other state offices have provided recommended measures that would assist lead agencies in determining consistency with the state's GHG reduction goals. The California Attorney General's Office (AGO) has stated that lead agencies can play an important role in "moving the State away from 'business as usual' and toward a low-carbon future."[30] The AGO has released a guidance document that provides information to lead agencies that may be helpful in carrying out their duties under CEQA with respect to GHGs and climate change impacts. Provided in the document are measures that can be included as project design features, required changes to the project, or mitigation measures at the project level and at the general-plan level. The measures are not intended to be exhaustive and may not be appropriate for every project or general plan. The AGO affirms that "the decision of whether to approve a project—as proposed or with

30 California Office of the Attorney General, "The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Level" (2008).

required changes or mitigation—is for the local agency, exercising its informed judgment in compliance with the law and balancing a variety of public objectives".

The Project is consistent with the goal of AB 32. As shown previously, the Project would incorporate measures that reduce GHG emissions compared to a conventional project of similar size and scope. The Project is also located in an urban area that would reduce vehicle trips and vehicles miles traveled due to the urban infill characteristics and proximity to public transit stops. These measures and features are consistent with existing recommendations to reduce GHG emissions. The Project would emit net emissions less than 3,000 $MTCO_2E$ of GHG per year screening threshold, which in of itself is considered a less than significant impact. Therefore, the Project would result in a less than significant cumulative impact for GHG emissions.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

4.3 LAND USE AND PLANNING

This section addresses the consistency of the Project with applicable local land-use policies. The Project is subject to the City's General Plan, the City's Municipal Code including the Zoning Ordinance, and the Redevelopment Plan for the San Fernando Road Corridor Redevelopment Project area.

ENVIRONMENTAL SETTING

Regional Setting

The City of Glendale is located within the six-county jurisdiction of the Southern California Association of Governments (SCAG), which also includes Ventura, Orange, San Bernardino, Riverside, and Imperial counties. SCAG has divided its jurisdiction into 13 Subregions to facilitate regional planning efforts. The City is located in the Arroyo-Verdugo Subregion.

The Arroyo-Verdugo Subregion is bordered by the San Gabriel Mountains to the north (North Los Angeles County Subregion), the Los Angeles River and Santa Monica Mountains to the south (Los Angeles City Subregion), the San Fernando Valley to the west (Los Angeles City Subregion), and the San Gabriel Valley (San Gabriel Valley Subregion) to the east. The Arroyo-Verdugo Subregion includes the Cities of Burbank, Glendale, La Canada-Flintridge, and the unincorporated communities of La Crescenta and Montrose.

Local Setting

The Project site is located within the western portion of the City of Glendale and within the central portion of the San Fernando Road Corridor Redevelopment Area. The Project site is located approximately 1,200 feet east of the boundary between the Cities of Glendale and Los Angeles. Interstate (I) 5 (Golden State Freeway), State Route (SR) 134 (Ventura Freeway), and SR-2 (Glendale Freeway) provide regional access to the Project site. As illustrated in **Figure 4.3-1, Project Vicinity**, the Project site consists of four continuous parcels located adjacent to the north of West Colorado Street and west of South Pacific Avenue.

The Project site is 0.99 acres (43,125 square feet) and is currently developed with a single-story commercial building, a daycare center, surface parking lots, and a vacant paved lot. Land uses surrounding the Project site include a 3-story commercial building to the west, four single-family residences, and two multifamily residences to the north; a gas station to the east; and the ICIS mixed-use project to the south of W. Colorado Street.

Regulatory Setting

Southern California Association of Governments

SCAG is the authorized regional agency for inter-Governmental Review of programs proposed for federal financial assistance and direct development activities. Additionally, SCAG reviews environmental impact reports for projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and the *CEQA Guidelines*. SCAG is also responsible for the designated Regional Transportation Plan, including its Sustainable Communities Strategy component pursuant to SB 375. The Sustainable Communities Strategy has been formulated to reduce greenhouse gas (GHG) emissions from passenger vehicles by 8 percent per capita by 2020 and 13 percent per capita by 2035 compared to 2005 targets set by the California Air Resources Board.

The 2012–2035 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socioeconomic, geographic, and commercial limitations.

SCAG reviews the consistency of local plans, projects, and programs with regional plans to determine if projects are considered regionally significant. If a project meets the definition for "Projects of Statewide, Regional, or Areawide Significance" contained in Section 15206(b) of the State *CEQA Guidelines*, SCAG requests that the project be analyzed for consistency with applicable policies in the RTP/SCS. The Project does not meet the criteria for projects of Statewide, Regional, or Areawide Significance.

City of Glendale General Plan

Development in the City is subject to the City's General Plan. The State of California mandates that every city and county prepare a general plan. A general plan is a comprehensive policy document outlining the capacity of future development in a city or county. The City's General Plan is divided into 11 elements, including Land Use, Housing, Circulation, Open Space, Conservation, Noise, Safety, Air Quality, Community Facilities, Recreation, and Historical Preservation. The Land-Use Element has the broadest scope of all the General Plan Elements. The Land-Use Element establishes the pattern of land use in the city and sets standards and guidelines to regulate development. As illustrated in **Figure 4.3-2, Land Use Designation Map**, the Project site is currently designated as Mixed Use.

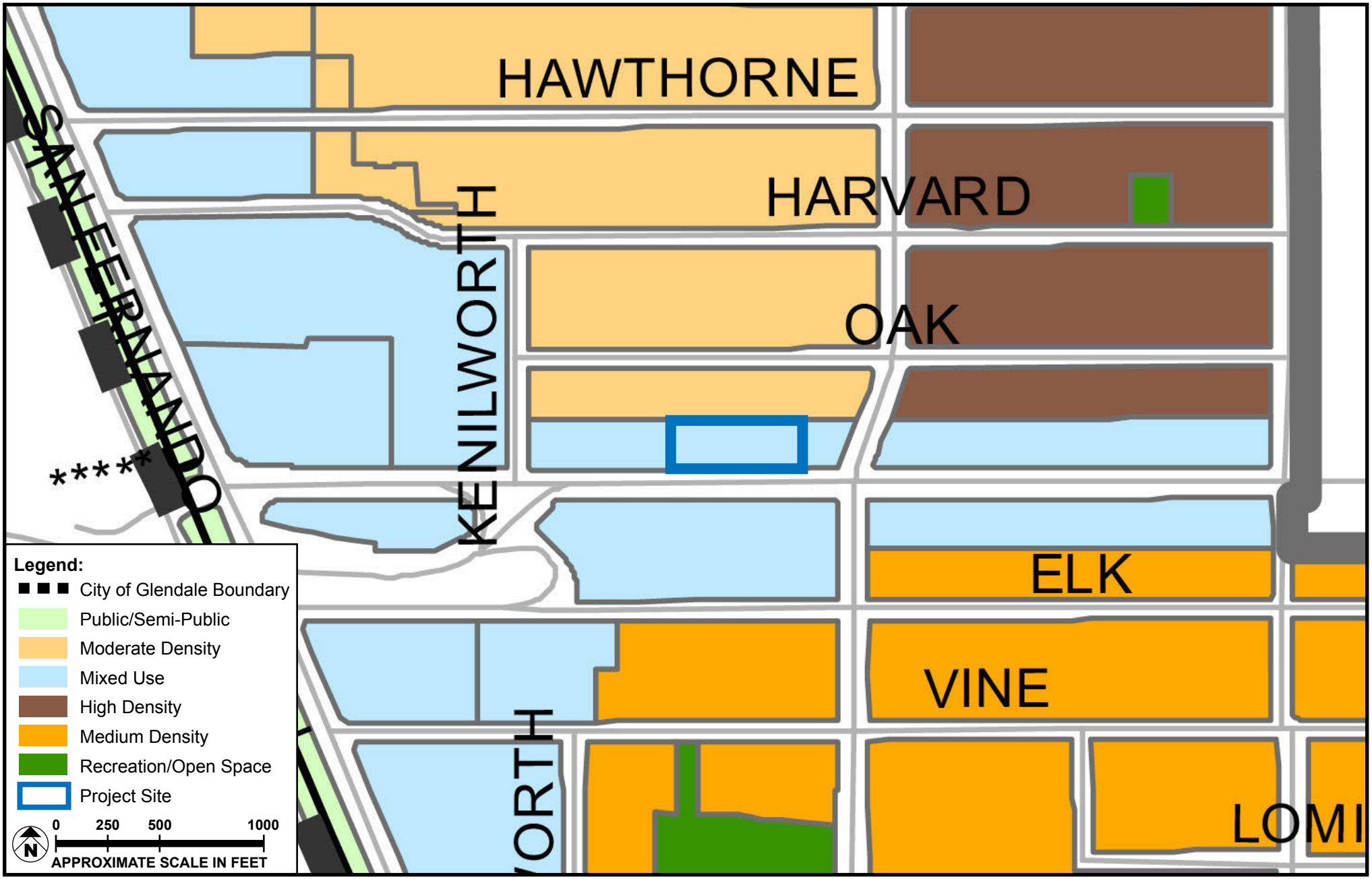
SOURCE: Google Earth – 2013; Meridian Consultants, LLC – November 2013.

FIGURE **4.3-1**

Meridian Consultants

Project Vicinity

046-001-13



SOURCE: Meridian Consultants, LLC – October 2013.

FIGURE **4.3-2**

Meridian Consultants

Land Use Designation Map

046-001-13

City of Glendale Zoning Ordinance

The Glendale Zoning Ordinance is the primary tool for implementing the General Plan Land-Use Element. For each defined zone, the ordinance identifies the uses permitted and applicable development standards such as density, height, parking, and landscaping requirements.

As illustrated on **Figure 4.3-3, Zoning Designation Map**, the Project site is currently zoned Commercial/Residential Mixed Use (SFMU). The SFMU zoning classification allows for a mix of residential and commercial, or just commercial, or just residential. For lots fronting San Fernando Road, Broadway, and Colorado Street, commercial uses must be located along the street frontage. The SFMU zone designation allows buildings on a site adjacent to the Moderate Density Residential (R-3050) zone to be up to 4 stories and 60 feet in height and with a maximum density of 87 dwelling units per acre. The Project site is 0.99 acres in size and would be allowed a maximum density of 86 dwelling units.

Glendale Successor Agency

In 1992, the Glendale Redevelopment Agency[1] prepared and adopted the Redevelopment Plan for the San Fernando Road Corridor Redevelopment Project Area (the "Redevelopment Plan"). The Project site is located within the boundaries of the Redevelopment Plan, which includes 750 acres generally extending along the length of the San Fernando Road corridor and bounded by the I-5 Freeway and the Union Pacific Railroad/Metro Transportation Authority (UPRR/MTA) right-of-way to the west. The primary objective of the Redevelopment Plan is to eliminate and prevent the spread of blight and deterioration in the Redevelopment Plan.

ABx126 and AB1484 (collectively "The Dissolution Act") eliminated redevelopment agencies in California effective February 1, 2012. The City of Glendale elected to assume the power, duties, and obligations of the former Glendale Redevelopment Agency as the Glendale Successor Agency pursuant to the Dissolution Act. The Successor Agency[2] is responsible for winding down the activities of the former Glendale Redevelopment Agency.

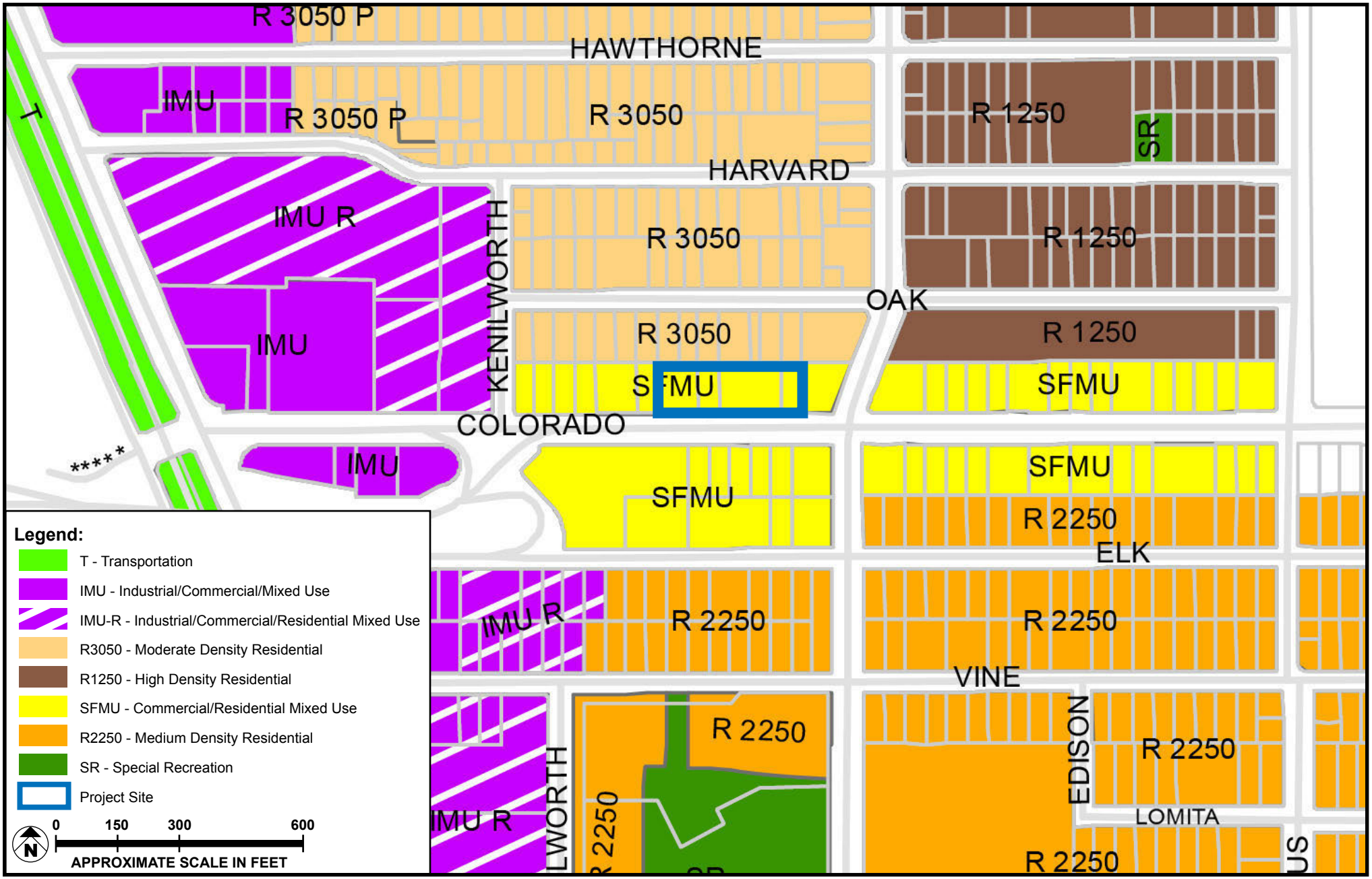
1 The Glendale Redevelopment Agency was created in 1972 for the purpose of improving, upgrading, and revitalizing areas within the City that had become blighted because of deterioration, disuse, and unproductive economic conditions. It was a legal and separate public body, with separate powers and a separate budget from the City.

2 The Successor Agency undertakes enforceable obligations and performs duties pursuant to the enforceable obligations in compliance with the Dissolution Act. The Successor Agency staff also serves as staff to the Oversight Board.

According to the Redevelopment Plan, the former Glendale Redevelopment Agency proposed the following actions to meet this objective:

- Participation in the redevelopment process by owners and occupants of properties located in the Redevelopment Plan boundaries, consistent with the Redevelopment Plan and rules adopted by the Redevelopment Agency
- Acquisition of real property
- Management of property under the ownership and control of the Redevelopment Agency
- Relocation assistance to displaced occupants of property acquired by the Redevelopment Agency in the Redevelopment Plan boundaries
- Demolition or removal of buildings and improvements
- Installation, construction, expansion, addition, extraordinary maintenance, or reconstruction of streets, utilities, and other public facilities and improvements
- Disposition of property for uses in accordance with the Redevelopment Plan
- Redevelopment of land by private enterprise or public agencies for uses in accordance with the Redevelopment Plan
- Rehabilitation of structures and improvements by present owners, their successors, and the Redevelopment Agency
- Rehabilitation, development, or construction of low and moderate income housing within the City
- Retention of controls and establishment of restrictions or covenants running with the land so that property will continue to be used in accordance with the Redevelopment Plan

As described previously, the Project is located within the Redevelopment Plan boundaries and is subject to the applicable provisions of the Redevelopment Plan for the San Fernando Road Corridor Redevelopment Project Area. Since dissolution of Redevelopment and specifically pursuant to the Health and Safety Code 34173(i), all land use–related plans and functions of the former redevelopment agency were transferred to the city.



SOURCE: Meridian Consultants, LLC – October 2013.

FIGURE **4.3-3**

Meridian Consultants

Zoning Designation Map

046-001-13

Redevelopment Plan for the San Fernando Road Corridor Redevelopment Project Area (the "Redevelopment Plan")

As shown in **Figure 4.3-4, San Fernando Road Corridor Redevelopment Project Area**, the San Fernando Road Corridor Redevelopment Project Area includes 750 acres, generally extending along the length of the San Fernando Road corridor, including areas west to the I-5 Freeway and to the Union Pacific Railroad right-of-way (the "Redevelopment Project area"). The primary objective of the Redevelopment Plan is to eliminate conditions of blight by revitalizing and upgrading the commercial and industrial properties and facilities within the Redevelopment Project area.

Improvements identified in the Redevelopment Plan include the removal or rehabilitation of physically obsolete or substandard structures; the elimination of nonconforming land uses; improvements to streets, drainage, and other public facilities; and general aesthetic improvement of the Redevelopment Project Area.[3] New General Plan and Zoning designations and development regulations were adopted by the Glendale City Council for the Redevelopment Project Area on August 17, 2004. Several commercial/office/retail projects and public improvement projects are located within the Redevelopment Project Area.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines a project may be deemed to have a significant impact on land use and planning if it would:

- Physically divide an established community
- Conflict with any applicable land-use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect
- Conflict with any applicable habitat conservation plan or natural community conservation plan (issue is addressed in **Section 6.0, Effects Not Found To Be Significant**)

3 City of Glendale, "San Fernando Road Redevelopment Project Area," http://www.ci.glendale.ca.us/dev-svcs/SFCorridor.asp.

Methodology

The determination of the Project's consistency with applicable land-use plans and policies is based on a review of the previously identified planning documents that regulate land use or guide land-use decisions at and around the Project site. The Project is considered to be consistent with the provisions of the identified regional and local plans if it meets the general intent of the plans and would not preclude the attainment of the primary intent of the land-use plan or policy.

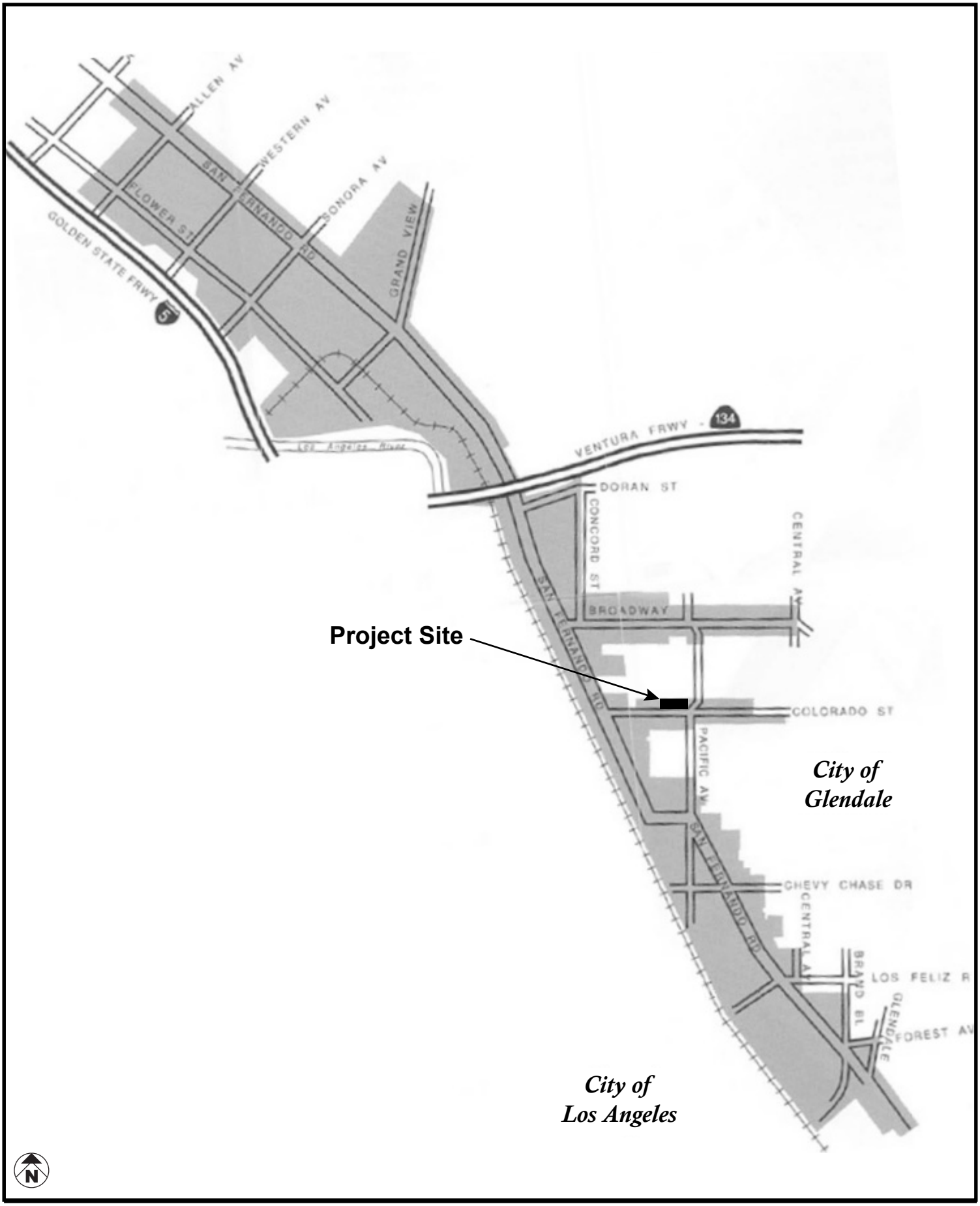
Project Impacts

Threshold: Physically divide an established community.

The existing uses on the Project site are developed with a 1-story commercial building, a daycare center, and surface parking and vacant lots. The Project components would be established in the SFMU zone, which is presently underutilized. The Project would develop a total of 90 multifamily apartment units, 18,000 square feet of medical space, and 1,000 square feet of restaurant, counter service with limited seating. The development features four "structures" connected at the podium level and by the two levels of subterranean parking underneath. The Project site land-use designation is Mixed Use and zoning designation is SFMU, as identified in **Figure 4.3-2** and **Figure 4.3-3**. The General Plan's land-use designations surrounding the Project site include Residential to the north and Mixed Use to the south, east, and west. The zoning designations surrounding the Project site include Medium Density Residential to the north and commercial/residential mixed uses to the east, west, and south. The SFMU zoning classification allows for a mix of residential and commercial, or just commercial, or just residential. A drop-off, circular driveway would be provided adjacent to West Colorado Street for all uses within the building. The restaurant, counter service with limited seating would be provided on the ground floor of the easternmost corner of the complex. The Project would provide open space areas in the northwest portion of the site and along West Colorado Street. The Project would not divide an existing residential area.

As mentioned earlier, the Project lies along the frontages of Colorado Street. According to the City's General Plan Circulation Element, Colorado Street is a major arterial street.[4] Major arterial streets are intended for the distribution of traffic to freeways, other arterials, collectors (urban, community, and

4 City of Glendale, Community Development Department. "City of Glendale General Plan, Circulation Element." (August 25, 1998).



SOURCE: City of Glendale - 2008

FIGURE **4.3-4**

Meridian Consultants

San Fernando Road Corridor Redevelopment Project Area

046-001-13

neighborhood), activity and business centers, and other major traffic generators within and outside of the City.[5] The General Plan recommends that along the frontages of major arterials like Colorado Street should have the following uses: Light Industrial, Neighborhoods, Community Regional Commercial, Parks, and Libraries.[6] Development of the Project would adhere to these standards as it would develop a mixed-use neighborhood along Colorado Street, which would include residential, medical, and food services components.

The proposed Project does not involve any site development that would physically divide any established community (residential, commercial, or industrial), neighborhood, or district within the San Fernando Road Redevelopment Corridor Project area in western Glendale. The Project site is located in an urbanized area surrounded by commercial, office, parking, and medium-to-high density residential uses. Access to parking would be provided via West Colorado Street. Since the proposed Project would not introduce new infrastructure (except where required by utility service providers to accommodate anticipated demand by the proposed uses) and the proposed uses would be complimentary to the surrounding land uses, impacts associated with physically dividing an established community (residential, commercial, or industrial) would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Conflict with any applicable land-use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.**

The development features four "structures" connected at the podium level and by two levels of subterranean parking underneath. The Project would consist of 18,000 square feet of medical office and 1,000 square feet of restaurant, counter service with limited seating on the first floor and 90 residential units on four floors above this commercial space.

A total of 246 subterranean parking spaces would be provided on site per the *Glendale Municipal Code* (GMC). Access to the subterranean garage would be provided via one driveway on Colorado Street. A

5 City of Glendale (August 25, 1998).

6 City of Glendale (August 25, 1998).

drop-off, circular driveway would be provided adjacent to W. Colorado Street for all uses proposed in the building. The restaurant, counter service with limited seating would be provided on the ground floor of the easternmost corner of the complex. The Project would provide open space areas in the northwest portion of the site and along Colorado Street.

As previously stated, the Project site is designated as Mixed Use by the General Plan and zoned as SFMU. The maximum allowed residential development by the SFMU Zone is 87 dwelling units per acre when abutting the R-3050, R-2250, R-1650 and R-1250 zones. The maximum height allowed is 60 feet and 4 stories when abutting the R-3050, R-2250, R-1650, and R-1250 zones. The Mixed-Use designation permits a mix of commercial and residential uses as well as exclusively commercial, industrial, or residential land uses. Similarly, pursuant to Section 30.14.010(B) Table 30.14-A of the City's Zoning Ordinance, medical, restaurant, counter service with limited seating, and residential uses are permitted within the SFMU Zone. Therefore, the Mixed-Use development as proposed would be permitted under the existing General Plan and zoning designations. No General Plan amendment or zone change is proposed or required.

The applicant is requesting the following discretionary approvals: a Stage I/II Design Approval, Density Bonus Housing Plan, and a Density Bonus Housing Agreement. These are common practices in the City and are required to ensure consistency with the City's goals and policies.

With respect to the Stage I/II Design Review, the City of Glendale Community Development Division has a multistage design review process for proposed projects. The Stage I/II Design Review will include both conceptual and final design review, and will be considered for approval by the City Council after completion of the environmental analysis. The design of the Project would be subject to the *City of Glendale Comprehensive Design Guidelines*.

With respect to the Density Bonus Housing Plan, the Project would include at least 5 percent of the total units (approximately 5 units of the proposed 90 units) for very low income households. State law and Chapter 30.36 of the *Glendale Municipal Code* indicates that if at least 5 percent of the units are designated for very low income households or if 10 percent of the units are designated for low income households, then the project is eligible for a 20 percent density bonus.

Implementation of the density housing bonus would allow the maximum residential density for the Project site to increase by 17 units, including the 5 affordable units, above the allowed 86 units under the *Glendale Municipal Code*. Therefore, the applicant would be allowed to develop up to 103 residential units on the site. However, the proposed Project will be comprised of a total of 90 units, which includes 5 very low income affordable units and 4 bonus units. Accordingly, the Project is taking

only partial advantage of the allowed number of bonus units permitted by providing five very low income units.

With respect to the Story Increase, because the Project would provide five units of very low income housing, and because the Project will qualify for a Density Bonus under State and local law, the Project will also qualify for an incentive, which is a "reduction in site development standards or a modification of zoning code requirements" according to the *Glendale Municipal Code,* Section 30.36.030. The incentive requested is a waiver of the requirement for the 4-story standard and the use of an additional story for 5 total stories. Incentives such as this must be granted to qualifying projects per the *Glendale Municipal Code,* Section 30.36.070.

The Project would include five very low income affordable housing units and would use a Density Bonus Housing Plan and Density Bonus Housing Agreement to ensure that these units are maintained at the very low income level for a minimum of 30 years, which is required by the City of Glendale Community Development Department.

An analysis of the Project's consistency with the applicable goals of the land-use plans, policies, and regulations of the General Plan and the San Fernando Road Corridor Redevelopment Plan is provided in the following paragraphs.

Consistency with General Plan

Land-Use Element

General

Goal: Effectuate a moderate growth policy for the City of Glendale consistent with community needs, available services, and the environment.

As discussed in **Section 4.5, Population and Housing**, the expected increase in population and housing from the Project is within the anticipated increase for the City of Glendale. As such, the Project does not conflict and, in fact, would be consistent with this goal.

Goal: Reinforce Glendale's image and community identity with the greater Los Angeles area metropolitan complex.

The site consists of a commercial office building, a daycare center, a surface parking lot, and vacant lots. The Project would be consistent with the City's image and community identity by adding a residential project with affordable housing into the Redevelopment Area. The Project would provide residential amenities, such as an activity room and outdoor terraces, which may be available in similar

developments in the greater Los Angeles area. Furthermore, the Project would bolster the City's image and community identity by providing much needed medical office space for its citizens and a restaurant, counter service with limited seating, which would provide economic and leisure opportunities to Project residents of Glendale. As such, the Project would be consistent with this goal.

Goal: Form an urban environment which will provide for residential diversity and opportunity.

The Project would add to the diversity of existing residential housing types in the City by providing one-bedroom and two-bedroom apartments in an area with multiple transit options including the Glendale Transportation Center (GTC) bus routes and Beeline Bus Routes. Based on these characteristics, the Project would be consistent with this goal. In addition, the Project would add medical office space and a restaurant, counter service with limited seating, which would provide public health, retail, and leisure opportunities to the City.

Goal: Improve the livability of the total community for all Glendale residents as expressed in living, working and shopping areas, as well as community facilities.

The Project would improve the livability of the City by creating a diversity of living opportunities that would enhance western Glendale and one of the entrances to the City. The apartment building would provide a diverse range of living units, which would consist of 68 one-bedroom apartment units and 22 two-bedroom apartment units within the western portion of the City. The Project site is designed to include 3,661 square feet of ground floor planting area and 2,900 square feet of terrace planting area on the second through fifth floors. The Project would pay Development Impact Fees to partially offset the impact on parks and recreation facilities. The medical office space and restaurant, counter service with limited seating would provide employment opportunities for the residents of Glendale. For these reasons, the Project would be consistent with this goal.

Goal: Promote development and improvement within the community capitalizing on the location of, and access to, Glendale as adjacent to the regional core.

The Project would implement the goals of the City's Redevelopment Plan by developing and improving the Project site, which currently contains a commercial office building, a daycare center, and vacant lots, in the western portion Glendale and in close proximity to public transportation. As such, this Project would be consistent with this goal.

Goal: Provide for measures to prevent the loss of life, injury, and economic dislocation resulting from fire, flood, and geologic hazards.

The Project would comply with all applicable City Fire and Building Codes, thus minimizing the loss of life or injury from fire and geologic hazards. In addition, the Project site is not located in a 100-year flood zone and, therefore, is not subject to flooding hazards. As a result, the Project would be consistent with this goal.

Residential

Goal: Promote the revitalization or, if necessary, the replacement of deteriorating neighborhoods.

The Project would promote revitalization of the central portion of the Redevelopment Project area by replacing an underutilized area with a mixed-use project. The Project would introduce new residential uses and would include residential amenities, medical services, a small restaurant establishment with counter service and limited seating, and increased economic activity for the residents and any visitors to the Project site. For these reasons, the Project would be consistent with this goal.

Goal: Support the creation of higher density residential development and alternative forms of medium and high density housing in those areas best suited from the standpoint of accessibility, current development, community organization, transportation and circulation facilities, and economic feasibility.

The Project would provide an alternative form of high density housing by constructing one- and two-bedroom apartment units in the central portion of the San Fernando Road Corridor Redevelopment Area near multiple public transportation routes. The Project site is adjacent to necessary municipal services, maintains regional access, is near recreational amenities such the Pacific Park and Community Center and Harvard Mini Park, and is near multiple commercial opportunities such as commercial and employment opportunities along Colorado Street and Pacific Avenue in Glendale. As such, the Project would be consistent with this goal.

Goal: Provide opportunities for diversity in housing styles for all economic segments of the community.

The Project would add to the diversity of residential housing types in the City by providing 90 multifamily residential apartment units; specifically, 68 one-bedroom units, and 22 two-bedroom units, of which 5 units would be for very low income affordable housing units for City residents. For these reasons, the Project would be consistent with this goal.

Circulation

Goal: Insure that existing development is provided with adequate and safe streets.

Goal: Provide adequate streets in advance of development capable of accommodating traffic associated with proposed uses.

Development of the Project would not result in any physical changes to Colorado Street, and all lanes within the major arterial streets would remain the same. The Project would provide 246 parking spaces with a total of 23 spaces reserved for guest parking. Each level of the parking structure would provide pedestrian access to each corresponding floor of the building. The parking structure would be designed to City of Glendale Building Codes for subterranean parking structures. Sight lines would be required according to the City of Glendale Department of Public Works standards to ensure safe entry/exit from the parking structure. For these reasons, the Project would be consistent with these goals.

Goal: Develop clusters of uses which will facilitate the development of public transportation networks, decreasing dependence on the automobile.

The Project site is in close proximity to the MTA bus lines and the City Bus lines provided by the City of Glendale. The Project would provide 20 secured bicycle spaces within the parking structure. As such, the Project would be consistent with this goal.

Housing Element

Goal 1: A city with a wide range of housing types to meet the needs of current and future residents.

The Project would add to the diversity of residential housing types in the City by providing 90 residential units, which includes 68 one-bedroom units and 22 two-bedroom units within the Redevelopment Project area, in additional to being in close proximity to public transportation. Five of these units would be designated as very low income apartment units. As such, the Project would be consistent with this goal.

Goal 2: A city with high quality residential neighborhoods that are attractive and well designed.

The Project would comply with the design guidelines stipulated in the Redevelopment Project area. The Project site currently consists of a commercial office building, a daycare center, and vacant lots in an underutilized area of the City. Redevelopment of this location would improve the Redevelopment Project area as a whole and would provide needed housing units, medical services, and a small

restaurant with limited counter service. The Project site is designed to include 3,661 square feet of ground floor planting area and 2,900 square feet of terrace planting area on the second through fifth floors. The landscaping and upkeep of the building would be maintained by a building management company. Based on these reasons, the Project would be consistent with this goal.

Goal 4: A city with housing services that address groups with special housing needs.

The Project would provide 90 apartment units. These units would include one- and two-bedroom apartment units and would thus be available to a diverse group, ranging from single people to families. Five of these units would be designated as very low income apartment units. All units would be handicap adaptable with at least one unit being handicap accessible. For this reason, the Project would be consistent with this goal.

Goal 6: A city with housing that is livable and sustainable.

As discussed in **Section 3.0, Project Description**, the Project would recycle a minimum of 50 percent of the demolition and construction debris, would incorporate trash and recycling receptacles for residents in the parking structure, would install low flow devices within the apartment units as well as water conservation techniques for the landscaping, and the Project would comply with the *Urban Design Guidelines* adopted by the City, which incorporate livable community concepts by creating open space and facilitating pedestrian movement. The Project incorporates many of these concepts and the City would review the Project for consistency with the guidelines. As such, the Project would be consistent with this goal.

Circulation Element

Goal 2: Minimization of congestion, air pollution, and noise associated with motor vehicles.

The Project would provide 20 secured bicycle spaces and is close to major transportation lines for bus service, as well as a Metrolink station. The Project would incorporate measures during the construction phase to minimize dust and erosion.

Goal 3: Reasonable access to services and goods in Glendale by a variety of transportation modes.

The Project would provide growth in an area that is served by public transportation. The Project would be located in a commercial/industrial and residential area, which would minimize lengths of automobile trips to these nearby land uses. In addition, the Project would construct Americans with Disabilities Act

(ADA)–compliant sidewalks and parking spaces. For these reasons, the Project would be consistent with this goal.

Goal 4: Functional and safe streetscapes that are aesthetically pleasing for both pedestrians and vehicular travel.

In general, the landscaping materials to be used would create a distinct character for the Project site by creating a visual cohesiveness throughout the streetscape. A selection of canopy and ground cover plant materials (i.e., trees, shrubbery, flowers) would be located along Colorado Street and within the northwestern portion of the site and designed to adhere to the Glendale design guidelines while seeking to compliment adjacent development. The architectural design of the building would provide an aesthetic building to one of the entrances to the City of Glendale. As such, the Project would be consistent with this goal.

Noise Element

Goal 2: Reduce noise from nontransportation sources.

The Project would install mechanical equipment in accordance with the City's Noise Ordinance. As such, the Project would be consistent with this goal.

Goal 3: Continue incorporating noise considerations into land-use planning decisions.

The Project would be located within a 65 to 70 a-weighted decibels [dB(A)] 24-hour average Community Noise Equivalent Level (CNEL) zone identified in the City's Noise Element. The Project would be located in the conditionally acceptable land-use compatibility designation according to the City's Noise Element. The Project would construct the residential building to the standards set forth in the *California Building Code*, which specifies that the indoor noise levels for residential living spaces not exceed 45 dB(A) CNEL. For these reasons, the Project would be consistent with this goal.

Goal 4: Enhance measures to control construction noise impacts.

The Project would conform to the *Glendale Municipal Code* by performing demolition, grading, and construction activities between the hours of 7:00 AM and 7:00 PM, would incorporate best management practices (BMPs) to reduce construction noise levels, and would locate construction staging areas away from vibration and noise-sensitive land uses. For these reasons, the Project would be consistent with this Project.

Conservation and Open Space Element

Goal 7: Continue programs which enhance community design and protect environmental resource quality.

The Project would provide on-site recreational amenities in an activity room as well as outdoor terrace areas. The Project site is designed to include 3,661 square feet of ground floor planting area and 2,900 square feet of terrace planting area on the second through fifth floors. The perimeter of the Project site would be landscaped with trees, shrubs, and grasses as well as contain architectural features. The Project would be constructed on an underutilized site that contains a commercial building, a daycare center, and vacant lots. As such, the Project would be consistent with this goal.

The property is located in Recreation Planning Area 7. This Area is served by Harvard Mini Park, Milford Mini Park, and the Pacific Park and Community Center, as well as Griffith Park. This Planning Area currently has a ratio of approximately 0.44 acres of neighborhood parkland per 1,000 residents, less than the recommended ratio of 1 acre per 1,000 residents for neighborhood parkland. However, the Project would pay the park facilities' mitigation fee to help mitigation impacts on parks and recreational facilities, and the Project would not contribute appreciably to housing demand in the city, so it is consistent with the Recreation Element.

Goal 12: Continue to conserve water resources and provide for the protection and improvement of water quality.

The Project would be required to filter the first 0.75 inches of rainfall on site through the above-grade standard urban storm water mitigation plan (SUSMP) planters. The Project would install low flow water devices, such as low flow toilets and water faucets, in the apartments and water conservation irrigation systems. For these reasons, the Project would be consistent with this goal.

Consistency With San Fernando Road Corridor Redevelopment Project Plan

Goal: Improve neighborhood compatibility between industrial and adjacent residential land uses.

The Project would revitalize an underutilized area within the Redevelopment Project area. The Project site is designated as Mixed Use by the General Plan and zoned as SFMU by the Zoning Map. The Mixed-Use designation permits a mix of commercial and residential uses as well as exclusively commercial, industrial, or residential land uses. Similarly, pursuant to Section 30.14.010(B) Table 30.14-A of the City's Zoning Ordinance, a mix of commercial and residential uses are permitted within the SFMU zone. For lots fronting San Fernando Road, Broadway, and Colorado Street, commercial uses must be located

along the street frontage. The medical offices and restaurant, counter service with limited seating would be located along the frontage of Colorado Street. Therefore, the mixed-use development uses as proposed would be permitted under the existing General Plan and zoning designations. These designations demonstrate that the City of Glendale envisioned this area as a transitional area.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

The identified related projects all consist of individual development projects that do not involve any site improvements that would combine to physically divide any existing community, neighborhood, or district in the San Fernando Road area of Glendale. No cumulative impacts, therefore, would result. As previously stated, Project implementation would be consistent with land uses within the Project area and compatible to its surrounding uses. It would also provide needed housing and medical services within the City of Glendale. Consequently, the incremental effect of the Project would not be cumulatively considerable and the Project's cumulative impacts would be less than significant.

As discussed previously, implementation of the Project, on its own, would not result in land-use incompatibilities or plan inconsistencies; thus, no significant land-use impacts would occur. Development of the identified related projects would result in changes to existing land uses in the City through the conversion of vacant land and low density uses to higher density uses. All identified Citywide-related projects would be reviewed for consistency with adopted land-use plans and policies by the City of Glendale. For this reason, related projects are anticipated to be consistent with applicable General Plan and Zoning Ordinances, or will be subject to an allowable exception, and further, would be subject to CEQA, mitigation requirements, and design review. Therefore, cumulative impacts to land use as a result of development conflicting with applicable land-use plans and policies would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

4.4 NOISE

This section of the environmental impact report (EIR) presents the results of an analysis of both existing background conditions and future noise conditions following completion of the Project. This section incorporates the findings of the Traffic Impact Analysis, prepared by KOA Corporation (see **Appendix 4.8**).

ENVIRONMENTAL SETTING

Fundamentals of Sound

Sound is technically described in terms of loudness and frequency. The loudness of sound or noise, two terms that are used interchangeably throughout this section, is measured using a logarithmic scale with 10 as the base. The standard unit of sound measurement is the decibel (dB), or dB scale, which describes the physical intensity of the pressure vibrations that make up any sound. The decibel scale sets the hearing threshold as 0 dB. The frequency of the sound is related to the pressure vibration, which is measured in hertz (Hz), which is measured in cycles per second.

The human ear can detect a wide range of frequencies and sound pressure levels. The subjective audible sound pressure range is from 0 dB to 140 dB. The just noticeable difference is typically around 1 dB for sound level. The hearing thresholds show considerable variability from individual to individual with a standard variation among individuals of about 5 dB. Human ears can detect not only changes in overall sound pressure level, but also detect sound with a sound pressure well below the background noise level. Studies have shown that sound is perceived to be twice as loud if the sound level increases by 10 dB. Similarly, a 20-dB increase in the sound level is perceived as four times as loud by the normal human ear.

In response to this sensitivity of the human ear to different frequencies, the A-weighted noise level, referenced in units of dB(A), was developed to better correspond with subjective judgment of sound levels by individuals.

A doubling of sound energy results in a 3-dB(A) increase in sound, which means that a doubling of sound wave energy (e.g., doubling the volume of traffic on a roadway) would result in a barely perceptible change in sound level. In general, changes in a noise level of less than 3 dBA are not typically noticed by the human ear.[1] Changes from 3 to 5 dB(A) may be noticed by some individuals who are extremely

1 U.S. Department of Transportation, Federal Highway Administration, *Fundamentals and Abatement of Highway Traffic Noise* (Springfield, Virginia: U.S. Department of Transportation, Federal Highway Administration, September 1980, p. 81).

sensitive to changes in noise. An increase of greater than 5 dB(A) is readily noticeable, while the human ear perceives a 10-dB(A) increase in sound level to be a doubling of sound volume.

Noise sources can generally be categorized as one of two types: (1) point sources, such as stationary mechanical equipment; and (2) line sources, such as a roadway. Noise levels generated by a variety of activities are shown in **Figure 4.4-1, Common Noise Levels**. Sound generated by a point source typically diminishes or attenuates at a rate of 6 dB(A) for each doubling of distance from the source to the receptor at acoustically hard sites and at a rate of 7.5 dB(A) at acoustically soft sites. A hard, or reflective, site consists of asphalt, concrete, and very hard-packed soil, which does not provide any excess ground-effect attenuation, while an acoustically soft site consists of normal earth and most ground with vegetation.[2]

As an example, a 60-dB(A) noise level measured at 50 feet from a point source at an acoustically hard site would be 54 dB(A) at 100 feet from the source and 48 dB(A) at 200 feet from the source. Noise from the same point source at an acoustically soft site would be 52.5 dB(A) at 100 feet and 45 dB(A) at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3 dB(A) and 4.5 dB(A) per doubling of distance from the source to the receptor for hard and soft sites, respectively.[3]

Man-made or natural barriers can also attenuate sound levels. Solid walls and berms may reduce noise levels by 5 to 10 dB(A).[4] Sound levels from a source may also be attenuated 3 to 5 dB(A) by the first row of houses and 1.5 dB(A) for each additional row of houses in a residential neighborhood.

The minimum attenuation of exterior to interior noise provided by typical residential and commercial buildings in California is 17 dB(A) with open windows and 25 dB(A) with closed windows.

Environmental Noise

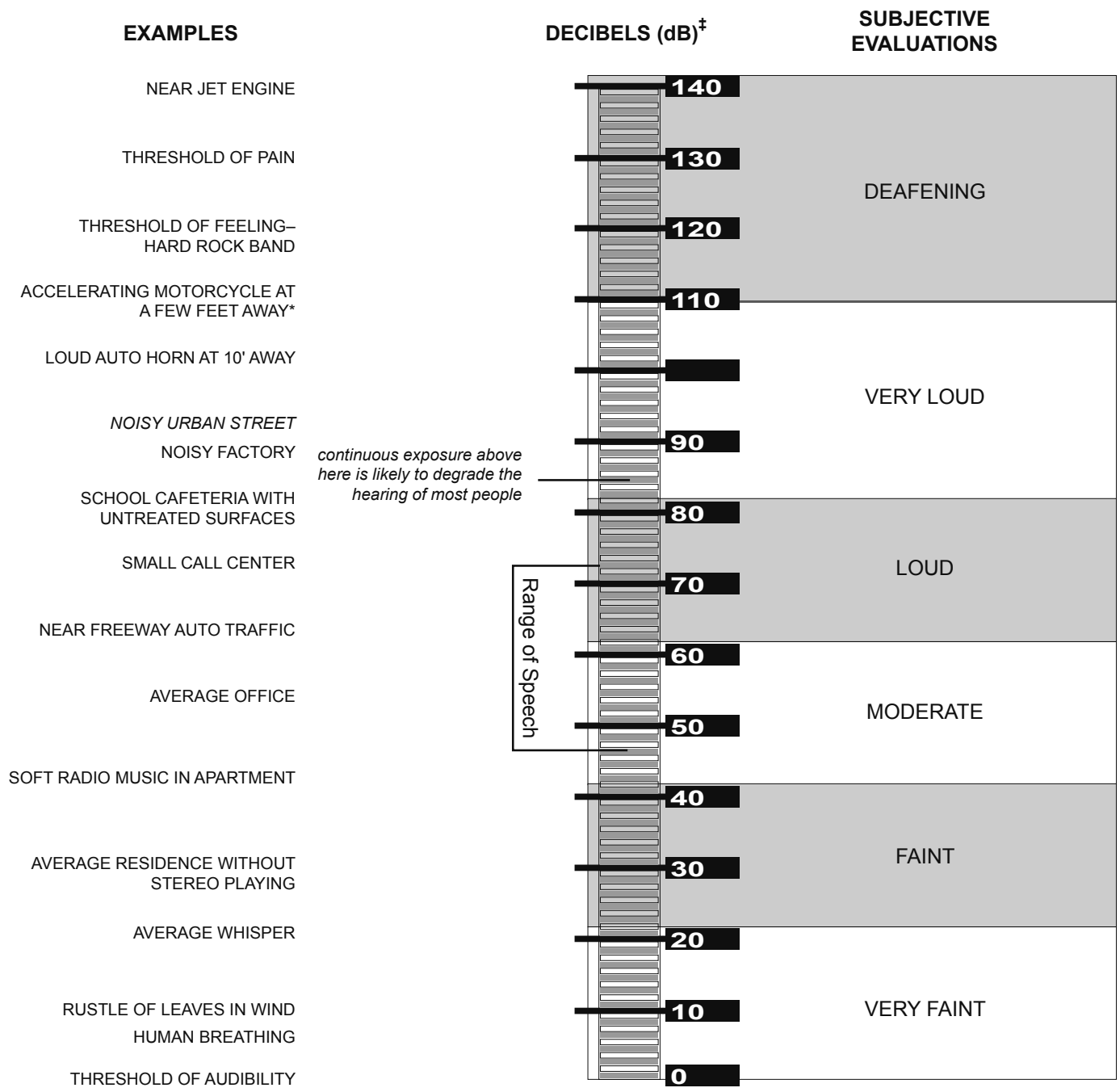
Noise level increases are used to determine the effect of noise in environmental settings. Many methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time
- The influence of periodic individual loud events
- The community response to changes in the community noise environment

2 U.S. Department of Transportation (1980, p. 97).

3 U.S. Department of Transportation (1980, p. 97).

4 U.S. Department of Transportation (1980, p. 18).



** NOTE: 50' from motorcycle equals noise at about 2000' from a four-engine jet aircraft.*

‡*NOTE: dB are "average" values as measured on the A–scale of a sound–level meter.*

FIGURE **4.4-1**

Meridian Consultants

Common Noise Levels

Table 4.4-1, Noise Descriptors, identifies various noise descriptors developed to measure sound levels over different periods of time.

Table 4.4-1
Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measure sound to a reference pressure.
A-weighted decibel (dB[A])	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent sound level (Leq)	The sound level containing the same total energy as a time varying signal over a given time period. The Leq is the value that expresses the time averaged total energy of a fluctuating sound level. Leq can be measured over any time period, but is typically measured for 1-minute, 15-minutes, 1-hour, or 24-hour periods.
Community noise equivalent level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments add 5 dBA for the evening, 7:00 PM to 10:00 PM, and add 10 dBA for the night, 10:00 PM to 7:00 AM. The 5- and 10-dB penalties are applied to account for increased noise sensitivity during the evening and nighttime hours. The logarithmic effect of adding these penalties to the 1-hour Leq measurements typically results in a CNEL measurement that is within approximately 3 dBA of the peak-hour Leq.[1]
Sound pressure level	The sound pressure is the force of sound on a surface area perpendicular to the direction of the sound. The sound pressure level is expressed in decibels (dB).
Ambient noise	The level of noise that is all encompassing within a given environment, being usually a composite of sounds from many and varied sources near to and far from the observer. No specific source is identified in the ambient.

1 *California Department of Transportation, Technical Noise Supplement; A Technical Supplement to the Traffic Noise Analysis Protocol (Sacramento, CA: November 2009, pp. N51–N54).*

Health Effects of Noise

Human response to sound is highly individualized. Annoyance is the most common issue associated with community noise levels. Many factors influence the response to noise including the character of the noise, the variability of the sound level, the presence of tones or impulses, and the time of day of the occurrence. Additionally, nonacoustic factors, such as individual opinion of the noise source, the ability to adapt to the noise, the attitude towards the source and those associated with it, and the

predictability of the noise, all influence the response to noise. These factors result in the reaction to noise being highly subjective with the perceived effect of a particular noise varying widely among individuals in a community.

The effects of noise can be grouped into three general categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as starting hearing loss

Noise-induced hearing loss usually takes years to develop. Hearing loss is one of the most obvious and easily quantifiable effects of excessive exposure to noise. While the loss may be temporary at first, it can become permanent after continued exposure. When combined with hearing loss associated with aging, the amount of hearing loss directly due to the environment is difficult to quantify. Although the major cause of noise-induced hearing loss is occupational, nonoccupational sources may also be a factor.

Noise can mask important sounds and can disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television in the home. Interference with communication has proved to be one of the most important components of noise-related annoyance. Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern or level of sleep. It can produce short-term effects, with the possibility of more serious effects on health if it continues over long periods.

Annoyance can be defined as the expression of negative feelings resulting from interference with activities, as well as the disruption of one's peace of mind and the enjoyment of one's environment. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed previously.

Fundamentals of Vibration

Vibration is commonly defined as an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The peak particle velocity (PPV) or the root-mean-square (RMS) velocity is usually used to describe vibration amplitudes. PPV is defined as the maximum instantaneous peak of the vibration signal, while RMS is defined as the square root of the average of the squared amplitude of the signal. PPV is typically used for evaluating

potential building damage, whereas RMS is typically more suitable for evaluating human response to groundborne vibration. The RMS vibration velocity level can be presented in inches per second or in VdB (a decibel unit referenced to 1 microinch per second). Commonly, groundborne vibration generated by manmade activities (i.e., road traffic, construction activity) attenuates rapidly with distance from the source of the vibration.

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is barely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

Local Setting

Land uses around the Project site include single and multifamily uses to the north; a gas station to the east; W. Colorado Street, mixed-use retail and multifamily units, and commercial uses to the south; and commercial uses to the west. The Project site and surrounding uses are located in an urban area of the City of Glendale and are exposed to noise sources typical of such a setting. Existing on-site stationary sources of noise would consist of the mechanical equipment (heating, ventilating, and air conditioning systems [HVAC]) on the roof of the day care center.

Off-site stationary noise sources in the area that are audible on the site include activities associated with commercial uses surrounding the site, such as people talking, doors slamming, tires squealing, and truck deliveries. Mobile sources of noise that are audible on the site are related to road traffic along W. Colorado Street.

The existing ambient noise environment for the roadways in the Project area was determined by calculating noise levels based on average daily trips determined in the traffic analysis conducted for this EIR. The noise modeling effort was accomplished using the Federal Highway Administration Highway Traffic Noise Model (TNM). The results of the noise modeling are provided in **Table 4.4-2, Existing Roadway Modeled Noise Levels**. As shown, roadway noise levels range from a low of 49.2 to a high of 64.6 dB(A) CNEL from the roadway centerline to the nearest receptor.

Table 4.4-2
Existing Roadway Modeled Noise Levels

Roadway Segment	
W. Colorado Street between Pacific Avenue and Kenilworth Avenue	
50 feet from centerline to receptor	64.6
Harvard Street between Kenilworth Avenue and Pacific Avenue	
35 feet from centerline to receptor	53.3
Oak Street between Kenilworth Avenue and Pacific Avenue	
45 feet from centerline to receptor	49.2
Kenilworth Avenue between W. Colorado Street and Harvard Street	
25 feet from centerline to receptor	52.7
Pacific Avenue north of W. Colorado Street	
50 feet from centerline to receptor	62.3

*Source: Refer to **Appendix 4.4** for modeling results.*
Note: CNEL = community noise equivalent level; dB(A) = A-weighted decibels.

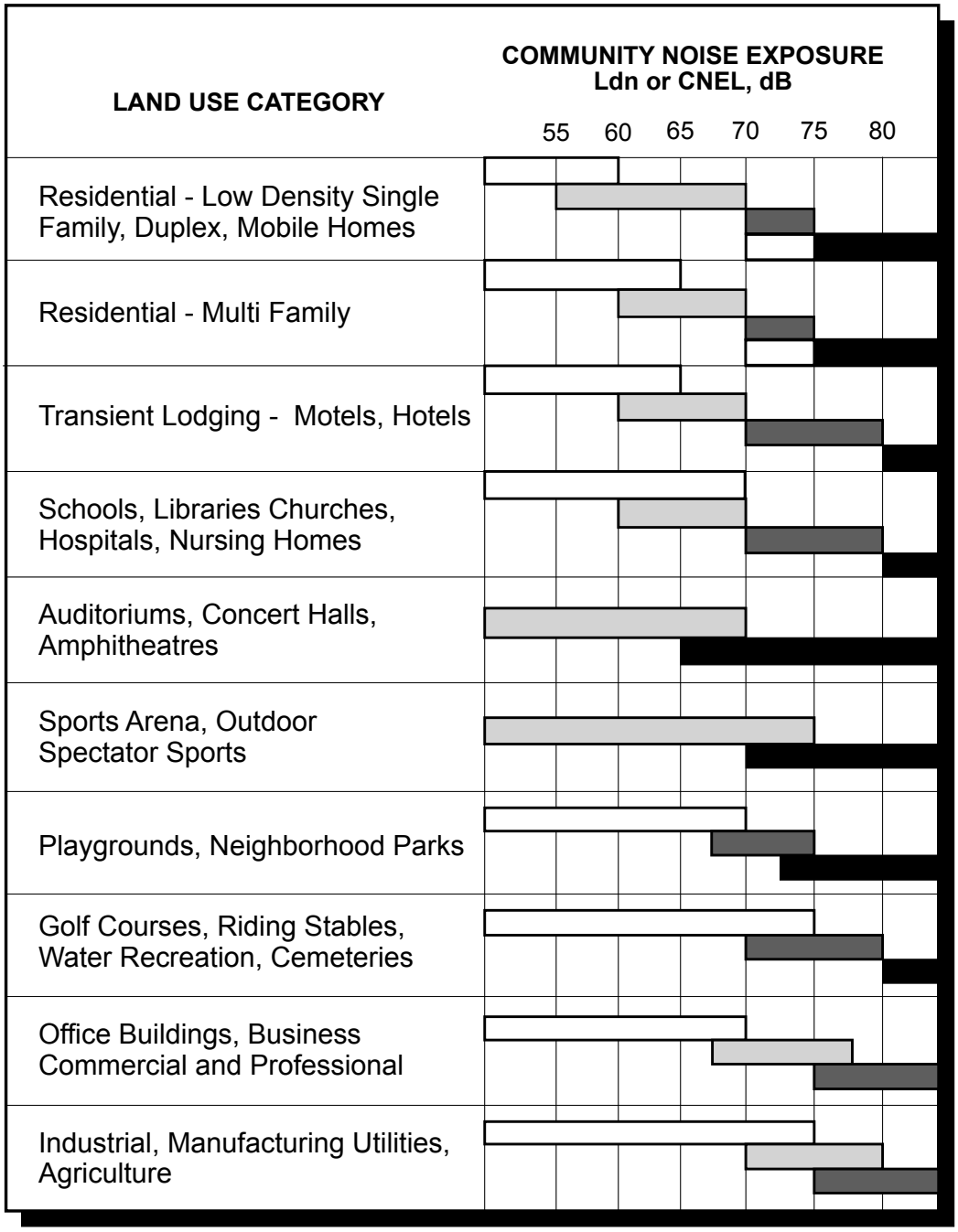
Regulatory Setting

City of Glendale General Plan Noise Element

The *City of Glendale General Plan Noise Element* (adopted June 7, 2007) establishes noise criteria for the various land uses throughout the City. **Figure 4.4-2, Land Use Compatibility to Noise**, identifies the acceptable limit of noise exposure for various land-use categories within the City. Noise exposure for multifamily uses is "normally acceptable" when the CNEL at exterior residential locations is equal to or below 65 dB(A), "conditionally acceptable" when the CNEL is between 60 to 70 dB(A), and "normally unacceptable" when the CNEL exceeds 70 dB(A). These guidelines apply to noise sources such as vehicular traffic, aircraft, and rail movements. The Noise Element established an interior noise level standard for multifamily uses of 45 dB(A) CNEL or less.

Glendale Noise Ordinance

Noise standards for specific land uses are identified in the *City of Glendale's Noise Ordinance*, which is located in Chapter 8.36, Section 8.36.040 of the *Municipal Code*. Under Section 8.36.040 of the *Noise Ordinance*, exterior and interior noise is regulated by reference to "presumed noise standards," which are presented in **Table 4.4-3, Exterior Presumed Noise Standards**. Under Section 8.36.050 of the *Noise Ordinance*, where noise levels are below the presumed noise standards, the actual ambient noise level controls, and any noise more than 5 dB(A) above the actual ambient noise level is considered a violation of the *Noise Ordinance*. Where the actual ambient noise level exceeds the presumed noise standard, the



NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise reduction features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

SOURCE: California Governor's Office of Planning and Research, State of California General Plan Guidelines, Appendix C: Guidelines for the Preparation and Content of Noise Elements of the General Plan, October 2003.

FIGURE **4.4-2**

Meridian Consultants

Land-Use Compatibility to Noise

actual ambient noise level is used, and any noise more than 5 dB(A) above the actual ambient noise level is considered a violation of the *Noise Ordinance*.

However, under the *Noise Ordinance*, the actual ambient noise levels are not allowed to exceed the presumed noise level by more than 5 dB(A).

Table 4.4-3
Exterior Presumed Noise Standards

Zone	Standard (dB[A])	Maximum (dB[A])	Time
Cemetery and residential (single family and duplex)	45	50	Nighttime
	55	60	Daytime
Residential (multifamily, hotels, motels, and transient lodgings)	60	65	Anytime
Central business district and commercial	65	70	Anytime

Source: City of Glendale Municipal Code.

The City of Glendale does not have regulations that establish maximum construction noise levels. However, Section 8.36.290(K) provides an exemption from the *Noise Ordinance* for any activity, operation, or noise, which cannot be brought into compliance (with the *Noise Ordinance*) because it is technically infeasible to do so. "Technical infeasibility" for the purpose of this section means that noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers, and/or any other noise reduction devices or techniques during the operation of the equipment.

Section 8.36.210 of the *Noise Ordinance* provides that vibration created by the operation of any device would be a violation of City standards if such vibration were above the vibration perception threshold of an individual at or beyond the property boundary of a source on private property. For sources on a public space or public right-of-way, a violation would occur if the vibration perception threshold of an individual were exceeded at a distance of 150 feet from the source. The *Noise Ordinance* does not define the level of vibration that is deemed perceptible by an individual and does not establish maximum allowable vibration levels.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant noise and vibration impact if it would:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
- For a project located within an airport land use plan or, where such plan has not been adopted, within 2 miles of a public airport or public use airport, would expose people residing or working in the project area to excessive noise levels (issue is addressed in **Section 6.0, Effects Found Not to Be Significant**)
- For a project within the vicinity of a private airstrip would the project expose people residing or working in the project area to excessive noise levels (issue is addressed in **Section 6.0, Effects Found Not to Be Significant**)

The State *CEQA Guidelines* do not provide a definition for "substantial increase" in noise and they do not provide a threshold of significance for potential noise or vibration impacts. Therefore, the following thresholds of significance were developed for this noise analysis based on the *General Plan Noise Element* and *Noise Ordinance* discussed previously in this EIR section. These thresholds apply to both Project impacts and cumulative impacts.

Noise

On-Site Noise Thresholds

As shown in **Figure 4.4-2**, exterior noise levels of up to 65 dB(A) CNEL are considered "normally acceptable" for multifamily uses, while noise levels between 60 dB(A) and 70 dB(A) CNEL are considered "conditionally acceptable" and noise levels exceeding 70 dB(A) CNEL are considered normally unacceptable. The *Noise Element* does establish an interior noise standard for multifamily residential uses of 45 dB(A) CNEL.

Off-Site Noise Thresholds

Off-site noise thresholds consider the following: the City's Noise Compatibility Criteria, community response to changes in noise levels, and CEQA standards. As stated earlier, changes in a noise level of less than 3 dB(A) are not typically noticed by the human ear. Some individuals who are extremely sensitive to changes in noise may notice changes from 3 to 5 dB(A). Based on this information, the following thresholds have been established for this analysis:

- An increase of 3 dB(A) or greater in traffic noise level that occurs due to Project-related activities would be significant if the resulting noise levels would cause the City's noise compatibility thresholds for "normally acceptable" exterior or interior noise levels to be exceeded, or result in a 3 dB(A) increase in noise to a land use experiencing levels above the City's noise compatibility threshold for "normally acceptable." A noise level increase of less than 3 dB(A) under either of the previously described scenarios is not considered to be significant.
- An increase of 5 dB(A) or less in traffic noise level that occurs from Project-related activities would be considered not significant if the resulting noise levels remain below the "acceptable" thresholds established by the City. Increases in traffic noise greater than 5 dB(A) would be considered to be significant even if the resulting noise levels are below City standards.
- Stationary noise sources proposed as part of the Project that could result in increases in noise levels at adjacent land uses that exceed City standards would be considered significant.

Vibration

The City's *Municipal Code* states that a violation of City standards would occur if the operation of a device creates a vibration above the vibration perception threshold. A numerical threshold to identify the point at which a vibration impact is deemed perceptible is not identified in the City's *Municipal Code*. In the absence of significance thresholds for vibration from construction and operations, the Federal Transit Administration (FTA) identifies a maximum acceptable level threshold of 65 VdB for buildings where low ambient vibration is essential for interior operations (such as hospitals and recording studios), 72 VdB for residences and buildings where people normally sleep, and 75 VdB for institutional land uses with primary daytime use (such as churches and schools).

Methodology

An analysis of the existing and future noise environments presented in this section is based on technical reports, noise monitoring, and noise prediction modeling. Predicted vibration impacts resulting from the implementation of the Project were determined using data from the FTA. Noise modeling procedures involved the calculation of existing and future vehicular noise levels along individual roadway segments. This was accomplished using the Federal Highway Administration Highway TNM. This model calculates the average noise levels at specific locations based on traffic volumes, average speeds, roadway

geometry, and site conditions. Traffic volumes utilized as data inputs to the noise prediction model were calculated based on information provided by KOA Corporation and are consistent with the analysis provided in **Section 4.8, Traffic and Transportation,** of this EIR.

Impact Analysis

Thresholds: **Would result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**

Would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Based on noise modeling conducted, the existing ambient noise level along the Project site frontage already exceeds the City standard threshold for multifamily residential exterior noise levels, but falls below the maximum allowed exterior noise level.

Vehicle Noise

Vehicular noise can potentially affect the Project site, as well as land uses located along the studied roadway system. Based on the distribution of traffic volumes, noise modeling was conducted for the roadways analyzed in **Section 4.8, Traffic and Transportation**. As discussed in **Section 4.8**, three trip distribution scenarios were identified along nearby roadway segments that would potentially be impacted by Project traffic if the left-turn movements onto Colorado Street are completely prohibited (a conservative analysis for nearby roadway segments). It should be noted that left-turn movements onto W. Colorado Street will be prohibited during the weekday afternoon peak hours (4:00 PM to 6:00 PM). For purposes of analysis, the most conservative scenario was selected that resulted in the greatest increase in Project traffic volumes.

The results of the modeled weekday roadway noise levels are provided in **Table 4.4-4, Existing With and Without Project Noise Levels**. As shown, no significant changes in CNEL would result from the proposed Project. As discussed previously, an increase in CNEL of 3 dB(A) represents the point at which only the most sensitive individuals notice a change in noise levels. Since the Project would not increase roadway noise levels by 3 dB(A) or greater, land uses located along study area roadways would not be affected by traffic noise. Therefore, impacts would be less than significant.

Table 4.4-4
Existing With and Without Project Noise Levels

Roadway Segment	Existing (dB[A])	Existing + Project (dB[A])	Change Due to Project	Significant Impact?
W. Colorado Street between Pacific Avenue and Kenilworth Avenue	64.6	64.6	0.0	No
50 feet from centerline to receptor				
Harvard Street between Kenilworth Avenue and Pacific Avenue	53.3	54.0	0.7	No
35 feet from centerline to receptor (Scenario B)				
Oak Street between Kenilworth Avenue and Pacific Avenue	49.2	50.7	1.5	No
45 feet from centerline to receptor (Scenario C)				
Kenilworth Avenue between W. Colorado Street and Harvard Street	52.7	53.9	1.2	No
25 feet from centerline to receptor (All Scenarios)				
Pacific Avenue north of W. Colorado Street	62.3	62.3	0.0	No
50 feet from centerline to receptor				

*Source: Refer to **Appendix 4.4** for modeling results.*

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Parking Structure

As proposed, the Project would include medical office space and a restaurant, counter service with limited seating on the ground floor with multifamily apartment units on the second through fifth floors. A two-level subterranean parking structure would be constructed below the ground floor uses. In general, noise associated with parking structures is not of sufficient volume to exceed community standards based on the time-weighted CNEL scale. Parking structures can be a source of annoyance due to automobile engine start-ups and acceleration, and the activation of car alarms. The Project apartment units would be the closest sensitive receptors within the Project area and would thus represent the worst-case impact associated with parking structure noise from the Project. Estimates of the maximum noise levels associated with parking lot activities are presented in **Table 4.4-5, Maximum Noise Levels**

Generated by Parking Lots. These levels are based on numerous measurements conducted by Meridian Consultants. The noise levels presented are for a distance of 50 feet from the source and are the maximum noise level generated. A range is provided to reflect the variability of noise generated by various automobile types and driving styles.

Table 4.4-5
Maximum Noise Levels Generated by Parking Lots

Parking Structure Event	Peak Noise Levels at 50 Feet (dB[A])
Door slamming	60–70
Car alarms	65–75
Engine start-ups	60–70
Tire squeals	50–70
Car pass-bys	55–70

Due to the high level of traffic noise along West Colorado Street on the southern side of the site and the fact that the apartment units would be separated by the medical office and restaurant, counter service with limited seating uses, normal daytime parking structure average noise levels would not likely be audible due to the masking of noise by these sources. Furthermore, all floors and walls would conform to California Building Code–and would therefore be compliant, which would further reduce short-term noise levels generated within the subterranean parking structure. As such, on-site parking structure noise impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Sweepers

Other noise sources that may be associated with the parking structure areas include the use of sweepers in the early morning or late evening hours. Noise levels generated by sweepers are generally higher than parking lot noise associated with automobile activities. Sweepers can generate average noise levels of 68 dB(A) at 50 feet for normal sweeping activities. The noise from sweepers would not cause an increase in long-term noise of more than 3 dB(A) over the time-weighted CNEL, and would not be significant from that perspective. However, the peak sound levels generated by the sweepers could exceed the single noise event threshold for on-site residences. Depending on the timing of operations, this noise source

would result in significant noise impacts during quieter morning and evening periods, and would exceed the *Municipal Code* 65 dB(A) threshold for exterior uses at receptor locations.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: The following mitigation measure is provided to reduce noise levels associated with street sweeper operations to acceptable levels during the early morning and late evening periods:

4.4-1 On-site sweeper operations shall be restricted to between the hours of 7:00 AM and 10:00 PM.

Level of Significance After Mitigation: Less than significant.

Residential On-Site Development

Future residents located on the Project site, as well as off-site uses, including nearby sensitive receptors, may experience noise due to an increase in human activity within the area from people living on the premises and utilizing the on-site amenities including common areas. Potential residential-type noise sources include people talking, doors slamming, stereos, and other noises associated with human activity. These noise sources are not unique and generally contribute to the ambient noise levels experienced in all residential areas. Noise levels for residential areas are typically between 48 to 52 dB(A) CNEL. Overall, the noise generated by the Project's residential land uses would not exceed the City of Glendale's compatibility thresholds and is considered to be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

On-Site Roadway Noise

As shown in **Table 4.4-4,** existing plus project exterior noise levels on the Project site due to vehicle traffic along W. Colorado Street frontage and near the intersection of W. Colorado Street/Pacific Avenue and W. Colorado Street/Kenilworth Avenue range from 62.3 to 64.6 dB(A) CNEL. These noise levels are not uncommon for a typical urban setting. Noise levels would be below the City's *Municipal Code* exterior noise threshold of 65 dB(A) for residential uses, and exterior noise impacts would be less than significant. However, for purposes of analysis and because the CNEL along W. Colorado Street is 0.4 dB(A) CNEL less than the City's threshold for exterior noise levels, impacts would be considered

significant. Furthermore, interior noise levels in the apartment building along these roadways could be above the interior threshold of 45 dB(A) CNEL, resulting in significant interior noise levels.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: The following mitigation measure is provided to reduce on-site noise levels associated vehicle traffic to acceptable levels:

4.4.2 Prior to the issuance of occupancy permits, noise sensitive residential land uses proposed in areas exceeding the exterior 65 dB(A) CNEL (such as those dwelling units facing W. Colorado Street) shall be designed so that interior noise levels attributable to exterior sources do not exceed 55 dB(A) during the daytime and 45 dB(A) during nighttime when doors and windows are closed. An acoustical analysis of the noise insulation effectiveness of proposed construction shall be required and documented during permit review, showing that the building materials and construction specifications are adequate to meet the interior noise standard. Examples of building materials and construction specifications that may be used to meet the interior noise standard include but are not limited to the following:

- Windows along W. Colorado Street shall be doubled paned, mounted in low air filtration rate frames, and have a minimum sound transmission coefficient rating of 30 or greater
- Air conditioning units may be provided to allow for windows to remain closed
- Roof or attic vents facing southward shall be baffled

Level of Significance After Mitigation: Significant and unavoidable (exterior) as a result of existing traffic noise levels, less than significant (interior).

Threshold: **Would result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.**

Construction Vibration

Ground vibrations from construction activities very rarely reach the levels that can damage structures, but they can achieve the audible range and be felt in buildings close to the site. The primary and most intensive vibration source associated with the development of the Project would be the use of larger bulldozers and excavators. Although some piles may be used in some development locations to alleviate potential building loads, the piles would be installed only through on-site drilling of the pile holes and

would not include pile driving. These types of equipment can create intense noise that is disturbing and can result in ground vibrations.

Vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Ground vibrations from construction activities rarely reach the levels that can damage structures, but they can achieve the audible and perceptible ranges in buildings close to the construction site. **Table 4.4-6, Vibration Source Levels for Construction Equipment**, lists vibration source levels for construction equipment.

Table 4.4-6
Vibration Source Levels for Construction Equipment

Equipment	VdB at 25 Feet
Excavator	80
Large bulldozer	87
Backhoe	80
Loaded truck	86
Roller	74
Jackhammer	79
Small bulldozer	58

Source: Office of Planning and Environment, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, FTA-VA-90-1003-06 (May 2006, 12-9).

As indicated in **Table 4.4-6**, large bulldozers are capable of producing approximately 87 VdB at 25 feet, which is the approximate distance to the nearest structure west of the site and multifamily uses northeast of the site. This would exceed the threshold of 80 VdB for residences and buildings where people normally sleep. Land uses surrounding the Project site consist mostly of residential and commercial uses. High noise-producing (and vibration-producing) activities during construction would be scheduled to occur between the hours of 7:00 AM and 5:00 PM to minimize disruption on sensitive uses. Nonetheless, potential impacts due to vibration would be considered to be significant.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: The following mitigation measures are provided to reduce significant vibration impacts due to construction equipment:

4.4-3 Demolition, earthmoving, and ground-impacting operations shall be conducted so as not to occur in the same period.

4.4-4 Select demolition method to minimize vibration where possible (e.g., sawing masonry into sections rather than demolishing it by pavement breakers).

4.4-5 Operate earthmoving equipment on the construction site as far away from vibration sensitive sites as possible.

Level of Significance After Mitigation: Significant and unavoidable.

Threshold: Would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Project construction is anticipated to last approximately 18 months and is expected to commence on or about September 2014. The Project would be constructed in three phases: (1) demolition; (2) piles, grading, and site preparation/excavation; and (3) building construction/architectural coating and asphalt paving.

Phase I would include the demolition and removal of 5,115 square feet of existing commercial use, 8,704 square feet of existing adult care center use, and the associated parking space. Demolition would occur over a 1-month period and would involve the use of standard construction equipment such as loaders, dozers, backhoes, and related equipment. Approximately 6,500 cubic yards of demolition material would be generated. This material would be hauled north on Central Avenue to SR-134 or west along West Colorado Street to I-5 and disposed of at the Scholl Canyon Landfill in Glendale.

Phase II would consist of the preparation/grading phase and would include the removal of existing fill materials over a 5-month period. Grading on the Project site would require excavation up to depths of 30 feet below the ground surface and it is anticipated that 55,000 cubic yards of earth material would be removed from the site. Material would be hauled via the same route to the same location as demolition debris. Heavy construction equipment would be located on site during site preparation/grading activities and would not travel to and from the Project site on a daily basis. It is anticipated that equipment associated with these activities would include loaders, dozers, excavators and dump trucks, and related heavy-duty equipment.

Phase III would include the subterranean parking and above-grade building construction as well as architectural coating and asphalt paving. It is anticipated that equipment needs associated with above-grade construction activities would include cranes and miscellaneous machinery and related equipment. Material delivery trucks and other miscellaneous trucks are anticipated during this phase of construction. This work would likely produce approximately 5 to 10 material delivery trucks trips per

day, although deliveries are not envisioned to occur for each day of this phase. This phase of construction is anticipated to be completed in approximately 12 months.

Equipment used during the construction phases would generate both steady state and episodic noise that would be heard both on and off the Project site. Noise levels generated during construction would primarily affect the commercial and residential uses adjacent to the Project site. The U.S. Department of Transportation has compiled data regarding the noise generating characteristics of specific types of construction equipment. This data is presented in **Figure 4.4-3, Noise Levels of Typical Construction Equipment**. As shown, noise levels generated by heavy equipment can range from approximately 73 dB(A) to noise levels in excess of 80 dB(A) when measured at 50 feet.

Construction activities associated with the Project would, on average, occur at approximately 25 feet from the existing commercial and residential uses. Most construction activities would occur at a distance greater than 25 feet from a sensitive receptor. Noise levels generated during each of the Project phases are presented in **Table 4.4-7, Typical Maximum Noise Levels for Construction Phases**. Equipment estimates used for the analysis for demolition, grading, and building construction noise levels are representative of worse-case conditions, since it is very unlikely that all the equipment contained on site would operate simultaneously. As presented, potential construction-related noise impacts are considered significant due to exceeding the noise threshold of 65 dB(A) for residential and 70 dB(A) for commercial areas, as allowed by the *Municipal Code*.

Table 4.4-7
Typical Maximum Noise Levels for Construction Phases

	Approximate Leq dBA Without Noise Attenuation			
Construction Phase	**25 Feet**	**50 Feet**	**100 Feet**	**200 Feet**
Clearing	90	84	78	72
Excavation	94	88	82	78
Foundation/conditioning	94	88	82	78
Laying subbase, paving	85	79	73	67

Source: U.S Department of Transportation, Construction Noise Handbook, Chapter 9.0, (August 2006).

In addition to equipment-generated noise associated with construction activities, construction traffic would generate noise along access routes to the proposed development areas. The major pieces of heavy equipment would be moved onto the development only one time for each construction activity (i.e., demolition, grading). In addition, daily transportation of construction workers and the hauling of materials both on and off the Project site are expected to cause increases in noise levels along study area roadways, although noise levels from such trips would be less than peak hour noise levels

generated by Project trips during Project operation. Average daily trips associated with construction activities would not result in a doubling of trip volumes along study area roadways. Given that it takes a doubling of average daily trips on roadways to increase noise by 3 dB(A), the noise level increases associated with construction vehicle trips along major arterials in the City of Glendale would be less than 3 dB(A), and potential impacts would be less than significant.

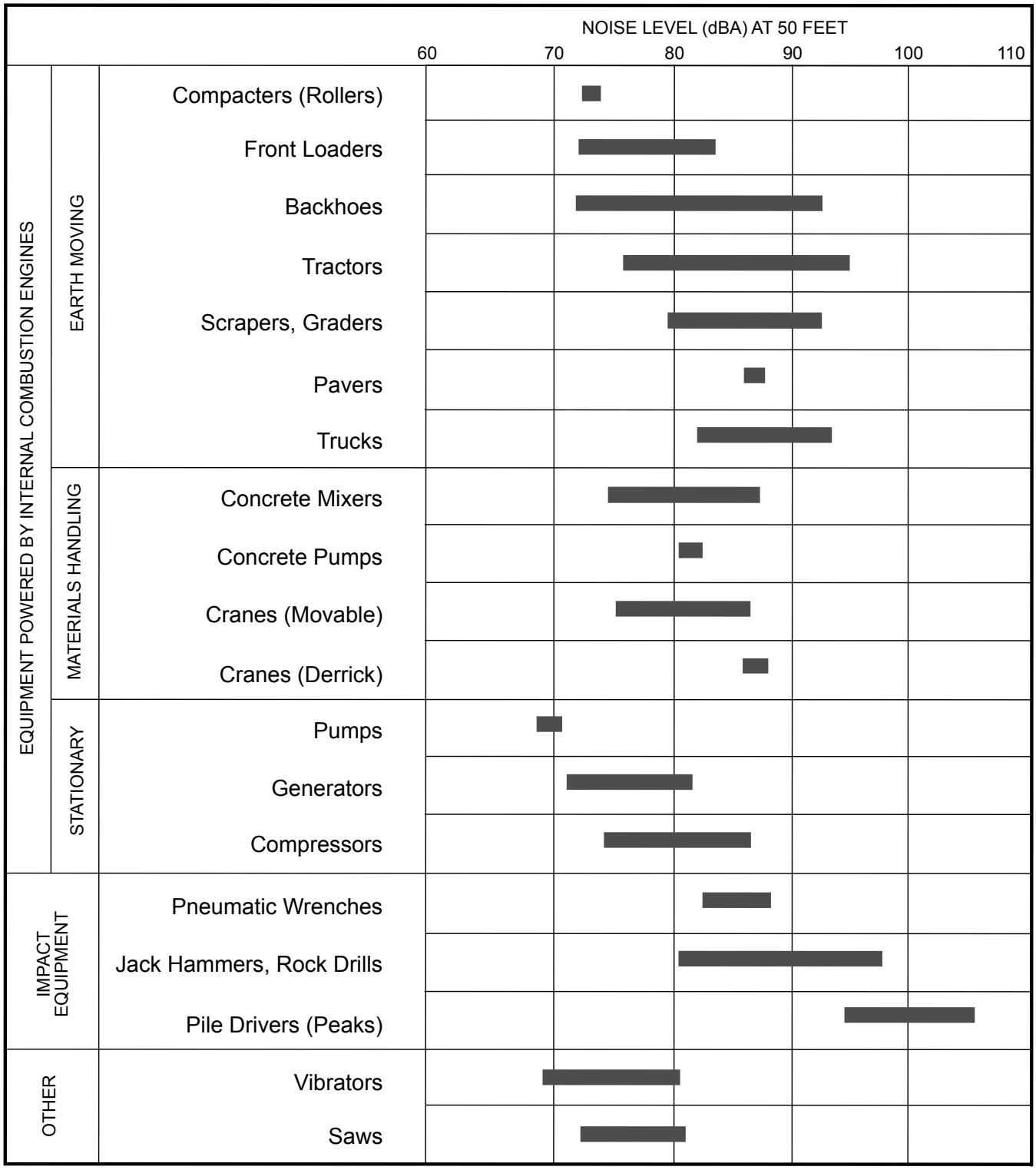
Level of Significance Before Mitigation: Significant.

Mitigation Measures: The following mitigation measures are provided to reduce significant noise impacts due to construction equipment:

4.4-6 All construction activity within the City shall be conducted in accordance with Section 8.36.080, construction on buildings, structures and projects, of the *City of Glendale Municipal Code*.

4.4-7 The following construction best management practices (BMPs) shall be implemented to reduce construction noise levels:

- Ensure that construction equipment is properly muffled according to industry standards and be in good working condition.
- Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.
- Schedule high noise-producing activities between the hours of 7:00 AM and 5:00 PM to minimize disruption on sensitive uses.
- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.
- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 30 minutes.
- Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners to contact the job superintendent. If the City or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party.



Note: Based on limited available data samples.

FIGURE **4.4-3**

Meridian Consultants

Noise Levels of Typical Construction Equipment

4.4-8 Construction staging areas along with the operation of earthmoving equipment within the Project area shall be located as far away from vibration-and noise-sensitive sites as possible.

Level of Significance After Mitigation: Although the mitigation measures identified would reduce noise levels to the maximum extent feasible, impacts during construction would remain significant and unavoidable.

Cumulative Impacts

For purposes of this analysis, development of the related projects provided in **Table 4.0-1, Related Projects**, in **Section 4.0**, **Environmental Impact Analysis**, will be considered to contribute to cumulative noise impacts. By definition, noise is a localized phenomenon, and drastically reduces as distance from the source increases. Consequently, only projects and growth in the general area of the Project site would contribute to cumulative noise impacts.

Thresholds: **Would result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**

Would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Cumulative development from related projects would not result in a cumulative impact in terms of a substantial permanent increase in ambient noise levels. A substantial permanent increase is most likely to originate from an increase in noise levels due to roadway traffic. For the purposes of this analysis, an increase of 5 dB(A) at any roadway location is considered a significant impact, and if the resulting noise level would exceed the land use compatibility criteria, then an increase of 3 dB(A) is considered significant. In order to determine whether the Project would result in a cumulatively significant impact, the increase between existing conditions and future with Project conditions was determined. Refer to **Table 4.4-8, Cumulative With and Without Project Noise Levels**, the Project's contribution to these cumulative noise level increases would be less than 3 dB(A). Overall, the Project's contribution would not be considered to be cumulatively considerable and would be less than significant.

Table 4.4-8
Cumulative With and Without Project Noise Levels

Roadway Segment	Existing (dB[A])	Cumulative Without Project (dB[A])	Cumulative With Project (dB[A])	Change Due to Project	Significant Impact?
W. Colorado Street between Pacific Avenue and Kenilworth Avenue 50 feet from centerline to receptor	64.6	65.5	65.5	0.0	No
Harvard Street between Kenilworth Avenue and Pacific Avenue 35 feet from centerline to receptor (Scenario B)	53.3	53.3	54.1	0.8	No
Oak Street between Kenilworth Avenue and Pacific Avenue 45 feet from centerline to receptor (Scenario C)	49.2	49.3	50.7	1.4	No
Kenilworth Avenue between W. Colorado Street and Harvard Street 25 feet from centerline to receptor (All Scenarios)	52.7	52.8	54.0	1.2	No
Pacific Avenue north of W. Colorado Street 50 feet from centerline to receptor	62.3	62.5	62.5	0.0	No

With regard to stationary sources, a cumulatively significant impact could result from cumulative development. The major stationary sources of noise that would be introduced in the area by related projects would include parking structures and sweeper operations. Since these projects would be required to adhere to City of Glendale noise standards, all the stationary sources would be required to provide shielding or other noise abatement measures so as not to cause a substantial increase in ambient noise levels. Moreover, due to distance, it is unlikely that noise from multiple related projects would interact to create a significant combined noise impact. Because of this, it is not anticipated that a significant cumulative increase in permanent ambient noise levels would occur and, therefore, the impact would be less than significant. Consequently, the Project contribution to cumulative noise impacts is not considered to be cumulatively considerable.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Would result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.**

Vibration impacts are localized in nature and decrease with distance. Consequently, in order to achieve a cumulative increase in vibration, more than one source emitting high levels of vibration would need to be in close proximity to the noise receptor. The closest related project, the Central + Wilson project at 130 N. Central Avenue, is located approximately 2,700 feet from the Project site. This related project would not be located close enough to the Project site where significant vibration impacts would occur from concurrent construction. The combined vibration impact of the related projects and the Project's contribution would not be cumulatively significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.**

Noise impacts are localized in nature and decrease with distance. Consequently, in order to achieve a cumulative increase in noise, more than one source emitting high levels of noise would need to be in close proximity to the noise receptor. One such related project, the Central + Wilson mixed-use project at 130 N. Central Avenue, is located approximately 2,700 feet from the Project site and would not result in cumulative noise impacts during construction. This related project would not be located close enough to the Project site where significant construction noise impacts would occur from concurrent construction. The combined construction noise impact of the related projects and the Project's contribution would not be cumulatively significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

4.5 POPULATION AND HOUSING

This section analyzes the potential impacts of the Project on population and housing in the City of Glendale. Information used in this section was obtained from the Southern California Association of Governments (SCAG) and the California Department of Finance.

ENVIRONMENTAL SETTING

Existing Conditions

As discussed in **Section 4.3, Land Use and Planning**, the City of Glendale is located within the planning area of SCAG, the lead planning agency for the Southern California region. SCAG consists of local governments from Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial counties. To facilitate regional planning efforts, the planning area of SCAG is further divided into 13 subregions. The City of Glendale is located in the Arroyo-Verdugo Subregion, which also includes the cities of Burbank, La Cañada-Flintridge, and the unincorporated communities of La Crescenta and Montrose.

One of SCAG's primary functions is to forecast population, housing, and employment growth for each region, subregion, and city. The latest forecast was completed in 2012 as part of the 2012 Regional Transportation Plan (RTP) and Sustainable Communities Strategies (SCS) update.[1] As indicated in **Table 4.5-1, SCAG Demographic Forecasts**, the City of Glendale is predicted to undergo sustained growth through the year 2035. Current SCAG growth forecasts for the City of Glendale project a population of 198,900 in 2020, with 75,200 households and employment of 98,200. In 2035, SCAG forecasts a population of 209,300, with 78,600 households and 103,000 employees in the City of Glendale.

Table 4.5-1
SCAG Demographic Forecasts

	2008	2020	2035	Growth 2008–2035	Growth 2008–2035
Population	191,600	198,900	209,300	17,700	8.5 percent
Households	72,200	75,200	78,600	6,400	8.1 percent
Employment	93,600	98,200	103,000	9,400	9.1 percent

Source: Southern California Association of Governments, 2012 Adopted Growth Forecast(April 2012).

1 Southern California Associations of Governments, *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy*(April 2012).

According to the California Department of Finance estimates, the current population (2013) within the City of Glendale is 193,652 residents with 72,369 occupied housing units, which equates to an average household of 2.6 residents.[2] There are 10 employees currently working on the Project site.

Regulatory Setting

A number of goals and policies are set forth in the City of Glendale General Plan that relate to population and housing growth. An analysis of the consistency of these applicable goals and policies with the Project is provided in **Section 4.3**. As discussed in **Section 4.3**, the Project does not conflict with applicable General Plan goals and policies related to population and housing growth.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on population and housing if the following could occur:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere (issue is addressed in **Section 6.0, Effects Not Found To Be Significant**.)
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere (issue is addressed in **Section 6.0, Effects Not Found To Be Significant**)

Methodology

The most recent California Department of Finance population and housing estimates for the City were used in conjunction with the SCAG population projections to determine potential population and housing impacts.

2 California Department of Finance, *E-5: City/County Population and Housing Estimates*, January 1, 2013.

Project Impacts

Threshold: **Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure).**

Whether a project's added development would directly induce a substantial population increase or housing growth are evaluated by whether the direct project-related growth could be accommodated within the appropriate population and housing projections. As shown in the analysis that follows, direct growth from the Project's residential component falls within both SCAG's and the City's projections.

A project's population impacts are based on an analysis of the probable number of residents associated with the number of residential dwelling units planned in the project. The project's estimated population is then compared with official population growth forecasts for the City.

The residential component of the Project would develop 90 multifamily residential units, consisting of 68 one-bedroom apartment units and 22 two-bedroom apartment units. Based on the mix of apartment units and an average household size of 2.6 residents for one-bedroom and two-bedroom apartments, the Project would generate approximately 234 residents.

The mixed-use component of the Project would develop 18,000 square feet of medical office space and 1,000 square feet of restaurant, counter service with limited seating. Assuming 3 employees per 1,000 square foot rate, the direct employment growth of the Project would be 57 employees.[3] Taking into account the number of existing employees, the Project would have a net increase of 47 employees. Applying a 24 percent ratio, the employment positions would result in 12 of these new employees residing within the City of Glendale. If it is conservatively assumed that each of the new employees forms a single household in the City, these households could indirectly add approximately 30 additional residents to the City.[4] Overall, the increase in population of 234 people that would be associated with the apartment units and the potential additional increase in population of 30 people associated with the

3 19,000 square feet/ 1,000 square feet x 3.0 employees = 57 employees.

4 Based on the existing residence characteristics of the workforce in Glendale, it is estimated that approximately one-quarter of these employees could relocate to Glendale. Travel time-to-work data collected by the 2010 U.S. Census indicates that approximately 21,800 workers in Glendale aged 16 and over commute less than 15 minutes to their places of employment or work from home. It can be assumed that these workers are employed within the City limits, since it would conceivably take longer than 15 minutes to commute to jobs located outside of Glendale. In 2010, the City of Glendale had 91,000 employees based on the number of residents and nonresident employees reported to the State of California Employment Development Division by firms located in Glendale. In 2010, therefore, approximately 21,800 of the 91,000 employees working in Glendale resided in the City, which equates to approximately 24 percent of the worker population.

Project employment opportunities would result in a total population increase of 264 new residents in the City.

According to the California Department of Finance, the City of Glendale had 194,973 residents in 2000 and increased to 198,025 residents in 2004. Since 2004, the annual population of the City declined to a low of 191,719 residents in 2010.[5] The City has increased by 1,933 residents between 2010 and 2013. The Project would account for approximately 5 percent of the anticipated increase in residents within the City between 2013 and 2020, which is consistent with the estimated growth projection.[6] Therefore, the Project would not result in substantial population growth in the area.

Housing impacts are typically based on the number of new dwelling units planned within the Project, as compared to the housing projections. In 2013, the California Department of Finance reported 72,369 occupied housing units within the City and, according to SCAG projections, that number is forecast to increase to 75,200 housing units between 2013 and 2020, an increase of 2,831 housing units. The Project would account for approximately 3.2 percent of the anticipated 2,831 housing units within the City between 2013 and 2020. The residential component of the Project would not result in substantial or unplanned housing growth.

Indirect growth in population and housing can also occur from major infrastructure improvements that facilitate additional growth beyond the Project. The Project site is characterized as an urban area that is currently served by existing circulation and utility infrastructure. The Project developers will fund their share of allocation for any necessary public infrastructure associated with development. Indirect growth from the extension of roads and infrastructure would not be anticipated from the Project, as it would be served by existing infrastructure and would not add any new roadways. Some infrastructure upgrades and connections are proposed and may be required as mitigation. The Project does not include any major road improvements or substantial infrastructure modifications that would facilitate additional growth in the general area. Due to the fact that new infrastructure upgrades would be minimal, it is not anticipated that the infrastructure improvements would result in measurable population growth in or around the project area. As such, the indirect population growth impact resulting from infrastructure improvements associated with the Project are considered less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

5 California Department of Finance, E-4 Population Estimates for Cities, Counties, and the State, 2001-2010 with 2000 & 2010 Census Counts (Sacramento, California, November 2012).

6 198,900 (2020 projection) - 193,652 (2013 population) = 5,248 residents. 264 Project residents / 5,248 = 0.05 or 5 percent.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

According to **Table 4.0-1 List of Related Projects**, related projects would result in the development of approximately 3,555 residential units and, when combined with the Project, would result in 3,645 residential units. Based on an average household size of 2.6persons within the City, these units would add approximately 9,477 residents to the population of the City of Glendale.

According to the California Department of Finance estimates and SCAG's regional growth forecasts, the population of the City is projected to increase by approximately 15,648 residents between 2013 and 2035.[7] As discussed previously, it is projected that the Project and related projects would increase the City's population by 9,477 residents. The cumulative projects would account for less than the anticipated population increase of 15,648 residents within the City between 2013 and 2035. Therefore, the Project and related projects would result in a less than significant cumulative population impact.

The number of Project residential units and related projects would add approximately 3,645 residential units in the City. According to SCAG's regional growth forecasts, the number of residential units in the City is projected to increase by approximately 6,231 additional units between 2013 and 2035.[8] The cumulative projects would account for less than the anticipated housing unit increase within the City during this time period. Therefore, the Project and related projects would result in less than significant cumulative housing unit impacts.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

7 209,300 residents (2035 projected population) – 193,652 residents (2013 population) = 15,648 increase in residents.

8 78,600 housing units (2035 projection) – 72,369 (number of 2013 housing units) = 6,231 increase in housing units.

4.6 PUBLIC SERVICES

This section addresses the potential impact of the Project on fire protection, emergency medical services, police protection, and schools. The Glendale Fire Department, Glendale Police Department, and the Glendale Unified School District provided the information referred to in this section.

4.6.1 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

Environmental Setting

Existing Conditions

The Glendale Fire Department (Fire Department) provides comprehensive emergency services for the City of Glendale (City), including fire, rescue, and emergency medical (paramedic) services, as well as fire prevention and code enforcement functions. The Fire Department is a Certified Unified Program Agency (CUPA), meaning the Fire Department is responsible for administration and enforcement of all CUPA programs for hazardous materials and wastes.

The Fire Department Operations Section consists of nine fire stations, which house nine engine companies, three truck companies, and six basic life support (BLS) ambulances (four 24 hour units and two 12 hour units). The Fire Department also has a Hazardous Materials Unit and a full-service Fire Prevention Bureau. A daily contingent of approximately 50 firefighter personnel is on duty at all times, with a combined staff of 240 personnel, including uniformed firefighters, administrative, fire prevention, and support personnel.[1] The ratio of firefighters to residents in the City presently stands at one firefighter to 807 residents.

The Fire Department and the City are both designated Class 1 (highest) by the Insurance Service Office. In 2012, the Fire Department responded to 16,312 fire, medical, service, and other types of incidents, which totals about 45 incidents per day or approximately 84 incidents per 1,000 residents.[2] An incident may be as simple as responding to a false alarm in a commercial building or as complex as fighting a brush fire with assistance from other fire agencies.

Three fire stations are anticipated to have primary responsibility for providing fire protection services to the Project site. The equipment and personnel at each of these facilities–Fire Stations 21, 22, and 25–is summarized in **Table 4.6.1-1, Fire Protection and Emergency Medical Service Staffing and Equipment**, and the location of these stations in relation to the Project site is shown in **Figure 4.6.1-1, Fire Stations Responding to the Project Site**. Station 21 would have first response duties, given the proximity to the Project site.

1 Glendale Fire Department, "Fire Administration," http://fire.ci.glendale.ca.us/fireadm.asp (accessed October 2013).

2 Glendale Fire Department. December 11, 2013.

Table 4.6.1-1
Fire Protection and Emergency Medical Service Staffing and Equipment

21	421 Oak Street	Approximately 0.2 miles	One engine with four personnel-two firefighters and two paramedics; one 24 hour BLS ambulance with two ambulance operators; one truck with four firefighters; one battalion chief
22	1201 South Glendale Avenue	Approximately 1.0 mile	One engine with four personnel- two firefighters and two paramedics; one 12 hour BLS ambulance with two ambulance operators
25	353 N. Chevy Chase Drive	Approximately 1.7 miles	One engine with four personnel-two firefighters and two paramedics; one 24 hour BLS ambulance with two ambulance operators

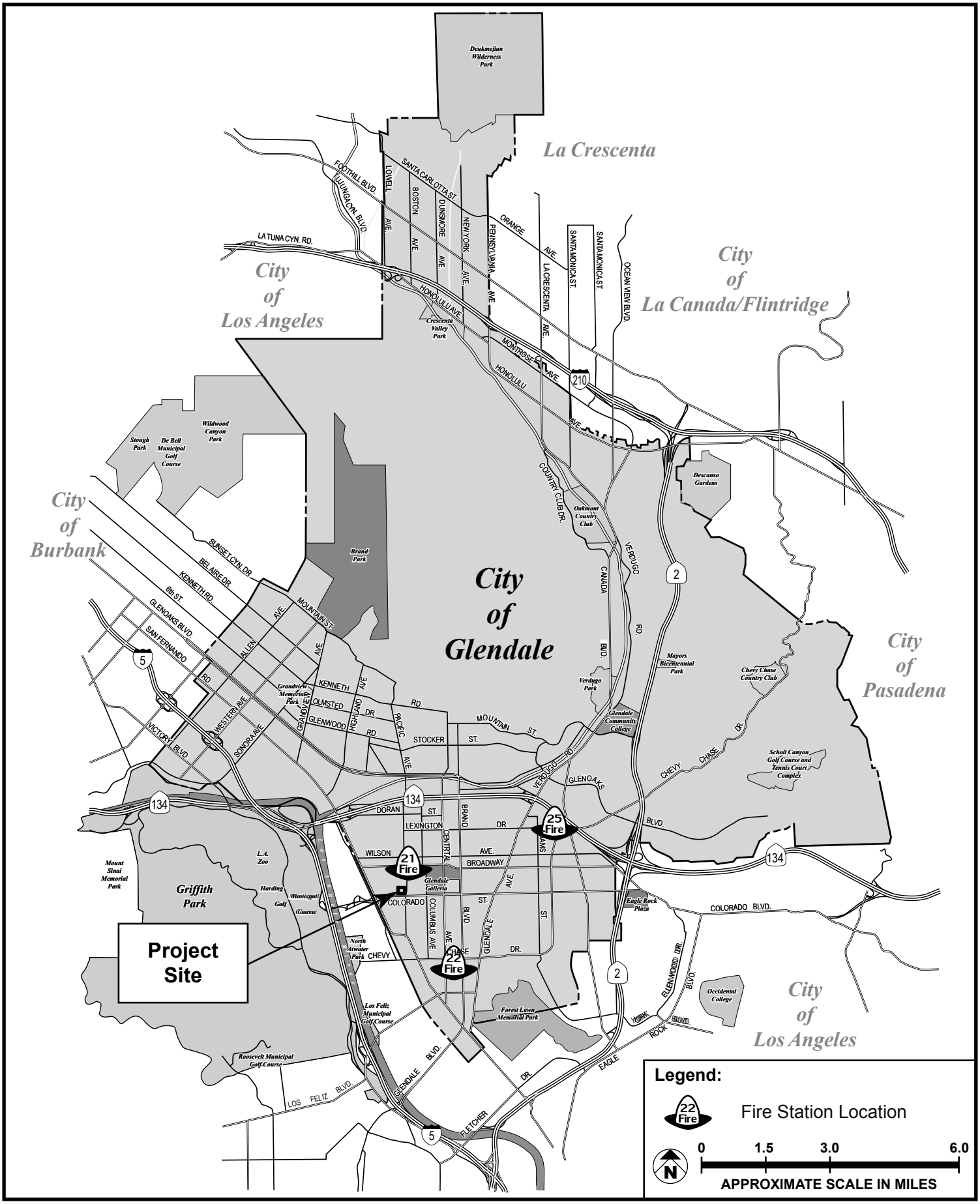
Source: Glendale Fire Department (May 2013).

All three stations serving the Project site house BLS ambulances and have primary responsibility for providing emergency medical services to the Project site. As the Project is located in the Station 21 response district, BLS ambulance 21 has primary response duties to the Project site followed by BLS ambulance for Station No. 22 as the "next due" ambulance. In FY 2012-13BLS 21 responded to 4,084 medical incidents, or about 340 incidents per month, while BLS 22 responded to 1,532 incidents over the course of the year.[3]

Other Glendale Fire Department stations in the City of Glendale, as well as stations in the cities of Burbank and Pasadena, provide secondary response to the site through the "Verdugo Fire" communications system. Under the Verdugo Fire system, units from all 10 cities in the system are dispatched by a common dispatch center and respond to incidents at any location in the collective region. Similarly, the Fire Department has mutual aid agreements with the City of Los Angeles and the County of Los Angeles.

In addition to equipment, personnel, and workload, fire flow is an important factor in fire suppression activities. Fire flow is defined as the quantity of water available for fire protection in a given area and is normally measured in gallons per minute (gpm). The existing fire flow for the Project site is approximately 4,500 gpm.

3 Electronic communication from the Glendale Fire Department, Doug Nickles, December 11, 2013.



SOURCE: Meridian Consultants – October 2013

FIGURE **4.6.1-1**

Meridian Consultants

Fire Stations Responding to the Project Site

046-001-13

The Fire Department requires the provision of fire flows to serve individual developments, in accordance with the 2010 California Fire Code/2011 Glendale Building and Safety Code amendments, which allows up to a 75 percent reduction in required fire flows for buildings constructed with an approved sprinkler system, the City of Glendale only allows up to a 50 percent reduction in fire flows for a building with sprinklers. Depending on the type of building construction and square footage, fire flow requirements range from 1,500 gpm for 2 hours to 8,000 gpm for 4 hours. For sprinkler-equipped buildings, the City of Glendale's fire flow requirements are at least 1,500 gpm to as much as 4,000 gpm, depending on the type of building.

Regulatory Setting

There are a number of goals and policies set forth by the City of Glendale in the General Plan Community Facilities and Safety Elements that relate to fire protection services. An analysis of the consistency of these applicable goals and policies with the proposed Project is provided in **Section 4.3, Land Use and Planning**. As discussed in **Section 4.3**, the Project does not conflict with the City's General Plan.

Funding for the Fire Department in the City of Glendale is derived from various types of tax revenue (e.g., tax increment in the form of property taxes, sales taxes, user taxes, vehicle license fees, deed transfer fees), which are deposited in the City's general fund. The City Council then allocates the revenue for various public infrastructure improvements and public services and facilities that the City provides, including fire protection services. As the Project is developed, tax revenues from property and sales taxes would be generated and deposited in the City's general fund and the State Treasury. A portion of these revenues would then be allocated to the Fire Department during the City's annual budget process to maintain staffing and equipment levels and facilities within the City of Glendale in numbers adequate to serve Project-related increases in service call demands.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on public services, including fire protection and emergency medical services, if the following could occur:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain

acceptable service ratios, response times or other performance objectives for fire protection and emergency medical services.

Methodology

Potential Project impacts were evaluated based on the ability of the Glendale Fire Department to maintain adequate service ratios, response times, or other performance objectives in the City resulting from development of the Project, and not result in the need for the provision of new or physically altered governmental facilities.

Project Impacts

Threshold: **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency medical services.**

Fire Service

The Project would develop a mixed-use building that would have 90 multifamily residential units, 18,000 square feet of medical office space, 1,000 square feet of restaurant, counter service with limited seating, and a subterranean parking structure that would provide 246 parking spaces, as well as residential amenities. Based on the mix of apartment units, the Project would generate approximately 264 residents. The new residential units would create additional demand on the Glendale Fire Department, specifically to Fire Station 21, which would have first response duties. The present firefighter to resident ratio, based on a population of 193,652 persons, is one to 807. The Project would increase the City's population to 193,916 residents, which would result in an overall ratio of one firefighter to 808 residents. The increase in residents within the City would not substantially impact the current fire services and would not result in the need for any new or the physical alteration to any existing governmental facility. Consequently, potential impacts are considered to be less than significant.

Emergency Medical Services

The additional residents associated with the Project would result in an increase in emergency medical responses. The Project is located within the response district for BLS 21, which currently averages 340 calls per month. The City has no formal service ratios or performance objectives for BLS service, but has considered a performance workload of 350 responses per month for a paramedic rescue ambulance.

The Project would generate an additional 22 emergency medical services (EMS) calls every month,[4] which would be above the considered performance workload of 350 responses per month for a basic life support ambulance. The Project site is located within a 1-mile radius of both BLS 21 and BLS 22 and, in the event that BLS 21 is unable to respond to an EMS call from the Project site, BLS 22 would respond to the EMS call. Therefore, BLS 21 and BLS 22 would handle the EMS calls from the Project site and would not result in the need for any new or the physical alteration to any existing governmental facility. Consequently, potential impacts are considered to be less than significant.

Fire Flow

Fire flow tests were performed by the Glendale Fire Department on August 18, 2006, on a nearby fire hydrant at the 500 block of W. Colorado Street. Test results indicated that the hydrant on W. Colorado Street has a static pressure of 93 psi, residual pressure of 70 psi, and a residual flow of 4,462 gpm at 20 psi. The fire flow requirements are 1,500 gpm for W. Colorado Street hydrants. As such, sufficient fire flow exists to serve the Project site. Water service to the Project site is presently provided by existing water lines on and adjacent to the site. As such, impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

The Project and related projects (refer to **Section 4.0, Environmental Impact Analysis,** for a list of commercial, residential, and office projects) together would result in the addition of approximately 9,477 residents. The introduction of the new uses by the Project and related projects would reduce the present fire personnel-to-resident ratio of one firefighter to 807 residents to approximately one to 846. Impacts associated with these additional residents would include an increase in emergency medical responses, fire protection responses, fire prevention inspections, public education activities, participation in community events, and ongoing relations with businesses and homeowners associations. For these reasons, implementation of related projects was considered to result in a significant fire service impact. As discussed previously, the Project would not result in significant impacts to the Glendale Fire Department on a project-specific level. The Project, however, would contribute to

4 Doug Nickles, Fire Prevention Coordinator, City of Glendale Fire Department, electronic communication with Meridian Consultants, December 11, 2013.

the significant impact and would be considered to be cumulatively considerable. For this reason, fire impacts are considered to be significant.

Level of Significance before Mitigation: Significant.

Mitigation Measures: No mitigation measures are available at this time

Level of Significance after Mitigation: Significant and unavoidable.

ENVIRONMENTAL SETTING

Existing Conditions

The Glendale Police Department provides police protection services in the City of Glendale. The Department operates out of its headquarters building located at 131 North Isabel Street approximately one mile northeast of the Project site.[5]

In October 2009, the Glendale Police Department implemented an Area Command service delivery model. The objective of this command structure is to address crime issues and improve quality of life through accountability, professional responsibility, and strategic utilization of our limited police resources.[6] The City is divided into five distinct geographic areas. Each Area Commander is held accountable for understanding the issues and concerns unique to their service area. This includes developing strategies and directing resources to solve problems resulting in an improved quality of life for City of Glendale citizens. The Project is located in the South Command Geographic Area, Reporting District 263.[7]

The Glendale Police Department has approximately 255 sworn officers.[8] The Department does not have a target officer-to-population staffing ratio.[9] However, the Federal Bureau of Investigation (FBI) traditionally recommends a ratio of 2 officers per 1,000 residents for minimum staffing levels. The officer-to-population ratio in the City is approximately 1.317 sworn officers per 1,000 residents in 2013. Therefore, the City is currently below recommended staffing levels of the FBI.

There are various special units within the Department including the K-9 Unit, the Traffic Bureau and the Special Enforcement Detail (SED). In 2010, the Glendale Police Traffic Bureau was comprised of a traffic lieutenant, two sergeants, two civilian supervisors, two traffic investigators, 17 motorcycle officers, two collision investigators (in police cars), 12 parking enforcement officers, and three customer service

5 Glendale Police Department, "Geographic Area–South Command," http://www.ci.glendale.ca.us/police/area_command_south_command.aspx (accessed October 2013).

6 City of Glendale Police Department, "Area Command," http://police.ci.glendale.ca.us/area_command.aspx (accessed on October 2013).

7 City of Glendale, Police Department, "Geographic Area—South Command," http://police.ci.glendale.ca.us/area_command_south_command.aspx (accessed October 2013).

8 Lt. Steve Robertson, Bureau Commander Glendale Police Department, electronic communication with Meridian Consultants, June 13, 2013.

9 Lt. Steve Robertson (June 13, 2013).

employees.[10] The Traffic Bureau's responsibilities include, but are not limited to, investigation of traffic collisions and analysis, traffic safety education and public information, operation of speed-measuring devices ("lidar"), and parking enforcement.[11] Additionally, the Department also has a SED, which is a field-based unit that concentrates on problems for trends that Patrol does not have the resources to handle.[12]

In 2012, the Department reported 3,284 major (Type I) crimes and 7,412 minor (Type II) crimes for a rate of 56 crimes per 1,000 residents.[13] The Department produces monthly crime statistics and activity reports. In August 2013, the Department had 294 Uniform Crime Report (UCR) Part I crimes and 646 UCR Part II crimes.[14] In total, there were 11,519 calls for police services in August 2013.[15] **Table 4.6.2-1, Arrests in August 2013**, illustrates the arrests for felonies and misdemeanors in the month of August 2013 and compares the year to date (2013) to the previous year's (2012) totals.

Table 4.6.2-1
Arrests in August 2013

Arrests	August 2013	Year to Date (2013)	Last Year to Date (2012)
Felonies	241	1,641	1,572
Misdemeanors	506	4,022	4,248

Source: Glendale Police Department, Monthly Crime Statistics and Activity Report, August 2013.

The average response time for emergency calls as of the 2013 first quarter was 4 minutes and 28 seconds. The response time for nonemergency calls was between 5 minutes and 32 seconds to 35 minutes and 20 seconds (Priority 1, 2, and 3 calls) for the same quarter.[16] The Department has an overall response time goal of 3 minutes for emergencies. Currently, the Department's average response time from call entry to the scene is 5 minutes and 32 seconds for emergencies, 5 minutes and 5 seconds

10 Glendale Police Department, "Glendale Crime Trends Bulletin, Spring 2012," http://www.ci.glendale.ca.us/police/PDFs/CommunityNewsletter_Spring2012_Vol1_Issue1.pdf.

11 Glendale Police Department, "Glendale Department Newsletter Fall 2010," http://www.ci.glendale.ca.us/police/PDFs/COPPSNewsletter_Fall2010.pdf.

12 Glendale Police Department, "2012 Year in Review," http://www.ci.glendale.ca.us/police/pdfs/crimetrends/crimetrendscrimetrends_Spring2012.pdf.

13 Glendale Police Department, "Monthly Crime Statistics and Activity Report," (December 2012).

14 Glendale Police Department, "Monthly Crime Statistics and Activity Report," (August 2013).

15 Glendale Police Department, "Glendale Police Incidents/Calls for Service," (August 2013).

16 Lt. Steve Robertson (June 13, 2013).

for Priority 1 crimes, 14 minutes and 48 seconds for Priority 2 crimes, and 39 minutes and 10 seconds for Priority 3 crimes.[17]

Regulatory Setting

All law enforcement agencies within the State of California are organized and operated in accordance with the applicable provisions of the California Penal Code. This code sets forth the authority, rules of conduct, and training for peace officers. Under State law, all sworn municipal and county officers are State Peace Officers.

The County of Los Angeles is required by State law to organize a formal mutual aid agreement between all police departments within its jurisdiction. This agreement is set forth in the Mutual Aid Operations Plan for Los Angeles County. The Mutual Aid Operations Plan provides a structure of response should an emergency in Glendale arise that requires immediate response by more law enforcement personnel than would be available to the Glendale Police Department using all available resources.

The Glendale Police Department has implemented Community Oriented Policing and Problem Solving (COPPS), a community-policing program that promotes proactive long-term problem solving through community police partnerships that address community concerns, causes of crime, and the fear of crime. The goal of the program is to improve the quality of life for those living, working, or visiting the City of Glendale.

There are a number of goals and policies set forth by the City of Glendale in the General Plan Community Facilities and Safety Elements that relate to police protection services. An analysis of the consistency of these applicable goals and policies with the proposed Project is provided in **Section 4.3, Land Use and Planning**. As discussed in **Section 4.3**, the Project does not conflict with the City's General Plan.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on police services, if the following could occur:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the

17 Glendale Police Department, "Monthly Crime Statistics and Activity Report," (August 2013).

construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.

Methodology

Potential Project impacts were evaluated based on the adequacy of existing and anticipated staffing, equipment, and facilities to meet the additional demand for police protection services resulting from development of the Project. Effects on the officer-to-population ratio and the net increase in reported incidents and calls for service were taken into consideration when determining the impact of the Project on police protection services.

Project Impacts

Threshold: **Result in substantial adverse impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection.**

Officer-to-Resident Ratio

The Project would develop a mixed-use building that would have 90 residential units, 18,000 square feet of medical office space, 1,000 square feet of restaurant, counter service with limited seating, and a subterranean parking structure that would provide 246 parking spaces, as well as residential amenities. Based on the mix of apartment units, the Project would generate approximately 264 residents. The new residential units would create additional demand on Glendale Police Department, specifically in Reporting District No. 263 in the southern portion of the City. The 2013 officer-to-population ratio within the City is 1.317 sworn officers per 1,000 residents. Based on a target officer-to-population ratio, Project residents would result in a need for 0.26 sworn officers per 1,000 residents.[18] The Project would increase the City's population to 193,916 residents, which would result in an overall ratio of 1.315 sworn officers per 1,000 residents. The increase in residents within the City would not substantially impact the current officer-to-population ratio and would not result in the need for any new or the physical alteration to any existing governmental facility. Consequently, potential impacts are considered to be less than significant.

18 Lt. Steve Robertson, Bureau Commander Glendale Police Department Traffic & Air Support, electronic communication with Meridian Consultants, January 30, 2013.

Calls For Service

The increase in City residents by the Project would generate additional calls for service. As noted previously, there were 11,519 calls for police services in August 2013. Based on the existing number of calls for police services per 1,000 residents, the Project would generate approximately 15 calls per month and approximately 180 calls per year for police services. The increase in 180 additional calls per year, or approximately 15 calls per month, would not seriously impact police department operations. The Project would not result in the need for any new or the physical alteration to any existing governmental facility. Consequently, potential impacts are considered to be less than significant.

Response Time

As discussed previously, the Department has an overall response time goal of 3 minutes for emergencies. Currently, the average department response time from call entry to the scene is 5 minutes and 32 seconds for emergencies, 5 minutes and 5 seconds for Priority 1 crimes, 14 minutes and 48 seconds for Priority 2 crimes, and 39 minutes and 10 seconds for Priority 3 crimes. However, the Glendale Police Department considers current response times in the City adequate and, due to distance of the Project from the nearest police station and the increase in calls for service, the Project would not adversely affect response times in the City. The Project would not result in the need for any new or the physical alteration to any existing governmental facility. Consequently, potential impacts are considered to be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

The Project and related projects (refer to **Section 4.0, Environmental Impact Analysis** for list of commercial, residential, and office projects) would result in the addition of approximately 9,477 residents to the City of Glendale. Implementation of the related project and associated increase in population would increase the demand for police protection services and could require the need for the construction of new or physically altered facilities to accommodate the increased demand associated with the related projects. This would result in a significant cumulative impact. As discussed previously, the Project would not result in significant impacts to the Glendale Police Department on a project-specific level. The Project, however, would contribute to the significant impact and would be considered to be cumulatively considerable. For this reason, impacts are considered to be significant.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: No mitigation measures are available at this time.

Level of Significance After Mitigation: Significant and unavoidable.

ENVIRONMENTAL SETTING

Existing Conditions

The Project site is located within the boundaries of the Glendale Unified School District (GUSD). The western and southern boundaries of the GUSD are coterminous with the boundaries of the City of Glendale, while the eastern and northern portions of the GUSD include two unincorporated Los Angeles County communities, La Crescenta and Montrose, and a small portion of the City of La Cañada-Flintridge.

GUSD facilities include 15 elementary schools with grades K–6 and five elementary schools with grades K-5, three middle schools with grades 6–8 and one middle school with grades 7–8, three comprehensive senior high schools with grades 9–12, one magnet high school, one continuation high school, and a developmental center for multi-handicapped students.

During the 2012–2013 school year, the GUSD had a total enrollment of 26,187 students.[19] Based on this data, the capacity of the GUSD is 17,476 students for grades K-6, 5,292 students for grades 7-8, and 8,613 students for grades 9-12 for a total capacity of 31,381 students. Approximately 45 percent of the students were enrolled in elementary schools (grades K–6), approximately 18 percent were enrolled in middle school (grades 7–8), approximately 34 percent were enrolled in high school (grades 9–12), approximately one percent was enrolled in continuation programs, and less than one percent was enrolled in special education programs.

The Project site is located within the attendance boundaries of Edison Elementary, Roosevelt Middle School, and Glendale High School. According to the latest site capacity study prepared by the GUSD in June 2013, the current capacity of these neighborhood schools is 751 students at Edison Elementary School, 1,206 students at Roosevelt Middle School, and 3,802 students at Glendale High School.[20]

During the 2012–2013 school year, Edison Elementary had an enrollment of 822 students, Roosevelt Middle School had an enrollment of 808 students, and Glendale High School had an enrollment of 2,749

19 Karolin Savarani, Executive Secretary, Business Services, Glendale Unified School District, electronic communication between Meridian Consultants, June 12, 2013 and October 25, 2013.

20 Karolin Savarani,(June 12, 2013 and October 25, 2013).

students.[21] When compared with current enrollment, Edison Elementary, which serves the Project site, is currently operating over capacity.

Regulatory Setting

The regulatory framework for schools is established at the school district and state level. The GUSD has adopted the site size standards from the School Facilities Planning Division of the State Department of Education. The state has traditionally been responsible for the funding of local public schools. To assist in providing facilities to serve students generated by new development projects, the state passed Assembly Bill 2926 in 1986. This bill allowed school districts to collect impact fees from developers of new residential and commercial/industrial building space.

In addition, the Glendale General Plan Community Facilities Element sets forth goals and policies that relate to schools. An analysis of the consistency of these applicable goals and policies with the proposed Project is provided in **Section 4.3, Land Use and Planning**. As discussed in **Section 4.3**, the Project as proposed does not conflict with the City's General Plan.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on public services, including schools, if the following could occur:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools.

Methodology

Potential Project impacts on the GUSD were evaluated by applying current district student generation ratios for multifamily dwelling units by grade level to units proposed by the Project.[22] The number of students generated directly by the Project was applied to individual schools serving the Project site to determine if these facilities could accommodate an increase in students.

---

21 Karolin Savarani, Executive Secretary, Business Services, Glendale Unified School District, electronic communication between Meridian Consultants, November 28, 2012.

22 Glendale Unified School District, "Impact of Residential Development On the Need for Additional School Facilities,"(February 2012).

Project Impacts

Threshold: **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools.**

As shown in **Table 4.6.3-1, Project Student Generation Table**, the 90 apartment units associated with the Project would generate approximately 28 students grades K–6, 10 students grades 7–8, and 21 students grades 9–12 for a total of 59 students based on the student generation ratios utilized by the GUSD.

Table 4.6.3-1
Project Student Generation Table

Grade Levels	Generation Rates (Students per Unit)	Proposed Residential Units	Total
K–6	0.304	90	28
7–8	0.107	90	10
9–12	0.225	90	21
		Total students	**59**

Source: Glendale Unified School District, Impact of Residential Development on the Need for Additional School Facilities, February 2012, page 10.
Note: The generated student numbers were rounded if calculation resulted in decimal numbers.

The Project would add 28 students to Edison Elementary for a projected enrollment of 850 students which would be above the operating capacity of 751 students; would add 10 students to Roosevelt Middle School for a projected enrollment of 818 students which would be below the operating capacity of 1,206; and would add 21 students to Glendale High School for a projected enrollment of had an enrollment of 2,770 students which is below the operating capacity of 3,802 students. All schools serving the Project site are currently operating under capacity, except for Edison Elementary which is currently operating over capacity, and would not require the provision of new or physically alter existing school facilities. Therefore, absent mitigation, Project impacts on Edison Elementary would be significant. Potential school impacts would be considered to be less than significant for Roosevelt Middle School and Glendale High School.

Level of Significance Before Mitigation: Significant for Edison Elementary. Less than significant for Roosevelt Middle School and Glendale High School.

Mitigation Measures: The following mitigation measure is required per State law to mitigate the impact of the Project on Edison Elementary.

4.6.3-1 As authorized by SB 50, the project applicant shall pay school impact fees to the GUSD prior to the issuance of building permits. The current fee schedule for residential development is $3.20 per square foot and for commercial/industrial development is $0.51 per square foot.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

As discussed in **Section 4.5, Population and Housing**, the Project and related projects would result in the addition of 3,645 residential units in the City of Glendale. Combined, these additional units would generate approximately 1,109 students grades K–6, 390 students grades 7–8, and 820 students grades 9–12, for a total of 2,319 students.

Table 4.6.3-2
Cumulative Student Generation Table

Grade Levels	Generation Rates (Students per Unit)	Proposed Residential Units	Total
K–6	0.304	3,645	1,109
7–8	0.107	3,645	390
9–12	0.225	3,645	820
		Total Students	**2,319**

Source: Glendale Unified School District, "Impact of Residential Development on the Need for Additional School Facilities," (February 2012, p. 10).
Note: The generated student numbers were rounded if calculation resulted in decimal numbers.

The Project and related projects would result in a projected enrollment of 14,195 students for grades K–6, 4, 347 students for grades 7–8, and 9,866 students for grades 9–12. Based on these enrollment projections, there would be enough school capacity for grades K–6 and 7–8. However, due to a projected lack of school capacity for grades 9–12 in the GUSD, these additional students would result in a significant impact.

According to Government Code Section 65995, the payment of school impact fees, authorized by Senate Bill 50, by each project will fully mitigate the impact of the Project and related projects on local schools from cumulative development. Therefore, through payment of these fees, the cumulative impact of the Project and related projects would be reduced to a less than significant level.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

4.7 RECREATION

This section describes and evaluates potential impacts to existing and future parks and recreation facilities in the City of Glendale. The analysis in this section is based upon the City of Glendale Recreation Element, the City of Glendale Open Space and Conservation Element, and communications with City staff.

ENVIRONMENTAL SETTING

Existing Conditions

Developed Park and Recreation Facilities

The City of Glendale Parks, Recreation, and Community Services Department owns and operates public parks and recreation facilities in the City. Approximately 7,647 acres of public open space exists within the boundaries of the City, of which 5,035 acres are City owned. City-owned open space consists of undeveloped parkland in the form of regional and community parks such as Brand Park, Deukmejian Wilderness Park, Deerpass, and Flint Canyon.[1] The remaining 2,612 acres of public open space includes lands owned by the California Department of Transportation (Caltrans), Los Angeles County, Southern California Edison Company, and the Los Angeles County Department of Public Works, Flood Control Division.[2]

In addition, privately held properties comprise a total of 991 acres of open space. Privately held open space includes unsubdivided land and developed recreation and education facilities (e.g., golf courses, youth camps, and religious retreats).[3] Privately held golf courses include the Oakmont Golf course which lies approximately five miles from the center of Glendale(located at 3100 Country Club Drive), and the Chevy Chase Country Club and Golf Course located at 3067 E. Chevy Chase Drive.

The City's park system consists of approximately 285.5 acres of developed parkland in 45 parks and facilities.[4] Six types of parks within the City are defined in the general plan Recreation Element; these include regional parks, community parks, neighborhood parks, mini parks, community centers, and special facilities. Definitions of each recreation facility type and the associated characteristics of each are summarized in **Table 4.7-1, Park and Recreation Facilities Classification and Service Area Standards.**

1 City of Glendale, "Open Space and Conservation Element, Table 4-7," (revised September 27, 2005).

2 City of Glendale (September 27, 2005).

3 City of Glendale (September 27, 2005).

4 Emil Tatevosian, Park Planning & Development Administrator, City of Glendale, Community Services and Parks, electronic communication with Glendale Community Development Department, December 12, 2013.

Table 4.7-1
Park and Recreation Facilities Classification and Service Area Standards

Component	Service Area	Size (acres)	Amount Per 1,000 Population (acres)	Desirable Uses	Site Characteristics
Regional park	Several cities (1-hour drive time)	More than 30	N/A	Picnicking, play area, boating, fishing, swimming, camping, trails	Contiguous to or encompassing natural resources.
Community park	1-mile radius	10–30	5.0–6.0	Athletic fields and courts, gymnasiums, swimming pools, picnic sites, play areas	Suited for intense development. May encompass natural resources.
Neighborhood park	0.5-mile radius	2–10	1.0–2.0	Athletic field and courts, play areas, picnic sites, wading pools	Suited for intense development with safe pedestrian and bike access. May be developed as a school site facility.
Mini park	Less than a 0.25-mile radius	1 or less	0.25–0.5	Play equipment areas, wading pools	Suited for high density multifamily and senior housing units.
Community center	2-mile radius	0.5–5	N/A	Multipurpose building and gymnasium, open play area	Suited for intense development with safe pedestrian access.
Special facilities	No applicable standard	N/A	N/A	May include golf courses, historic grounds or buildings, botanical gardens, commercial plazas or squares, nature centers	

Source: City of Glendale, General Plan, Recreation Element (1996).
Note: N/A = not available.

In addition to City recreation facilities, trailhead access to regional trail systems, including trail systems in the Verdugo Mountains, San Rafael Hills, Santa Monica Mountains, and Angeles National Forest (San Gabriel Mountains), is provided from the City's community parks.[5]

For purposes of planning its recreation facilities, the City has established 11 "Recreation Planning Areas" in accordance with patterns of community boundaries and park facility accessibility, as defined by mountains, freeways, and other barriers to use. The Project site is located in Recreation Planning Area

5 City of Glendale, *General Plan, Recreation Element*, (1996, p. 4-2, Chart 4-1).

No. 7, which encompasses a 640-acre area characterized by multifamily residential and industrial uses and includes 18,683 residents.[6] The park acreage for the Planning Area No. 7 is 6.05 acres, which provides a ratio of approximately 0.32 acres of parkland per 1,000 residents.[7]

Several City park and recreation facilities are located within a 1-mile radius of the Project site. The locations of these facilities are shown on **Figure 4.7-1, Glendale Parks and Recreation Facilities Within 1-Mile Radius of the Project Site**, and the characteristics of each are summarized in **Table 4.7-2, Glendale Parks and Recreation Facilities Within 1 Mile of the Project Site**. Currently, the closest facilities to the Project site are Harvard Mini Park located approximately 0.25 miles to the north, the Pacific Park and Community Center located approximately 0.25 miles to the south, and the Pacific Community Pool located approximately 0.25 miles to the south. The 1996 Recreation Element indicates that Recreation Planning Area No. 7 had 0.35 acre of parkland per 1,000 residents[8] (in comparison to the current 0.32 acres of parkland per 1,000 residents). Based on the City's 2013 population of 193,652 residents, the City's parkland-to-resident ratio is 1.47 acres per 1,000 residents.[9,10]

6 City of Glendale California, *Distribution of Parkland in Glendale*, http://www.ci.glendale.ca.us/planning/qol/indicators09/documents/rpa_distribution_of_parkland_in_glendale.pdf

7 18,683 residents/1,000 residents = 18.683; 6.05 parkland/18.683 residents = 0.32

8 City of Glendale, *General Plan, Recreation Element*, (1996, p. 5-9).

9 California Department of Finance, "E-5: City/County Population and Housing Estimates,"(January 1, 2013).

10 193,652 residents/1,000 = 193.652; 285.5 acres of parkland/193.652 = 1.47 acres of parkland per 1,000 residents.

Table 4.7-2
Glendale Parks and Recreation Facilities Within 1 Mile of the Project Site

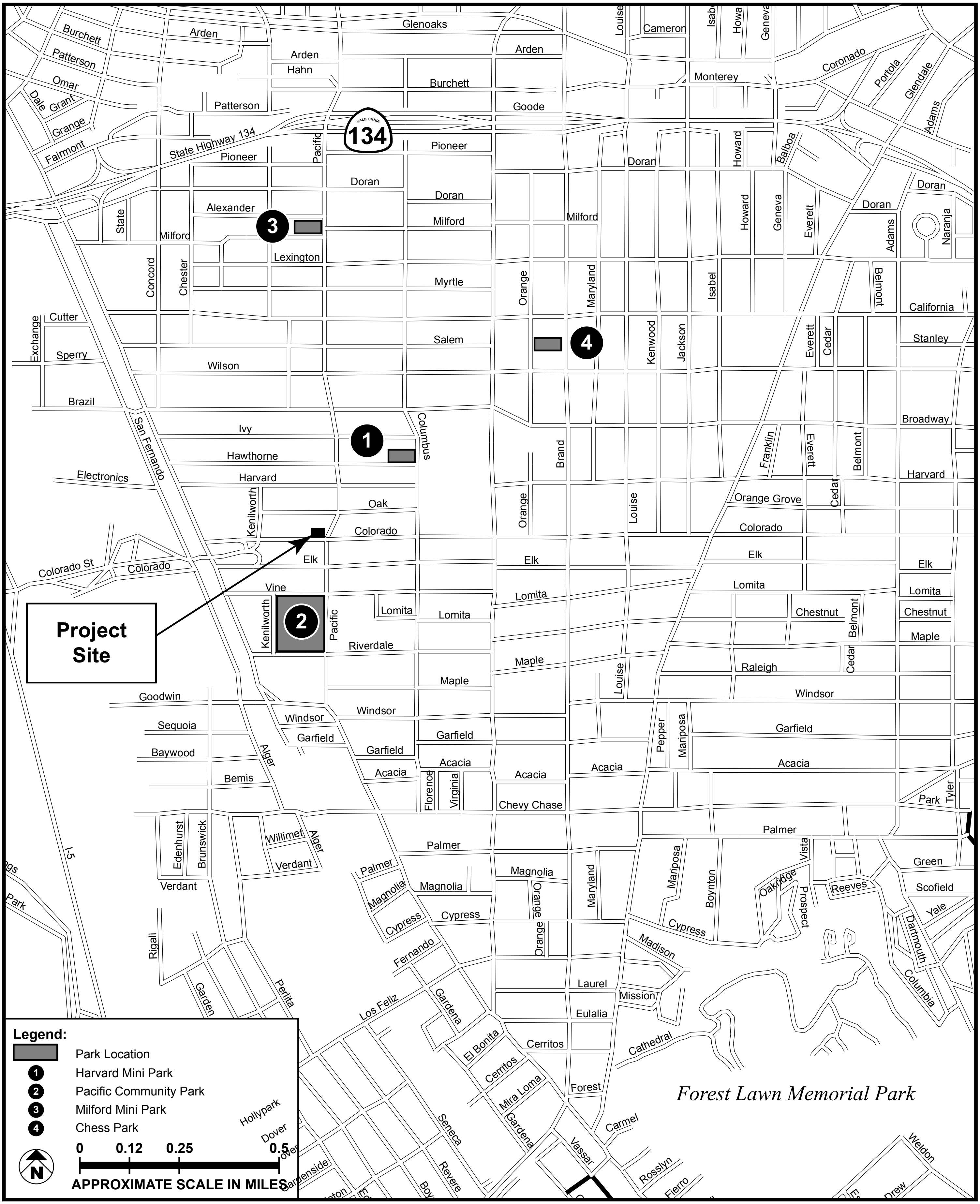
Facilities	Acres	Features
Adult Recreation Center and Central Park – in Recreation Area 9	3.16	Multiuse rooms, courtyards, exercise rooms, lounges, billiards rooms, table tennis areas, pickle ball court, passive green space, walking paths, and rest areas
Chess Park – in Recreation Area 6	0.08	16 concrete chess tables and seating areas
Doran Gardens Mini Park – in Recreation Area 6	0.38	Two children's play areas and shaded seating areas
Harvard Mini Park in Recreation Area 7	0.29	Fire Department–themed play area, seating area with a shade canopy, and open lawn area
Milford Mini Park	0.28	Children's play area and picnic areas
Pacific Park and Community Center – in Recreation Area 7	5.3	Community building with two barbeques, children's play area, seven meeting rooms, nine picnic tables, benches, lit softball/baseball fields, unlit outdoor basketball court, two gymnasiums, one lit soccer field, and an indoor volleyball court
Pacific Community Pool – in Recreation Area 7	0.46	Pool, pool deck, grand stands, restrooms, showers, and lockers
Fremont Park – in Recreation Area 6	7.9	Basketball court, children's play area, four horseshoe courts, picnic areas, eight tennis courts, volleyball courts, and wading pool
Griffith Park – City of Los Angeles	4,210	Open Space, Autry National Center, Griffith Observatory, hiking trails, tennis courts, golf, sports fields.

Source: City of Glendale Parks, Community Services and Parks, "Parks, Historic Sites & Facilities," http://www.ci.glendale.ca.us/parks/facilities_parks_historic-sites.aspx (accessed October 23, 2013).

Planned Park Acquisition, Development, and Construction

The City of Glendale is currently devoting additional resources for the acquisition, development, and construction of parks within residential areas throughout the City. Future acquisition of land for recreational use will provide a wide array of activities and facilities. The following is a list of tasks currently being undertaken by the City related to acquiring land for park recreation purposes. It should be noted that the tasks listed below are in different stages of acquisition, development, and/or construction or recently completed.

- Catalina Verdugo Trail – completed
- Pacific Edison Artificial Turf – construction started in winter 2013 and will be completed by late spring 2014



SOURCE: Meridian Consultants, LLC – October 2013

FIGURE 4.7-1

Meridian Consultants

Glendale Parks and Recreation Facilities Within One Mile Radius of the Project Site

046-001-13

- Le Mesnager Center at Deukmejian Wilderness Park – program development stage
- Glendale Narrows Riverwalk Phase II and Phase III – preliminary design stage
- Maple Park Site Improvement Project – construction started in winter 2013 and will be completed by late spring 2014
- Maryland Avenue Park – construction started in winter 2013 and will be completed by end of spring 2014
- Mountain Do Trail – completed in June 2013
- Pacific Park/Pool/Community Center Wayfinding – construction started in winter 2013 and be completed by early spring 2014
- Palmer Park Renovation – design stage to be completed by early spring 2014
- Batting Cages at Sports Complex – program development stage
- Freemont Park – needs assessment stage to be completed by summer 2014

Regulatory Setting

Recreation Element of the General Plan

The Recreation Element of the Glendale General Plan addresses the City's parks and recreation needs, management of parks and use of these facilities, and the development of additional park resources.

The City's park classification system recommended that service radii and area standards adhere closely to those established by the National Recreation and Park Association's (NRPA) Recreation, Park and Open Space Standards (1983), which serves as the national standard for the assessment of park land in cities. Specifically, the Recreation Element establishes a standard of 6 acres per 1,000 residents of neighborhood park and community parkland combined.[11] This standard calls for the provision of 1 acre of neighborhood parkland per 1,000 residents and 5 acres of community parkland per 1,000 residents, for a total of 6 acres of parkland per 1,000 residents. It should be noted that this standard represents a goal and is not considered a threshold of significance for determining the significance of impacts of individual development projects.

Parks and Recreation Goals, Policies, and Objectives

The Recreation Element also contains general recreation-related goals, objectives, and policies. Goals in the Recreation Element include: having a variety of recreational opportunities and programs for all residents; the conservation and preservation of cultural, historical, archaeological, and paleontological structures and sites as links to community identity; the management of aesthetic resources, both

11 City of Glendale*, General Plan, Recreation Element*, (1996, p. 6–11).

natural and manmade to create a visually pleasing City; and the development of new parks and recreation facilities responsive to particular neighborhoods or areas in the City, as identified in the Recreation Element.

As indicated in the Recreation Element, these parkland standards are desired goals for the City of Glendale, and are not applied to development projects on an individual basis. None of the Goals, Objectives, or Policies of the Recreation Element requires that individual development projects meet these standards. In addition, the Recreation Element does not require that new residential development comply with these standards, acknowledging that, "…[s]trict adherence to these standards would dictate that the City not permit anymore [sic] housing units in areas with a deficiency of park land," and that, "…[f]ollowing this argument to its logical conclusion, based on existing neighborhood park supply, it would be difficult to permit any additional residential development."[12] This language recognizes the problems faced by the City with respect to imposing a fee or exaction on new development.

The Recreation Element also discusses the relationship of this element to the other elements of the general plan and other plans, policies, and programs. This discussion notes that the streetscape improvements and open space acquisitions discussed in the Strategic Plan will provide passive recreation opportunities and an improved quality of life for residents in the immediate area and Glendale's general daytime population.[13] In addition, the Recreation Element sets forth a policy to promote and, when possible, provide recreational opportunities for the daytime population, specifically in the downtown, commercial, and industrial areas of the City.

City of Glendale Municipal Code

Ordinance No. 5575, Public Use Facilities Development Impact Fee Ordinance, of the Municipal Code was adopted in September 2007 to provide funding for the development of additional parks and recreation facilities and to maintain the current parkland to population ratio.[14] It applies to residential, commercial, office, and industrial development projects within the City, and is supported by the City's Public Facilities Fee Study (June 2007) and related staff reports, which are available for public review and inspection at the Glendale City Clerk's Office, and are incorporated herein by this reference. The Development Impact Fees are imposed on new development as a condition of the issuance of a building permit or subdivision tract map for a development project. If a project is approved, the Development Impact Fee for park land and park facilities will be imposed on that project as a condition of approval.

12 City of Glendale (1996,p. 1–3).

13 City of Glendale (1996, p. 2–5).

14 City of Glendale, *Municipal Code, Section 4.10*, "Public Use Facilities Development Impact Fees." 2007.

Public Facilities Fee Study

The City of Glendale Public Facilities Fee Study provides an analysis of the need for public facilities and capital improvements to support future development within the City of Glendale through 2030.

It is the City's intent that the costs representing future development's share of these facilities and improvements be imposed on that development in the form of a development impact fee, as discussed above. It is important to note that the Parks and Parkland Dedication fee includes community centers and special use recreational facilities.

The City could collect two separate fees based on the Quimby Act and the Mitigation Fee Act. The Quimby Act would not apply to residential development on future approved projects on single parcels, such as many types of multifamily development.[15] The applicable fee for the Project is the Mitigation Fee Act. The Mitigation Fee Act does not indicate use of a particular type or level of facility standard or public facilities fees. To comply with the findings required under the law, facility standards must not burden new development with any cost associated with facility deficiencies attributable to existing development.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on recreation, if the following could occur:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

Methodology

An assessment of the impact of the Project on recreation facilities in the City is provided. This assessment is based on the City's planning standards for recreation facilities and the increase in population that would result from the Project. This standard analysis uses the City's existing ratio of park acreage per 1,000 residents to calculate the impact the Project would have by adding new residents.

15 The Quimby Act only applies to land subdivisions. A city cannot apply the Quimby Act to development on land subdivided prior to adoption of a Quimby ordinance, such as development on infill lots.

New development is required to fund new park facilities at the same level as existing residents have provided those same types of facilities to date.

Project Impacts

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

The Project would develop 90 multifamily residential apartment units, consisting of 68 one-bedroom apartment units and 22 two-bedroom apartment units, 18,000 square feet of medical office space, and 1,000 square feet of restaurant, counter service with limited seating. Based on the mix of apartment units and population growth derived from employment rates, the Project would generate approximately 264 new residents in the City.

As discussed previously, the City currently has a park land–to–resident ratio of approximately 1.47 acres of parkland for every 1,000 residents. The Project increase in population would incrementally increase the use of existing neighborhood and community parks in the City. While Harvard Mini Park, Pacific Park and the Community Center, and the Pacific Community Pool are physically the closest facilities to the Project site, all parks in the city could be affected as residents could use any park and recreation facility anywhere in the City. Currently, Recreational Area No. 7 has 18,683 residents and 6.05 acres of neighborhood parkland. Thus, Recreational Area No. 7 has approximately 0.32 acres of neighborhood parkland falling short of the 1-acre per neighborhood City goal.[16] Adding 264 residents would result in a negligible decrease on the neighborhood goal because the projected ratio of parkland to residents with the Project would remain at 0.32 acres per 1,000 residents.[17] To maintain the existing land-to-resident ratio Citywide, the Project would need to include approximately 0.002 acres of recreation/open space.[18] Furthermore, the Project would not substantially increase the use of recreational facilities at Griffith Park.

The Project would provide a 1,200 square foot activity room and approximately 18,000 square feet of open space, as well as include 3,661 square feet of ground floor landscaped area and 2,900 square feet of terrace landscaped area on the second through fifth floors. An extensive amount of plants would be provided along the entire perimeter to provide a more attractive view for the tenants, visitors, and surrounding community.

16 18,683 residents/1,000 residents = 18.683; 6.05 parkland/18.683 residents = 0.32.

17 18,947 residents/1,000 residents = 18.947; 6.05 parkland/18.947 residents = 0.32

18 1.47429 acres parkland per 1,000 residents (existing) – 1.47228 acres parkland per 1,000 residents (with Project) = 0.002.

Existing park facilities are currently heavily used due to the deficit in parkland in the City. The increase in use of neighborhood and community parks in the City that would result from the increase in residents associated with the Project is considered significant. In addition, the Project would be required to comply with Ordinance No. 5575 (the Ordinance), which established Development Impact Fees on new development in order to provide parks, park facilities, and library facilities. The Ordinance was adopted to minimize further deficiency in the City's park and recreation facilities and to maintain the current parkland to population ratio. It applies to residential, commercial, office, and industrial development projects within the City. As such, the Project applicant would be required to pay Development Impact Fees to assist in funding capital improvement projects, upgrades to existing recreational facilities, and acquisition and development of new park and recreation facilities throughout the City. On December 17, 2013, the City Council directed City staff to collect the full mitigate fee amount for projects that have yet to complete their Stage I Design Review applications.

Consistent with the adopted Development Impact Fee schedule, the Project would be required to pay the park component of the Phase-in fees. The current Phase-in fees amount to $7,000 per residential unit which is scheduled to increase to the full fee based on City Council direction. The development impact fee payments are required to minimize the Project's impact on park and recreation land and facilities. Under CEQA, the development impact fee payments constitute mitigation of Project-related impacts on park and recreation land and facilities within Glendale. However, the fee payment is not considered "full" mitigation because the project's fee payment does not equal the full fair-share per unit fee for multifamily residential projects, which amounts to $14,251 per multifamily unit under the City's Public Facilities Fee Study, which fee will be adjusted according to the Engineering News Record (ENR) and Land Values Survey.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: The following mitigation measure is required per the City's Public Use Facilities Development Impact Fees to mitigate the impact of the Project on park and recreational facilities.

4.7-1 In accordance with the requirements of the City of Glendale Municipal Code Section 4.10 (Ordinance No. 5575 and Resolution No. 07-164 as amended on Resolution 10-199, 11-93, 11-123, 12-86, 13-102), the project applicant shall pay the Development Impact Fee to the City. The current fee schedule is $7,000 per residential unit, which is scheduled to increase to the full fee based on City Council direction.

Level of Significance After Mitigation: The Project would be required to pay development impact fees to minimize the project's impact on parks and recreation land and facilities. Under CEQA, the

development impact fee payments constitute mitigation of project-related impacts on parks and recreation land and facilities within Glendale. However, the fee payment is not considered to fully mitigate this impact, because the fee amount to be paid would not equal the full fair-share per-unit fee for multifamily residential projects, which was determined to be $14,251 per multifamily unit in the City's Public Facilities Fee Study. Consequently, impacts would be significant and unavoidable.

Threshold: **Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.**

The Project would provide on-site recreational amenities located in a 1,200 square-foot activity room. The Project would also provide a renovated streetscape and a courtyard area. A selection of canopy and ground cover plant materials (i.e., trees, shrubbery, flowers) would be located along West Colorado Street and within the northwestern portion of the site. The courtyard area located along the northwest portion of the site would include furnishing, benches and/or other seating. The Project site is designed to include 3,661 square feet of ground floor landscaped area and 2,900 square feet of terrace landscaped area. An extensive amount of plants would be provided along the entire perimeter to provide a more attractive view for the tenants, visitors and surrounding community.

The recreational amenities are incorporated into the design of the Project and would be constructed concurrently with the Project. The short-term impacts associated with the construction of these facilities are addressed in **Sections 4.2, Air Quality and Greenhouse Gas Emissions**; **Section 4.4, Noise**; and **Section 4.8, Traffic and Transportation.** Construction of the recreational amenities would not result in significant impacts, but would contribute to the overall construction impacts.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

Threshold: **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

Implementation of the Project and related projects would increase the use of existing recreational facilities in the City. According to **Table 4.0-1, List of Related Projects,** related projects would result in

the development of approximately 3,555residential units and when combined with Project, it would result in 3,645 residential units. Based on an average household size of 2.6 persons within the city, the Project and related projects together would result in the addition of approximately 9,477 residents. As discussed previously, the existing ratio of parkland to residents of the City is approximately 1.47 acres per 1,000 residents, which is below the City's planning standard of 6 acres per 1,000 residents. Implementation of the Project and related projects would increase the use of existing recreational facilities in the City. The addition of 9,477 residents would lower this ratio to approximately 1.41 acres per 1,000 residents without the addition of new park land and recreation facilities.[19]

Given the existing deficiency of parkland in the City, the combined effects of the Project and related projects on existing facilities is considered cumulatively significant because the use of existing parks would increase, thus contributing to an acceleration in the physical deterioration of these facilities.

Even with the provision of Project amenities, the Project's contribution to this significant impact would be cumulatively considerable.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: As discussed previously, under CEQA, the development impact fee payments constitute mitigation of project-related impacts on parks and recreation land and facilities within Glendale. However, the fee payment is not considered to fully mitigate this impact, because the fee amount to be paid would not equal the full fair-share per-unit fee for residential projects, which was determined to be $14,251 per multifamily unit in the City's Public Facilities Fee Study. Consequently, impacts would be significant and unavoidable.

Level of Significance After Mitigation: Significant and unavoidable.

Threshold: **Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?**

As mentioned previously, the Project would include amenities which consist of 1,200 square feet of on-site recreational amenities located in an activity room. The Project would also provide a renovated streetscape and a courtyard area. A selection of canopy and ground cover plant materials would be located along West Colorado Street and within the northwestern portion of the site. The courtyard area located along the northwest portion of the site would include furnishing, benches and/or other seating.

19 193,652 residents + 9,477 new residents = 203,129 residents, 203,129/1,000 = 203.129; 285.56 acres of parkland/203.129 = 1.405 acres of parkland per 1,000 residents.

The Project site would be designed to include 3,661 square feet of ground floor planting area and 2,900 square feet of terrace planting area. An extensive amount of plants would be provided along the entire perimeter to provide a more attractive view for the tenants, visitors and surrounding community.

This space would be incorporated into the design of the Project and would be constructed concurrently with the Project. This construction activity is not anticipated to result in a significant impact when considered in conjunction with the construction of future parks and recreational facilities elsewhere in the City of Glendale. Consequently, the incremental effect of the Project would not be cumulatively considerable and cumulative impacts associated with the Project would be less than significant.

In order to accommodate future related projects, as well as the existing deficiency of parkland within Glendale, the City is devoting additional resources to the acquisition and development of parks within residential areas throughout the City. It is reasonable to expect that all of these facilities will undergo CEQA review and that Project-specific impacts associated with the development of each will be mitigated to the extent feasible. As a result, cumulative impacts associated with construction of future parks are expected to be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

4.8 TRAFFIC AND TRANSPORTATION

This section describes and evaluates the potential transportation and traffic impacts of the Project. A Traffic Impact Analysis, dated November 19, 2013, was prepared by KOA Corporation and this section incorporates information from the Traffic Impact Analysis (see **Appendix 4.8**).

ENVIRONMENTAL SETTING

Existing Conditions

Regional Highway System

The Golden State Freeway (Interstate [I]-5), Ventura Freeway (State Route [SR]-134), and Glendale Freeway (SR-2) provide regional access in the Project vicinity. A brief description of each freeway is provided as follows.

Interstate 5

The I-5 is a north-south freeway that extends between Northern and Southern California. Five mainline travel lanes are generally provided in each direction on the I-5 freeway in the Glendale area. The I-5 freeway is located west of the Project site and is accessible by the Colorado Street Freeway Extension.

State Route 134

SR-134 is an east-west freeway that extends from the Foothill Freeway (I-210) in Pasadena to the Ventura Freeway (US 101) in North Hollywood. Four mixed-flow travel lanes and one high-occupancy vehicle (HOV) lane are provided in each direction on SR-134 in the Glendale area. Full interchanges are provided at San Fernando Road and Central Avenue/Brand Boulevard. A westbound on/off ramp at Fairmont Avenue and an eastbound on/off ramp at Doran Street are provided in connection with San Fernando Road. The SR-134 freeway ramps at Central Avenue and Brand Boulevard are connected by one-way connector roadways (Goode Avenue and Sanchez Drive). At Central Avenue, a westbound on-ramp and an eastbound off -ramp are provided in connection with the Goode Avenue and Sanchez Drive freeway frontage roadways. At Brand Boulevard, a westbound off -ramp and an eastbound on-ramp are provided in connection with these two freeway frontage roadways.

State Route 2

The Glendale Freeway, SR-2, is a north-south freeway that extends from just south of I-5 near Echo Park to just north of I-210 near La Canada-Flintridge. The northern terminus of the freeway occurs at Foothill Boulevard. A full set of on/off -ramps are provided in both directions east and southeast of the Project

site. The SR-2 freeway generally provides four mixed-flow travel lanes in each direction in the vicinity of the Project site.

Local Street System

The following two study intersections, located in the City of Glendale, were selected for analysis by the City of Glendale Traffic and Transportation Division in order to determine potential impacts related to the Project:

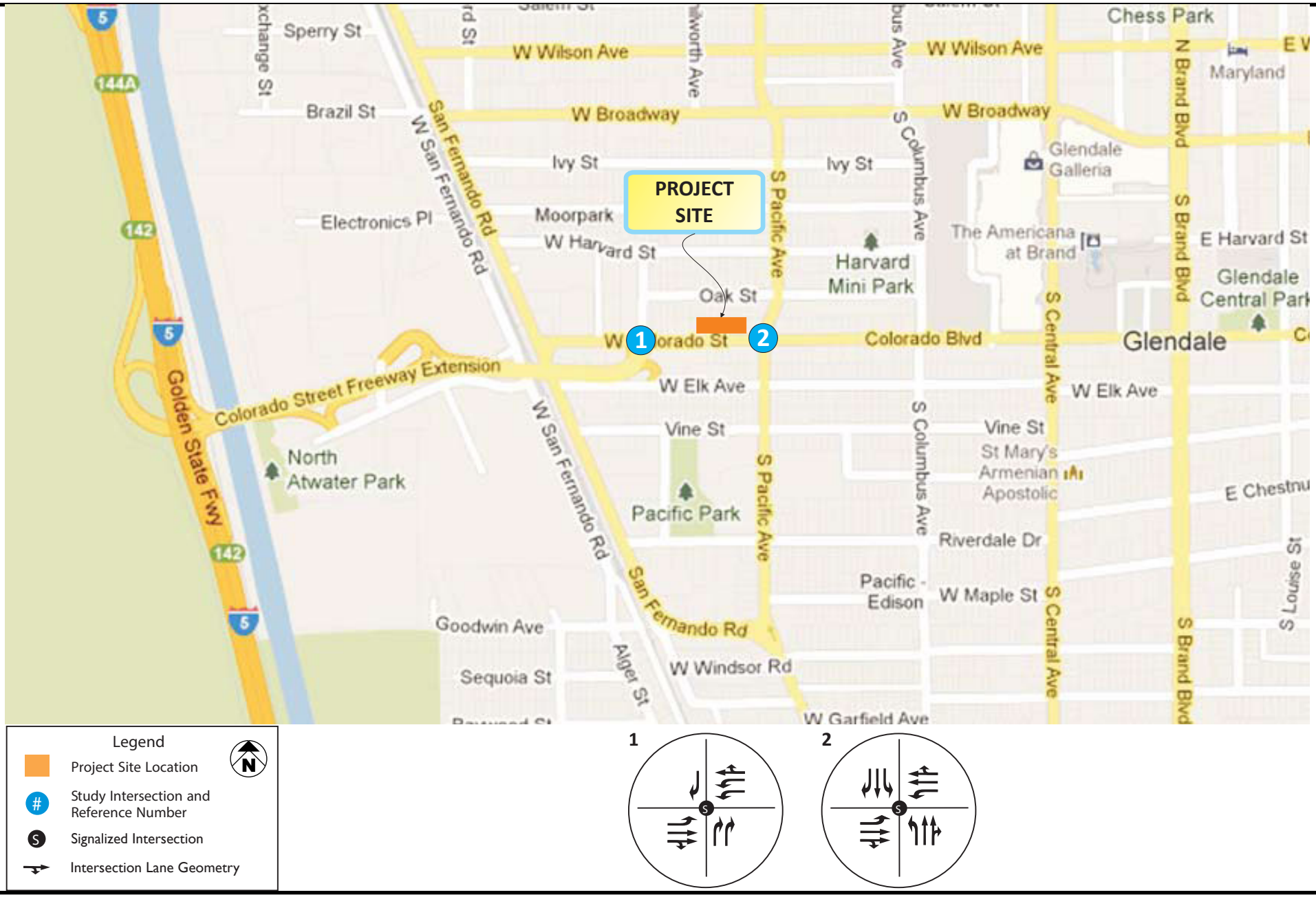
- Kenilworth Avenue-Colorado Street Freeway Extension (Kenilworth Avenue) and Colorado Street
- Pacific Avenue and Colorado Street

The traffic analysis study area is generally comprised of those locations that have the greatest potential to experience significant traffic impacts due to the Project. The two intersections were selected because they are (1) immediately adjacent or in proximity to the Project site, (2) in the vicinity of the Project site and are documented to have current or projected adverse operational issues, and/or (3) in the vicinity of the Project and are forecast to experience a relatively greater percentage of Project-related vehicular turning movements. Both intersections are presently controlled by traffic signals. The existing lane configurations and locations of the two study intersections are shown in **Figure 4.8-1, Existing Travel Lanes & Intersection Locations.**

Nearby intersections in the Project site vicinity include Oak Street and Pacific Avenue and Kenilworth Avenue and Oak Street. Both intersections are stop-sign controlled.

Colorado Street

Colorado Street is an east-west major roadway that borders the Project Site on the south. This roadway provides two travel lanes in each direction and a two-way left-turn center lane near the Project site. On-street parking is allowed on the south side of the roadway in front of the ICIS building and is prohibited on the north side of the roadway. The I-5 freeway is accessible from the Project site by traveling westbound on the Colorado Street Freeway Extension. Colorado Street is designated as a Major Arterial in the Circulation Element of the City of Glendale General Plan.



SOURCE: KOA Corporation – 2013; Meridian Consultants, LLC – 2013.

FIGURE **4.8-1**

Meridian Consultants

Existing Travel Lanes & Intersection Locations

046-001-13

Pacific Avenue

Pacific Avenue is a north-south minor roadway that is located east of the Project site. This roadway provides two travel lanes and a center left turn lane in each direction north of Colorado Street and one travel lane in each direction south of Colorado Street near the Project site. On-street parking is provided on both sides of the roadway. Pacific Avenue is designated as a Minor Arterial in the Circulation Element of the City of Glendale General Plan.

Kenilworth Avenue

Kenilworth Avenue is a north-south oriented roadway that is located west of the Project site. The roadway consists of two lanes undivided. Kenilworth is designated as a Local Street in the Circulation Element of the City of Glendale General Plan.

Existing Traffic

There are two peak hours in a weekday. The morning peak hours are typically between 7:00 AM and 9:00 AM, and the evening peak hours are typically between 4:00 PM and 6:00 PM. The actual peak hour within the 2-hour interval is the four consecutive 15-minute periods with the highest total volume when all movements are added together. Thus, the evening peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15-minute periods have the highest combined volume.

Intersections

The existing level of service (LOS) for the Project area intersections are based on manual morning and evening peak-hour intersection turning-movement counts conducted in 2013.

LOS varies from LOS A (free flow) to LOS F (jammed condition). LOS definitions for signalized intersections are provided in **Table 4.8-1, Level of Service Definitions for Signalized Intersections**.

Table 4.8-1
Level of Service Definitions for Signalized Intersections

A	LOS A occurs when progression is extremely favorable and vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0.600 and below
B	LOS B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	0.601 - 0.700
C	LOS C generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	0.701 - 0.800
D	LOS D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	0.801 - 0.900
E	LOS E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent.	0.901 - 1.000
F	LOS F is considered to be unacceptable to most drivers. This condition often occurs when oversaturation (i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	1.001 and up

Source: Transportation Research Board, National Research Council, Highway Capacity Manual Special Report 209 (Washington, D.C., 2000).
Note: LOS = level of service

As indicated in **Table 4.8-2, Existing Levels of Service**, the intersection of Kenilworth Avenue /Colorado Street intersection is presently operating at LOS A or better during the AM and PM peak hours under existing conditions. The intersection of Pacific Avenue and Colorado Street is currently operating at LOS C during both the AM and PM peak hour.

Table 4.8-2
Existing Levels of Service

	Intersections	Peak Hour	V/C (ICU)	LOS
1	Kenilworth Avenue/Colorado Street	AM	0.471	A
		PM	0.748	C
2	Pacific Avenue/Colorado Street	AM	0.553	A
		PM	0.799	C

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale. (November 19, 2013).
Note: V/C = volume-to-capacity ratio; ICU = Intersection Capacity Utilization; LOS = level of service.

Roadways

The existing average daily traffic volumes on area roadways are shown in **Figure 4.8-2, Existing Average Daily Traffic Volumes** and as identified in **Table 4.8-3, Existing Average Daily Traffic Volumes**.

Table 4.8-3
Existing Average Daily Traffic Volumes

Roadway Segment	Average Daily Trip Volumes
Kenilworth Avenue between Harvard Street and Colorado Street (northbound)	476
Kenilworth Avenue between Harvard Street and Colorado Street (southbound)	316
Harvard Street between Kenilworth Avenue and Pacific Avenue (eastbound)	771
Harvard Street between Kenilworth Avenue and Pacific Avenue (westbound)	506
Oak Street between Kenilworth Avenue and Pacific Avenue (eastbound)	350
Oak Street between Kenilworth Avenue and Pacific Avenue (westbound)	305

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).

Caltrans Intersections

Caltrans maintains jurisdiction over the Colorado Street Freeway Extension at Colorado Street. There is currently no queue length at this intersection.

Public Transit Service

The Los Angeles County Metropolitan Transportation Authority (Metro) and the City of Glendale Beeline Bus currently provide public bus transit service in the Project area. The Metro system includes Line 183, 201, and 603 along Pacific Avenue and Colorado Street. The Beeline Bus system includes Lines GB5 and GB6 also along Pacific Avenue and Colorado Street.

Parking Spaces

The Project site would provide 246 parking spaces with a total of 23 spaces reserved for guest parking and 7 spaces reserved for handicap accessible parking. In addition, on-street parking is allowed on the south side of Colorado Street in front of the ICIS building and is prohibited on the north side of Colorado Street, whereas, on-street parking is provided on both sides of Pacific Avenue.

Bicycle/Pedestrian Transportation System

The Project site presently contains sidewalks along the northern and southern side of Colorado Street, the western and eastern side along Pacific Avenue, and the western and eastern side along Kenilworth Avenue. There are no existing bicycle paths along the roadways adjacent to the Project site.[1]

Regulatory Setting

State

California Department of Transportation (Caltrans) regulates and maintains State and Interstate roadways (state routes, highways, freeways) in the State of California. In areas with State roadways, Caltrans has the responsibility to maintain these roadways while the local jurisdictions (e.g., City and County transportation departments) are responsible for maintaining local roads. Local jurisdictions work with Caltrans to achieve transportation service requirements and improvements.

The Project site is located in Caltrans District 7, which includes Los Angeles County. This district is responsible for planning, designing, and maintaining State highways in the general area of the Project site, including I-5, SR-134, and SR-2.

Regional

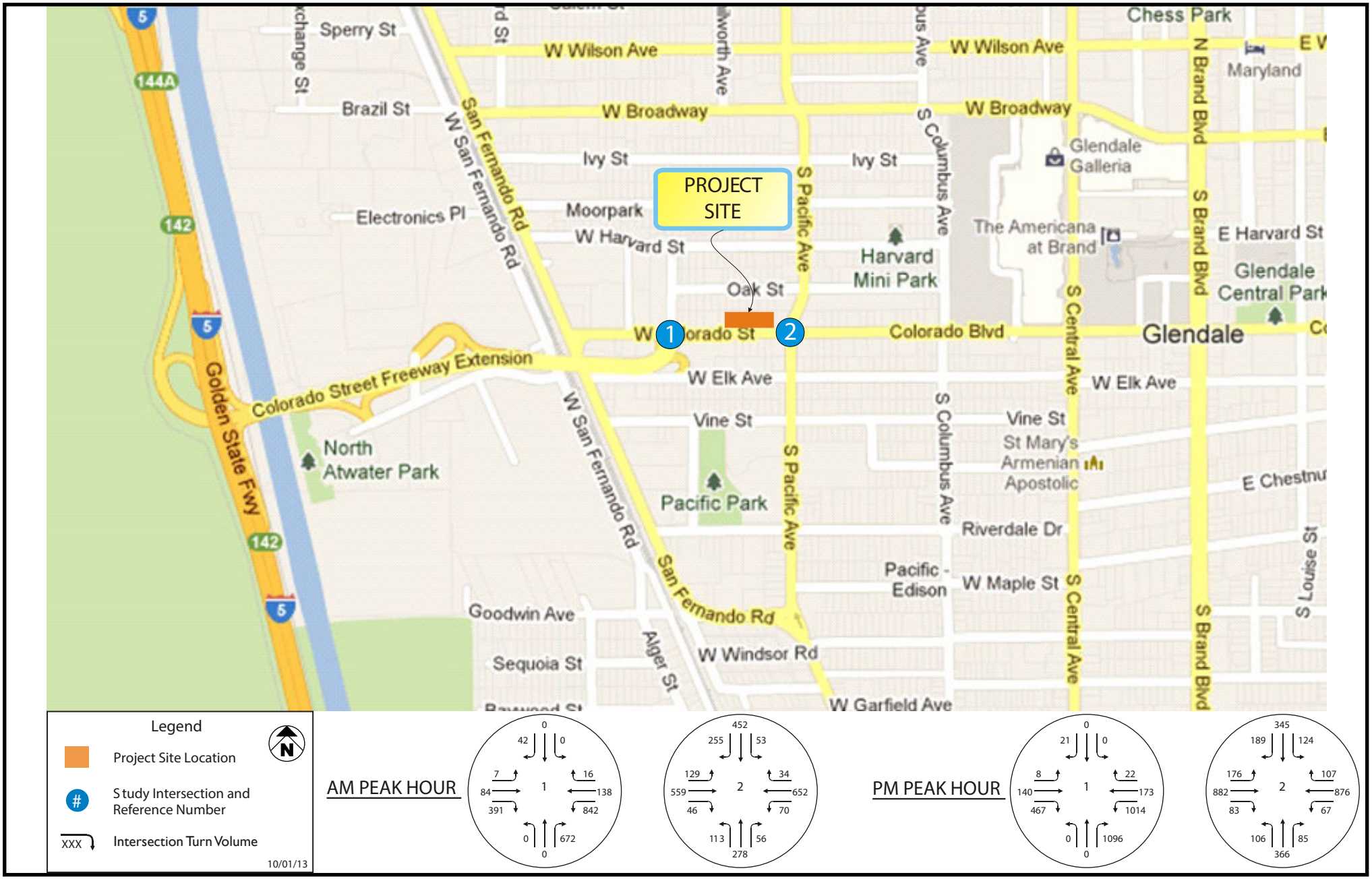
Southern California Association of Governments

The Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) is a long-term vision document that outlines transportation goals, objectives, and policies for the SCAG region, including Los Angeles County. The latest SCAG RTP, adopted in April 2012, includes an assessment of overall growth and economic trends in the region and provides strategic direction for transportation capital investments to support more efficient and "sustainable" modes of transportation from 2012 through 2035. Future planning will promote the use of bus and light rail transit, passenger high speed rail, and other Transportation Demand Management strategies.

Congestion Management Program

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system. Metro is the responsible agency for implementing the CMP. The most recent CMP was adopted by the Metro Board on October 28, 2010. The 2010 CMP summarizes the results of 18 years of CMP highway and transit monitoring and 15 years

1 City of Glendale, Bicycle Transportation Plan Final Draft, May 2012, Map 5-1: Existing Bikeways (May 2012).



SOURCE: KOA Corporation – 2013; Meridian Consultants, LLC – 2013.

FIGURE **4.8-2**

Meridian Consultants

Existing Average Daily Traffic Volumes

046-001-13

of monitoring local growth. CMP implementation guidelines for local jurisdictions are also contained in the 2010 CMP.

The nearest CMP intersection from the Project site is CMP No. 73, located at Ventura Boulevard and Lankershim Boulevard, which is approximately 5.5 miles west of the Project site.

Local

There are a number of goals and policies set forth by the City of Glendale in the General Plan Circulation Element that relate to traffic and circulation. An analysis of the consistency of these applicable goals and policies with the Project is provided in **Section 4.3, Land Use and Planning**. As discussed in **Section 4.3**, the Project does not conflict with the City's General Plan.

City of Glendale Bicycle Transportation Plan

The Glendale Bicycle Transportation Plan serves as a guide to the City in planning, development, design, and maintenance for new and upgraded bicycle facilities for the next 20 years. The Bicycle Transportation Plan will be updated every 5 years to inventory and evaluate changes to infrastructure, and to adjust planned facilities based on changing future conditions. The Glendale Bicycle Transportation Plan is compliant with Caltrans Bicycle Transportation Account requirements.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on traffic and transportation, if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit

- Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways

- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks (issue is addressed in **Section 6.0, Effects Not Found to be Significant**)

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

City of Glendale

In the City of Glendale, impacts are considered significant for signalized intersections if the project-related increase in the volume-to-capacity (V/C) ratio equals or exceeds 0.02 that have LOS D or worse. The impact is considered significant for unsignalized intersections if the project-related increase in the delay equals or exceeds 3 seconds that have LOS D, E, or F.

The City of Glendale Circulation Element identifies two conditions that typically apply when evaluating local collector street impacts:

If the addition of Project average daily trips (ADTs) to a residential street does not cause the street's capacity to be exceeded (regardless of how great an increase), the Project would result in no impacts.

If the streets capacity is exceeded with or without the Project, no impacts occur if the Project increases the existing conditions ADT by less than 10 percent.

Methodology

Construction Traffic Analysis

The number of construction worker vehicles is estimated using the average ridership of 1.135 persons per vehicle.[2] The typical construction activity is anticipated to begin at 7:00 AM and end at 4:00 PM. In general, the majority of the construction workers are expected to arrive at the Project site during off-peak hours (i.e., arrive prior to 7:00 AM). It is anticipated that the majority of the construction workers would remain on-site throughout the day and would not leave the site for lunch via their vehicles. The truck delivery period has been assumed for 8 hours per day beginning at 7:00 AM, with the last delivery at 3:00 PM. A Passenger Car Equivalent factor of 2.0 has been assumed.

Intersections Analysis

In the City of Glendale, the technique used to assess the operation of a signalized intersection is known as the Intersection Capacity Utilization (ICU) method. This method determines V/C ratios on a critical

2 South Coast Air Quality Management District, CEQA Air Quality Handbook (1993).

lane basis. The overall intersection V/C ratio is subsequently assigned a LOS value to describe intersection operations, as described previously in **Table 4.8-1.** To calculate an ICU value, the volume of traffic using the intersection is compared with the capacity of the intersection. The ICU value represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity. The existing intersection turning-movement counts conducted in 2013 were factored utilizing an annual growth rate of 1 percent per year and combined with the Project trip generation numbers to determine LOS.

Trip Generation

Traffic generated by the Project was determined by multiplying an appropriate trip generation rate by the quantities of land uses. Trip generation rates are predicated on the assumption that energy costs, the availability of roadway capacity, the availability of vehicles to drive, and our lifestyles remain similar to what we know today. A major change in these variables may affect trip generation rates.

Trip generation rates were determined for daily traffic, morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic for the Project. By multiplying the traffic generation rates by the land use quantities, the traffic volumes are determined. The traffic generation rates are from the Institute of Transportation Engineers, *Trip Generation Manual*, 9th Edition.[3] The traffic analysis was prepared in accordance with the traffic impact analysis requirements, which also examined the CMP system of roads and intersections, as well as other roads and systems.

The Project-generated traffic was added to intersections and a full intersection analysis was conducted, even when the Project-added traffic failed to meet the minimum thresholds that require an intersection analysis. Furthermore, an internal trip capture reduction was applied to the Project uses. Internal trip capture is based on the premise that some of the employees, residents, and guests on the Project site, as well as adjacent commercial parcels would use the Project uses, thereby reducing some of the trips that the Project would otherwise generate.

Table 4.8-4, Trip Generation, identifies the traffic generation rates, Project peak-hour volumes, and Project daily traffic volumes. As presented in **Table 4.8-4**, the Project is projected to generate 1,126 daily vehicle trips, 11 of which would occur during the morning peak hour (AM Peak Hour) and 23 of which would occur during the evening peak hour (PM Peak Hour).

3 Institute of Transportation Engineers, *Trip Generation Manual*, 9th Edition, (September 2012).

Table 4.8-4
Trip Generation

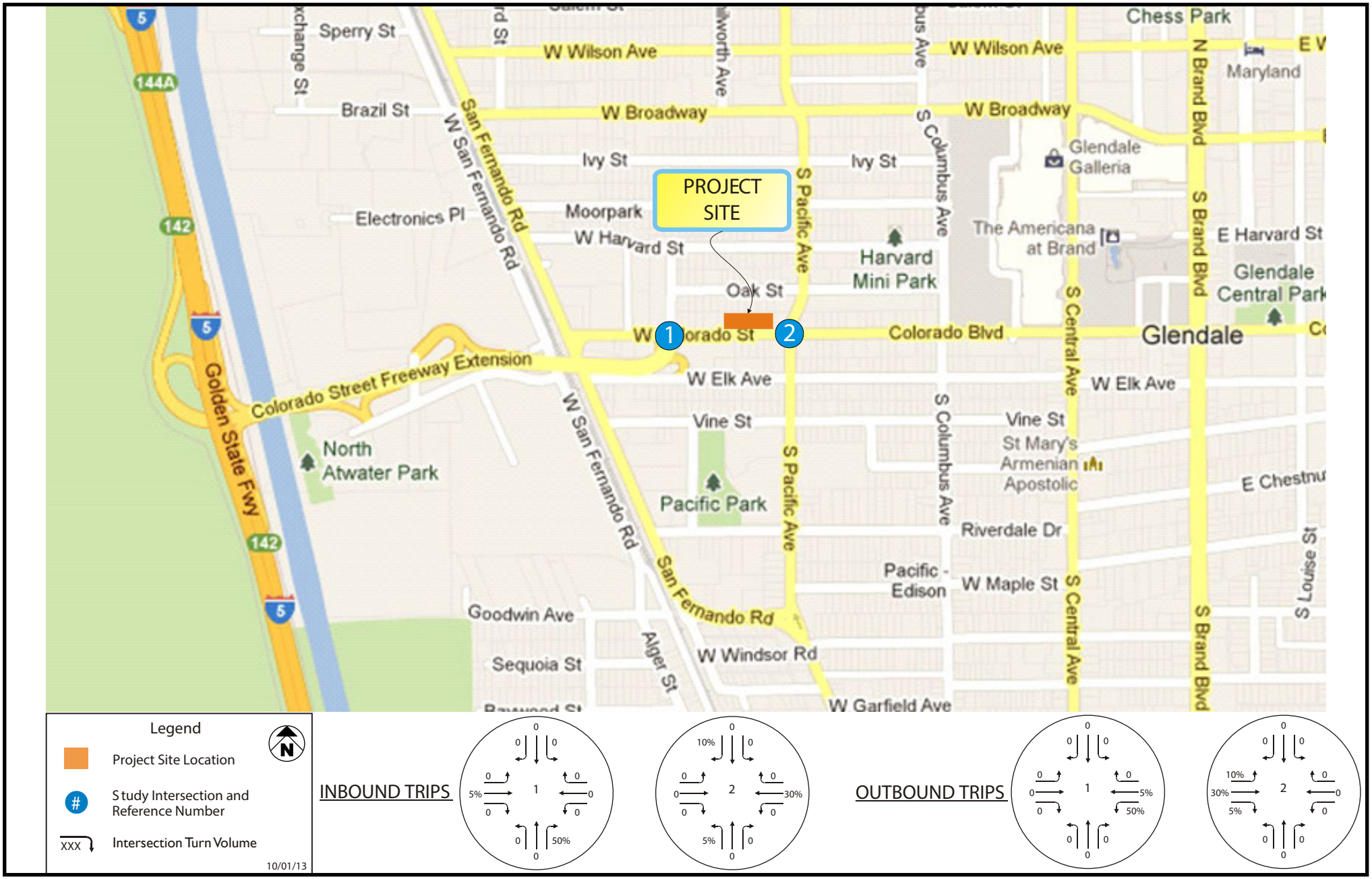
Land Use	Quantity	Units	Daily Trip Rate	AM Peak Hour In-bound	AM Peak Hour Out-bound	AM Peak Hour Total	PM Peak Hour In-bound	PM Peak Hour Out-bound	PM Peak Hour Total
Trip Generation Rate									
Apartments	90	DU	6.65	20%	80%	0.51	65%	35%	0.62
Medical Office	18,000	KSF	36.13	79%	21%	2.39	28%	72%	3.57
Restaurant, counter service with limited seating	1,000	KSF	716.00	60%	40%	43.87	51%	49%	26.15
Trips Generated									
Apartments		DU	599	9	37	46	36	20	56
Medical Office		KSF	650	34	9	43	18	46	64
Restaurant, counter service with limited seating		KSF	716	26	18	44	13	13	26
Existing Trip Generation (To Be Subtracted From)									
Existing Uses			701	63	51	114	51	64	115
Total			**1,126**	2	9	**11**	12	11	**23**

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).
Note: DU = dwelling units; KSF = thousand square feet.

Trip Distribution

To determine the traffic distributions for the Project, peak-hour traffic counts of the existing directional distribution of traffic for existing areas in the vicinity of the site, the City of Glendale computerized traffic model, and other additional information on future development and traffic impacts in the area were reviewed. **Figure 4.8-3, Project Traffic Inbound and Outbound Distribution**, provide the directional distributions of Project traffic for the proposed Project. These distributions reflect the Project traffic with stop sign control at the Project driveway and W. Colorado Street.

The City of Glendale's Circulation Element contains the following "residential" street classifications: Local Collector Streets, Neighborhood Collector Streets, Community Collector Streets, and Urban Collector Streets. With very few exceptions, these streets are typically two-lane roadways. Furthermore, the Circulation Element assigns a capacity of 2,500 ADT for Local Collector Streets, 5,000 ADT to Neighborhood Collector Streets, and 10,000 ADT for both Community and Urban Collector Streets. Kenilworth Avenue, Harvard Street, and Oak Street are designated as Local Collector Streets and were analyzed to determine if Project-related trips resulted in an exceedance of the roadway capacity (2,500 ADT).



SOURCE: KOA Corporation – 2013; Meridian Consultants, LLC – 2013.

FIGURE **4.8-3**

Meridian Consultants

Project Traffic Inbound and Outbound Distribution

046-001-13

Trip Assignment

Based on the identified traffic generation and distributions, Project average daily traffic volumes have been calculated and are shown on **Figure 4.8-4, Project Average Daily Traffic Volumes**.

Transit Analysis

The Traffic Impact Analysis also includes a review of the CMP transit service system. Transit service is provided in the Project area. The Project transit calculations are based on values stated in the CMP to estimate the transit trip generation. The person trips are equal to 1.4 times vehicle trips and the transit trips are equal to 3.5 percent of the total person trips.

Caltrans Analysis

Intersections under Caltrans jurisdiction were analyzed according to the *Guide For The Preparation of Traffic Impact Studies*.[4] A traffic simulation model based on the Synchro program was prepared to the evaluate the existing queues, project queues, and cumulative queues with and without Project conditions at the Colorado Street Freeway Extension at Colorado Street and at the Pacific Avenue ramp intersections at SR-134.

Cumulative Analysis

In order to assess cumulative Without Project traffic conditions, existing traffic is combined with related projects and area-wide growth. An annual growth rate has been utilized to account for area-wide growth on study area roadways. Per the City of Glendale Traffic and Transportation Division, the traffic counts have been applied with an annual growth rate of 1 percent per year.

In order to assess Cumulative With Project traffic conditions, existing traffic is combined with the traffic of the Project, related projects, and area-wide growth. For the Cumulative With Project traffic conditions, an annual growth rate of 1 percent per year is also applied.

Traffic volumes expected to be generated by the related projects during the weekday were estimated using rates published in the Institute of Transportation Engineer's (ITE) Trip Generation manual or other approved documents. The related projects were organized by traffic analysis zone.

Related projects are expected to generate 2,150 vehicle trips during the AM peak hour and 3,188 vehicle trips during the PM peak hour. Over a 24-hour period, the related projects are forecast to generate 35,600 daily trips. Refer to **Appendix 4.8** of this EIR for a detailed breakdown of the related projects' weekday trip generation.

4 California Department of Transportation, Guide for the Preparation of Traffic Impact Studies, (December 2002).

PROJECT IMPACTS

Threshold: **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.**

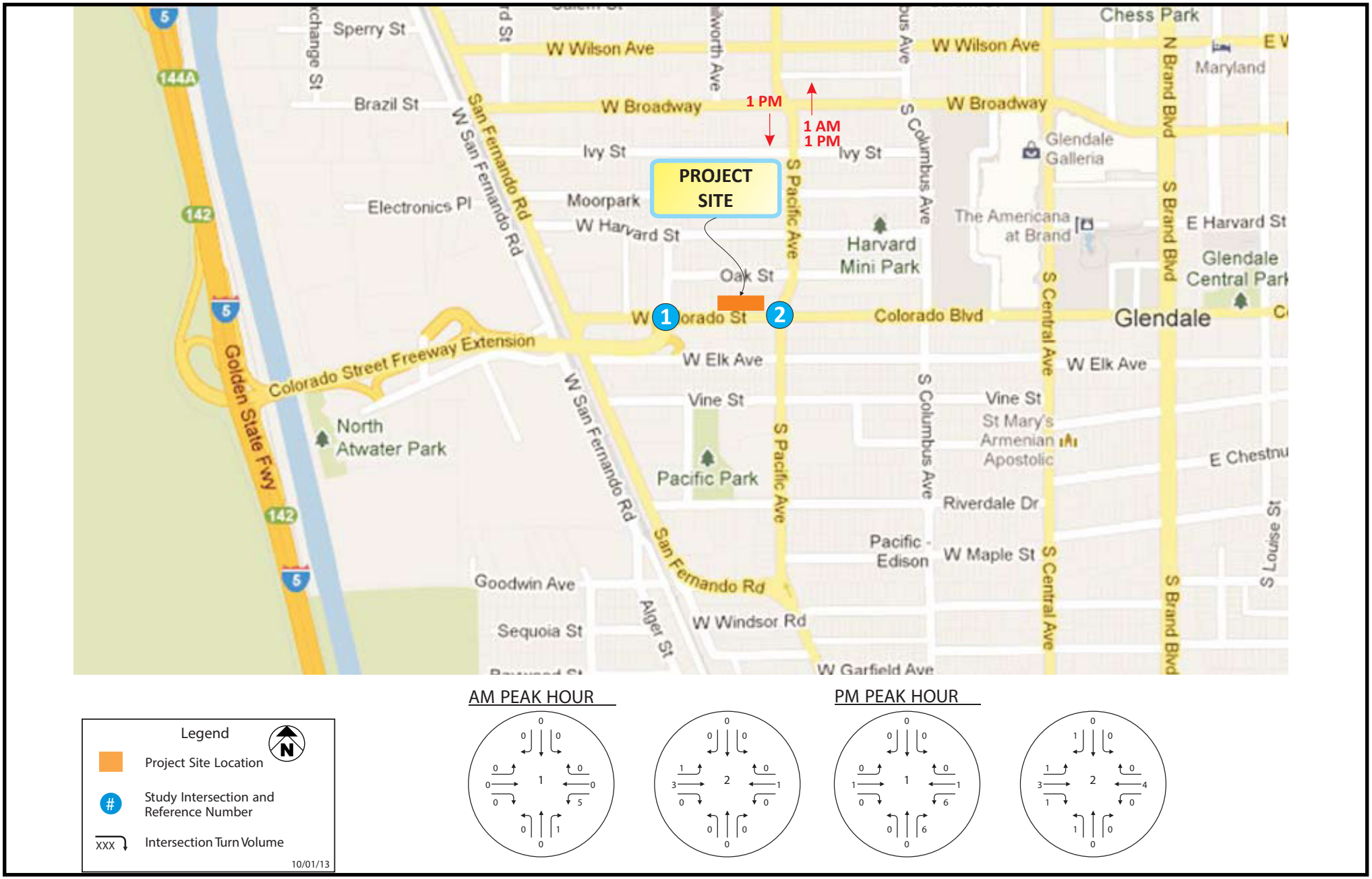
Construction

Project construction would generate traffic from construction worker travel, as well from the arrival and departure of trucks delivering construction materials, and the removal of debris generated by on-site activities. Both the number of construction workers and trucks would vary throughout the construction process in order to maintain a reasonable schedule of completion.

Project construction is anticipated to last approximately 18 months and is expected to commence on or after September 2014. The Project would be constructed in three phases (1) demolition; (2) site preparation/excavation; and (3) building construction/architectural coating and asphalt paving.

Based on a rate of 1.135 worker trips per piece of construction equipment and a maximum of two pieces of construction equipment on any given day during project construction, a total of three trips per day would be generated. In general, the majority of the construction workers are expected to arrive at the Project site during off-peak hours (i.e., arrive prior to 7:00 AM), thereby avoiding the AM commuter peak hour period and would remain on site throughout the day. Given the location of the site, most construction-related traffic would use the I-5 freeway and arrive and depart via nearby on/off ramps serving the I-5 freeway and SR-134 freeway.

As required by the City of Glendale, a Construction Traffic Control plan will be implemented to minimize potential conflicts between construction activity and through traffic. The Construction Traffic Control Plan would identify all traffic control measures, signs, and delineators to be implemented by the construction contractor through the duration of excavation and construction activity. In addition, a truck haul route program would also be permitted by the Glendale Public Works Department and implemented to minimize conflicts between haul trucks traveling to and from the Project site and through traffic on roadways surrounding the project. The program would specify access points to the Project site and delineate approved haul routes.



SOURCE: KOA Corporation – 2013; Meridian Consultants, LLC – 2013.

FIGURE **4.8-4**

Meridian Consultants

Project Average Daily Traffic Volumes

046-001-13

As discussed in the following paragraphs, the Project would not result in a significant traffic impact. As the volume of construction-related traffic would be substantially less than that associated with Project operation, construction traffic would not result in a significant impact. Therefore, the traffic impacts associated with construction activities are determine to be less than significant and impacts would be further reduced with the implementation of the following required Construction Traffic Control Plan components:

- Maintain existing access for land uses in proximity of the Project site.
- Limit any potential lane closures to off-peak travel periods.
- Schedule receipt of construction materials during non-peak travel periods, to the extent possible.
- Limit the majority of construction-related traffic to off-peak periods.
- Coordinate deliveries to reduce the potential of trucks waiting to unload for extended periods of time.
- Prohibit parking by construction workers on adjacent streets and direct construction workers to available parking as determined in conjunction with City staff.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Operation Impacts

Intersection Analysis

To determine the potential impact of the Project on each study area intersection, Project traffic volumes were added to existing traffic conditions. As discussed previously, the traffic analysis included an internal trip capture reduction as a result of the mixed uses proposed on the Project site. The Existing Plus Project average daily traffic volumes on area roadways are shown in **Figure 4.8-5, Existing Plus Project Average Daily Traffic Volumes**. **Table 4.8-5, Existing Plus Project Traffic Contribution**, depicts the Existing Plus Project traffic contribution at the study area intersections.

Table 4.8-5
Existing Plus Project Traffic Contribution

Intersection	Peak Hour	Existing Conditions V/C (ICU)	LOS	Existing Plus Project V/C (ICU)	LOS	Change	Significant Impact?[1]
Kenilworth Ave and Colorado Street	AM	0.471	A	0.473	A	0.002	No
	PM	0.553	A	0.555	A	0.002	No
Pacific Avenue and Colorado Street	AM	0.748	C	0.749	C	0.001	No
	PM	0.799	C	0.802	D	0.003	No

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).
Note: ICU = Intersection Capacity Utilization; LOS = level of service; V/C = volume-to-capacity ratio.
[1] In the City of Glendale, the impact is considered significant for signalized intersections if the project related increase in the V/C ratio equals or exceeds 0.02 that have LOS D or worse.

As shown in **Table 4.8-5**, when compared to existing conditions, implementation of the Project would not result in a significant increase to traffic. Operation of the Project would result in an LOS increase from LOS C to LOS D during evening peak hours at the intersection of Pacific Avenue and W. Colorado Street. However, in the City of Glendale, the impact is considered significant for intersections if the project-related increase in the V/C (ICU) ratio equals or exceeds by 0.02 for an intersection operating at LOS D. As indicated in **Table 4.8-5**, the Project would result in a V/C (ICU) ratio of 0.002 and 0.002 during the AM and PM Peak Hour at Kenilworth Avenue and Colorado Street and 0.001 and 0.003 during the AM and PM Peak Hour at Pacific Avenue and Colorado Street. Therefore, impacts would be less than significant.

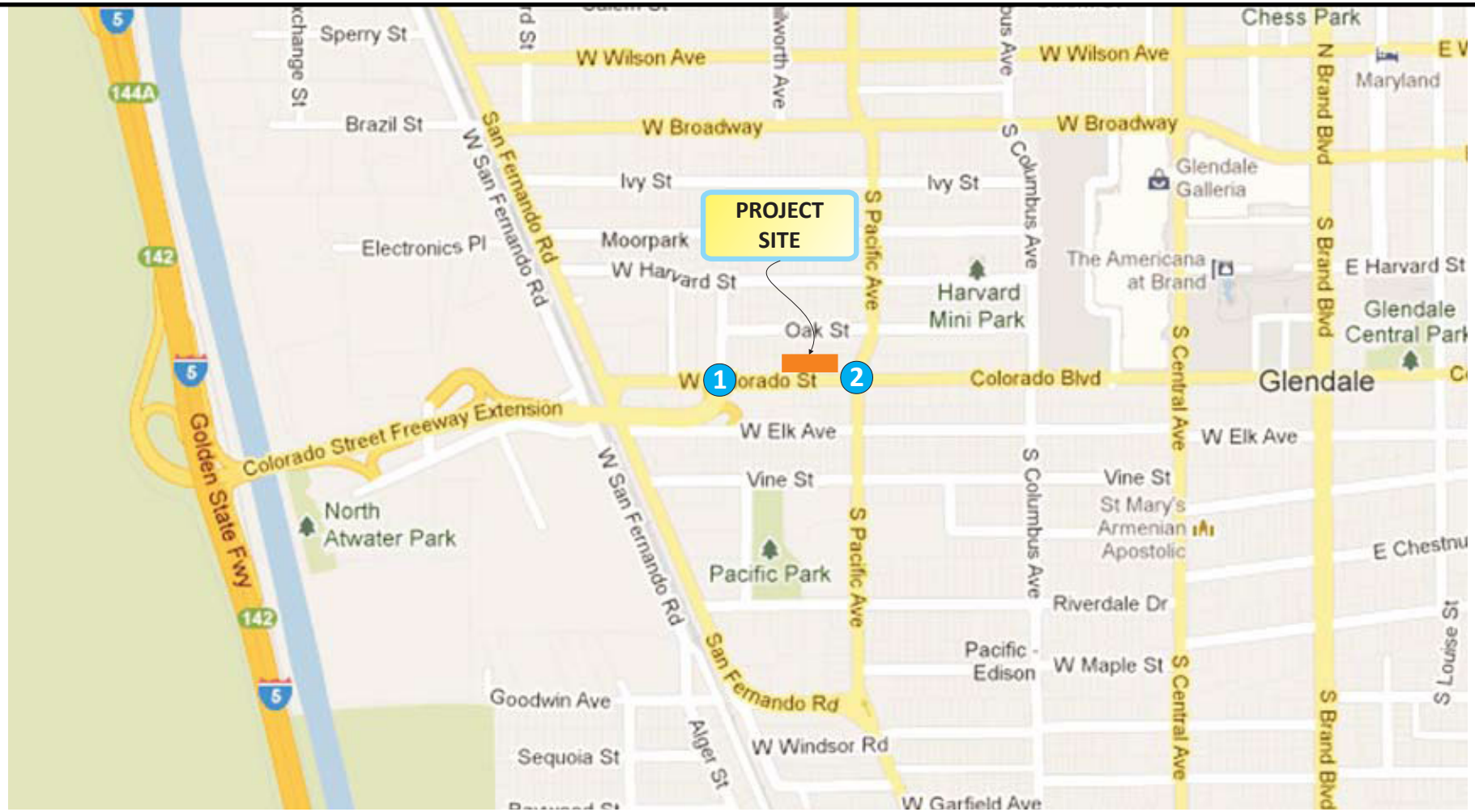
Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Roadway Analysis

Vehicular access to the Project site would be provided from one driveway on W. Colorado Street. The driveway on W. Colorado Street would be unsignalized and provides full access to the site for entry and exit movements. Additional street segment analysis was conducted for separate trip distribution scenarios when exiting the Project site. The following street segments were selected for analysis as they are located in close proximity to the Project site and could potentially be impacted by Project traffic if the left-turn movements onto Colorado Street are prohibited. It should be noted that left-turn



SOURCE: KOA Corporation – 2013; Meridian Consultants, LLC – 2013.

FIGURE **4.8-5**

Meridian Consultants

Existing Plus Project Average Daily Traffic Volumes

046-001-13

movements onto W. Colorado Street will be prohibited during the afternoon peak hours (4:00 PM to 6:00 PM). The three street segments are as follows:

A. Kenilworth Avenue between Harvard and Colorado Street

B. Harvard Street between Kenilworth Avenue and Pacific Avenue

C. Oak Street between Kenilworth Avenue and Pacific Avenue

Table 4.8-6, Roadway Scenarios for the Project depicts the outbound traffic percentages for scenarios A to C. **Tables 4.8-7** to **4.8-9, Existing Plus Project Average Daily Traffic Volumes (Scenario A through C)**, identify the distribution of the Project-generated trips along roadways in the City for all three scenarios.

Table 4.8-6
Roadway Scenarios for the Project

Roadway Segments	Outbound Traffic		
	Scenario A	Scenario B	Scenario C
Kenilworth Avenue	45%	45%	45%
Harvard Street	10%	45%	0%
Oak Street	35%	0%	45%

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).

As indicated in **Tables 4.8-7** through **4.8-9**, the Project would not result in an increase of ADTs that would exceed the ADT capacity of 2,500 in each of the scenarios. Therefore, the Project-related increase would not significantly impact local residential streets in the City of Glendale, and the impact of Project-related traffic on these roadways is less than significant.

Table 4.8-7
Existing Plus Project Average Daily Traffic Volumes (Scenario A)

Roadway Segment	Existing	Existing Plus Project	Change	Significant Impact?
Kenilworth Avenue between Harvard Street and Colorado Street (northbound)	476	729	253	No
Kenilworth Avenue between Harvard Street and Colorado Street (southbound)	316	316	0	No
Harvard Street between Kenilworth Avenue and Pacific Avenue (eastbound)	771	827	56	No
Harvard Street between Kenilworth Avenue and Pacific Avenue (westbound)	506	506	0	No
Oak Street between Kenilworth Avenue and Pacific Avenue (eastbound)	350	197	547	No
Oak Street between Kenilworth Avenue and Pacific Avenue (westbound)	305	305	0	No

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).
Note: Project outbound trips to northbound Pacific Ave via Harvard St and to eastbound Colorado St and Southbound Pacific Ave. via Oak St.

Table 4.8-8
Existing Plus Project Average Daily Traffic Volumes (Scenario B)

Roadway Segment	Existing	Existing Plus Project	Change	Significant Impact
Kenilworth Avenue between Harvard Street and Colorado Street (northbound)	476	729	253	No
Kenilworth Avenue between Harvard Street and Colorado Street (southbound)	316	316	0	No
Harvard Street between Kenilworth Avenue and Pacific Avenue (eastbound)	771	1,024	253	No
Harvard Street between Kenilworth Avenue and Pacific Avenue (westbound)	506	506	0	No
Oak Street between Kenilworth Avenue and Pacific Avenue (eastbound)	350	350	0	No
Oak Street between Kenilworth Avenue and Pacific Avenue (westbound)	305	305	0	No

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).
Note: Project outbound trips to northbound Pacific Ave., eastbound Colorado St. and southbound Pacific Ave. via Harvard St.

Table 4.8-9
Existing Plus Project Average Daily Traffic Volumes (Scenario C)

Roadway Segment	Existing	Existing Plus Project	Change	Significant Impact
Kenilworth Avenue between Harvard Street and Colorado Street (northbound)	476	729	253	No
Kenilworth Avenue between Harvard Street and Colorado Street (southbound)	316	316	0	No
Harvard Street between Kenilworth Avenue and Pacific Avenue (eastbound)	771	771	0	No
Harvard Street between Kenilworth Avenue and Pacific Avenue (westbound)	506	506	0	No
Oak Street between Kenilworth Avenue and Pacific Avenue (eastbound)	350	603	253	No
Oak Street between Kenilworth Avenue and Pacific Avenue (westbound)	305	305	0	No

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).
Note: Project outbound trips to northbound Pacific Ave., eastbound Colorado St. and southbound Pacific Ave. via Oak St.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.**

CMP Intersection Analysis

The nearest CMP arterial monitoring intersection to the Project site is CMP No. 73, located at Ventura Boulevard and Lankershim Boulevard, approximately 5.5 miles west of the Project Site. The CMP Transportation Impact Analysis guidelines require that intersection-monitoring locations must be examined if the Project will add 50 or more trips during either the AM or PM weekday peak periods. Based on the trip generation and distribution of the Project, it is not expected that 50 or more new trips per hour would be added at these CMP intersections. Furthermore, the Project would add less than 150 new trips per hour in either direction to any freeway segments based on the Project trip generation in **Table 4.8-4**. No further analysis of potential impacts to CMP intersections or freeway segments is

required. Therefore, the Project would have a less than significant impact to intersection monitoring locations that are part of the CMP highway system.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Caltrans Analysis

The Project site is located west of the Colorado Street Freeway extension. At the request of Caltrans, additional queuing analysis was performed for the nearest Caltrans controlled intersection; Colorado Street Freeway Extension and Colorado Street. The Pacific Avenue ramp intersections at SR-134 were also considered for analysis and are discussed in the following paragraphs. As shown in **4.8-10, Colorado Street Freeway Extension Queue for the Project,** during the AM Peak Hour there is no queue length under both Existing conditions and Existing Plus Project conditions. During the PM Peak Hour the Existing conditions queue length is 9 feet and the Existing Plus Project queue length would be 10 feet, an increase of 1 foot. In terms of the number of vehicles in the queue, a 1 foot increase would be considered less than significant.

Table 4.8-10
Colorado Street Freeway Extension Queue for the Project

Intersection	Peak Hour	Existing	Existing Plus Project
Colorado Street Freeway Extension/ Colorado Street	AM	0	0
	PM	9	10

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).

Additional locations were considered for the queue analysis, such as the Pacific Avenue ramp intersections at SR-134, but the amount of Project traffic projected to use Pacific Avenue and SR-134 was considered very minimal. The Project would generate one net new Project trip during the AM Peak Hour and two new net trips, one in each direction, during the PM Peak Hour on Pacific Avenue. The Project traffic generated at Pacific Avenue and SR-134 would not create any significant impacts to the Pacific Avenue ramp intersections or to SR-134. As shown previously in **Table 4.8-5,** the Project would result in less than significant impacts to LOS grades near the vicinity of the Project. As a result the Project would result in less than significant impacts on queuing lengths and LOS at the Caltrans controlled intersections.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Thresholds: **Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

Result in inadequate emergency access.

The Project would use the existing network of regional and local roadways located in the vicinity of the Project site. Vehicle access to the Project site would be provided by the Project driveway located on Colorado Street. The driveway at Colorado Street would be unsignalized and provide full access to the site for ingress and egress movements. As mentioned previously, alternative egress movements would result in less than significant impacts to traffic. Furthermore, outbound traffic from the Project site would be prohibited from turning left onto W. Colorado Street to travel eastbound during the afternoon PM peak hours, between 4:00 PM and 6:00 PM.

Sidewalks along the frontages of the Project site would be replaced to improve pedestrian access to the site. Pedestrian access to the proposed structure would be provided along Colorado Street. All pedestrian improvements would be designed to adhere to standard engineering practices and requirements by the City of Glendale Public Works and Fire departments. Given these precautions, the Project would not substantially increase traffic hazards associated with the Project site.

The Project has a high level of accessibility for emergency vehicles, both from a regional and a site perspective. Colorado Street would provide a direct route to the Project site for emergency vehicles. Smaller emergency vehicles, such as police cars and ambulances, would be able to access the drive-through and drop-off area as necessary. As a result, Project impacts on emergency vehicle access would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.**

Public Transit Analysis

As required by the Congestion Management Program for Los Angeles County, a review has been made of the CMP transit service. As previously discussed, existing transit service is provided in the vicinity of the Project.

Pursuant to the CMP guidelines, over a 24-hour period, the Project is forecast to generate demand for 55 daily transit trips, 1 of which would occur during the AM peak hour and 1 of which would occur during the PM peak hour. The calculations for the morning, evening, and daily traffic conditions are as follows:

- Morning (AM) Peak Hour = 11 x 1.4 x 0.035 = 1 Transit Trip
- Evening (PM) Peak Hour = 23x 1.4 x 0.035 = 1 Transit Trip
- Daily = 1,126 x 1.4 x 0.035 = 55 Transit Trips

As discussed previously in the subsection Existing Public Transit Service, transit service is provided by Metro and the Beeline Service. The Metro system includes Lines 183, 201, and 603 along Pacific Avenue and Colorado Street. The Beeline Bus system includes Lines GB5 and GB6 also along Pacific Avenue and Colorado Street.

Based on the projected increased demand for transit services generated by the Project, it is anticipated that the existing transit service in the Project area would adequately accommodate the Project-generated transit trips. Thus, based on the calculated number of generated transit trips, no Project impacts on existing or future transit services in the Project area are expected to occur.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Bicycle/Pedestrian Analysis

There are currently no bicycle paths along the roadways adjacent to the Project site. However, the Glendale Bicycle Transportation Plan indicates that a proposed Class I bicycle route would be

implemented along San Fernando Road.[5] Upon completion, the bicycle route would be approximately 1,000 feet west from the Project site. The proximity of the Project site to the proposed Class I bicycle route provides an opportunity for residents and customers to use an alternative form of transportation. The Project would provide 20 secure, long-term bicycle spaces within the subterranean parking structure for resident and customer use. Due to the distance from the proposed Class I bicycle route, the Project construction or design would not interfere with the future bicycle route nor encroach into the area. The Project would result in less than significant impacts on bicycle access.

Sidewalks along the frontages of the Project site would be replaced to improve pedestrian access to the site. Pedestrian access to the structure building would be provided along the front façades of the building. Each level of the parking structure would provide pedestrian access to each corresponding floor of the building. Access to the subterranean parking structure would be provided from Colorado Street. The corner of Colorado Street and Pacific Avenue within the Project site would provide a 25-foot radius curb return and American with Disabilities Act (ADA) -compliant handicap ramps.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

Construction

It is anticipated that construction of related projects would result in periods of heavy truck traffic due to the delivery of construction materials and the hauling of demolition materials. Although the time frame for construction of these projects is uncertain, as well as the degree to which construction of these projects would overlap and the location at which impacts could occur, it is possible that the construction of these related projects could affect roadway segments and intersections, which could result in a significant cumulative impact. Specifically, if construction of the Central + Wilson project would overlap with construction of the Project, a significant cumulative impact could result. However, as discussed under Project Impacts, the Project and related projects would implement numerous measures to reduce construction-related traffic impacts, including preparation and implementation of a truck haul route program as a condition of approval and the commute of workers to the Project site during non-peak hours. Consequently, the Project's contribution to construction-related traffic is not cumulatively considerable and, thus, the Project's cumulative impacts are less than significant.

5 City of Glendale, *Bicycle Transportation Plan Final Draft*, (2012), 6-32.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Operation

Cumulative without Project Conditions

As indicated in **Table 4.8-11, Cumulative Without Project Levels of Service**, the intersection of Kenilworth Avenue and Colorado Street would operate at LOS A during the AM peak hour and LOS B during the PM peak hour. The intersection of Pacific Avenue and Colorado Street would operate at LOS D during the AM peak hours and LOS E during PM peak hours.

Table 4.8-11
Cumulative Without Project Levels of Service

	Intersections	Peak Hour	V/C (ICU)	LOS
1	Kenilworth Avenue/Colorado Street	AM	0.573	A
		PM	0.654	B
2	Pacific Avenue/Colorado Street	AM	0.848	D
		PM	0.903	E

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).
Note: ICU = Intersection Capacity Utilization; LOS = level of service; V/C = volume-to-capacity ratio.

Cumulative With Project Conditions

To determine the potential cumulative impact of the Project on each study area intersection, Project traffic volumes were added to cumulative traffic conditions. **Table 4.8-12, Cumulative With Project Levels of Service**, identifies the Cumulative With Project traffic contribution at the study area intersections. As indicated in **Table 4.8-12**, Project traffic would not significantly impact any of the study area intersections during the AM or PM peak hour.

Table 4.8-12
Cumulative With Project Levels of Service

Kenilworth Avenue	AM	0.573	A	0.575	A	0.002	No
at Colorado Street	PM	0.654	B	0.657	B	0.003	No
Pacific Avenue	AM	0.848	D	0.849	D	0.001	No
at Colorado Street	PM	0.903	E	0.905	E	0.002	No

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).
Note: ICU = Intersection Capacity Utilization; LOS = level of service; V/C = volume-to-capacity ratio.
[1] *In the City of Glendale, the impact is considered significant for signalized intersections if the project related increase in the V/C ratio equals or exceeds 0.02 that have LOS D or worse.*

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Residential Roadway Analysis

Table 4.8-13 through **Table 4.8-15, Cumulative With Project Average Daily Traffic Volumes (Scenarios A through C)**, identifies the distribution of the Project generated trips along Kenilworth Avenue, Harvard Street, and Oak Street near the Project site under Cumulative With Project conditions. These nearby local streets have a vehicle capacity of 2,500 ADT.

As indicated in **Tables 4.8-13** through **4.8-15**, the Cumulative With Project increases in average daily trips along Project area roadways would not exceed the 2,500 ADT capacity. Therefore, the Project-related increase would not result in a cumulatively significant impact on local residential streets during the AM or PM peak hour. The Project's contribution is not cumulatively considerable.

Table 4.8-13
Cumulative With Project Average Daily Traffic Volumes (Scenario A)

Roadway Segment	Without Project	With Project	Change	Significant Impact?
Kenilworth Avenue between Harvard Street and Colorado Street (northbound)	486	739	253	No
Kenilworth Avenue between Harvard Street and Colorado Street (southbound)	322	322	0	No
Harvard Street between Kenilworth Avenue and Pacific Avenue (eastbound)	786	842	56	No
Harvard Street between Kenilworth Avenue and Pacific Avenue (westbound)	516	516	0	No
Oak Street between Kenilworth Avenue and Pacific Avenue (eastbound)	357	554	197	No
Oak Street between Kenilworth Avenue and Pacific Avenue (westbound)	311	311	0	No

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).
Note: Project outbound trips to northbound Pacific Ave. via Harvard St. and to eastbound Colorado St. and Southbound Pacific Ave. via Oak St.

Table 4.8-14
Cumulative With Project Average Daily Traffic Volumes (Scenario B)

Roadway Segment	Without Project	With Project	Change	Significant Impact
Kenilworth Avenue between Harvard Street and Colorado Street (northbound)	486	739	253	No
Kenilworth Avenue between Harvard Street and Colorado Street (southbound)	322	322	0	No
Harvard Street between Kenilworth Avenue and Pacific Avenue (eastbound)	786	1,039	253	No
Harvard Street between Kenilworth Avenue and Pacific Avenue (westbound)	516	516	0	No
Oak Street between Kenilworth Avenue and Pacific Avenue (eastbound)	357	357	0	No
Oak Street between Kenilworth Avenue and Pacific Avenue (westbound)	311	311	0	No

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale(November 19, 2013).
Note: Project outbound trips to northbound Pacific Ave., eastbound Colorado St. and southbound Pacific Ave. via Harvard St.

Table 4.8-15
Cumulative with Project Average Daily Traffic Volumes (Scenario C)

Roadway Segment	Without Project	With Project	Change	Significant Impact
Kenilworth Avenue between Harvard Street and Colorado Street (northbound)	486	739	253	No
Kenilworth Avenue between Harvard Street and Colorado Street (southbound)	322	322	0	No
Harvard Street between Kenilworth Avenue and Pacific Avenue (eastbound)	786	786	0	No
Harvard Street between Kenilworth Avenue and Pacific Avenue (westbound)	516	516	0	No
Oak Street between Kenilworth Avenue and Pacific Avenue (eastbound)	357	610	253	No
Oak Street between Kenilworth Avenue and Pacific Avenue (westbound)	311	311	0	No

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).
Note: Project outbound trips to northbound Pacific Ave., eastbound Colorado St. and southbound Pacific Ave. via Oak St.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

CMP Analysis

By its nature, the Los Angeles County CMP is a cumulative scenario that considers the impact of single projects in the context of cumulative traffic demand on CMP roadways. The CMP defines regional project impacts as significant (in terms of contribution to cumulative impact) if a project results in an increase in the V/C ratio by more than 0.02 (2 percent) and if the final LOS is F. It is possible that traffic impacts created by related projects and cumulative growth could combine to exceed CMP standards of significance and to the extent that occurs, a significant impact would result. However, even if that occurs, the CMP guidelines require that freeway monitoring locations must be examined if the Project would add 150 or more trips (in either direction) during either the AM or PM weekday peak hours or 50 or more trips at CMP intersections during either the AM or PM weekday peak hours. The Project would not add 50 or more trips during either the AM or PM weekday peak hours at CMP intersections, which is the threshold for preparing a traffic impact assessment. Consequently, the Project does not meet the criteria to be analyzed, and thus the Project's contribution is not cumulatively considerable.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Caltrans Analysis

As shown in **Table 4.8-16, Colorado Street Freeway Extension Queue with Related Projects,** there would be no queue length for Future conditions Without the Project at Colorado Street during the AM Peak Hour and would be 101 feet during the PM Peak Hour. There would be no queue length for Future With Project conditions during the AM Peak Hour and would be 107 feet during the PM Peak Hour. In terms of the number of vehicles in the queue, a 6 foot increase would be considered less than significant.

Table 4.8-16
Colorado Street Freeway Extension Queue with Related Projects

Intersection	Peak Hour	Existing	Existing Plus Project	Future without Project	Future with Project
Colorado Street Freeway Extension/ Colorado Street	AM	0	0	0	0
	PM	9	10	101	107

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (November 19, 2013).

As previously indicated, the amount of Future With Project traffic projected to use Pacific Avenue and SR-134 was considered minimal. Queuing impacts at the Pacific Avenue and SR-134 ramp intersections would be less than significant. As shown in **Table 4.8-12,** the Cumulative With Project traffic levels would result in less than significant impacts to LOS at nearby intersections.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Design Feature/Emergency Access

Related projects would be required to adhere to standard engineering practices and requirements, and would be subject to planning and design review by the City of Glendale to avoid traffic hazards created

by design features and land-use incompatibilities, or inadequate emergency access. For this reason, and because such impacts are relatively site-specific, cumulative impacts associated with such hazards are less than significant. In addition, none of the related projects are located directly adjacent to the Project site to result in cumulative traffic hazards due to design features or inadequate emergency access. All design development associated with the Project would include the use of standard engineering practices to avoid design elements that would increase roadway hazards or inadequate emergency access. Moreover, the Project would not result in land-use incompatibilities that would lead to the creation of traffic hazards or emergency access. Consequently, the Project's contribution would not be cumulatively considerable and the Project's cumulative impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

4.9 UTILITIES AND SERVICE SYSTEMS

The following sections address water supply, sewage conveyance, collection and treatment, and solid waste. The 2010 Urban Water Management Plan prepared by the Glendale Water and Power Department provided information on domestic water supply referred to in this section. Information on sewage conveyance and treatment referred to in this section was collected from public agencies providing service to the City of Glendale. Solid waste information was collected from public agencies providing service to the City.

ENVIRONMENTAL SETTING

Existing Conditions

Water Supply

The Glendale Water and Power Department provides water service for domestic, irrigation, and fire protection purposes to the City of Glendale. The City currently has three sources of water to meet demands, which include local groundwater, water imported from the Metropolitan Water District (MWD), and recycled water.

The City of Glendale consumed approximately 28,000 acre-feet of water during fiscal year 2009–2010. Of this total, approximately 7,701 acre-feet, or 28 percent, was pumped from the San Fernando Basin; approximately 2,087 acre-feet, or 7 percent, was pumped from the Verdugo Basin; approximately 16,550 acre-feet, or 59 percent, was provided by the MWD; and approximately 1,662 acre-feet, approximately 6 percent, was supplied by the City's water reclamation system.[1,2] Each of the City's water sources is described as follows.

Local Groundwater Supplies

The City receives its groundwater supply from the San Fernando and Verdugo Groundwater Basins. The rights of the City to San Fernando and Verdugo Basin groundwater supplies are defined by the decision of the California Supreme Court in *The City of Los Angeles vs. The City of San Fernando, et al.* in 1975. In addition, a 10-year agreement between the cities of Glendale, Burbank, and Los Angeles, effective October 1, 2007, also affects the parties' pumping rights in the San Fernando Basin. In the stipulated judgment, the Court found that under "Pueblo" Water Rights, the City of Los Angeles owns all San Fernando Basin surface and groundwater supplies, and that Glendale is entitled to an annual 21 percent "Return Flow Credit" from the San Fernando Basin. The 21 percent figure is based on the assumption that 21 percent of the water used by the City percolates into the groundwater table and ranges from 5,000 to 5,400 acre-feet per year depending on the overall municipal use each year. This return flow credit is the City's primary water right in the San Fernando Basin. The City was also allowed to accumulate these credits if its water rights are not used.

1 City of Glendale Water & Power, *2010 Urban Water Management Plan (2010 UWMP)* (adopted June 2011), Table 3-2, 28.

2 An acre-foot is the amount of water that will cover 1 acre to a depth of 1 foot and equals approximately 326,000 gallons, which represents the needs of two average families in and around the home for 1 year.

In the water year starting on October 1, 2010, the City has accumulated approximately 50,861 acre-feet of unused return flow credits in the San Fernando groundwater basin. Much of this accumulation was a result of the City not being able to pump from the basin because of the groundwater contamination. Glendale also has the right to extract additional water subject to payment to the City of Los Angeles at a cost generally equivalent to the cost of MWD alternative supplies. This right to produce water in excess of the return flow credit and the accumulated credits are significant to the operation of the Glendale Water Treatment Plant, which is part of a U.S. Environmental protection Agency (EPA) Superfund clean-up project in the City. Significant production from the basin and delivery to Glendale has occurred since the system began operation in 2000.[3]

Under the stipulated judgment, Glendale could extract all of these accumulated stored water credits. Pursuant to the 10-year agreement, Glendale, in any one year, may extract a limited portion of these accumulated stored water credits. The amount that can be extracted is determined annually by the watermaster based upon a formula that ensures that the parties' combined pumping does not cause water levels in the San Fernando Basin aquifer to drop below a defined level (-655,370 acre-feet). The agreement also provides that Los Angeles will invest in capital projects to improve the recharge of groundwater into the San Fernando Basin. The agreement further provides that the parties will agree upon the scope of a study to reevaluate the amount of water that can safely be extracted without harming the San Fernando Basin. In the future, this may affect the parties' groundwater rights.

In addition to current extractions of return flow water and stored water, Glendale may, in any one year, extract from the San Fernando Basin an amount not to exceed 10 percent of its last annual credit for import return water, subject to an obligation to replace such over-extraction by reduced extraction during the next water year.

Water in the San Fernando Basin is currently available for municipal use. The City currently uses 7,701 acre-feet from the basin annually.[4] The Glendale Water Treatment Plant and eight extraction wells pump, treat, and deliver water from the basin to Glendale via its Grandview Pumping Station. The plant, with a capacity of 5,000 gallons per minute, can reliably provide a maximum of 7,800 acre-feet per year (afy) for municipal use in Glendale.[5]

---

3 U·S. Environmental Protection Agency (EPA), Pacific Southwest, Region 9: Superfund, "San Fernando Valley (area 2 Glendale)," http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/vwsoalphabetic/San+Fernando+Valley+(Area+2+Glendale)?OpenDocument.

4 City of Glendale Water & Power, *2010 UWMP* (2010), Table 3-2, 28.

5 City of Glendale Water & Power (2010), 20.

The groundwater supplies from the Verdugo groundwater basin also contribute to the City's water supplies. The judgment described previously also gives Glendale the right to extract 3,856 afy from this basin annually. The City currently utilizes approximately 2,100 afy from the basin. Production of water has been highly variable in the past due to water quality problems, groundwater levels, and limited extraction capacity. The Verdugo Park Water Treatment Plant and five extraction wells pump, treat, and deliver water to the City for municipal use. The existing wells and Verdugo Park Water Treatment Plant produce approximately 2,000 afy.[6] However, due to extraction problems, additional extraction capacity will need to be developed in order for the City to utilize its full rights to the basin.[7]

Metropolitan Water District

For the 5 fiscal years ended June 30, 2010, Glendale received an average of approximately 21,090 afy of MWD supplies, which constituted approximately 66 percent of Glendale's total water supply. MWD supplies are delivered to Glendale through three service connections with capacities of 48, 10, and 20 cubic feet per second (cfs), respectively.[8]

Recycled Water System

The Los Angeles/Glendale Water Reclamation Plant provides recycled water to Glendale for nonpotable uses such as irrigation. The reclamation plant has a capacity of 20-million gallons per day (gpd) and has been delivering recycled water to the City since the late 1970s. Based on a contract between the cities of Los Angeles and Glendale, Glendale is entitled to 50 percent of any effluent produced at the plant. In 2010, the City utilized approximately 1,785 afy from the reclamation plant for nonpotable uses. Treated wastewater not utilized by either Glendale or Los Angeles is discharged into the Los Angeles River. Glendale currently has a "backbone" recycled water distribution system consisting of 21 miles of mains, six pumping plants, and five storage tanks to deliver recycled water to users.[9]

Potable Water System

Currently, 59 percent of the potable water used in the City comes from the MWD.[10] The main water distribution system in Glendale includes 397 miles of water mains, 28 pumping plants, and 30 reservoirs and water tanks. Together, the Glendale Water Treatment Plant and the Verdugo Park Water Treatment

6 City of Glendale Water & Power (2010), 21.

7 City of Glendale Water & Power (2010).

8 City of Glendale Water & Power (2010), 27.

9 City of Glendale Water & Power (2010), 55.

10 City of Glendale Water & Power (2010), 28.

Plant provide treatment for up to 9 million gpd of water.[11] Of the approximately 28,000 acre-feet of water consumed by users in fiscal year 2009–2010, residential customers used approximately 80 percent, commercial customers used approximately 15 percent, industrial customers used approximately 2 percent, and approximately 4 percent was used for irrigation.

The four parcels on the Project site are currently served by several 2-inch water lines. The 2-inch lines extend and connect to an 8-inch water main, located in W. Colorado Street.

Existing Water Use

The Project site is developed with a single-story commercial building, a daycare center, surface parking lots, and a vacant paved lot. **Table 4.9.1-1, Existing Water Demand**, provides an estimate of water use by existing land uses on the Project site. Total water demand generated by existing uses on the site is estimated at 980,937.5 gallons per year, or approximately 3.01 afy.

Table 4.9.1-1
Existing Water Demand

Day care center	8,704	250 gpd/ 1,000 sq. ft.	2,176.00	794,240.00	2.44
Commercial building	5,115	100 gpd/ 1,000 sq. ft.	511.50	186,697.50	0.57
Total			**2,687.50**	**980,937.50**	**3.01**

Note: afy = acre-feet per year; gpd = gallons per day; sq. ft. = square feet.
125 percent sewage generation loading factor.
Los Angeles Bureau of Sanitation, Sewage Loading Factors (1996).

Regulatory Setting

Federal

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply.[12] The law was amended in 1986 and 1996 and requires a variety of actions to protect drinking water and its sources. SDWA authorizes the EPA to set

11 Glendale Water & Power, *Annual Report: 2010-2011 Water Utility Operating Statistics,* http://www.glendalewaterandpower.com/reports/annual_reports.aspx.

12 *Safe Drinking Water Act*, sec. 300f.

national health-based standards for drinking water to protect against both naturally occurring and manmade contaminants that may be found in drinking water. The EPA, state agencies, and water purveyors work together to ensure that SDWA standards are met.

Clean Water Act

The federal Clean Water Act (CWA), Section 401 regulates the discharges of pollutants into "waters of the US" from any point or nonpoint source.[13] Individual permits are issued for certain defined sources of discharge, while nonpoint source runoff from construction sites and urban development is regulated under a series of general permits. Construction that disturbs 1 acre or more is regulated under the National Pollutant Discharge Elimination System (NPDES) stormwater program. In the State of California, the program is administered by the local Regional Water Quality Control Board (RWQCB).

Federal Pretreatment Regulations

Part 403 in the Code of Federal Regulations[14] establishes responsibilities of federal, state, and local government, industry, and the public to implement National Pretreatment Standards to control pollutants that pass through or interfere with treatment processes in publicly owned treatment works (POTW) or which may contaminate sewage sludge.

State

Title 17 Potable Water

Potable water supplies are protected by Title 17 of state law, which controls cross-connections with potential contaminants, including nonpotable water supplies such as recycled water. Title 17 specifies the minimum backflow protection required on the potable water system for situations in which there is potential for contamination to the potable water supply.[15]

Title 20 Water Efficiency Standards

Title 20[16] establishes water efficiency standards (i.e., maximum flow rates) for specific appliances including all new showerheads (2.5 gallons per minute at 80 pounds per square inch), lavatory and kitchen sink faucets (2.2 gallons per minute at 60 pounds per square inch), and commercial prerinse

13 *Clean Water Act,* sec. 404.

14 *Code of Federal Regulations*, *Protection of Environment, Part 403*, "General Pretreatment Regulations for Existing and New Sources of Pollution."

15 *California Code of Regulations*, Group 4, Article 2, "Protection of Water System," Table 1.

16 *California Code of Regulations*, sec. 1605.1 and 1605.3, "Federal and State Standards for Federally-Regulated Appliances," and "State Standards for Non-Federally Regulated Appliances."

spray valves (1.2 gallons per minute at 60 pounds per square inch). Title 20 also establishes maximum water consumption standards for urinals and water closets (1.6 gallons per flush per unit for most units).

Title 22 Recycled Water

Title 22[17] sets bacteriological water quality standards based on the expected degree of public contact with recycled water. Title 22 establishes the quality and/or treatment processes required for an effluent to be used for a specific nonpotable application. The following categories of recycled water are identified:

- Disinfected tertiary recycled water
- Disinfected secondary-2.2 recycled water[18]
- Disinfected secondary-23 recycled water[19]
- Undisinfected secondary recycled water

In addition to recycled water uses and treatment requirements, Title 22 addresses sampling and analysis requirements at the treatment plant, preparation of an engineering report prior to production or use of recycled water, general treatment design requirements, reliability requirements, and alternative methods of treatment.

Urban Water Management Planning Act

The Urban Water Management Planning Act[20] (UWMPA) requires urban water suppliers that provide water for municipal purposes to more than 3,000 customers, or more than 3,000 afy of water, to prepare an Urban Water Management Plan (UWMP). The intent of the UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands.

The UWMP must include a water supply and demand assessment comparing total water supply available to the water supplier with the total projected water use over a 20-year period. It is also mandatory that the management plans be updated every 5 years.

The most recent UWMP is the 2010 UWMP, and relevant information was incorporated by reference in this water supply evaluation. The 2010 UWMP is a revision of the 2005 report, outlining the numerous

17 *California Code of Regulations*, Title 22, Division 4, Chapter 3, "Water Recycling Criteria."

18 The 2.2 refers to the coliform count requirement for the water – 2.2 most probable number (MPN)/100 mL.

19 The 23 refers to the coliform count requirement for the water – 23 MPN/100 mL.

20 Department of Water Resources, *Urban Water Management Planning Act* (commonly referred to as SB 610), *California Water Code*, sec. 10610–10656.

changes that have occurred in the City for the last 5 years. The City has been actively developing local water resources, advocating the greater use of recycled water, and has also been implementing many of the Best Management Conservation Practices.

The 2010 UWMP provides a summary of water supply and demand for the City. The UWMP is also intended to be used as a tool to ensure water reliability given the existing and anticipated future demands. The City of Glendale currently has three sources of water available to meet demands, which include ground water, imported water from MWD, and recycled water. **Table 4.9.1-2, Project Water Demand by Category (af)**, illustrates the water demand forecast by land use category.

Table 4.9.1-2
Project Water Demand by Category (af)

Land Use	2010	2015	2020	2025	2030	2035
Single-family residential	10,165	10,703	10,752	10,802	10,852	10,903
Multifamily residential	9,620	10,130	10,177	10,224	10,271	10,319
Commercial/Institutional	3,698	3,894	3,912	3,930	3,948	3,967
Industrial	468	493	495	497	499	502
Irrigation	982	1,034	1,039	1,044	1,049	1,053
Other	1,515	2,613	2,572	2,573	2,578	2,580
TOTAL	**26,448**	**28,866**	**28,946**	**29,070**	**29,198**	**29,323**

Source: City of Glendale Water & Power, 2010 Urban Water Management Plan (adopted June 2011), Table 2-1.
Note: af = acre-feet.

California Water Quality Control Board

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) are the principal state agencies with primary responsibility for the coordination and control of water quality. In the Porter-Cologne Water Quality Control Act[21] (Porter-Cologne), the California State Legislature declared that the "state must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the state from degradation." Porter-Cologne grants the boards authority to implement and enforce water quality laws, regulations, policies, and plans to protect the State's groundwater and surface waters.

The Project is located within the Los Angeles Region of the California Regional Water Quality Control Board (Los Angeles RWQCB), which provides guidelines for sewage disposal from land developments.

21 State Water Resources Control Board, "Porter Cologne Water Quality Control Act," *California Water Code*, Division 7, Water Quality (effective January 1, 2008).

The guidelines provide an explanation of the principal statutory authority and administrative procedures under which the RWQCB will fulfill its responsibilities to protect against pollution, nuisance, contamination, unreasonable degradation of water quality, and violation of water quality objectives, as each may occur from the disposal of sewage from land developments.

Comprehensive Water Legislation

In November 2009, four legislative bills (SBX7-1, SBX7-6, SBX7-7, and SBX7-8) and the supporting bond bill (SBX7-2) were approved by Governor Schwarzenegger, creating a comprehensive water package designed to meet California's water challenges.[22] The legislation establishes the governmental framework to achieve the coequal goals of providing a more reliable water supply to California and restoring and enhancing the Sacramento-San Joaquin Delta ecosystem. The package includes requirements to improve the management of our water resources by monitoring groundwater basins, developing agricultural water management plans, reducing statewide per capita water consumption by 20 percent by 2020, and reporting water diversions and uses in the delta. It also appropriates $250 million for grants and expenditures for projects to reduce dependence on the delta if the bond issue is approved by the voters in the future.

The *Safe, Clean, and Reliable Drinking Water Supply Act of 2014* (SBX7-2) will come before the California voters in 2014. This act is the product of the 2009 comprehensive legislative package crafted in 2009 to meet California's growing water challenges. This act may be modified in the future depending on climatic conditions in California. If enacted, it would provide funding, $11.14 billion, for California's aging water infrastructure and for projects and programs to improve the ecosystem and water supply reliability for California. The bond bill includes $4 billion for local resources development, $4 billion for ecosystem restoration, and $3 billion for public benefits associated with new surface and groundwater storage projects. These investments will help to reduce seismic risk to delta water supplies, will protect drinking water quality, and will reduce conflict between water management and environmental protection.

Part of the comprehensive water package included SBX7-7, Statewide Water Conservation. This bill creates a framework for future planning and actions by urban and agricultural water suppliers to reduce California's water use. This bill requires the development of agricultural water management plans and requires urban water agencies to reduce statewide per capita water consumption 20 percent by 2020.

22 Department of Water Resources, *California Water Plan Update 2009, Volume 4* (December 2009). Reference Guide, Legislation, 2009 Comprehensive Water Package, Special Session Policy Bills and Bond Summary (November 2009).

Metropolitan Water District of Southern California

Primary Source of Water

The Department relies on MWD sales of water to meet most of its current water supply requirements. For the 5 fiscal years ended June 30, 2012, water deliveries from the MWD averaged 15.5 million gpd (approximately 17,319 afy), which constituted approximately 60 percent of the Department's total water supply. The Department expects to continue reliance on MWD sales of water to meet most of its future water supply requirements.

History and Background

The MWD was created in 1928 by vote of the electorates of 11 Southern California cities, including the City, under authority of the Metropolitan Water District Act (California Statutes 1927, Chapter 429, as reenacted in 1969 as Chapter 209, as amended [herein referred to as the "Metropolitan Act"]). The Metropolitan Act authorizes MWD to levy property taxes within its service area; establish water rates; impose charges for water standby and service availability; incur general obligation bonded indebtedness and issue revenue bonds, notes, and short-term revenue certificates; execute contracts; and exercise the power of eminent domain for the purpose of acquiring property. In addition, the Metropolitan's Board of Directors ("Metropolitan's Board") is authorized to establish terms and conditions under which additional areas may be annexed to MWD's service area.

The MWD's primary purpose is to provide a supplemental supply of water for domestic and municipal uses at wholesale rates to its member public agencies. The City is one of the 26 MWD member public agencies. If additional water is available, such water may be sold for other beneficial uses. MWD serves its member agencies as a water wholesaler and has no retail customers.

MWD's charges for water sales and availability are fixed by MWD's Board and are not subject to regulation by the California Public Utilities Commission or any other State or federal agency. MWD imports water from two principal sources: Northern California via the Edmund G. Brown California Aqueduct (the "California Aqueduct") of the State Water Project owned by the State of California, and the Colorado River via the Colorado River Aqueduct owned by MWD. MWD owns and operates the Colorado River Aqueduct and has a long-term contract for water (the "State Water Contract") with the Department of Water Resources to receive water from the State Water Project.

State Water Project

One of MWD's two major sources of water is the State Water Project, which is owned by the State and operated by the State Department of Water Resources (DWR). The State Water Project transports water

from the San Francisco Bay/Sacramento-San Joaquin River Delta (Bay-Delta) south via the California Aqueduct to MWD. The total length of the California Aqueduct is approximately 444 miles.

The State Water Contract, under a 100 percent allocation, provides MWD with 1,911,500 acre-feet of water. Water received from the State Water Project by MWD over the 10 years from 2002 through 2011, including water from water transfer, groundwater banking, and exchange programs delivered through the California Aqueduct, varied from a low of 908,000 acre-feet in calendar year 2009 to a high of 1,800,000 acre-feet in 2004.

For calendar year 2012, DWR's initial allocation estimate to State Water Project contractors was 60 percent of contracted amounts. This estimate was reduced to 50 percent of contracted amounts on February 21, 2012, and adjusted upward to 60 percent of contracted amounts as of April 16, 2012. The allocation was increased again on May 23, 2012, to 65 percent of contracted amounts due to April's wetter-than-usual weather. For MWD, the increased 2012 allocation will provide 1,242,475 acre-feet, or 65 percent of its 1,911,500 acre-foot contractual amount. In addition, MWD began 2012 with 200,000 acre-feet of carryover supplies in the San Luis Reservoir, a joint-use facility of the State Water Project and federal Central Valley Project, all of which can be drawn in 2012.

For calendar year 2013, DWR's allocation to State Water Project contractors was 35 percent of contracted amounts, reflecting significantly below average precipitation over the entire Sierra Nevada range and well below average statewide snowpack The 35 percent allocation provided MWD up to 669,025 acre-feet of its 1,911,500 acre-foot contractual amount.

Bay-Delta Regulatory and Planning Activities

The California State Water Resources Control Board is responsible for setting water quality standards and administering water rights throughout the State, and its decisions can affect the availability of water to the MWD from the State Water Project. The California State Water Resources Control Board exercises its regulatory authority over the Bay-Delta by means of public proceedings leading to regulations and decisions. These include the Bay-Delta Water Quality Control Plan ("WQCP"), which establishes the water quality objectives and proposed flow regime of the estuary and water rights decisions, which assign responsibility for implementing the objectives of the WQCP to users throughout the system by adjusting their respective water rights. The California State Water Resources Control Board is required by law to periodically review its WQCP to ensure that it meets the changing needs of this complex system. Since 2000, the California State Water Resources Control Board's Water Rights Decision 1641 ("D-1641") has governed the State Water Project's ability to export water from the Bay-Delta for delivery to MWD and other agencies receiving water from the State Water Project. D-1641 was challenged in a dozen lawsuits, filed primarily by Bay-Delta interests and environmental groups. D-1641

was, for the most part, affirmed by the California Courts of Appeal, and the California Supreme Court denied petitions for review of the Courts of Appeal's decision. In December 2006, the California State Water Resources Control Board adopted limited amendments to D-1641 and identified additional issues to review, which could result in future changes in water quality objectives and flows that could affect exports of water by the State Water Project. The California State Water Resources Control Board is in the process of reviewing salinity objectives in the Bay-Delta intended to protect Bay-Delta farming and inflow requirements upstream of the Delta to protect aquatic species. In July 2012, the governor and U.S. Interior Secretary outlined revisions and alternative proposals to the proposed Bay Delta Conservation Plan (BDCP). Subsequently, the California Natural Resources Agency released four draft chapters of the BDCP in March 2013. Most recently on December 9, 2013, the State released an updated BDCP, along with a draft EIR/Environmental Impact Statement (EIS) for formal public review. The formal public review and comment period for the draft EIR/EIS is from December 13, 2013 through April 14, 2014.

Environmental Considerations

The listing of several fish species as threatened or endangered under the federal and/or California Endangered Species Acts (respectively, the "Federal ESA" and the "California ESA" and, collectively, the "ESAs") has impacted State Water Project operations and limited the flexibility of the State Water Project.

Federal ESA Litigation

Litigation filed by several environmental interest groups (*NRDC v. Kempthorne* and *Pacific Coast Federation of Fishermen's Associations v. Gutierrez*) in the U.S. District Court for the Eastern District of California alleged that the 2004 and 2005 biological opinions and incidental take statements inadequately analyzed impacts on listed species under the Federal ESA.

On May 25, 2007, Federal District Judge Wanger issued a decision on summary judgment in *NRDC v. Kempthorne*, finding the U.S. Fish and Wildlife Service's (USFWS's) biological opinion for Delta smelt to be invalid. The USFWS released a new biological opinion on the impacts of the State Water Project and Central Valley Project on Delta smelt on December 15, 2008. The MWD, the San Luis & Delta Mendota Water Authority, the Westlands Water District, the Kern County Water Agency, the Coalition for a Sustainable Delta and State Water Contractors, a California nonprofit corporation formed by agencies contracting with DWR for water from the State Water Project (the "State Water Contractors"), the Family Farm Alliance, and the Pacific Legal Foundation on behalf of several owners of small farms in California's Central Valley filed separate lawsuits in federal district courts challenging the biological opinion, which the federal court consolidated under the caption Delta Smelt Consolidated Cases.

On December 14, 2010, Judge Wanger issued a decision on summary judgment finding that there were major scientific and legal flaws in the Delta smelt biological opinion. The court found that some but not all of the restrictions on project operations contained in the 2008 Delta smelt biological opinion were arbitrary, capricious, and unlawful. On May 18, 2011, Judge Wanger issued a final amended judgment directing the USFWS to complete a new draft biological opinion by October 1, 2011, and a final biological opinion with environmental documentation by December 1, 2013. Later stipulations and orders changed the October 1, 2011 due date for a draft biological opinion to December 14, 2011. A draft biological opinion was issued on December 14, 2011. The draft biological opinion deferred specification of a reasonable and prudent alternative and an incidental take statement pending completion of environmental impact review under the National Environmental Policy Act (NEPA). The federal defendants and environmental interveners appealed the final judgment invalidating the 2008 Delta smelt biological opinion to the U.S. Court of Appeals for the Ninth Circuit. The State Water Project and Central Valley Project contractor plaintiffs, including MWD, have cross-appealed from the final judgment. Those appeals and cross-appeals are currently pending in the Ninth Circuit.

On February 25, 2011, the federal court approved a settlement agreement modifying biological opinion restrictions on Old and Middle River flows that would have otherwise applied in spring 2011. The settlement agreement expired on June 30, 2011. State Water Project and Central Valley Project contractors also moved to enjoin certain fall salinity requirements in the biological opinion that were set to become operable in September and October 2011. After an evidentiary hearing on the water contractors' motion in July 2011, Judge Wanger issued a decision on August 31, 2011, modifying the fall salinity-related requirements in the biological opinion. The effect of the injunction was to reduce water supply impacts from the biological opinion's fall salinity requirements. The federal defendants and the environmental interveners appealed the injunction on fall salinity requirements, but the federal defendants subsequently dismissed their appeal in October 2011. The environmental interveners' appeal to the Ninth Circuit on the fall salinity requirement injunction is pending. The State Water Project and Central Valley Project contractors have moved to dismiss the environmental interveners' appeal of the fall salinity requirement on the ground that the salinity requirement for 2011 has expired and is therefore invalid.

On April 16, 2008, in *Pacific Coast Federation of Fishermen's Associations v. Gutierrez*, the court invalidated the 2004 National Marine Fisheries Service's (NMFS's) biological opinion for the salmon and other fish species that spawn in rivers flowing into the Bay-Delta. Among other things, the court found that the no-jeopardy conclusions in the biological opinion were inconsistent with some of the factual findings in the biological opinion, that the biological opinion failed to adequately address the impacts of State Water Project and Central Valley Project operations on critical habitat, and that there was a failure

to consider how climate change and global warming might affect the impacts of the projects on salmonid species.

The NMFS released a new biological opinion for salmonid species to replace the 2004 biological opinion on June 4, 2009. The 2009 salmonid species biological opinion contains additional restrictions on State Water Project and Central Valley Project operations. The NMFS calculated that these restrictions will reduce the amount of water the State Water Project and Central Valley Project combined will be able to export from the Bay-Delta by 5 to 7 percent. DWR had estimated a 10 percent average water loss under this biological opinion. See **State Water Project Operational Constraints**, which follows, for the estimated impact to MWD's water supply. Six lawsuits were filed challenging the 2009 salmon biological opinion. These various lawsuits have been brought by the San Luis & Delta Mendota Water Authority, the Westlands Water District, the Stockton East Water District, the Oakdale Irrigation District, the Kern County Water Agency, the State Water Contractors, and the Metropolitan Water District. The court consolidated the cases under the caption: Consolidated Salmon Cases.

On May 25, 2010, the court granted the plaintiffs' request for preliminary injunction in the Consolidated Salmon Cases, restraining enforcement of two requirements under the salmon biological opinion that limit exported water during the spring months based on San Joaquin River flows into the Bay-Delta and reverse flows on the Old and Middle Rivers. Hearings on motions for summary judgment in the Consolidated Salmon Cases were held on December 16, 2010. On September 20, 2011, Judge Wanger issued a decision on summary judgment, finding that the salmon biological opinion was flawed, and that some but not all of the project restrictions in the biological opinion were arbitrary and capricious. On December 12, 2011, Judge O'Neill (who was assigned to this case following Judge Wanger's retirement) issued a final judgment in the Consolidated Salmon Cases. The final judgment remands the 2009 salmon biological opinion to the NMFS and directs that a new draft salmon biological opinion be issued by October 1, 2014, and that a final biological opinion be issued by February 1, 2016, after completion of environmental impact review under NEPA. On January 19, 2012, Judge O'Neill approved a joint stipulation of the parties that specifies how to comply with one of the salmon biological opinion restrictions that applies to water project operations in April and May of 2012. In January and February 2012, the federal defendants and environmental interveners filed appeals of the final judgment in the Consolidated Salmon Cases, and the State Water Project and Central Valley Project contractors filed cross-appeals. Those appeals and cross-appeals are now pending in the Ninth Circuit.

On November 13, 2009, the Center for Biological Diversity filed separate lawsuits challenging the USFWS's failure to respond to a petition to change the Delta smelt's federal status from threatened to endangered and the USFWS's denial of federal listing for the longfin smelt. On April 2, 2010, the USFWS issued a finding that uplisting the Delta smelt was warranted but precluded by the need to devote

resources to higher priority matters. This “warranted but precluded” finding did not change the regulatory restrictions applicable to Delta smelt. For the longfin smelt litigation, a settlement agreement was approved on February 2, 2011. Under the agreement, the USFWS agreed to complete a range-wide status review of the longfin smelt and consider whether the Bay-Delta longfin smelt population, or any other longfin smelt population from California to Alaska, qualifies as a "distinct population" that warrants federal protection. On April 2, 2012, the USFWS issued its finding that the Bay-Delta longfin smelt population warrants protection under the ESA but is precluded from listing as a threatened or endangered species by the need to address other higher priority listing actions. The review identified several threats facing longfin smelt in the Bay-Delta, including reduced freshwater Bay-Delta outflows. The finding includes the determination that the Bay-Delta longfin smelt will be added to the list of candidates for ESA protection, where its status will be reviewed annually.

California ESA Litigation

In addition to the litigation under the Federal ESA, other environmental groups sued DWR on October 4, 2006, in the Superior Court of the State of California for Alameda County alleging that DWR was “taking” listed species without authorization under the California ESA. This litigation (*Watershed Enforcers, a project of the California Sportfishing Protection Alliance v. California Department of Water Resources*) requested that DWR be mandated to either cease operation of the State Water Project pumps, which deliver water to the California Aqueduct, in a manner that results in such “taking” of listed species or obtain authorization for such “taking” under the California ESA. On April 18, 2007, the Alameda County Superior Court issued its Statement of Decision finding that DWR was illegally “taking” listed fish through operation of the State Water Project export facilities. The Superior Court ordered DWR to “cease and desist from further operation” of those facilities within 60 days unless it obtained take authorization from the California Department of Fish and Game.

DWR appealed the Alameda County Superior Court’s order on May 7, 2007. This appeal stayed the order pending the outcome of the appeal. The Court of Appeal stayed processing of the appeal in 2009 to allow time for DWR to obtain incidental take authorization for the Delta smelt and salmon under the California ESA, based on the consistency of the federal biological opinions with California ESA requirements (“Consistency Determinations”). After the California Department of Fish and Game issued the Consistency Determinations under the California ESA, authorizing the incidental take of both Delta smelt and salmon, appellants DWR and State Water Contractors dismissed their appeals of the Watershed Enforcers decision. The Court of Appeal subsequently issued a decision finding that DWR was a “person” under the California ESA and subject to its take prohibitions, which was the only issue left in the case. The State Water Contractors and Kern County Water Agency have filed suit in State courts challenging the Consistency Determinations under the California ESA that have been issued for both

Delta smelt and salmon. Those lawsuits challenging the Consistency Determinations are pending. The parties are continuing discussions of adjustments to the incidental take authorizations in light of the summary judgment ruling in the Delta Smelt Consolidated Cases and the Consolidated Salmon Cases, discussed under the heading **Federal ESA Litigation**, discussed previously.

The California Fish and Game Commission listed the longfin smelt as a threatened species under the California ESA on June 25, 2009. On February 23, 2009, in anticipation of the listing action, the California Department of Fish and Game issued a California ESA section 2081 incidental take permit to DWR authorizing the incidental take of longfin smelt by the State Water Project. This permit authorizes continued operation of the State Water Project under the conditions specified in the section 2081 permit. The State Water Contractors filed suit against the California Department of Fish and Game on March 25, 2009, alleging that the export restrictions imposed by the section 2081 permit have no reasonable relationship to any harm to longfin smelt caused by State Water Project operations, are arbitrary and capricious, and are not supported by the best available science. The lawsuit is pending and the administrative record for the cases has been completed. The Ninth Circuit has scheduled oral arguments in this case for February 10, 2014 in San Francisco.

State Water Project Operational Constraints

DWR has altered the operations of the State Water Project to accommodate species of fish listed under the ESAs. These changes in project operations have adversely affected State Water Project deliveries. The impact on total State Water Project deliveries attributable to the Delta smelt and salmonid species biological opinions combined is estimated to be 1 million acre-feet in an average year, reducing State Water Project deliveries from approximately 3.3 million acre-feet to approximately 2.3 million acre-feet for the year under average hydrology, and are estimated to range from 0.3 million acre-feet during critically dry years to 1.3 million acre-feet in above normal water years. State Water Project deliveries to contractors were reduced by approximately 285,000 acre-feet of water in calendar year 2011 as a result of pumping restrictions, with 135,000 acre-feet of export reductions in January and February, and 150,000 acre-feet in the fall. Despite operational restrictions in 2011, high flows from above normal precipitation in late 2010 and early 2011 reaching the Bay-Delta resulted in above average storage levels remaining in Lake Oroville through May 2012. As of January 2014, the storage levels remaining in Lake Oroville are 36 percent of total capacity as a result of well below average precipitation and snowpack levels.

Operational constraints likely will continue until long-term solutions to the problems in the Bay-Delta are identified and implemented. The Delta Vision process, established by then-Governor Schwarzenegger, was aimed at identifying long-term solutions to the conflicts in the Bay-Delta, including

natural resource, infrastructure, land use, and governance issues. In addition, State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay-Delta Conservation Plan, which is aimed at addressing ecosystem needs and securing long-term operating permits for the State Water Project, and includes the Delta Habitat Conservation and Conveyance Program (DHCCP) (together, the "BDCP"). The DHCCP's current efforts consist of the preparation of the environmental documentation and preliminary engineering design for Bay-Delta water conveyance and related habitat conservation measures under the BDCP. In July 2012, the governor and U.S. Interior Secretary outlined revisions and alternative proposals to the proposed Bay Delta Conservation Plan (BDCP). Subsequently, the California Natural Resources Agency released four draft chapters of the BDCP in March 2013. Most recently on December 9, 2013, the State released an updated BDCP, along with a draft EIR/Environmental Impact Statement (EIS) for formal public review. The formal public review and comment period for the draft EIR/EIS is from December 13, 2013 through April 14, 2014.

Other issues, such as the decline of some fish populations in the Bay-Delta and surrounding regions and certain operational actions in the Bay-Delta, may significantly reduce MWD's water supply from the Bay-Delta. State Water Project operational requirements may be further modified under new biological opinions for listed species under the Federal ESA or by the California Department of Fish and Game's issuance of incidental take authorizations under the California ESA. Biological opinions or incidental take authorizations under the Federal ESA and the California ESA might further adversely affect State Water Project and Central Valley Project operations. Additionally, new litigation, listings of additional species, or new regulatory requirements could further adversely affect State Water Project operations in the future by requiring additional export reductions, releases of additional water from storage, or other operational changes impacting water supply operations. MWD has indicated that it cannot predict the ultimate outcome of any of the litigation or regulatory processes described previously, but believes they could have a materially adverse impact on the operation of the State Water Project pumps, MWD's State Water Project supplies, and MWD's water reserves.

"Area of Origin" Litigation

Four State Water Project contractors located north of the State Water Project's Bay-Delta pumping plant filed litigation against DWR on July 17, 2008, asserting that since they are located in the "area of origin" of State Water Project water, they are entitled to receive their entire contract amount before any water is delivered to contractors south of the Bay-Delta. If the plaintiffs are successful in this litigation, State Water Project water available to MWD in a drought period could be reduced by approximately 25,000 afy of a multiyear drought or by as much as 40,000 acre-feet in an exceedingly dry year. MWD and 12 other State Water Project contractors located south of the Bay-Delta filed motions to intervene in this

litigation, which were granted on February 25, 2009. In May 2012, the parties reached an agreement, in principle, that plaintiffs will dismiss the action with prejudice and agree to certain limitations on asserting area of origin arguments in the future; in return, DWR and the interveners will agree to operational changes that will increase the reliability of plaintiffs' SWP supplies at little or minimal cost to other SWP water contractors. The DWR completed and adopted a Final Initial Study/Mitigated Negative Declaration (IS/MND) in September 2013 for the State Water Project Allocation Settlement Agreements. The Final IS/MND which describes the potential environmental impacts as a result of the proposed changes to SWP operations determined there were no potentially significant impacts.

Colorado River Aqueduct

MWD has a legal entitlement to receive water from the Colorado River under a permanent service contract with the Secretary of the Interior. Water from the Colorado River or its tributaries is also available to other users in California, as well as to users in the states of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming, resulting in both competition and the need for cooperation among these holders of Colorado River entitlements. The Colorado River Aqueduct, which is owned and operated by MWD, transports water from the Colorado River approximately 242 miles to its terminus at Lake Mathews in Riverside County.

Historically, MWD had been able to take full advantage of the availability of surplus water and apportioned but unused water. However, other users increased their use of water from the Colorado River beginning in 1998. Although the use of water is expected to fluctuate annually, this trend is projected to continue in the future. In addition, a severe drought in the Colorado River Basin has reduced water supplies.

MWD has taken steps to augment its share of Colorado River water through agreements with other agencies that have rights to use such water. Under a 1988 water conservation agreement between Metropolitan and the Imperial Irrigation District (IID), IID has constructed and is operating a number of conservation projects that are currently conserving approximately 100,000 afy of water.

Management of California's Colorado River Water Supply

In 2003, California had to reduce its use of Colorado River water, and since that time has been limited to its basic apportionment of 4.4 million afy. To maintain reliable deliveries to urban agencies, the State has implemented a number of agricultural to urban water conservation and transfer programs. Those programs included the lining of the All-American and Coachella Canals, funding water conservation measures in the Imperial Valley, and implementing a land fallowing and crop rotation program with Palo

Verde Irrigation District. Additionally, in 2007, agencies were allowed to store conserved water in Lake Mead for future use. As of 2012, MWD has more than 500,000 acre-feet of storage credits in Lake Mead.

SWP Water Delivery Reliability

In the Draft State Water Project Delivery Reliability Report 2013, DWR presents its method for calculating SWP delivery reliability, the factors affecting SWP delivery reliability, and the limitations to estimating future water delivery reliability. In the report, "water delivery reliability" is defined as the annual amount of water that can be expected to be delivered with a certain numeric frequency. SWP delivery reliability is calculated using CALSIM II, a computer model jointly developed by DWR and Reclamation, which simulates operation of the CVP/SWP system based upon 82 years of historic data. The annual amounts of SWP water deliveries are ranked from smallest to largest and a probability is calculated for each amount. These results are then displayed graphically as an exceedance plot and presented in tabular format.

The amount of SWP water supply delivered to the SWP Contractors in a given year depends on the demand for the supply; the amount of rainfall, snowpack, runoff, water in storage, pumping capacity from the Delta; and legal constraints on SWP operation. According to DWR, more generally, water delivery reliability depends on three general factors: (1) the availability of water at the source; (2) regulatory restrictions on SWP Delta exports (imposed by federal biological opinions [BOs] and State water quality plans); and (3) the effects of climate change.

SWP Availability of Source Water

As to the availability of source water, the factors of uncertainty include the inherent annual variable location, timing, amount, and form of precipitation in California. The second source of uncertainty is due to global climate change. Current literature suggests that global warming is likely to significantly impact the hydrological cycle, changing California's precipitation pattern and amount from that shown by the historical record. According to DWR, there is evidence that some changes have already occurred, such as an earlier beginning of snowmelt in the Sierras, an increase in water runoff as a fraction of the total runoff, and an increase in winter flooding frequency. More variability in rainfall, wetter at times, and drier at times would place more stress on the reliability of existing flood management and water supply systems, such as the SWP.

SWP Ability to Convey Source Water

As to the ability to convey source water to the desired point of availability, DWR reports that an uncertainty factor exists with respect to SWP operations, because they are closely regulated by Delta water quality standards established by the State Water Resources Control Board and set forth in Water

Rights Decision 1641. DWR also reports other factors of uncertainty due to the continuing unexplained decline in many pelagic (open water) fish species, including the Delta smelt since the early 2000s, and the legal challenges to SWP operation and ongoing planning activities related to the Delta. Other uncertainties include future sea level rise associated with global climate change, which could increase salinity in the Delta, and the risk of interruptions in SWP diversions from the Delta due to levee failures. The referenced litigation challenges are described in more detail in the *Draft State Water Project Delivery Reliability Report 2013*.

Demand for System Water

As to estimating future demand for SWP water, DWR has identified uncertainty factors, including population growth, water conservation, recycling efforts, other supply sources, and global climate change. In addition to the previously identified factors affecting water delivery reliability, DWR has reported other limitations and assumptions, all of which are explained in the *Draft State Water Project Delivery Reliability Report 2013*. This report has also identified the status of two large-scale plans for the delta as underway with objectives related to providing a sustainable delta over the long term. These planning efforts may propose changes to SWP operations, which in turn could affect SWP delivery reliability. The planning efforts are the Delta Plan and the Bay-Delta Conservation Plan. According to DWR, each planning effort could affect SWP and CVP operations in the Delta and each are explained in detail in the *Draft State Water Project Delivery Reliability Report 2013*.

City of Glendale

Glendale's water system is also interconnected with the City of Burbank and the Crescenta Valley Water District for short-term/emergency water service.[23] When the need arises, these connections can be opened to deliver water into the Glendale distribution system to supplement demands and vice versa. These should be viewed as only short-term transfer of water.

For the long term, MWD is engaged in "out-of-area" dry transfer and exchanges to improve local water supply reliability. These are discussed in MWD's *Regional 2010 UWMP* and are summarized in Chapter 3, Implementing the Plan. Glendale does not have the basic capability to implement these types of programs; it relies on MWD to perform these activities.

The interconnection with Crescenta Valley Water District was recently completed. The preliminary design for an interconnection with Los Angeles has begun.

23 *2010 U*rban *W*ater *M*anagement *P*lan, (2010), Figure 3.2

Glendale General Plan Policies

Goals and policies that relate to water services are set forth by the City of Glendale in the General Plan Community Facilities Element. An analysis of the consistency of these applicable goals and policies with the proposed Project is provided in **Section 4.3, Land Use and Planning**. As discussed in **Section 4.3**, the Project does not conflict with the City's General Plan.

Glendale Water Conservation Policies

Glendale has adopted a mandatory water conservation plan. Section 13.36 of the *Glendale Municipal Code* describes programs the City is implementing to reduce the demand for water. For example, this section of the Code contains a "no water waste" policy, which outlines prohibited uses of water such as hosing of sidewalks, walkways, driveways, or parking areas. This section also prohibits landscape irrigation between 9:00 AM and 6:00 PM, limits the days of the week for landscape irrigation, failure to repair leaks of any sort, and water fountains without a recirculating water system.[24]

All commercial and industrial customers of the Public Service Department using 25,000 billing units per year (1 unit equals 748 gallons) or more must submit a quarterly water conservation plan to the City Manager's Office and the Director of Glendale Water and Power.

The existing recycled water system is only available in limited sections of the City. Where recycled water use is feasible, the City requires its use in lieu of potable water. Service connections and extensions to areas outside of this system are subject to approval by the Director of Public Works. Recycled water facilities are required in new developments when it is determined that recycled water would be supplied in the future, regardless of whether or not the area is being served by the City's recycled water system during new construction.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines a project may be deemed to have a significant impact on water supply, if it would:

- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed

24 *City of Glendale Municipal Code*, se. 13.36.060, "No Water Waste Policy."

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (issue is addressed in **Section 6.0, Effects Found Not To Be Significant**)

Methodology

Existing and future water demand calculations were based on water use factors by land use previously used and approved by Glendale Water and Power. The water use factors were determined by assuming 125 percent of the wastewater generation rates provided by the City of Los Angeles. To demonstrate how water demand resulting from implementation of the Project would be accommodated, the evaluation was based on the conceptual development program described in **Section 3.0, Project Description**.

Impact Analysis

Threshold: **Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.**

Construction Water Demand

Demolition of the foundations of previous buildings, grading, and construction activities associated with the Project would require the use of water for dust control and clean-up purposes. The use of water for construction purposes would be short term in nature and the amount would be much less than water consumption during Project operation. All applicable local, State and federal requirements and Best Management Practices (BMPs) would be incorporated into construction of the Project. Therefore, construction activities are not considered to result in a significant impact on the existing water system or available water supplies.

Operational Water Demand

As noted previously, residential land uses require significantly more water consumption than commercial uses. New development on the Project site would result in an increase in demand for operational uses, including landscape irrigation, maintenance, and other activities on the site. As indicated in **Table 4.9.1-3, Project Water Demand**, projected water demand for the Project would be 20.21 afy.

Table 4.9.1-3
Project Water Demand

Use	Size of Use	Demand Factor	Daily Demand (gpd)	Annual Demand (gallons)	Annual Demand (afy)
One bedroom	68 du	150/unit[1]	10,200	3,723,000	11.43
Two bedroom	22 du	200/unit[1]	4,400	1,606,000	4.93
Medical office space	18,000 sq. ft.	312.50/1,000 sq. ft.[1]	5,625	2,053,125	6.30
Restaurant, counter service with limited seating	1,000 sq. ft.	150/1,000 sq. ft.[1]	150	54,750	0.17
Irrigation	6,651 sq. ft.	–[2]	345.5	126,123	0.39
Subtotal			*20,720.5*	*7,562,998*	*23.22*
Credit *(Existing Development)*			2,687.5	*(980,937.5)*	*(3.01)*
Total			**18,033.0**	**6,582,060.5**	**20.21**

Note: du = dwelling unit; gpd = gallons per day; sq. ft. = square feet.

[1] *125 percent sewage generation loading factor.*

[2] *Calculated using the Maximum Applied Water Allowance equation (Section 492.4 Water Efficient Landscape Worksheet, California Code of Regulations Title 23 Water, Division 2, Chapter 2.7, Model Water Efficient Landscape Ordinance.)*

This amount represents an estimated net increase of 6,647,979.5 million gallons per year or 20.21 afy for the Project site compared to existing uses. The Project would increase the number of allowed residential units by four dwelling units over that allowed within the Commercial/Residential Mixed-Use zone. The Project would provide affordable housing units, which would allow the increase in the amount of dwelling units requested on the site. This negligible increase in units would result in a negligible increase in water demand within the City. According to the City's UWMP, water supplies in the City would remain adequate through the year 2035, and there would even be a surplus at that time. Water supply was determined to be less than significant.

Normal Weather Conditions

Glendale has identified an adequate supply of water to meet future City demands under normal conditions. As indicated in **Table 4.9.1-4, Normal Weather Water Supply and Demand Comparison**, a surplus exists that provides a reasonable buffer of approximately 1,500 to 2,200 afy of water. Future water demand in the City is based on projected development contained in the General Plan. As discussed previously, the Project water demand was accounted for in the *2010 UWMP*, except for the

additional four dwelling units. For purposes of this assessment, the demand of the Project was assumed not to have been included in this demand projection. However, even with the addition of 20.21 afy of demand generated by the Project, there is ample supply to meet remaining City demand under normal weather conditions.

Table 4.9.1-4
Normal Weather Water Supply and Demand Comparison

Source	2010	2015	2020	2025	2030	2035
Supply						
San Fernando Wells	7,701	7,800	7,800	7,800	7,800	7,800
Verdugo Wells	2,087	3,856	3,856	3,856	3,856	3,856
MWD	16,550	17,620	17,755	17,890	18,025	18,162
Recycled Water	1,662	1,662	1,662	1,662	1,662	1,662
Total Supply	28,000	30,938	31,073	31,208	31,343	31,480
Demand	26,448	28,866	28,946	29,070	29,198	29,323
Difference (Surplus)	**1,552**	**2,072**	**2,127**	**2,138**	**2,145**	**2,157**

Source: Glendale Water & Power, 2010 Urban Water Management Plan (adopted June 2011), Tables 3-3 and 3-4.
Note: MWD = Metropolitan Water District of Southern California.

Dry Weather Conditions

Table 4.9.1-5, Multiple Dry Year Period Water Supply and Demand Comparison, provides a multiple-year water supply that Glendale has identified under average drought conditions. Water supply would increase during all 5 years due to more imported supplies. If there is a need for significant demand reduction efforts, various voluntary or mandatory conservation efforts could be implemented.

Table 4.9.1-5
Multiple Dry Year Period Water Supply and Demand Comparison

	2016	2017	2018	2019	2020
Supply	30,696	31,006	31,319	31,636	31,955
Demand	28,640	28,929	29,221	29,517	29,815
Difference (Surplus)	**2,056**	**2,077**	**2,098**	**2,119**	**2,141**

Source: Glendale Water & Water, 2010 Urban Water Management Plan (adopted June 2011), Table 3-11.

Water supplies from the San Fernando and Verdugo Basins and recycled water would remain unaffected by drought conditions. If there is a shortage in water supply from MWD, the Glendale distribution system could be affected. However, MWD's completion of the Diamond Valley Reservoir near Hemet

added to the reliability of MWD's supplies. This reservoir, plus other MWD storage/banking operations would be able to meet demands reliably. MWD is also proposing contracts with its member agencies to supply water, including supply during drought conditions. These contracts will define, by agreement, the MWD's obligation to provide "firm" water supply to the City.

It is anticipated that during any multiple-year drought, the City would have sufficient water supply to meet demand. According to the *2010 UWMP*, the City would use a smaller percentage of MWD water supplies in the future compared to its current use. With the City's reduction of dependency on imported MWD supplies, there would be a higher level of reliable water supplies to meet demand during drought conditions.

As indicated in **Table 4.9.1-5**, the City would continue to have adequate supply to meet citywide demand under drought conditions. Similar to normal weather conditions, even with the addition of 20.21 afy of demand generated by the Project, there is sufficient supply to meet City demand under drought conditions.

As indicated previously, even with implementation of the Project, the City would continue to have adequate supply to meet Citywide demand under normal and drought conditions.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

Threshold: **Have sufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements needed.**

As indicated in **Table 4.9.1-6, Water Demand of Related Projects**, development of related projects would result in a demand of approximately 838.8 afy. Combined with the increase of 20.21 afy generated by the Project, the cumulative amount demanded by the Project and related projects would generate an overall future water demand of approximately 859.01 afy.

Table 4.9.1-6
Water Demand of Related Projects

Multifamily residential	2,999	200/unit	599,800	218,927,000	671.9
Live/work	556	100/unit	55,600	20,294,000	62.3
Commercial	278,804	100/1,000 sq. ft.	27,880.40	10,176,346	31.2
Restaurant	4,599	100/1,000 sq. ft.	459.90	167,864	0.5
Hotel	266	162.5/room	43,225	15,777,125	48.1
Cinema/studio	14,690	1/1,000 sq. ft.	14,690	5,361,850	16.5
Office	12,802	187.5/1,000 sq. ft.	2,400.375	876,137	2.7
Industrial	50,400	100 gpd/1,000 sq. ft.	5,040	1,839,600	5.6
Total			749,095.68	279,419,921	**838.8**

Note: afy = acre-feet per year; gpd = gallons per day; gpy = gallons per year; sq. ft. = square feet.
[1] *125 percent sewage generation loading factor.*

Glendale has identified sufficient water supplies to meet additional demand associated with the Project and through General Plan build out, which includes related projects. The City has identified local supplies that could be accessed to make up for any deficiency in imported (MWD) water. In addition, MWD water has been and continues to become a more reliable source through the construction of new water storage facilities and agreements with member agencies. Therefore, the cumulative impact of the Project and related projects to the water supply is less than significant, and the Project's contribution to this impact would not be cumulatively considerable.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

ENVIRONMENTAL SETTING

Existing Conditions

The City of Glendale Public Works Department provides sewer collection and treatment services in the City of Glendale. Sewage from Glendale and other jurisdictions is treated by the City of Los Angeles Hyperion System, which includes the Los Angeles/Glendale Water Reclamation Plant, located outside the Glendale City limits in Los Angeles, and the Hyperion Treatment Plant, located in Playa del Rey.[25] The City of Glendale and the City of Los Angeles jointly own and share operating capacity of the Los Angeles/Glendale Water Reclamation Plant. Glendale entered into an amalgamated treatment and disposal agreement (Amalgamated Agreement) with the City of Los Angeles, which eliminates entitlements and reduces limitations on the amount of sewage discharged into the Hyperion system. Any Glendale sewage not treated at the Los Angeles/Glendale Water Reclamation Plant is treated at the Hyperion Treatment Plant.

Sewage from the Project would be treated by the Hyperion Treatment Plant. The Hyperion Treatment Plant has a dry-weather design capacity of 450 million gallons per day (gpd) and is currently operating below its design capacity at 362 million gpd.[26] Glendale has access to this excess capacity upon payment of Amalgamated Sewerage System Facilities Charges to the City of Los Angeles.

Approximately 360 miles of underground sewer mains ranging in size from 8 inches to 42 inches in diameter are located throughout Glendale.[27] The City owns and maintains the sewer lines within its public rights-of-way. These sewer mains collect sewage and convey it to trunk lines and into regional interceptor sewers for conveyance to either the Los Angeles/Glendale Water Reclamation Plant or the Hyperion Treatment Plant for treatment. The sewer system uses the rolling topography in Glendale to allow gravity to convey the majority of its sewage with minimum pumping costs. Sewage from connections located north of the Los Angeles/Glendale Water Reclamation Plant generally flow to this facility, and connections located south of the Los Angeles/Glendale Water Reclamation Plant flow to the Hyperion Treatment Plant. However, if the Los Angeles/Glendale Water Reclamation Plant is at capacity,

25 City of Glendale Water & Power, *2010 Urban Water Management Plan* (adopted June 2011), 52.

26 City of Los Angeles Department of Public Works, Bureau of Sanitation, *Wastewater Facts and Figures*, http://www.lacitysan.org/wastewater/factsfigures.htm.

27 City of Los Angeles Department of Public Works, Bureau of Sanitation.

sewage generated in the northern portion of the City will be pumped to the Hyperion Treatment Plant.[28]

The four parcels on the Project site are currently served by existing 6-inch lateral sewer lines, which extend south toward W. Colorado Street, and connect to a 21-inch main sewer line.

To estimate the amount of sewerage currently generated by the existing uses at each site, sewage generation factors were applied to each existing use by land-use type. As indicated in **Table 4.9.2-1, Estimated Existing Sewage Generation,** the current onsite sewage generation is approximately 2,150 gpd.

Table 4.9.2-1
Estimated Existing Sewage Generation

Use	Area (sq. ft.)	Loading Factor	Daily Demand (gpd)	Annual Demand (gpy)
Day care center	8,704	200 gpd /1,000 sq. ft.	1,741	635,392
Commercial building	5,115	80 gpd/1,000 sq. ft.	409	149,285
Total			**2,150**	**784,677**

Source: Los Angeles Bureau of Sanitation Sewage Loading Factors.
Note: gpd = gallons per day; gpy = gallons per year; sq. ft. = square feet.

Regulatory Setting

Goals and policies that relate to the City's sewage collection and treatment system are set forth by the City in the General Plan Community Facilities Element. An analysis of the consistency of these applicable goals and policies with the proposed Project is provided in **Section 4.3**, **Land Use and Planning.** As discussed in **Section 4.3**, the Project does not conflict with applicable General Plan goals and policies relating to the City's sewage collection and treatment system.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines a project may be deemed to have a significant impact on public services, including schools, if it would:

28 Maurice Oillataguerre, Senior Environmental Program Specialist, City of Glendale, Public Works Department, personal communication with Meridian Consultants, October 2013.

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (issue is addressed in **Section 6.0, Effects Found Not To Be Significant**).
- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Methodology

The impact of the Project on the existing sewage collection and treatment system was determined by evaluating existing sewage treatment and sewage conveyance capacity. To perform this evaluation, estimates of both existing and future sewage amounts were calculated. The projected increase in sewage from the Project site was then compared against existing system capacity to determine if sufficient capacity would be available to serve the Project.

Project Impacts

Threshold: **Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

As discussed previously, sewage from the Project site goes to the Hyperion Treatment Plant, which Glendale has access to through the Amalgamated Agreement. With the Hyperion Treatment Plant currently operating 88 million gpd below capacity, adequate capacity exists to treat Project-generated average effluent of 14,150 gpd (see **Table 4.9.2-2, Proposed Project Sewage Generation**). Therefore, the Project would not require the expansion or construction of sewage treatment facilities, the construction of which could cause significant environmental effects.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.**

As shown in **Table 4.9.2-2, Proposed Project Sewage Generation**, the Project would, on average, generate 14,150 gpd of sewage.

Table 4.9.2-2
Proposed Project Sewage Generation

			Daily Generation (gpd)
One bedroom	68	120 gpd/unit	8,160
Two bedroom	22	160 gpd/unit	3,520
Medical office space	18,000 sq. ft.	250 gpd/1,000 sq. ft.	4,500
Restaurant, counter service with limited seating	1,000 sq. ft.	120 gpd/1,000 sq. ft.	120
Subtotal			16,300
Existing credit			(2,150)
Total			**14,150**

Note: *Sewage generation rates were based on the City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates Table which was effective June 6, 1996. gpd = gallons per day; sq. ft. = square feet.*

Sewage generated on the Project site would be conveyed to the Hyperion Treatment Plant for treatment, as discussed previously. With the Hyperion Treatment Plant currently operating 88 million gpd below capacity, the addition of approximately 14,150 gallons of average Project sewage per day would not result in the plant exceeding capacity. Therefore, adequate capacity exists to treat the sewage increase generated by the Project, and the impact of the Project on the sewage treatment system is less than significant.

In addition, the City imposes a sewer capacity increase fee on new developments, based on a computer modeling assessment of Glendale's sewer system's hydraulic capacity. The fee is charged when development of a parcel leads to an increase in the volume of wastewater discharged to the collection system. The City has elected to calculate these fees based on proportional increases in wastewater flow, in order to impose the fee in an equitable manner.

The City's methodology for assessing the fee began with dividing Glendale's sewer system into eight drainage basins, and then determining the capital budget required to expand the capacity of each basin over the next 20 years, and the corresponding future peak flow for each basin.[29] The Project would be responsible for a percentage of the total capital budget for the sewer basin in which it is located, which would result in a capital mitigation fee assessed to the Project.

The collected fees, which would be charged for each proposed development, will be deposited into a specially created account to be used to fund capacity improvements of the City-wide sewer system.

In the event the City receives proposals for new developments not considered in the current hydraulic analysis, intermediate and more frequent hydraulic analyses will be performed to evaluate capacity in the given drainage basin. As part of the City's annual Capital Improvement Program (CIP), the City Council annually budgets CIP programs, including, when necessary, funds for the balance of the cost of increasing the sewer capacity for any of the drainage basins. The City's Public Works Engineering Department will design and construct the necessary improvements using the impact fees. The payment of this fee is available to reduce potential impacts of the Project on the sewer conveyance system, thus Project impacts would be less than significant with implementation of the sewer conveyance system mitigation fee.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: The following mitigation measure would reduce Project-related sewer impacts.

4.9.2-1 The project applicant shall pay a sewer capacity increase fee for the Project's sewage increase to the lines within the specific drainage basin where the particular project is located to alleviate sewer impacts. These collected fees shall be deposited by the City of Glendale into a specially created account to be used to fund capacity improvements to the drainage basin.

Level of Significance After Mitigation: Less than significant.

29 *City of Glendale Municipal Code*, Chapter 13.40 Sewer System, Article II.

Cumulative Impacts

Threshold: **Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

As discussed previously, when the Los Angeles/Glendale Water Reclamation Plant reaches capacity, the Hyperion Treatment Plant, which Glendale has access to through the Amalgamated Agreement, would treat a majority of the waste generated by the Project and related projects. With the Hyperion Treatment Plant currently operating 88 million gpd below capacity, adequate capacity exists to treat the 657,906.54 gpd of effluent generated by cumulative development (see **Table 4.9.2-3, Generation of Sewage by Related Projects**). Therefore, the Project and related projects would not require the expansion or construction of sewage treatment facilities, the construction of which could cause significant environmental effects. The cumulative impact of the Project and related projects is less than significant.

Development of the related projects may also require relocation/upgrades of existing sewer lines. These relocations/upgrades could result in short-term service interruptions for service area users, representing a significant impact as well. The Project would provide an 8-inch sewer line for residential uses and 4-inch sewer lines for the medical and restaurant, counter service with limited seating. Project impacts were determined to be less than significant. However, the City would require capacity upgrades to the sewer conveyance system prior to occupancy to avoid overloading the system on a project-by-project basis. Similarly, the City would also require that temporary sewer lines be installed and operational prior to construction to avoid service interruptions on a project-by-project basis. The inclusion of these requirements would reduce cumulative impacts to less than significant. Because the Project would require the provision of temporary replacement sewer lines, the Project's contribution would not be cumulatively considerable and, therefore, is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.**

As shown in **Table 4.9.2-3, Generation of Sewage by Related Projects**, development of related projects would add approximately 643,756.54 gpd to the Hyperion Treatment Plant or the City's sewage conveyance system. Combined with the increase of 14,150 gpd generated by the Project, the Project and related projects would generate an overall cumulative sewage demand of approximately 657,906.54 gpd.

Table 4.9.2-3
Generation of Sewage by Related Projects

Use	Units	Average Loading Factor (gpd/ 1,000 sq. ft.)	Daily Generation (gpd)
Multifamily residential	2,999 du	160	479,840
Live/work	556 du	160	88,960
Commercial	278,804 sq. ft.	80	22,304.32
Restaurant	4,599 sq. ft.	80	367.92
Hotel	266 rooms.	130	34,580
Cinema/studio	14,690 sq. ft.	800	11,752
Office	12,802 sq. ft.	150	1,920.30
Industrial	50,400 sq. ft.	80	4,032
Total			**643,756.54**

Note:
Sewage generation rates were based on the City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates Table, which was effective June 6, 1996.
du = dwelling units; sq. ft. = square feet; gpd = gallons per day.

As discussed previously, when the Los Angeles/Glendale Reclamation Plant reaches capacity, the Hyperion Treatment Plant would treat the remaining generated sewage. Therefore, a majority of the waste generated by the Project and related projects would be treated by the Hyperion Treatment Plant. With the Hyperion Treatment Plant currently operating 88 million gpd below capacity, the additional 657,906.54 gpd of sewage generated by cumulative development would not exceed the plant's capacity. With excess capacity available to Glendale upon payment of fees to the City of Los Angeles, adequate capacity exists to treat sewage generated by the Project and related projects. Therefore, the cumulative

impact of the Project and related projects on available sewage treatment capacity is less than significant.

Development of the related projects would place additional demand on the City's sewage conveyance system. Sewage conveyance infrastructure serving the individual related projects may not have adequate capacity to handle additional sewage loads, and such a lack of capacity may represent a significant impact. Additionally, in an effort to alleviate sewer impacts, the City will impose a sewer capacity increase fee on all future developments adding demand for sewer system capacity within the City. The fee will be charged when development of a parcel leads to an increase in the volume of wastewater discharged to the collection system. The City has elected to calculate these fees based on proportional increases in wastewater flow. The collected fees will be deposited into a specially created account to be used to fund capacity improvements of the City-wide sewer system. In the event the City receives proposals for new developments not considered in the current hydraulic analysis, intermediate and more frequent hydraulic analyses will be performed to evaluate capacity in the given drainage basin. The Public Works Director will request consideration from the City Council to budget the funds for the balance of the cost of increasing the sewer capacity for any of the drainage basins, as part of its annual CIP when it determines such action to be appropriate and justifiable. The City's Public Works Engineering Division will then be able to design and construct the necessary improvements.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: The following mitigation measure would reduce potential cumulative sewer impacts.

4.9.2-2 Each project shall contribute sewer capacity increase fees for improvements and upgrades to alleviate sewer impacts within the specific drainage basin where the particular project is located. Fees would be determined based on the City's sewer capacity increase fee methodology. These collected fees would be deposited into a specially created account to be used to fund capacity improvements of the specific drainage basin.

Level of Significance After Mitigation: Less than significant.

ENVIRONMENTAL SETTING

Existing Conditions

Regional Facilities

Over 250 private waste haulers and several City governments collect solid waste in Los Angeles County. The City of Glendale Integrated Waste Management Division is the primary hauler for single-family residences in Glendale. It is estimated that private companies haul waste for approximately 40 percent of the multifamily residential properties and approximately 90 percent of the nonresidential land uses in Glendale.[30] The majority of the waste is disposed of at various landfills within the County. However, some of the waste is delivered to waste-to-energy transformation facilities or to intermodal facilities for transport to facilities outside of Los Angeles County.

Within Los Angeles County, there are four classifications of solid waste disposal facilities: (1) Class III landfills, (2) Unclassified landfills, (3) transformation facilities, and (4) materials recovery facilities (MRF). Class III landfills accept all types of nonhazardous solid waste, while Unclassified landfills accept only inert waste, including soil, concrete, asphalt, and other construction and demolition debris, as defined by *California Code of Regulations*, Title 23, Section 2554. Transformation facilities incinerate municipal solid waste in order to generate energy. MRFs recover recyclable materials from other waste to provide for the efficient transfer of the residual waste to permitted landfills for proper disposal.

The *County of Los Angeles Countywide Integrated Waste Management Plan: 2012 Annual Report*, prepared by the County of Los Angeles Department of Public Works, indicates that residents and businesses in Los Angeles County (both incorporated cities and unincorporated areas) disposed of 8.81 million tons of solid waste in landfills in and out of Los Angeles County and at inert waste facilities in 2012. Of this amount, approximately 6.30 million tons were disposed of at Class III landfills within Los Angeles County; approximately 1.84 million tons were exported to out-of-county Class III landfills; approximately 89,142 tons were disposed of in Unclassified (Inert) landfills; and approximately 569,539 tons were disposed of at waste-to-energy facilities.[31]

30 Mike Wiederkehr, Assistant Integrated Waste Management Administrator, City of Glendale, Public Works Department, personal communication with Meridian Consultants, January 28, 2013.

31 County of Los Angeles Department of Public Works, *Los Angeles County Countywide Integrated Waste Management Plan, 2012 Annual Report* (August 2013), 16.

The estimated remaining capacity of permitted Class III landfills at the end of 2012 in Los Angeles County was approximately 129.2 million tons.[32] Based on the 2012 average disposal rate of 28,237 tons per day (6 days a week), including waste being imported to the County, local permitted Class III landfills will be at capacity in the year 2027. However, ultimate landfill capacity would be determined by several factors, including: (1) expiration of various permits (e.g., Land Use Permits, Waste Discharge Requirements Permits, Solid Waste Facilities Permits, and air quality permits); (2) restrictions to accepting waste generated only within a landfill's particular jurisdiction and/or wasteshed boundary; and (3) operational constraints.

The capacities of Inert landfills are affected by these same factors, but they are not affected to the same extent. The total estimated remaining capacity of Inert landfills at the end of 2012 in Los Angeles County was approximately 64.1 million tons.[33] Based on a 2012 average disposal rate of 286 tons of inert waste per day (6 days per week), there is remaining capacity for approximately 718 years.

Currently, most solid waste collected within Los Angeles County by private haulers is disposed of within the County. However, it is likely that independent solid waste haulers do and will continue to take solid wastes to facilities outside the County. Greater inter-County transfer of solid waste may occur in the near future if landfills outside of Los Angeles County provide greater economic advantages to haulers, or if landfills within the County reach capacity.

According to the 2012 Annual Report on the Countywide Summary Plan and Countywide Siting Element, there will be a shortage of permitted solid waste disposal capacity in the County. This is due to a lack of suitable sites for developing new landfills, limited potential expansion of existing landfills, and strong public opposition to the siting of proposed solid waste management facilities. To address this issue, several landfills in the County have been recently expanded or proposed to be expanded, including the Chiquita Canyon, Lancaster, Scholl Canyon, and Whittier (Savage Canyon) Landfills. In addition, the County transports solid waste out of county to the El Sobrante Landfill in Riverside County, three landfills in Orange County, the Simi Valley Landfill & Recycling Center in Ventura County, and the Mesquite Regional Landfill in Imperial County.[34] The combined out-of-county landfills would accept up to 21,350 tons per day from the County.

32 County of Los Angeles Department of Public Works (August 2013), 24.

33 County of Los Angeles Department of Public Works (August 2013), 25.

34 County of Los Angeles Department of Public Works (August 2013), 42.

Local Facilities

In 1989, residential and nonresidential uses in Glendale disposed of approximately 345,000 tons of solid waste.[35] Glendale has reduced the amount of disposed solid waste by approximately 53 percent in 2006.[36] Similar to the disposal patterns Countywide, the decline can be attributed primarily to waste diversion programs, including waste reduction, recycling, and composting.

The City's Department of Public Works, Integrated Waste Management Division disposed of approximately 86,000 tons of solid waste in the 2012-2013 fiscal year.[37] The breakdown of the solid waste is as follows: 34,821 tons from residential units which consist of single family units and multifamily units with 4 units or less, and 32,660 tons from commercial uses and multifamily units with 5 or more units; and 18,474 tons of green waste from residential uses.

In 2012, the report to California Department of Resources Recycling and Recovery (CalRecycle, which was formerly the California Integrated Waste Management Board) indicated that the City disposed of 135,367.0 tons of solid waste.[38] In 2012, the population for the City of Glendale was 192,654. The per capita disposal rate was 3.9 pounds per person per day (PPD). The per-resident disposal target rate is 5.5 PPD. The per-employment disposal rate was 9.4 PPD. The per-employee disposal target rate is 14.3 PPD.

Table 4.9.3-1, Disposal Capacities of Primary Landfills Serving the City of Glendale, provides the annual disposal quantity, annual capacity, remaining capacity, and permit status for the five landfills that received the majority of the City's waste. As shown in **Table 4.9.3-1,** the combined remaining capacity of the five landfills was approximately 139.4 million tons.

35 City of Glendale, *Source Reduction and Recycling Element* (June 1991), ES-2.

36 California Department of Resources Recycling and Recovery (CalRecycle), "Jurisdictional Diversion/Disposal Rate Summary (1995-2006), Jurisdiction Glendale," http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversion.aspx.

37 Mike Wiederkehr, Assistant Integrated Waste Management Administrator, City of Glendale, Public Works Department, electronic communication with Meridian Consultants, October 2013.

38 CalRecycle, "Jurisdiction/Diversion Rate Detail," http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionDetail.aspx?JurisdictionID=176&Year=2012.

Table 4.9.3-1
Disposal Capacities of Primary Landfills Serving the City of Glendale

Chiquita Canyon	Valencia	1.6	1.3	4.9	4
Proposed Chiquita Canyon Expansion	Valencia	3.7	–	35.1	26
Nu-Way Arrow	Irwindale	2.3	0.5	–	–
Puente Hills	Near City of Industry	4.1	1.6	7.6	2
Scholl Canyon	Glendale	1.1	0.2	3.4	16
Proposed Scholl Expansion	Glendale	1.1	–	6.0	21
Sunshine Canyon	Valencia	3.8	2.4	82.4	25
Total Remaining Capacity (2011)				**139.4**	**94**

Source: County of Los Angeles Department of Public Works, Los Angeles County Countywide Integrated Waste Management Plan, 2012 Annual Report (August 2013), Appendix E-2, Table 1.
Note: The proposed expansion capacities of Chiquita Canyon and Scholl Canyon are not included in the total remaining capacity.
CalRecycle has not reported the Nu-Way Arrow facility remaining permitted capacity.

Scholl Canyon Landfill, which is located at 3100 Scholl Canyon Road, is the main facility that receives the City's solid waste; however, other landfills in Los Angeles County may accept solid waste from Glendale's private haulers.[39] This site consists of 530 acres, of which Los Angeles County owns 25 acres, Southern California Edison owns 30 acres, and the City of Glendale owns the remaining 475 acres. According to *Glendale Municipal Code,* Chapter 8.56, only solid waste generated by residential and nonresidential uses in the Scholl Canyon Watershed can be disposed at the Scholl Canyon Facility.

Approximately one-half, or about 128,000 tons, of the solid waste disposed of at the Scholl Canyon landfill came from outside sources. This landfill has a remaining permitted capacity of 3.4 million tons, or an estimated remaining life of approximately 16 years. The City, if needed, would have access to all the

39 Maurice Oillataguerre, Senior Environmental Program Specialist, City of Glendale, Public Works Department, personal communication with Meridian Consultants, January 22, 2013.

remaining capacity of the landfill by no longer accepting solid waste from other jurisdictions, thereby extending the life of the landfill.

Another local facility that the City of Glendale owns is the Brand Park Recycling Facility, which is located at 1602 West Mountain Street in Glendale. This facility is a Recycling Facility, is limited in use to City work crews, and is not open to the public. The facility collects concrete and asphalt from street renovation projects, which are stockpiled for recycling.[40]

Construction debris generated by projects in the area is recycled at certified mixed-debris recycling facilities. The City's Integrated Waste Management Division identifies six certified mixed-debris recycling facilities, including California Waste Services in Los Angeles, Community Recycling in Sun Valley, Direct Disposal in Los Angeles, Interior Removal Specialist in South Gate, Looney Bins/Downtown Diversion in Los Angeles, and Looney Bins/East Valley Diversion in Sun Valley. As shown in **Table 4.9.3-2, Annual Permitted Capacities of Certified Recycling Facilities**, the permitted annual capacities at the six certified mixed-debris recycling facilities can accept a range of annual permitted capacity from 37,440 to 530,400 tons.

Table 4.9.3-2
Annual Permitted Capacities of Certified Recycling Facilities

Landfill Site	Location	Annual Permitted Capacity (tons)
California Waste Services	Los Angeles	300,000
Community Recycling	Sun Valley	530,400
Direct Disposal[1]	Sun Valley	37,440
Interior Removal Specialist	South Gate	n/a[2]
Looney Bins – Downtown Diversion	Los Angeles	525,000
Looney Bins – East Valley Diversion	Los Angeles	273,750

[1] *Used a conversion factor of 1,200 pounds per cubic yard. 200 cubic yards per day × 1,200 pounds per cubic yard = 240,000 pounds per day / 2,000 pounds per ton = 120 tons per day.*

[2] *Annual permitted capacity information was not available on the CalRecycle website.*

40 Maurice Oillataguerre, Senior Environmental Program Specialist, City of Glendale, Public Works Department, personal communication with Meridian Consultants, January 22, 2013.

Project Site Generation

The amount of solid waste generated by the existing uses on the Project site was estimated using solid waste generation factors provided by the CalRecycle.[41,42] As indicated in **Table 4.9.3-3, Estimated Existing Solid Waste Generation**, it is estimated that the existing uses at the Project site currently dispose 16.71 tons of waste per year into landfills.

Table 4.9.3-3
Estimated Existing Solid Waste Generation

Use	Sq. Ft./units	Generation Rate (lbs./sq. ft./day)	Waste Generated (lbs./day)	Waste Generated (tons/year)
Day care center	8,704	0.007	60.9	11.11
Commercial/office space	5,115	0.006	30.7	5.6
Total			**91.6**	**16.71**

Source: CalRecycle, Waste Characterization: Estimates Solid Waste Generation and Disposal Rates (2013).
Note: lbs. = pounds; sq. ft. = square feet.

Regulatory Setting

California Integrated Waste Management Act

Because many of the landfills in the state are approaching capacity and the siting of new landfills becomes increasingly difficult, the need for source reduction, recycling, and composting has become readily apparent. In response to this increasing solid waste problem, in September 1989, the State assembly passed Assembly Bill 939, known as the California Integrated Waste Management Act. This statute emphasizes conservation of natural resources through the reduction, recycling, and reuse of solid waste. Assembly Bill 939 required cities and counties in the State to divert 25 percent of their solid waste stream from landfills by 1995 and 50 percent by year 2000, or face potential fines of millions of dollars per year. On June 30, 2008, the State Assembly amended Senate Bill 939 to include additional waste diversion goals of 60 percent by the year 2015 and 75 percent by the year 2025.[43]

The California Integrated Waste Management Act also requires that all cities conduct a Solid Waste Generation Study and prepare a Source Reduction Recycling Element. Glendale prepared a Solid Waste

41 CalRecycle does not officially endorse any specific rate. However, they are provided for general information and planning purposes.

42 CalRecycle, *Waste Characterization, Estimated Solid Waste Generation and Disposal Rates*, http://www.calrecycle.ca.gov/wastechar/wastegenrates/default.htm (October 2013).

43 CalRecycle, formally known as the California Integrated Waste Management Board, Senate Bill 1252 Amendment (June 30, 2008).

Generation Study in 1990 that established 1989 as the baseline for use in measuring diversion required under Assembly Bill 939. The study measured current and projected quantities of waste that will be generated, disposed, and diverted from disposal in Glendale. In addition, the City also prepared a Source Reduction Recycling Element in 1991 to describe how it has attained the diversion goals established by Assembly Bill 939 through source reduction, recycling, and composting. The following describes each of the Source Reduction Recycling Element's components.

Source Reduction

The City identified five programs to reduce waste at the source: (1) in-house local government programs, such as purchasing preferences and specifications for durable and reusable products, waste evaluation and employee education, increased use of electronic mail, and low-maintenance landscaping; (2) encouraging source reduction in the private sector through technical assistance, business evaluation, education, and promoting backyard and institutional composting; (3) using recycled materials that would require waste reduction planning through the business license process and banning products that cannot be recycled or reused; (4) rate structure modifications; and (5) economic incentives to encourage waste reduction.

Recycling

Recycling programs include: (1) the development of materials recovery facilities; (2) the continuation and expansion of commercial recycling activities; (3) the development of a municipal buy-back center and drop-off center; (4) the expansion of the Civic Center office paper recycling program; (5) increasing the frequency of the curbside recycling program; and (6) implementing a salvaging program at Scholl Canyon for white goods (e.g., paper), metals, and wood.

Composting

The City has developed its own yard waste composting facility, which will potentially involve neighboring cities. The City is also investigating the feasibility of composting mixed solid waste. The City currently has an active backyard composting effort underway. City collected yard trimmings are not composted but are ground and used as alternative daily cover at the Scholl Canyon Landfill.

SB 1016

With the implementation of Senate Bill 1016, CalRecycle no longer calculates diversion rate based on actual disposal and estimated annual generation using CalRecycle's adjustment methodology. As a result, Countywide diversion rates are no longer calculated. The last diversion rates approved by CalRecycle were for 2006. Considering each jurisdiction's approved diversion rate, a Countywide diversion rate for 2006 was estimated to be 58 percent.

Under SB 1016, a target per capita disposal rate, which is equivalent to a 50 percent diversion rate, is calculated using an approved jurisdiction specific average of per capita generation rates of years 2003 to 2006. To establish compliance with AB 939, each jurisdiction's per capita disposal rate is calculated for each reporting year and compared with their individual target rates.

Using projections of population, employment, and real taxable sales from the University of California, Los Angeles, it is estimated that in order to meet the per capita disposal requirements, jurisdictions in Los Angeles County would need to continue their diversion programs as well as other disposal reduction strategies.

California's 75-Percent "Recycling" Goal

On October 6, 2011, Governor Brown signed Assembly Bill 341 establishing a State policy goal that no less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020, and requiring CalRecycle to provide a report to the Legislature that recommends strategies to achieve the policy goal by January 1, 2014. The bill also mandates that local jurisdictions implement commercial recycling by July 1, 2012.

Local Regulations

Chapter 8.58 of *Glendale Municipal Code* requires that all construction and demolition debris be taken to a "certified mixed-debris recycling facility" or a recycler must divert all accepted waste from the landfill. A certified mixed-debris recycling facility is a processing facility that is certified as having obtained all applicable federal, State, and local permits and diverts a minimum of 50 percent of all incoming mixed construction and demolition debris.[44] In addition, project applicants must pay a diversion security deposit and prepare a waste reduction and recycling plan. The diversion security deposit is refundable upon request within 1 year of the certificate of occupancy and upon the determination by the director that the applicant has complied with the diversion requirements and submitted a waste reduction and recycling plan.

44 *Glendale Municipal Code,* sec. 8.58.010, amended October 23, 2008.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on solid waste, if the following could occur:

- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Comply with federal, State, and local statutes and regulations related to solid waste.

Methodology

Solid waste generation associated with Project operation was estimated using CalRecycle factors determined by land use type. The factors are provided in pounds of solid waste generated per residential unit. The estimated existing solid waste generation was subtracted from the estimated amount of solid waste generated for the Project to determine the net increase of solid waste that would be generated by the proposed Project. The increase associated with operation of the Project was then compared with landfill capacity in order to evaluate potential impacts on solid waste disposal capacity.

Project Impacts

Threshold: **Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.**

Construction

Construction of the Project would involve site preparation activities (e.g., demolition of existing buildings and surface parking), which would generate waste materials. Approximately 6,500 cubic yards of demolition material would be generated. The Project applicant would be required to take all the construction and demolition debris to a certified mixed-debris recycling facility, which recycles a minimum of 50 percent of all waste received, or a recycler must divert all accepted waste from the landfill. Construction debris generated on the Project site would be disposed of at one of the recommended facilities or at a recycling facility that diverts all construction and demolition waste, in accordance with Chapter 8.58 of the *Municipal Code*. As shown in **Table 4.9.3-2**, the permitted annual capacities at the six certified mixed-debris recycling facilities can accept a range of annual permitted capacity from 37,440 to 530,400 tons. The one-time disposal of 6,500 cubic yards of demolition debris generated by the Project would be served by the certified facilities; therefore, the impact of the Project on the certified facilities would be less than significant.

In addition, construction of the proposed structure would generate waste materials. A majority of the construction waste would be readily recyclable materials such as wood, concrete, metals, and soil. This material will be collected on site in accordance with the City's Construction and Demolition Debris Recycling Ordinance and sent to commercial facilities located in Los Angeles County. Therefore, the impact of waste generated during the construction of the proposed structure is less than significant.

Operation

Project implementation would result in an increase in residential development on site. **Table 4.9.3-4, Estimated Solid Waste Generation,** provides the projected amount of solid waste that would be generated at build out of the Project. The projected amount of solid waste that would be generated at build out would total 86.3 tons of solid waste per year. With implementation of the Project, the citywide projected solid waste disposal would be 135,367.0 tons per year and the City's per capita disposal population rate would be 3.9 PPD, which would be under the 5.5 PPD population target for the City.

Table 4.9.3-4
Estimated Solid Waste Generation

Use	Units	Generation Rate (lbs./sq. ft./day)	Waste Generated (lbs./day)	Waste Generated (tons/year)
Multifamily residential	90 du	4	360	65.7
Medical office space (office space)	18,000 sq. ft.	0.006	108	19.7
Restaurant, counter service with limited seating	1,000 sq. ft.	0.005	5	0.9
TOTAL			**473**	**86.3**

Source: CalRecycle, Waste Characterization: Estimates Solid Waste Generation and Disposal Rates (2013).
Note: du = dwelling units; lbs. = pounds; sq. ft. = square feet.

Solid waste generated on the Project site would be deposited at the Scholl Canyon Landfill, which is owned by the City of Glendale, or at one of the landfills located within the County of Los Angeles. As indicated in **Table 4.9.3-1**, the annual disposal rate at the Scholl Canyon facility is 200,000 tons per year. Combined with the increase of 86.3 tons per year in solid waste generated by the Project, the annual disposal amount would increase to approximately 200,086.3 tons per year. With a total remaining capacity of 3.4 million tons, the Scholl Canyon facility would meet the needs of the City and the Project for approximately 16 years. Furthermore, once the permitted capacity is exhausted at the Scholl Canyon

facility, approximately 6 million tons of potentially available capacity would remain at the site.[45] Because the Project would be required to implement a waste-diversion program aimed at reducing the amount of solid waste disposed in the landfill, the amount of solid waste generated would likely be less than the amount estimated. Examples of waste diversion efforts would include recycling programs for cardboard boxes, paper, aluminum cans, and bottles through the provision of recycling areas within garbage disposal areas.

The Scholl Canyon facility would have sufficient capacity to continue to accommodate the demand for Class III disposal facilities generated by the Project site. As such, the increase in solid waste generation associated with the operation of the Project would not exacerbate landfill capacity shortages in the region to the point of altering the projected timeline of any landfill to reach capacity. Therefore, the impact of the Project on permitted landfill capacity is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: Comply with federal, State, and local statutes and regulations related to solid waste.

As part of the Project, the Applicant would implement a waste diversion program in an effort to help the City meet its waste diversion goal of 50 percent as mandated by State law (SB 1016 and AB 939). The proposed Project would enclose trash collection areas and would provide a recycling area to reduce the amount of solid waste sent to the landfill. It is anticipated that waste carts for household trash, recycling, and green waste will be provided. No federal statutes apply to the Project site. Therefore, the impact of the Project on compliance with federal, State, and local statues and regulations is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

45 County of Los Angeles Department of Public Works, *Los Angeles County Countywide Integrated Waste Management Plan, 2012 Annual Report* (August 2013), 59.

Cumulative Impacts

Threshold: **Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.**

As shown in **Table 4.9.3-5, Projected Cumulative Solid Waste Generation**, the development of related projects would dispose of a projected 3,171 tons of solid waste into landfills every year. Combined with the additional annual tonnage of solid waste generated by the Project, the cumulative amount generated by new projects would be approximately 3,257.30 tons of solid waste per year.

Table 4.9.3-5
Projected Cumulative Solid Waste Generation

Multifamily residential	2,999	4	2,189.3
Live/work	556	4	405.9
Commercial	278,804	0.005	254.4
Restaurant	4,599	0.005	4.2
Hotel	266	2	97.1
Cinema and studio	14,690	0.046	123.3
Office	12,802	0.006	14.0
Industrial	50,400	0.009	82.8
Total			**3,171**

Source: CalRecycle, "Waste Characterization: Estimated Solid Waste Generation Rates," http://www.calrecycle.ca.gov/wastechar/wastegenrates/default.htm.
Note: lbs. = pounds; sq. ft. = square feet.

The current capacity of the Scholl Canyon Landfill is adequate to accommodate solid waste disposal needs of the Project, and development of all related projects, for at least 16 years, if not longer. The City also utilizes four additional landfills, all of which are still currently accepting materials. The combined remaining capacity of the four landfills is estimated to last 94 years.

The County of Los Angeles landfills are a part of the County Sanitation Districts of Los Angeles County (CSDLAC). The CSDLAC provides solid waste management for over half the population in Los Angeles County. CSDLAC's service area covers approximately 815 square miles and encompasses unincorporated County territory, as well as 78 cities, including Glendale. CSDLAC operates a comprehensive solid waste

management system, which includes landfills, recycling centers, transfer/materials recovery facilities, and gas-to-energy facilities.

Although there is insufficient permitted disposal capacity within the existing system serving Los Angeles County to provide for its long-term disposal needs, there is additional capacity potentially available within Los Angeles County through the expansion of local landfills; through studying, promoting, and developing conversion technologies; through expanding transfer and processing infrastructure; and outside of Los Angeles County with a regional waste-by-rail system and remote landfills. As currently proposed by CSDLAC, this regional system would utilize disposal capacity at the planned Mesquite Regional Landfill (MRL) in Imperial County.

CSDLAC entered into Purchase and Sale Agreements in August 2000 for the MRL landfill, which is one of the only fully permitted rail-haul landfills in California. MRL has received all required permits, including the Land Use and SWF permits. CSDLAC is currently in the planning and development process for that landfill. Following completion of the master plan, CSDLAC intends to pursue concurrent final design and construction of the facilities necessary to begin operation. MRL was completed in late 2008 and is permitted to accept up to 10,000 tons of waste per day in the first 10 years, with the option of increasing to 20,000 tons of waste each day from Los Angeles County. The permitted capacity of 460 million tons and a total capacity of 708 million tons would be able to provide approximately 100 years of disposal capacity for Los Angeles County.[46] However, the landfill developer filed for bankruptcy on May 22, 2013, and the CSDLAC took action to cease negotiations for use of the MRL.

Further, there is presently insufficient permitted disposal capacity within the existing system serving Los Angeles County. The Project, in combination with other development, could contribute to insufficient permitted disposal capacity by contributing additional solid waste to regional landfills. Development under the Project would also contribute construction debris to regional landfills, increasing the cumulative effect. Therefore, the Project's contribution to the cumulative impact would be considered cumulatively considerable, and would be a significant and unavoidable impact.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: None feasible.

Level of Significance After Mitigation: Significant and unavoidable.

46 County of Los Angeles Department of Public Works, *Los Angeles County Countywide Integrated Waste Management Plan, 2012 Annual Report* (August 2013), 54.

Threshold: **Comply with federal, State, and local statutes and regulations related to solid waste.**

The City will continue to implement programs for source reduction and recycling and will require that subsequent projects complete environmental reviews to minimize solid waste disposal at disposal facilities. Furthermore, the State has set a goal to recycle, source-reduce, or compost 75 percent of solid waste generated. In addition, related projects are also required to comply with applicable municipal codes. As a result, the cumulative impact of the Project and related projects regarding compliance with applicable state and local solid waste statutes and regulations is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

5.0 ALTERNATIVES

This section of the environmental impact report (EIR) provides a comparative analysis of the merits of alternatives to the Project pursuant to Section 15126.6 of the *California Environmental Quality Act (CEQA) Guidelines*, as amended. The purpose of the alternatives analysis is to explain potentially feasible ways to avoid or minimize significant effects of the Project. According to the State *CEQA Guidelines*, the EIR need only examine in detail those alternatives that could feasibly meet most of the basic objectives of the Project. When addressing feasibility, the State *CEQA Guidelines,* Section 15126.6 states that:

> *among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, jurisdictional boundaries, and whether the applicant can reasonably acquire, control or otherwise have access to alternative sites.*

The State *CEQA Guidelines* also specify that the alternatives discussion should not be remote or speculative, and need not be presented in the same level of detail as the assessment of the Project.

Therefore, based on the State *CEQA Guidelines*, several factors need to be considered in determining the range of alternatives to be analyzed in an EIR and the level of analytical detail that should be provided for each alternative. These factors include: (1) the nature of the significant impacts of the project, (2) the ability of alternatives to avoid or lessen the significant impacts associated with the project, (3) the ability of the alternatives to meet the objectives of the project, and (4) the feasibility of the alternatives. These factors would be unique for each project.

SELECTION OF ALTERNATIVES FOR ANALYSIS

According to the State *CEQA Guidelines*, the discussion of alternatives should focus on alternatives to a project or its location that can feasibly avoid or substantially lessen the significant effects of the Project. The State *CEQA Guidelines* indicate that the range of alternatives included in this discussion should be sufficient to allow decision makers a reasoned choice. The alternative discussion should provide decision makers with an understanding of the merits and disadvantages of these alternatives.

Section 4.0, Environmental Impact Analysis, of this EIR concludes that Project implementation would result in significant and unavoidable environmental impacts. These include: Project-specific short-term noise impacts during construction, exterior noise levels from vehicle operations, long-term and cumulative impacts to recreation facilities, cumulative impacts to fire, cumulative impacts to police, and cumulative impacts to solid waste. In response to these impacts, the City of Glendale identified and considered several alternatives to the Project to determine if these alternatives could avoid or

substantially lessen these significant impacts. These alternatives included the no-project alternative, the no affordable housing alternative, a 50 percent reduced density alternative, and a nonresidential alternative.

ALTERNATIVES CONSIDERED BUT NOT EVALUATED IN DETAIL

Section 15126.6(c) of the State *CEQA Guidelines* states that an EIR should briefly describe the rationale for selecting the alternatives to be discussed and the reasons for eliminating alternatives from detailed consideration in an EIR. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR is failure to meet most of the basic Project objectives, infeasibility, or inability to avoid or substantially reduce significant environmental impacts. Provided in the following paragraphs are the reasons for not providing a detailed evaluation of an off-site alternative.

Off-Site Alternative

An alternative site would involve the development of the Project at a different location. Given that neither the Project applicant nor the City of Glendale owns or controls any other property in the vicinity of the Project site, the ability of the applicant to find and purchase an alternative site on which to develop the Project is considered speculative. In addition, the development of an alternative site may not be able to meet the Project objectives. Lastly, the development of the same uses at a different location could result in similar project-specific short-term noise impacts during construction, the same long-term on-site noise impacts due to vehicle operations, the same long-term and cumulative impacts to recreation facilities, the same cumulative impacts to fire, the same cumulative impacts to police, and the same cumulative impacts to solid waste. Thus, the selection of an alternative site would not avoid many of the significant impacts. As indicated in *CEQA Guidelines*, Section 15126.6(c), "among factors that may be used to eliminate alternatives from detailed consideration in an EIR are (i) failure to meet most of the project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts." As discussed previously, the relocation of the Project to an alternative site would not be feasible because obtaining an alternative site is considered speculative and because development on an alternative site would not avoid or substantially lessen any of the significant effects of the Project. Therefore, this alternative has been eliminated from detailed consideration within this EIR.

ALTERNATIVES EVALUATED IN DETAIL

As discussed previously, the City of Glendale identified several alternatives for analysis in this EIR to determine if these alternatives could avoid or substantially lessen the significant impacts of the Project and meet the basic Project objectives. The following objectives for the Project are listed in **Section 3.0, Project Description.** The objectives of the Project are to:

- Redevelop an underutilized property with residential uses for the community of Glendale.
- Provide well-designed development that is compatible and complementary with surrounding land uses.
- Provide affordable housing within the City of Glendale.
- Provide needed medical office space within the City of Glendale due to the loss of medical space from the construction of North Central Avenue Project and the Nexus Project.
- Provide property tax revenues to the City of Glendale.
- Generate construction employment opportunities in the City and in the region.
- Provide housing opportunities in an urban setting in close proximity to employment opportunities, public facilities, goods, and services.
- Utilize architectural design, lighting, and landscape design to enhance the architectural character of the proposed buildings and create a gateway building to the City of Glendale.
- Implement the Redevelopment Plan Objectives, but without redevelopment agency assistance.

Section 4.0, Environmental Impact Analysis, of this EIR concludes that Project implementation would result in some significant environmental impacts. These include the following Project-specific impacts: (1) short-term noise impacts during construction, (2) long-term on-site noise impacts due vehicle operations, (3) long-term and cumulative impacts to recreation facilities, (4) cumulative impacts to fire, (5) cumulative impacts to police, and (6) cumulative impacts to solid waste. Based on the environmental analysis, alternatives were developed that would provide decision makers with a reasonable range of alternatives that would eliminate or reduce the impacts of the Project. A list of the alternatives selected for evaluation in this analysis is provided.

- Alternative 1 – No Project/No Development
- Alternative 2 – No Affordable Housing
- Alternative 3 – 50 Percent Reduced Density Alternative
- Alternative 4 – Nonresidential Alternative

Alternative 1 – No Project/No Development Alternative

The No Project/No Development Alternative is required to be evaluated by Section 15126(2)(4) of the State *CEQA Guidelines*. As required by the State *CEQA Guidelines*, the analysis must examine the impacts that might occur if the site is left in its present condition, as well as what may reasonably be expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services.

Under the No Project/No Development Alternative, the Project site would remain in its current and existing condition. The single-story commercial building, day care center, and vacant lots would remain. These existing uses would continue and the existing environmental conditions would be maintained. Rainwater would continue to sheet flow across the four parcels and enter the gutter and storm drain without any filtration or infiltration. Hydrology and water quality impacts would be greater under this alternative. None of the impacts associated with construction and operational activities would occur if the No Project/No Development Alternative were selected. No short-term construction equipment noise and groundborne vibration impacts during construction, long-term exterior noise due to vehicle operations, long-term recreation impacts, cumulative impacts to fire, cumulative impacts to police, and cumulative solid waste disposal would occur as a result of this alternative. This alternative is environmentally superior to the Project for these reasons.

Alternative 2 – No Affordable Housing

The No Affordable Housing Alternative considers the uses and activities that would be allowed on the site by the existing General Plan land use designations and zoning designations for the site. These existing plans and policies allow for the development of Commercial/Residential Mixed Uses (SFMU) on the Project site. The SFMU zone designation also allows buildings on a site adjacent to the Moderate Density Residential (R-3050) zone to be up to 4 stories, 60 feet in height, and a maximum density of 87 dwelling units per acre. This Alternative considers only market rate apartment units and would not consider affordable housing units. Given the circumstances, this alternative considers what could reasonably be expected to occur in the future if the Project is not approved.

This alternative considers a 4-story structure, 60 feet in above-grade height, and a two and a half level subterranean parking structure on 0.99 acres. Reasonable uses considered would include up to 86 residential apartment units, on-site amenities, and ground floor commercial similar to the proposed Project. The commercial uses would be similar to the medical office space (18,000 square feet) and the restaurant, counter service with limited seating (1,000 square feet) proposed by the Project on the ground floor. The multifamily units would be distributed throughout the four floors, thus reducing the size of the open space in the northwest corner of the site and the size of on-site amenities when compared to the Project. Parking for this alternative would require 285 parking spaces per *Glendale Municipal Code,* Section 30.32.[1]

1 181 spaces for the 86 units and guests, 94 spaces for the commercial uses, for a total of 285.

Aesthetics

Under Alternative 2, the height of the structure would be 60 feet above grade, similar to the Project. However, the number of stories would be reduced from 5 stories under the Project to 4 stories under Alternative 2. In order to accommodate the number of residential units throughout the four floors, units would be placed on the ground floor within the northwest corner of the site. The ground-floor multifamily units would result in a reduction in the size of the landscaped area in the northwest corner of the site and would place units adjacent to the existing single-family houses just to the north. The view of this alternative from the east to the west would primarily consist of the building façade as opposed to vegetation from the open space area proposed under the Project. Therefore, this alternative would incrementally degrade views from north to south when compared to the Project. Alternative 2 would be subject to the same design review process and the same regulations concerning light and glare as the proposed Project. Similarly, all other visual impacts under this alternative would be similar when compared to the Project. Since impacts to visual resources associated with the Project would be less than significant, the impact associated with Alternative 2 would be incrementally greater than the Project. Consequently, the Project is considered to be environmentally superior to Alternative 2.

Air Quality

Construction activities (e.g., equipment use assumptions) under Alternative 2 would be similar to those of the Project on a daily basis but may occur over a longer period, due to the increased subterranean parking structure associated with Alternative 2. As with the Project, the increase in emissions resulting from Alternative 2 would not exceed daily thresholds recommended by the South Coast Air Quality Management District (SCAQMD). Given that neither the Project nor Alternative 2 would result in a significant impact with regard to construction air quality, impacts associated with Alternative 2 would not be substantially less than the Project.

This alternative would result in slightly fewer residential trips and similar commercial trips when compared to the Project. Like the Project, Alternative 2 would not generate daily operational emissions of reactive organic gases (ROGs), oxides of nitrogen (NOx), carbon monoxide (CO), sulfur oxides (SOx), and particulate matter less than 10 microns in diameter (PM10) and 2.5 microns in diameter (PM2.5) that would exceed the thresholds of significance recommended by the SCAQMD. Given that neither the Project nor Alternative 2 would result in a significant impact with regard to operational air quality, impacts associated with Alternative 2 would be incrementally lesser than the Project.

The SCAQMD has published draft greenhouse gas (GHG) guidelines for assessing the significance of GHG emissions. The draft guidelines recommend that all land use or mixed-use projects meet a threshold of 3,000 metric tons of carbon dioxide equivalents ($MTCO_2e$). As discussed in **Section 4.1, Aesthetics**, the

design of Alternative 2 would result in less open space areas and on-site amenities. This site design would result in an incremental increase in energy consumption due to increased lighting and ventilation for the structure and an incremental increase from vehicle traffic. The Project is estimated to result in 1,768.5 $MTCO_2e$ per year. Under the GHG guidance, Alternative 2 would result in slightly higher GHG emissions but would still remain below the GHG guidance threshold. Given that neither the Project nor Alternative 2 would result in a significant impact with regard to GHG emissions, impacts associated with Alternative 2 would be incrementally greater than the Project.

Land Use and Planning

Alternative 2 would establish commercial and residential mixed uses on the Project site that are allowed by the current General Plan and Zoning designations. The intensity of the commercial uses would be within the maximum amounts allowed to these designations and this alternative would not conflict with the use or density standards in the General Plan or Zoning Code.

Like the Project, this alternative would not conflict with any of the goals, objectives, or policies of the Glendale General Plan. This alternative would result in the redevelopment of the Project site and the development of new commercial/residential mixed uses in the San Fernando Road Redevelopment Corridor area of Glendale, which are presently served by existing utilities and public services. As a result, neither this alternative nor the Project would conflict with the goals of the Redevelopment Plan and would not result in a significant impact with regard to land use. Given that neither the Project nor Alternative 2 would result in a significant impact, impacts associated with Alternative 2 would not be substantially less than the Project.

Noise

Development activities associated with the Project and Alternative 2 during construction such as earthmoving and construction of on-site infrastructure would involve the use of heavy equipment, such as a backhoe, dozer, loaders, concrete mixers, forklifts, and cranes. Under either the Project or Alternative 2, these construction equipment sources would cause significant noise impacts. These impacts could be reduced but not eliminated with either development scenario through the implementation of mitigation measures recommended for the Project. In addition, the construction duration associated with Alternative 2 would be longer when compared to the Project due to the additional level for the subterranean parking structure. However, the construction duration would not be lengthened to the extent that noise impacts would be substantially increased. As a result, construction of the Project under both scenarios would result in short-term significant and unavoidable impacts. Given the fact that Alternative 2 has a longer construction period than the Project, Alternative 2 would have an incrementally greater impact when compared to the Project.

A doubling of sound energy results in a 3 A-weighted decibel (dB[A]) increase in sound, which means that a doubling of sound wave energy (e.g., doubling the volume of traffic on a roadway) would result in a barely perceptible change in sound level. Like the proposed Project, this alternative would result in a less than 2 dB(A) increase in the noise levels on affected roadway segments. Noise generated by traffic along W. Colorado Street would generate noise levels along the exterior of the site that are above the *City Municipal Code* exterior noise level of 65 dB(A). Under either the proposed Project or Alternative 2, these exterior noise levels would result in a significant impact. These impacts could be reduced, but not eliminated, with either development scenario through the implementation of mitigation recommended for the Project. As a result, the development of either Alternative 2 or the Project would result in long-term significant and unavoidable noise impacts.

Implementation of Alternative 2 would add new stationary noise sources to the site, as would the proposed Project. These would include rooftop-mounted equipment, loading docks, parking garages, street sweepers, and on-site entertainment uses. With the implementation of mitigation measures proposed for the proposed Project, long-term operational impacts as a result of these noise sources under Alternative 2, like the proposed Project, would be reduced to a less than significant level.

Population and Housing

The proposed Project is not anticipated to induce unplanned substantial population growth in the City. Alternative 2 would be a smaller project in terms of density and residents as compared to the Project, and would therefore result in similar but less than significant impacts with regard to inducing substantial population growth in an area. Therefore, development under this alternative, which is smaller than the proposed Project, would also be within the population and would household growth projections for the City of Glendale and the Southern California Association of Governments (SCAG).

Public Services

Fire Protection

Alternative 2, like the Project, would increase demand on the City of Glendale Fire Department for fire protection services and emergency medical services. Alternative 2, however, would result in 4 percent fewer calls for service due to the reduced amount of dwelling units. Alternative 2, like the proposed Project, would contribute tax revenue, which would help fund the Fire Department. However, the tax revenue generated by this Alternative would be 4 percent less than the Project. Given that neither the Project nor Alternative 2 would result in a significant project-specific impact, impacts to fire associated with Alternative 2 would not be substantially less than the Project. However, like the Project, this alternative would contribute to significant and unavoidable cumulative fire impacts in the City of Glendale.

Police Protection

Alternative 2, like the Project, would increase demand on the City of Glendale Police Department for calls for service. Alternative 2, however, would result in 4 percent fewer calls for service due to the reduced amount of dwelling units. Under either the Project or Alterative 2, any decrease and/or increase in calls within the City would not substantially impact the current officer-to-population ratio and would not result in the need for any new or the physical alteration to any existing governmental facility. Given that neither the Project nor Alternative 2 would result in a significant project-specific impact, impacts to police associated with Alternative 2 would not be substantially less than the Project. However, like the Project, this alternative would contribute to significant and unavoidable cumulative police impacts in the City of Glendale.

Schools

Alternative 2, like the proposed Project, would generate new students in the Glendale Unified School District. The development of the Project would directly result in the new generation of approximately 28 students in grades K through 6; 10 students in grades 7 and 8, and 21 high school students for a total of 59 new students. Alternative 2 would generate 1 less student in grades K through 6 and 1 less high school student for a reduction of 2 students under the proposed Project. Government Code, Section 65995 requires the payment of school fees to mitigate the impact of the project on local schools, and impacts under this Alternative would be reduced to less than significant. Alternative 2 would incrementally reduce impacts when compared to the proposed Project due to its reduced size.

Recreation

Alternative 2, like the Project, would result in an increase in use of existing neighborhood and community parks. The City currently has a parkland-to-resident ratio of approximately 1.47 acres of parkland for every 1,000 residents, while the City's park planning standard is 6 acres of neighborhood and community parkland per 1,000 residents. Existing park facilities are currently heavily used due to the deficiency in parkland in the City. Alternative 2 would result in the direct generation of 253 persons, while the Project would result in direct generation of 264 persons. These persons would utilize parks within the City of Glendale. As required by the adopted Development Impact Fee schedule, Alternative 2, like the Project, would be required to pay the phase-in fees of $7,000 per residential unit (which is scheduled to increase to the full fee based on City Council direction) for impacts to parks. The development impact fee payments are required to minimize a project's impact on park and recreation land and facilities. Under CEQA, the development impact fee payments constitute mitigation of project-related impacts on park and recreation land and facilities within Glendale. However, the fee payment is not considered to fully mitigate this impact, because the fee amount to be paid does not equal the full

fair-share per unit fee for multifamily residential projects, which was determined to be $14,251 per multifamily unit in the City's Public Facilities Fee Study. Consequently, Alternative 2, like the proposed Project, would also result in significant and unavoidable project-specific and cumulative park and recreation impacts. However, Alternative 2 would reduce the direct population by approximately 4 percent, thus reducing persons utilizing City parks and resulting in a payment of a smaller phase-in fee for City parks and recreation facilities.

Traffic

The Project would generate 1,126 average daily trips (ADT), 11 AM peak hour trips, and 23 PM peak hour trips. The Project would result increase the volume-to-capacity (V/C) ratio by 0.003 during the PM Peak Hour at Pacific Avenue/Colorado Street over existing conditions (the highest increase at analyzed intersections). The level of service (LOS) at this intersection under the Project would be LOS D. Alternative 2 would result in a decrease in daily trips by residents by approximately 4 percent. However, the required number of parking spaces as a result of the commercial and restaurant uses would be 285 parking spaces, an increase in daily trips by 16 percent. Alternative 2 would therefore increase daily and peak trips by 16 percent when compared to the Project.

In the City of Glendale, an impact is considered to be significant for signalized intersections if the project-related increase in the V/C exceeds 0.02 at an intersection operating at LOS D or worse. Assuming an increase in trip rates of 16 percent when compared to the Project, Alternative 2 would generate 1,306 ADTs, 13 AM peak hour trips, and 27 PM peak hour trips. Alternative 2 during either the AM or PM peak hour would result in an increase in the V/C of 0.0005. Since impacts to study intersections associated with the Project would be less than significant, the impact associated with Alternative 2 would be incrementally greater than the Project. Consequently, the Project is considered to be environmentally superior to Alternative 2.

Public Utilities

Water

As with the Project, Alternative 2 would result in an increase in water demand in the City of Glendale. Alternative 2 would result in a demand for water of 19.59 acre-feet per year (afy), approximately 3 percent less as a result in the reduction in residential dwelling units, when compared to the Project demand of 20.21 afy. The provision of water as a result of the Project implementation would be within the projections of the GWP. Alternative 2, which would demand less water than the Project, would also be within the established GWP projections. Water demand impacts under both Alternative 2 and the Project would be less than significant. Neither the Project nor Alternative 2 would result in a significant impact.

Sewer

Alternative 2, like the Project, would result in an increase in sewage generation in the City. Alternative 2 would result in an increase of 13,723 gallons per day (gpd) of sewage, a 3 percent decrease, while the Project would result in an increase of 14,150 gpd of sewage. There is adequate treatment capacity at the Hyperion Treatment Plant to accommodate either Alternative 2 or the Project. However, the City imposes a sewer capacity increase fee on new developments that lead to an increase in the volume of wastewater discharged to the collection system. The Alternative's sewage increase to the lines in the City's sewer capacity would be mitigated through payment of the sewer capacity increase fee, as required by the Project, and Alternative 2 impacts would be reduced to a less than significant level. Given that neither the Project nor Alternative 2 would result in a significant impact, impacts associated with Alternative 2 would not be substantially less than the Project.

Solid Waste

Alternative 2, like the Project, would result in an increase in the demand for solid waste services. Alternative 2 would result in the generation of 82.8 tons of solid waste per year, a 4 percent decrease, compared to the Project increase of 86.3 tons of solid waste per year. Alternative 2 would generate less solid waste than the Project. There is adequate landfill capacity at the Scholl Canyon Landfill to accommodate either Alternative 2 or the Project. Therefore, impacts under both Alternative 2 and the Project would be less than significant. Both alternatives would contribute to cumulative significant and unavoidable solid waste impacts due to County landfill capacity.

Alternative 3 – 50 Percent Reduced Density

The 50 Percent Reduced Density Alternative considers development of the entire 0.99-acre site with a reduced residential density. This alternative would include the development of 45 multifamily residential units, 9,000 square feet of medical office space, and 500 square feet of restaurant, counter service with limited seating in a 3-story building. This alternative would allow for the Project building to be three levels and a subterranean parking structure to one level consisting of 147 parking spaces.[2] The layout of the land uses under this alternative would not change.

By reducing the amount of development, the construction duration of this alternative would also be reduced. In addition, a reduction in the amount of residential dwelling units would reduce the amount of direct population generated under this alternative.

2 147 spaces for 45 1- and 2-bedroom units, 9,000 square feet medical office and 500 square feet deli.

Aesthetics

Under Alternative 3, the height of the structure would be 35 feet above grade, lower when compared to the Project. However, the number of stories would be reduced from 5 stories under the Project to 3 stories under Alternative 3. The number of residential units would be placed on the second and third floors. The ground floor would consist of the medical and restaurant, counter service with limited seating uses. The view of this alternative from the north to the south would primarily consist of the vegetation from the open space area proposed similar to the Project and partial views of the ICIS building. Therefore, this alternative would result in similar views from north to south when compared to the Project. Alternative 3 would be subject to the same design review process and the same regulations concerning light and glare as the proposed Project. Similarly, all other visual impacts under this alternative would be similar when compared to the Project. Since impacts to visual resources associated with the Project would be less than significant, the impact associated with Alternative 3 would be incrementally lesser than the Project. Consequently, the Project is considered to be environmentally superior to Alternative 3.

Air Quality

Construction activities (e.g., equipment use assumptions) under Alternative 3 would be similar to those of the Project on a daily basis. This alternative would result in two fewer above ground levels and one fewer subterranean parking level when compared to the Project. Therefore, construction activities would occur over a shorter period of time when compared to the Project. As with the Project, the increase in emissions resulting from Alternative 3 would not exceed daily thresholds recommended by the SCAQMD.

Like the Project, Alternative 3 would not generate daily operational emissions of ROGs, NOx, CO, SOx, and PM10 and PM2.5 that would exceed the thresholds of significance recommended by the SCAQMD. Given that neither the Project nor Alternative 3 would result in a significant impact with regard to operational air quality, impacts associated with Alternative 3 would be substantially reduced when compared to the Project.

As discussed in the section on **Traffic**, which follows, Alternative 3 would decrease daily and peak hour trips by 50 percent when compared to the Project. The Project is estimated to result in 1,768.5 $MTCO_2e$ per year. Alternative 3 would reduce the number of residential units, medical office space, and restaurant, counter service with limited seating by 50 percent which would therefore result in 884.3 $MTCO_2e$ per year. Under the GHG guidance, Alternative 3 would result in lower GHG emissions but would still remain below the GHG guidance threshold. Given that neither the Project nor Alternative 3 would result in a significant impact with regard to GHG emissions, impacts would remain less than

significant. However, Alternative 3 would result in 50 percent less GHG emissions when compared to the Project and, as a result, would result in substantially lesser GHG impacts.

Land Use and Planning

Alternative 3 would establish residential units on the Project site that are allowed by the current General Plan and Zoning designations. The intensity of the residential dwellings would be within the maximum amounts allowed of 86 dwelling units by these designations, and this alternative would not conflict with the use or density standards in the General Plan or Zoning Code.

Like the Project, this alternative would not conflict with any of the goals, objectives, or policies of the *Glendale General Plan*. This alternative would result in the redevelopment of the Project site and the development of new residential uses in western Glendale, which are presently served by existing utilities and public services. As a result, neither this alternative nor the Project would conflict with the goals of the Redevelopment Plan and would not result in a significant impact with regard to land use. Given that neither the Project nor Alternative 3 would result in a significant impact, impacts associated with Alternative 3 would not be substantially less than the Project.

Noise

Development activities associated with the Project and Alternative 3 during construction such as earthmoving and construction of on-site infrastructure would involve the use of heavy equipment, such as a backhoe, a dozer, loaders, concrete mixers, forklifts, and cranes. Under either the Project or Alternative 3, these construction equipment sources would cause significant noise impacts. These impacts could be reduced but not eliminated with either development scenario through the implementation of mitigation measures recommended for the Project. As a result, construction of the Project under both scenarios would result in short-term significant and unavoidable impacts. It should be noted that the construction duration associated with Alternative 3 would be shorter than the Project due to one less subterranean parking level and a shorter overall building height. Therefore, Alternative 3 would result in fewer days of construction noise, but would not avoid or substantially lessen a significant noise impact.

Long-term operational noise generated by traffic under this alternative would decrease when compared to the Project. This is due to the decrease in the amount of traffic generated by this alternative. However, like the Project, this alternative would not result in an increase of 3 dB(A) (i.e., a doubling of traffic volumes) in the noise levels on roadway segments adjacent to the Project site. Any increase in roadway noise levels would not be noticeable. Although the development of Alternative 3 would create an incremental increase in noise along area roadways, the long-term on-site noise impact due to vehicle

operations would not be lessened to the extent that significant impacts would be substantially reduced or avoided.

Population and Housing

The Project is not anticipated to induce substantial population growth in an area directly or indirectly. Alternative 3 would result in 141 residents, a decrease of 123 residents when compared to the Project. This increase in the City would not result in substantial population growth in an area. All of the residents anticipated to occupy the Project site after development of the Project are within the population and household projections for the City of Glendale. Given that neither the Project nor Alternative 3 would result in a significant impact, impacts associated with Alternative 3 would be substantially lesser than the Project.

Public Services

Fire Protection

Alternative 3, like the Project, would increase demand on the City of Glendale Fire Department for fire protection services and emergency medical services. Alternative 3 would result in fewer calls for service due to the reduced number of dwelling units. Under either the Project or Alterative 3, any increase in fire protection or emergency medical services within the City would not substantially impact the current firefighter-to-population ratio and would not result in the need for any new or the physical alteration to any existing governmental facility. Given that neither the Project nor Alternative 3 would result in a significant project-specific impact, impacts to fire protection associated with Alternative 3 would not be substantially less than the Project. However, like the Project, this alternative would contribute to significant and unavoidable cumulative fire impacts in the City of Glendale.

Police Protection

Alternative 3, like the Project, would increase demand on the City of Glendale Police Department for calls for service. Alternative 3, however, would result in fewer calls for service due to the reduced number of dwelling units. Under either the Project or Alterative 3, any increase in calls within the City would not substantially impact the current officer-to-population ratio and would not result in the need for any new or the physical alteration to any existing governmental facility. Given that neither the Project nor Alternative 3 would result in a significant project-specific impact, impacts to police services associated with Alternative 3 would not be substantially less than the Project. However, like the Project, this alternative would contribute to significant and unavoidable cumulative police impacts in the City of Glendale.

Schools

Alternative 3, like the proposed Project, would generate new students in the Glendale Unified School District. The development of the Project would directly result in the new generation of approximately 28 students in grades K through 6; 10 students in grades 7 and 8, and 21 high school students for a total of 59 new students. Alternative 3 would result in a similar increase in the number of students within the Glendale Unified School District because a multifamily generation rate is used for any multifamily size unit. Since this alternative would provide 45 dwelling units, the number of students would be reduced by 30 when compared to the Project. Government Code Section 65995 requires the payment of school fees to mitigate the impact of the project on local schools and impacts under this Alternative would be reduced to less than significant. Therefore, impacts associated with Alternative 3 would be substantially less than the Project.

Recreation

Alternative 3, like the Project, would result in an increase in use of existing neighborhood and community parks. The City currently has a parkland-to-resident ratio of approximately 1.47 acres of parkland for every 1,000 residents, while the City's park planning standard is 6 acres of neighborhood and community parkland per 1,000 residents. Existing park facilities are currently heavily used due to the deficiency in parkland in the City. Alternative 3 would result in the direct generation of 141 persons, while the Project would result in direct generation of 264 persons. These persons would utilize parks within the City of Glendale. As required by the adopted Development Impact Fee schedule, Alternative 3, like the Project, would be required to pay the phase-in fees of $7,000 per residential unit (which is scheduled to increase to the full fee based on City Council direction) for impacts to parks. The development impact fee payments are required to minimize a project's impact on park and recreation land and facilities. Under CEQA, the development impact fee payments constitute mitigation of project-related impacts on park and recreation land and facilities within Glendale. However, the fee payment is not considered to fully mitigate this impact because the fee amount to be paid does not equal the full fair-share per unit fee for multifamily residential projects, which was determined to be $14,251 per multifamily unit in the City's Public Facilities Fee Study. Consequently, Alternative 3, like the proposed Project, would also result in significant and unavoidable project-specific and cumulative park and recreation impacts. However, Alternative 3 would decrease the direct population by approximately 123 residents, thus decreasing residents utilizing City parks.

Traffic

The Project would generate 1,126 ADT, 11 AM peak hour trips, and 23 PM peak hour trips at the study area intersections. The Project V/C ratio at study intersections would increase the LOS D by 0.003 at

Pacific Avenue/Colorado Street during the PM Peak Hour. In the City of Glendale, an impact is considered to be significant for signalized intersections if the project-related increase in the V/C exceeds 0.02 at an intersection operating at LOS D or worse. Alternative 3 would reduce the number of residential units, medical office space, and restaurant uses by 50 percent when compared to the Project. Alternative 3 would generate 563 ADTs, 6 AM peak hour trips, and 12 PM peak hour trips. Alternative 3 during either the AM or PM peak hour would result in a decrease in the V/C of 0.0015. Since impacts to study intersections associated with the Project would be less than significant, the impact associated with Alternative 3 would be substantially lesser than the Project. Consequently, the Alternative is considered to be environmentally superior to the Project.

Public Utilities

Water

As with the Project, Alternative 3 would result in an increase in water demand in the City. Alternative 3 would result in a demand for water of 10.11 afy, a 50 percent reduction when compared to the Project demand of 20.21 afy. The provision of water as a result of the Project implementation would be within the projections of the Glendale Water and Power (GWP). Alternative 3, which would demand less water than the Project, would also be within the established GWP projections. Water demand impacts under both Alternative 3 and the Project would be less than significant. Given that neither the Project nor Alternative 3 would result in a significant impact, impacts associated with Alternative 3 would not be substantially less than the Project.

Sewer

Alternative 3, like the Project, would result in an increase in sewage generation in the City. Alternative 3 would result in an increase of 7,075 gallons of sewage per day while the Project would result in an increase of 14,150 gallons of sewage per day. There is adequate treatment capacity at the Hyperion Treatment Plant to accommodate either Alternative 3 or the Project. However, the City imposes a sewer capacity increase fee on new developments that lead to an increase in the volume of wastewater discharged to the collection system. The Alternative's sewage increase to the lines in the City's sewer capacity would be mitigated through payment of the sewer capacity increase fee, as required by the Project, and Alternative 3 impacts would be reduced to a less than significant level. Given that neither the Project nor Alternative 3 would result in a significant impact, impacts associated with Alternative 3 would not be substantially less than the Project.

Solid Waste

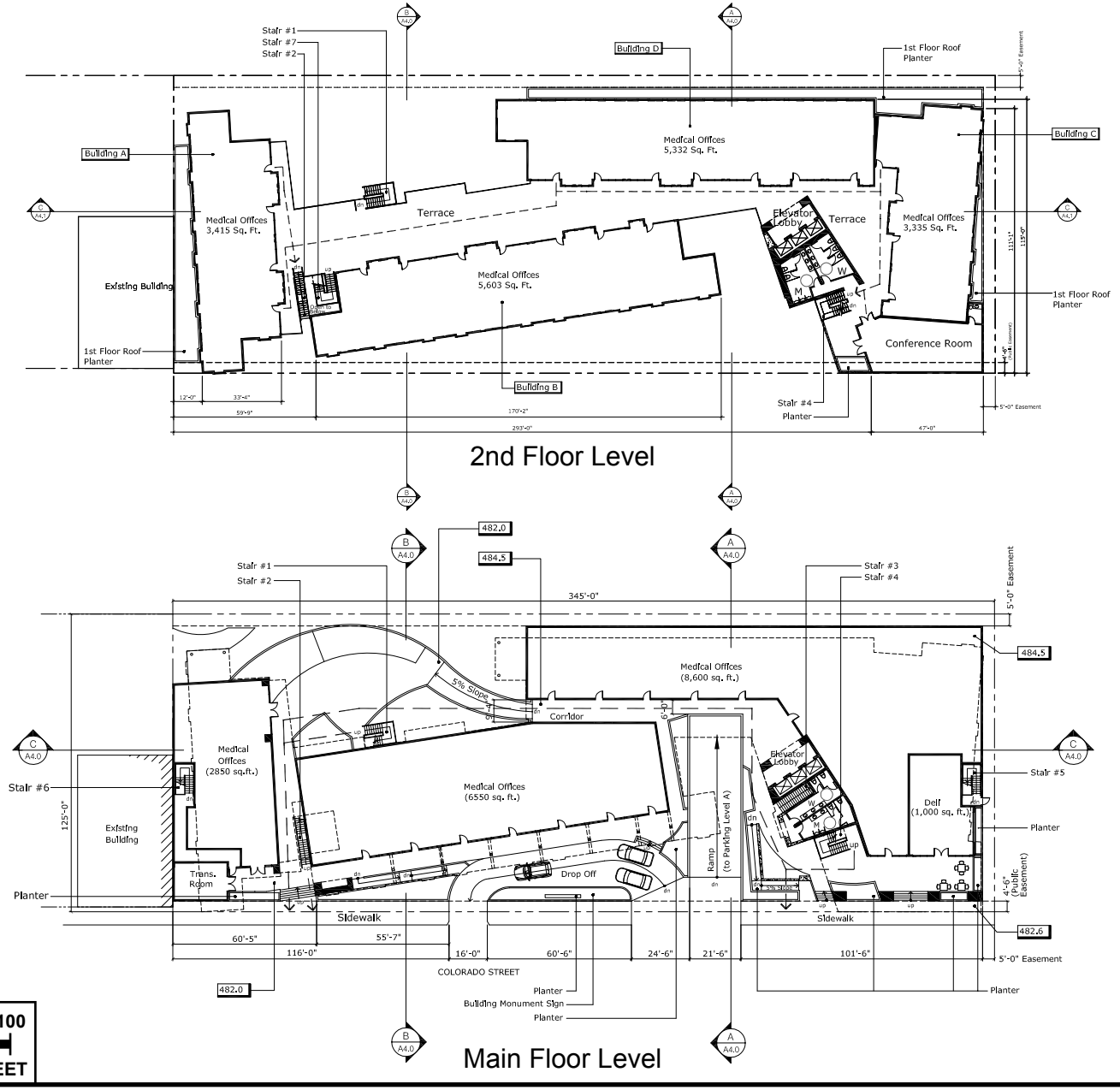
Alternative 3, like the Project, would result in an increase in the demand for solid waste services in the City. Alternative 3 would generate an increase of 43.2 tons of solid waste per year compared to the Project increase of 86.3 tons of solid waste per year. Alternative 3 would result in a substantially lesser amount of solid waste when compared to the Project. There is adequate landfill capacity at the Scholl Canyon Landfill to accommodate either Alternative 3 or the Project. Therefore, impacts under both Alternative 3 and the Project would be less than significant. However, as indicated previously, Alternative 3 would result in substantially lesser impacts than the Project. Consequently, the Alternative is considered to be environmentally superior to the Project. Both the Alternative and the Project would contribute to cumulative significant and unavoidable solid waste impacts due to County landfill capacity.

Alternative 4 – Nonresidential Alternative

The Nonresidential Alternative includes 71,415 square feet of medical office space and 1,000 square feet of restaurant, counter service with limited seating. **Figure 5.0-1, Alternative 4 – Main and 2nd Level Floor Plans** illustrates the general layout for the first floor and second floor. Similar to the Project, this Alternative would include 17,933 square feet of medical office space, 1,000 square feet of restaurant, counter service with limited seating, an elevator lobby, and 525 square feet of restrooms on main (ground) floor with 4,325 square feet of landscaping. The second floor would consist of 17,685 square feet of medical office space, a 1,130 square foot for a conference room, 745 square feet of restrooms, 6,694 square feet of terrace area, the elevator lobby and 2,300 square feet of landscaping. **Figure 5.0-2, Alternative 4 – 3rd and 4th Level Floor Plans** illustrates the general layout for the third and fourth floors. The third floor would consist of 18,340 square feet of medical office space, 685 square feet of restrooms, the elevator lobby, and 470 square feet of landscaping. The fourth floor would include 17,300 square feet of medical office space, 685 square feet of restrooms, 4,375 square feet of terrace area, the elevator lobby and 470 square feet of landscaping.

This Alternative includes four building components connected at the podium level and by the two and one half levels of subterranean parking underneath. The subterranean parking structure would accommodate 362 parking spaces and 30 secured bicycle spaces. Of the total amount of parking provided, eight spaces would be designated as handicap-accessible spaces. Vehicle access to the parking structure would be from West Colorado Street. Similar to the Project, this driveway would be approximately 22 feet in width, would accommodate right-turn movements in and out of the site, would accommodate left-turn movements out of the driveway except during the afternoon peak period (between 4:00 PM and 6:00 PM), and would be controlled by a stop sign.

Figure 5.0-1 Alternative 4 – Main and 2nd Level Floor Plans



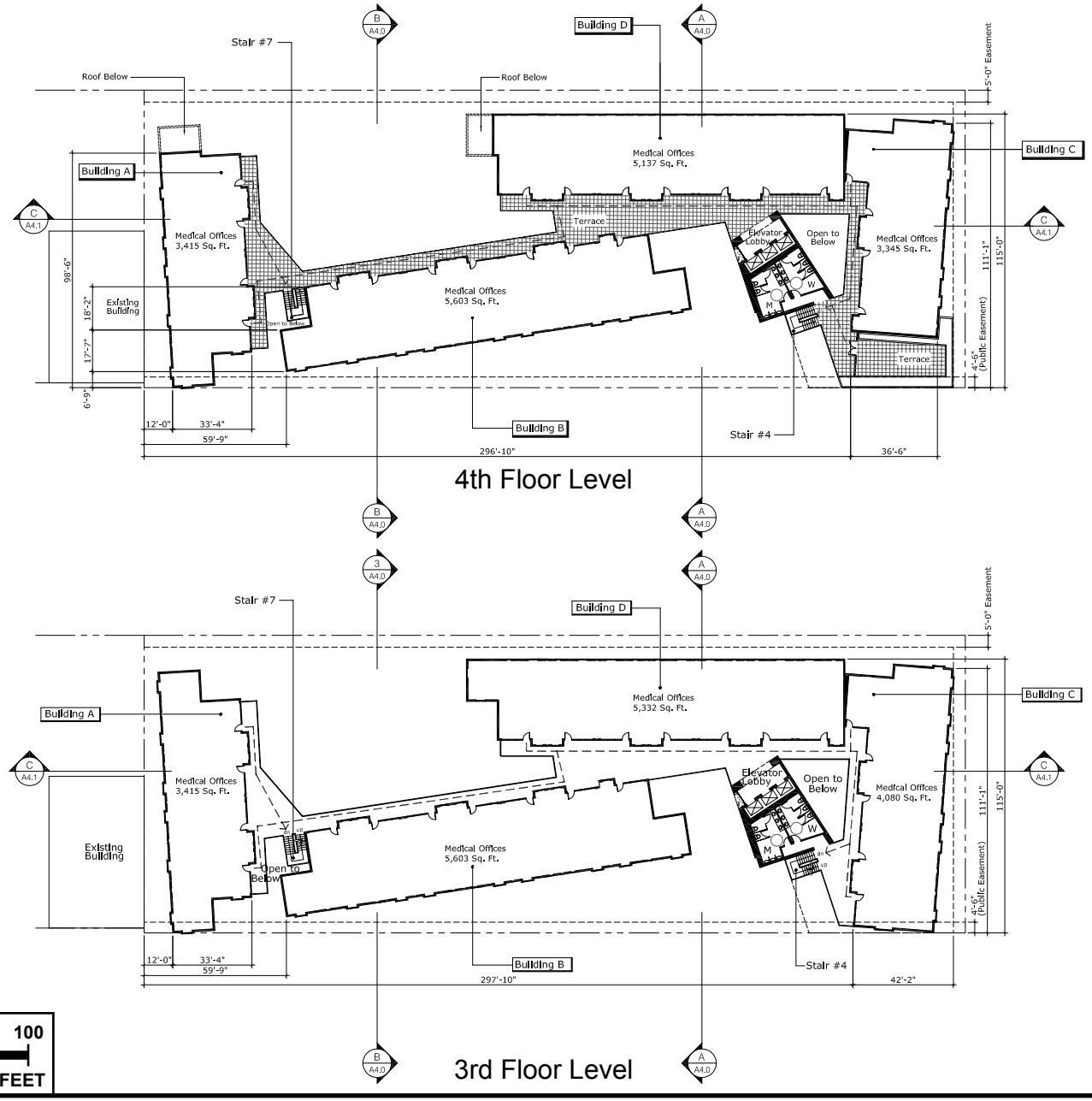
SOURCE: ArquiTaller Inc. – January 2014

FIGURE **5.0-1**

Alternative 4 - Main and 2nd Floor Level

Meridian Consultants

046-001-13



SOURCE: ArquiTaller Inc. – January 2014

FIGURE **5.0-2**

Meridian Consultants

Alternative 4 - 3rd and 4th Level Floor Plans

046-001-13

Similar to the Project, the height of the Alternative building would be 60 feet above ground. **Figure 5.0-3, Alternative 4 – East and South Elevations**, and **Figure 5.0-4, Alternative 4 – West and North Elevations**, provide elevations of the proposed buildings. As shown in **Figure 5.0-3** and **Figure 5.0-4**, this Alternative has been designed as a contemporary structure utilizing various different building materials in conformance with the design guidelines for the San Fernando Mixed Use zone. These elevations illustrate the primary building materials proposed for the exterior of the building, including stucco, concrete, and metal. The size and massing of the Alternative building would be similar to the design of the Project building.

Figure 5.0-5, Alternative 4 – Overall Landscape Site Plan, illustrates the layout of the landscaping for each level of the Alternative. This Alternative would provide 7,095 square feet of landscaping on the ground floor, second floor, and fourth floor.

By eliminating the residential component from the Project and constructing four levels, the above-ground construction period would be reduced by one-fifth of the Project, and result in reduced building loading with reduced underground foundations, which results in a shorter underground construction period. In addition, the medical office space and restaurant, counter service with limited seating, would not directly result in the generation of new residents within the City of Glendale.

Aesthetics

Under Alternative 4, the height of the structure would be 60 feet above grade, similar to the Project. However, the number of stories would be reduced from 5 stories under the Project to 4 stories under Alternative 4. Similar to the Project, the maximum height of the structures associated with the Project would be approximately 60 feet above adjacent grade, which is the maximum height permitted in the SFMU zone. Therefore, the height of the proposed structures would not significantly obstruct views across the Project site as existing views of the Verdugo and San Rafael Mountains are already obstructed. Due to the same height and building mass of the structure, this Alternative would result in similar shade/shadow impacts as the Project.

Similar to the Project, this Alternative incorporates a number of angular structures that have been designed to provide privacy for adjacent neighbors, to attract the passerby along W. Colorado Street, and increase open spaces on the ground floor near the northwest portion of the site and along the frontage of W. Colorado Street. In addition, these elevations illustrate the primary building materials proposed for the exterior building, including stucco, concrete and metal. The Alternative would improve the aesthetic character of the site, given the architectural design of the Alternative and the use of design elements, such as the comprehensive landscape plan to be implemented along the view corridors and in the northwest portion of the site, and the structural setback from neighboring properties. Alternative 4

would be subject to the same design review process and the same regulations concerning light and glare as the proposed Project. Similarly, all other visual impacts under this alternative would be similar when compared to the Project. Impacts to visual resources associated with the Project would be less than significant, as would the impact associated of Alternative 4.

Air Quality

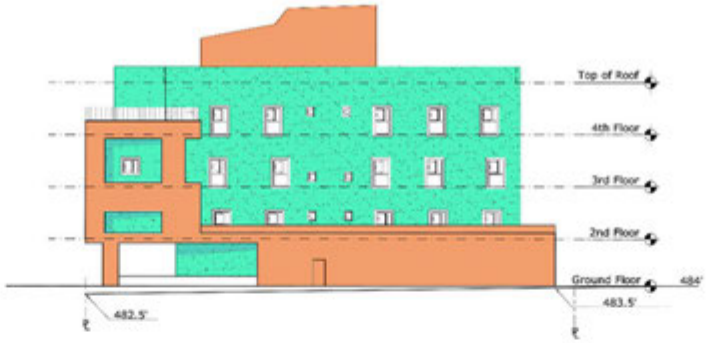
Construction activities for Alternative 4 would be similar to those of the Project on a daily basis. This alternative would result in one fewer above ground level which would result in a reduction in one-fifth of the aboveground construction period and alternative would result in less underground construction when compared to the Project. Therefore, construction activities would occur over a slightly shorter period of time when compared to the Project.

The estimated maximum daily construction emissions during Alternative 4 are listed in **Table 5.0-1, Alternative 4 Construction Emissions (pounds/day)**. Similar construction assumptions were used as those of the Project including SCAQMD Rule 403 compliance for watering to minimize dust and requirements that construction equipment are equipped with Tier 3 off-road engines.

Table 5.0-1
Alternative 4 Construction Emissions (pounds/day)

Source	ROG	NOx	CO	SOx	PM10	PM2.5
Year 2014						
Maximum	1.93	31.30	26.39	0.06	3.05	1.50
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2015						
Maximum	73.57	28.20	24.97	0.06	3.96	1.65
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Year 2016						
Maximum	73.52	9.10	16.58	0.03	1.54	0.78
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

*Note: Refer to Modeling in **Appendix 5.0.***



East Elevation

South Elevation

0 25 50 100

APPROXIMATE SCALE IN FEET

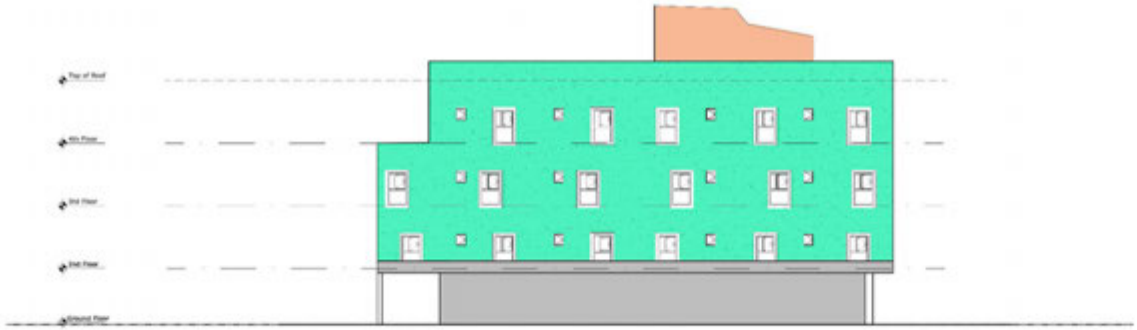
SOURCE: ArquiTaller Inc. – January 2014

FIGURE **5.0-3**

Meridian Consultants

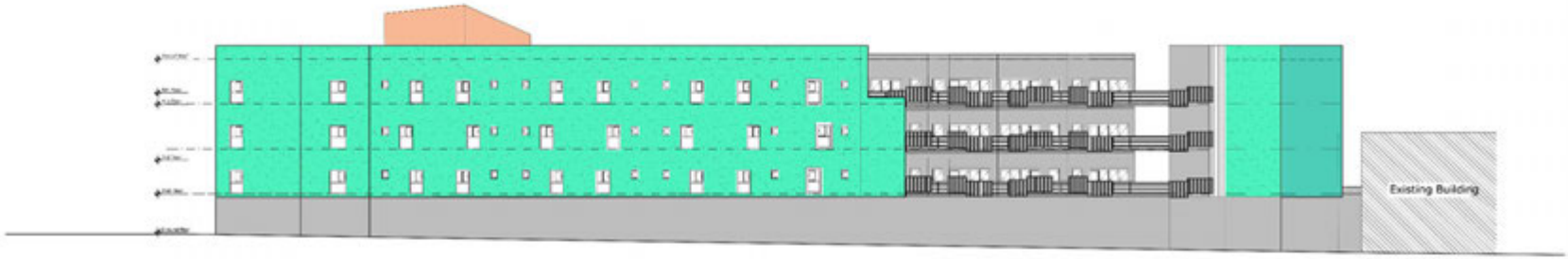
Alternative 4 - East and South Elevations

046-001-13



West Elevation

North



North Elevation

North

0 25 50 100

APPROXIMATE SCALE IN FEET

SOURCE: ArquiTaller Inc. – January 2014

FIGURE **5.0-4**

Meridian Consultants

Alternative 4 - West and North Elevations

046-001-13

SOURCE: ArquiTaller Inc. – January 2014

FIGURE **5.0-5**

Meridian Consultants

Alternative 4 - Overall Landscape Site Plan

Based on the modeling, construction of Alternative 4 would result in maximum daily emissions of 73.57 pounds/day of ROG, 31.3 pounds/day of NO_X, 26.39 pounds/day of CO, 0.06 pounds/day of SO_X, 3.96 pounds/day of PM10, and 1.65 pounds/day of PM2.5, which do not exceed SCAQMD thresholds for criteria pollutants. This Alternative would result in higher ROG emissions by 52.75 pounds/day (as a result of greater amount of non-residential land uses), higher NOx emissions by 0.9 pounds/day, higher CO emissions by 2.06 pounds/day construction emissions, and higher PM10 emissions by 0.03 pounds/day when compared to the Project. This Alternative would result in lower PM2.5 emissions by 0.5 pounds/day when compared to the Project. As discussed, the majority of emissions would be incrementally greater under this alternative when compared to the Project. As with the Project, the increase in emissions resulting from Alternative 4 would not exceed daily thresholds recommended by the SCAQMD.

Trip generation rates for the medical office space land use were obtained from the traffic calculations for Alternative 4 (see **Appendix 5.0).** The estimated emissions are based upon development of all the proposed land uses of Alternative 4, and are presented in **Table 5.0-2, Alternative 4 Estimated Operational Emissions,** and are compared to the SCAQMD established operational significance thresholds.

As shown in **Table 5.0-2**, the emissions associated with Alternative 4 would not exceed the SCAQMD's recommended operational emission thresholds. However, the Alternative would increase all emissions during operation of the Alternative as a result of the increased number of vehicle trips per day. The Alternative would result in incremental increases of ROG emissions by 5.42 pounds/day, NOx emissions by 3.31 pounds/day, CO emissions by 11.06 pounds/day, SOx emissions by 0.03 pounds/day, PM10 emissions by 1.33 pounds/day, and PM2.5 emissions by 0.34 pounds/day when compared to the Project. The operational impacts associated with the Alternative 4 would remain under the SCAQMD significance thresholds and would be less than significant.

Table 5.0-2
Alternative 4 Estimated Operational Emissions (pounds/day)

Source	ROG	NOx	CO	SOx	PM10	PM2.5
Maximum	13.58	18.54	77.33	0.16	10.54	2.98
SCAQMD threshold	55	55	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

*Note: Refer to Modeling in **Appendix 5.0***

The Alternative 4-specific localized significance thresholds for SRA 7 (East San Fernando Valley) are shown in **Table 5.0-3, Alternative 4 LST Worst-Case Emissions,** and are compared with the maximum daily on-site construction and operational emissions during Alternative 4.

Table 5.0-3
Alternative 4 LST Worst-Case Emissions (pounds/day)

Source	NOx	CO	PM10	PM2.5
Construction				
Total mitigated maximum emissions	31.30	26.39	3.05	1.50
LST threshold	80	498	4	3
Threshold exceeded?	**No**	**No**	**No**	**No**
Operational				
Area/energy emissions	0.18	0.19	0.01	0.01
LST threshold	80	498	1	1
Threshold exceeded?	**No**	**No**	**No**	**No**

As shown in **Table 5.0-3,** the Alternative would not exceed the construction and operation emissions for SRA 7 for PM10 and PM2.5. This impact is considered to be less than significant. When the Alternative construction emissions are compared to the Project construction emissions, the Alternative would result in incrementally higher NOx emissions by 4.21 pounds/day, higher CO emissions by 2.96 pounds/day, PM10 emissions by 0.10 pounds/day, and PM2.5 by 0.10 pounds/day. When the Alternative operation emissions are compared to the Project, the Alternative would result in substantially lower NOx emissions by 2.44 pounds/day, CO emissions by 7.54 pounds/day, PM10 emissions by 0.03 pounds/day, and PM2.5 emissions by 0.03 pounds/day.

The annual net GHG emissions associated with the construction/operation of Alternative 4 are provided below in **Table 5.0-4, Alternative 4 Estimated Greenhouse Gas Emissions.** The sum of the direct and indirect emissions associated with Alternative 4 is compared with the SCAQMD's screening threshold of significance for all land use projects, which is 3,000 $MTCO_2E$ per year.

Table 5.0-4
Alternative 4 Estimated Greenhouse Gas Emissions

GHG Emissions Source	Emissions ($MT CO_2E$/year)
Construction	19.6
Operational (mobile) sources	1,653.13
Area sources	0.01
Energy	884.51
Waste	17.51
Water	69.66
Annual total	**2,644.42**

*Source: Emissions calculations are provided in **Appendix 4.2***

Note: Totals in table may not appear to add exactly due to rounding in the computer model calculations.

As shown in the **Table 5.0-4,** Alternative 4 would not result in a significant impact with respect to GHG emissions. The Alternative would result in 875.9 MTCO2e/year higher GHG emissions when compared to the Project.

Land Use and Planning

Pursuant to Section 30.14.010(B) Table 30.14-A of the City's Zoning Ordinance, medical and restaurant, counter service with limited seating uses are permitted within the SFMU Zone. Alternative 4 would establish commercial uses on the Project site that are allowed by the current General Plan and Zoning designations. The intensity of the commercial uses would be within the maximum amounts allowed to these designations and this alternative would not conflict with the use or density standards in the General Plan or Zoning Code.

Like the Project, this alternative would not conflict with any of the goals, objectives, or policies of the Glendale General Plan. This alternative would result in the redevelopment of the Project site and the development of new commercial uses in the San Fernando Road Redevelopment Corridor area of Glendale, which are presently served by existing utilities and public services. The size of the medical office space provided by this Alternative would be substantially greater than the Project. Due to the loss of existing medical office space in the City of Glendale from recently approved projects, including the North Central Avenue and the Nexus Projects, this Alternative would provide replacement medical office space within the City. Furthermore, this Alternative does not require use of an incentive to build an additional story as does the Project. As a result, neither this alternative nor the Project would conflict with the goals of the Redevelopment Plan and would not result in a significant impact with regard to

land use. Given that neither the Project nor Alternative 4 would result in a significant impact, impacts associated with Alternative 4 would not be substantially less than the Project.

Noise

Development activities associated with the Project and Alternative 4 during construction such as earthmoving and construction of on-site infrastructure would involve the use of heavy equipment, such as a backhoe, dozer, loaders, concrete mixers, forklifts, and cranes. Under either the Project or Alternative 4, these construction equipment sources would cause significant noise impacts. These impacts could be reduced but not eliminated with either development scenario through the implementation of mitigation measures recommended for the Project. In addition, the construction duration associated with Alternative 4 would be slightly shorter due to smaller foundations for the building when compared to the Project. The construction duration of this alternative would also be reduced by one-fifth due to the elimination of a story. However, the construction duration would not be shortened to the extent that noise impacts would be substantially decreased. As a result, construction of the Alternative and Project would result in short-term significant and unavoidable impacts. Given the fact that Alternative 4 has a slightly shorter construction period than the Project, Alternative 4 would have an incrementally lesser impact when compared to the Project.

A doubling of sound energy results in a 3 A-weighted decibel (dB[A]) increase in sound, which means that a doubling of sound wave energy (e.g., doubling the volume of traffic on a roadway) would result in a barely perceptible change in sound level. As described in the Traffic analysis later in this section, this Alternative would increase average daily trips (ADTs) by 1,527 trips when compared to the Project. **Table 5.0-5, Alternative Noise Level Comparison**, indicates that the Alternative would increase noise levels between 0.1 dBA and 1.4 dBA more than the Project.

Table 5.0-5
Alternative Noise Level Comparison

Roadway Segment	Existing (dB[A])	Project (dB[A])	Alt (dB[A])	Change From Project Due to Alt	Significant Impact?
W. Colorado Street between Pacific Avenue and Kenilworth Avenue	64.6	64.6	65.0	0.4	Yes
50 feet from centerline to receptor					
Harvard Street between Kenilworth Avenue and Pacific Avenue	53.3	54.0	54.9	0.9	No
35 feet from centerline to receptor (Scenario B)					
Oak Street between Kenilworth Avenue and Pacific Avenue	49.2	50.7	52.1	1.4	No
45 feet from centerline to receptor (Scenario C)					
Kenilworth Avenue between W. Colorado Street and Harvard Street	52.7	53.9	55.1	1.2	No
25 feet from centerline to receptor (All Scenarios)					
Pacific Avenue north of W. Colorado Street	62.3	62.3	63.1	0.8	No
50 feet from centerline to receptor					

*Source: Refer to **Appendix 5.0** for modeling results.*

This alternative would result in a less than 3 dB(A) increase in the noise levels on affected roadway segments when compared to existing conditions, approximately 1 dBA higher than the Project. Noise generated by traffic along W. Colorado Street would generate noise levels along the exterior of the site that are at the *City Municipal Code* exterior noise level of 65 dB(A). With either the proposed Project or Alternative 4, these exterior noise levels would result in a significant impact. These impacts could be reduced, but not eliminated, with either development scenario through the implementation of mitigation recommended for the Project. As a result, the development of either Alternative 4 or the Project would result in long-term significant and unavoidable noise impacts.

Implementation of Alternative 4 would add new stationary noise sources to the site, as would the proposed Project. These would include rooftop-mounted equipment, a parking garage, street sweepers, and on-site medical office uses. With the implementation of mitigation measures proposed for the Project, long-term operational impacts as a result of these noise sources under Alternative 4, like the Project, would be reduced to a less than significant level.

Population and Housing

The proposed Project is not anticipated to induce unplanned substantial population growth in the City. Alternative 4 would not directly result in an increase in use of existing neighborhood and community parks.[3] However, it would generate 208 new employment opportunities that could result in some households relocating to the City. It is estimated that approximately one-quarter of these employees could relocate to Glendale. Applying a 24 percent ratio, these employment positions could result in 50 of these new employees residing within the City of Glendale. Alternative 4 would indirectly result in the generation of new residents; however, the increase in the number of residents would be substantially less when compared to the Project, and would therefore result in similar but less than significant impacts with regard to inducing substantial population growth in an area. Therefore, development under this alternative, which is smaller than the proposed Project, would also be within the population and household growth projections for the City of Glendale and the Southern California Association of Governments (SCAG).

Public Services

Fire Protection

Alternative 4, like the Project, would increase demand on the City of Glendale Fire Department for fire protection services and emergency medical services. Alternative 4, however, would result in fewer calls for service as commercial uses generate fewer calls for service than residential uses. Alternative 4, like the proposed Project, would contribute tax revenue, which would help fund the Fire Department. Given that neither the Project nor Alternative 4 would result in a significant project-specific impact, impacts to fire associated with Alternative 4 would not be substantially less than the Project. However, like the Project, this alternative would contribute to significant and unavoidable cumulative impacts on fire protection and emergency medical services in the City of Glendale.

Police Protection

Alternative 4, like the Project, would increase demand on the City of Glendale Police Department for calls for service. Alternative 4, however, would result in fewer calls for service as commercial uses generate fewer calls for service than residential uses. Under either the Project or Alterative 4, any decrease and/or increase in calls within the City would not substantially impact the current officer-to-population ratio and would not result in the need for any new or the physical alteration to any existing governmental facility. Given that neither the Project nor Alternative 4 would result in a significant

3 72,415 square feet / 1,000 square feet x 3.0 employees = 218 employees – 10 existing employees = 208 new employees.

project impacts, impacts to police associated with Alternative 4 would not be substantially less than the Project. However, like the Project, this alternative would contribute to the significant and unavoidable cumulative impacts on police protection services in the City of Glendale.

Schools

Alternative 4 includes medical office space and a delicatessen restaurant and would not result in the direct generation new students in the Glendale Unified School District. As discussed above, the additional employment opportunities generated by this Alternative may result in some additional households relocating to the City of Glendale. Pursuant to Government Code Section 65995, the project applicant is required to pay school impact fees to the Glendale Unified School District based on the current fee schedule for commercial development prior to the issuance of building permits. Payment of the school impact fees would mitigate any indirect impacts to a less than significant impact. Alternative 4 would reduce impacts when compared to the proposed Project due to the indirect generation of potential new students.

Recreation

Alternative 4 would not directly result in an increase in use of existing neighborhood and community parks.[4] However, it would generate 208 new employment opportunities that would result in some households to relocate to the City. It is estimated that approximately one-quarter of these employees could relocate to Glendale. Applying a 24 percent ratio, the employment positions would result in 50 of these new employees residing within the City of Glendale. The City currently has a parkland-to-resident ratio of approximately 1.47 acres of parkland for every 1,000 residents, while the City's park planning standard is 6 acres of neighborhood and community parkland per 1,000 residents.

Alternative 4 would indirectly result in the generation of residents within the City who would utilize parks within the City of Glendale. As required by the adopted Development Impact Fee schedule, Alternative 4 would be required to pay the non-residential commercial fees of $2.67 per square foot (which is scheduled to increase to the full fee based on City Council direction) for impacts to parks. The development impact fee payments are required to minimize a project's impact on park and recreation land and facilities. Under CEQA, the development impact fee payments constitute mitigation of project-related impacts on park and recreation land and facilities within Glendale. However, the fee payment is not considered to fully mitigate this impact because the fee amount to be paid does not equal the full

4 72,415 square feet / 1,000 square feet x 3.0 employees = 218 employees – 10 existing employees = 208 new employees.

fair-share fee for commercial projects, which was determined to be $5.04 per commercial square foot in the City's Public Facilities Fee Study.

Consequently, Alternative 4, like the proposed Project, would also result in significant and unavoidable project-specific and cumulative park and recreation impacts; however, to a lesser degree than the Project. The development impact fee payments constitute mitigation of project-related impacts on park and recreation land and facilities within Glendale.

Traffic

Construction

Based on a rate of 1.135 worker trips per piece of construction equipment and a maximum of two pieces of construction equipment on any given day during project construction, a total of three trips per day would be generated. In general, the majority of the construction workers are expected to arrive at the site during off-peak hours (i.e., arrive prior to 7:00 AM), thereby avoiding the AM commuter peak hour period and would remain on site throughout the day. Given the location of the site, most construction-related traffic would use the I-5 freeway and arrive and depart via nearby on/off ramps serving the I-5 freeway and SR-134 freeway.

As required by the City of Glendale, a Construction Traffic Control plan will be implemented to minimize potential conflicts between construction activity and through traffic. The Construction Traffic Control Plan would identify all traffic control measures, signs, and delineators to be implemented by the construction contractor through the duration of excavation and construction activity. In addition, a truck haul route program would also be permitted by the Glendale Public Works Department and implemented to minimize conflicts between haul trucks traveling to and from the site and through traffic on roadways surrounding the Alternative. The program would specify access points to the site and delineate approved haul routes.

As discussed in the following paragraphs, the Alternative would not result in a significant traffic impact. As the volume of construction-related traffic would be substantially less than that associated with Alternative operation, construction traffic would not result in a significant impact. Therefore, the traffic impacts associated with construction activities are determine to be less than significant and impacts would be further reduced with the implementation of the following required Construction Traffic Control Plan components:

- Maintain existing access for land uses in proximity of the site.
- Limit any potential lane closures to off-peak travel periods.

- Schedule receipt of construction materials during non-peak travel periods, to the extent possible.
- Limit the majority of construction-related traffic to off-peak periods.
- Coordinate deliveries to reduce the potential of trucks waiting to unload for extended periods of time.
- Prohibit parking by construction workers on adjacent streets and direct construction workers to available parking as determined in conjunction with City staff.

Operation – Intersection Analysis

Alternative 4 would result in 2,653 daily trips, 105 AM Peak Hour trips, and 176 PM Peak Hour Trips. This Alternative would increase traffic by 1,527 daily trips, 94 AM Peak Hour Trips, and 153 PM Peak Hour trips when compared to the Project, as shown in **Figure 5.0-6, Alternative 4 – Traffic Volumes – AM and PM Peak Hour**. As shown in **Table 5.0-6, Existing Plus Alternative 4 Traffic Contribution**, the traffic generated by this alternative would not result in significant impacts.

Table 5.0-6
Existing Plus Alternative 4 Traffic Contribution

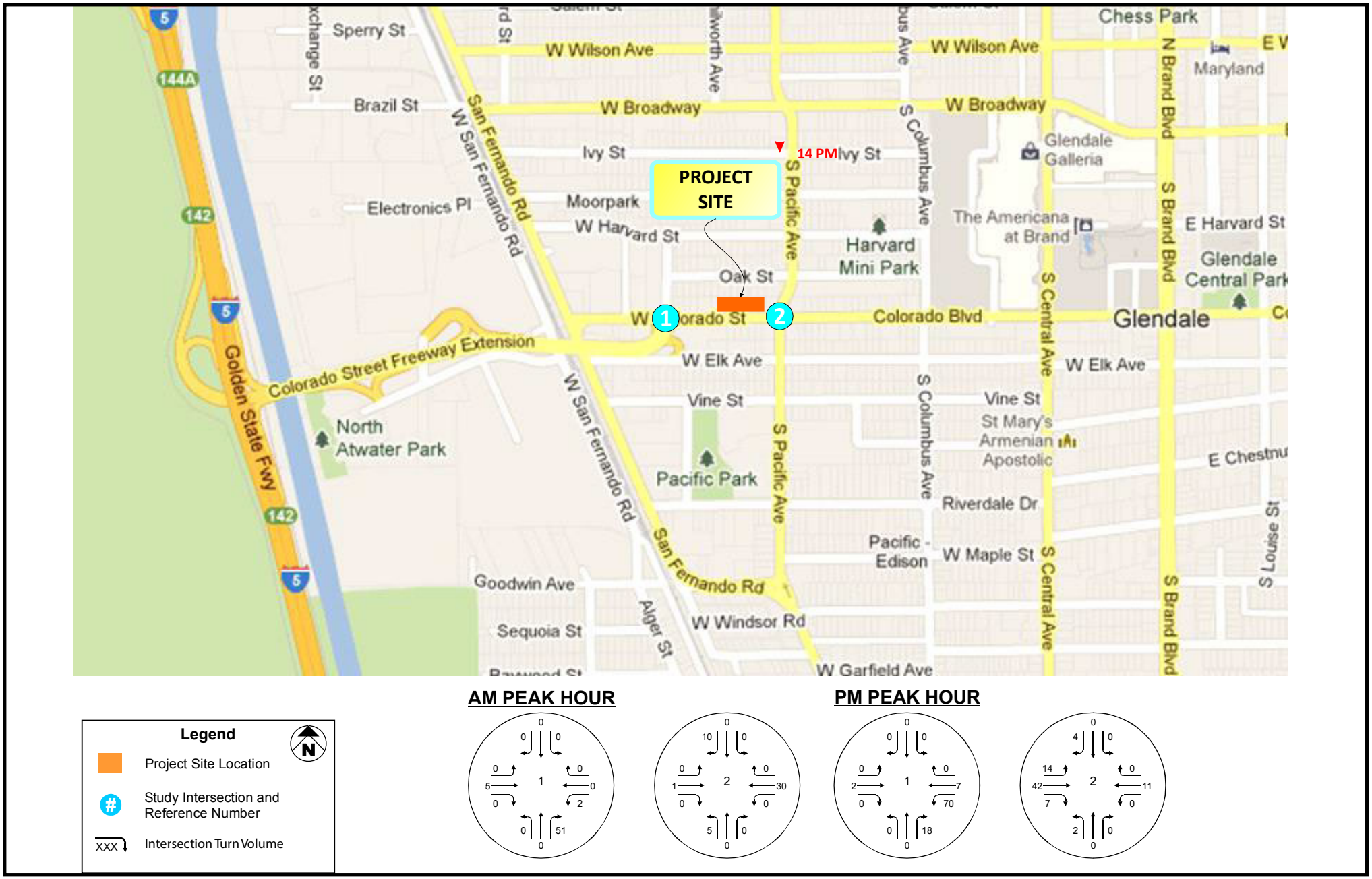
Intersection	Peak Hour	Existing Conditions V/C (ICU)	LOS	Existing Plus Project V/C (ICU)	Existing Plus Alternative 4 V/C (ICU)	LOS	Change	Significant Impact?[1]
Kenilworth Avenue/Colorado Street Freeway Exit and Colorado Street	AM	0.471	A	0.473	0.475	A	0.004	No
	PM	0.553	A	0.555	0.578	A	0.025	No
Pacific Avenue and Colorado Street	AM	0.748	C	0.749	0.761	C	0.013	No
	PM	0.799	C	0.802	0.812	D	0.009	No

This Alternative would result in the LOS changing from LOS C to LOS D during the PM peak hour at the intersection of Pacific Avenue and W. Colorado Street. However, the City of Glendale identifies traffic impacts as significant if the increase in the V/C (ICU) ratio equals or exceeds by 0.02 for an intersection operating at LOS D. **Figure 5.0-7, Existing Plus Alternative Traffic Volumes – AM and PM Peak Hour**, identifies the existing plus Alternative traffic distribution during the AM and PM Peak Hour. As indicated in **Table 5.0-6**, Alternative 4 would result in a V/C (ICU) ratio of 0.004 and 0.025 during the AM and PM Peak Hour at Kenilworth Avenue and Colorado Street and 0.013 and 0.009 during the AM and PM Peak Hour at Pacific Avenue and Colorado Street. Therefore, impacts would be less than significant. The Alternative would result in an increase in the V/C (ICU) ratio between 0.002 and 0.023 when compared to the Project. The Alternative increases would be incrementally greater than the Project, but would result in similar less than significant impacts on the studied intersections.

Roadway Analysis

Additional street segment analysis was conducted for separate trip distribution scenarios when exiting the site. The following street segments were selected for analysis as they are located in close proximity to the site and could potentially be impacted by Alternative traffic if the left-turn movements onto Colorado Street are prohibited. **Figure 5.0-8, Alternative Traffic Volumes (Prohibited Left-Turn Movements)**, identifies the Alternative trip volumes during the AM and PM Peak Hour. **Figure 5.0-9, Existing Plus Alternative Traffic Volumes (Prohibited Left-Turn Movements)**, identifies the existing plus Alternative traffic distribution during the AM and PM Peak Hour. **Tables 5.0-7** to **5.0-9, Existing Plus Alternative 4 Average Daily Traffic Volumes (Scenario A through C)**, identify the distribution of the Alternative 4 trips along roadways in the City for all three scenarios.

As indicated in **Table 5.0-7** through **5.0-9**, Alternative 4 would not result in an increase in daily trips that would exceed the capacity of 2,500 daily trips in each of the scenarios. Therefore, the traffic generated by Alternative 4 would not significantly impact local residential streets in the City of Glendale, and the impact of Alternative 4 traffic on these roadways is less than significant. This Alternative would incrementally increase traffic by 344 daily trips along Kenilworth Avenue under all Scenarios, 344 daily trips along Harvard Street under Scenario B, and 344 daily trips along Oak Street under Scenario C when compared to the Project. As discussed below, the Alternative would incrementally increase traffic along these roadways, but would result in less than significant impacts, similar to the Project.



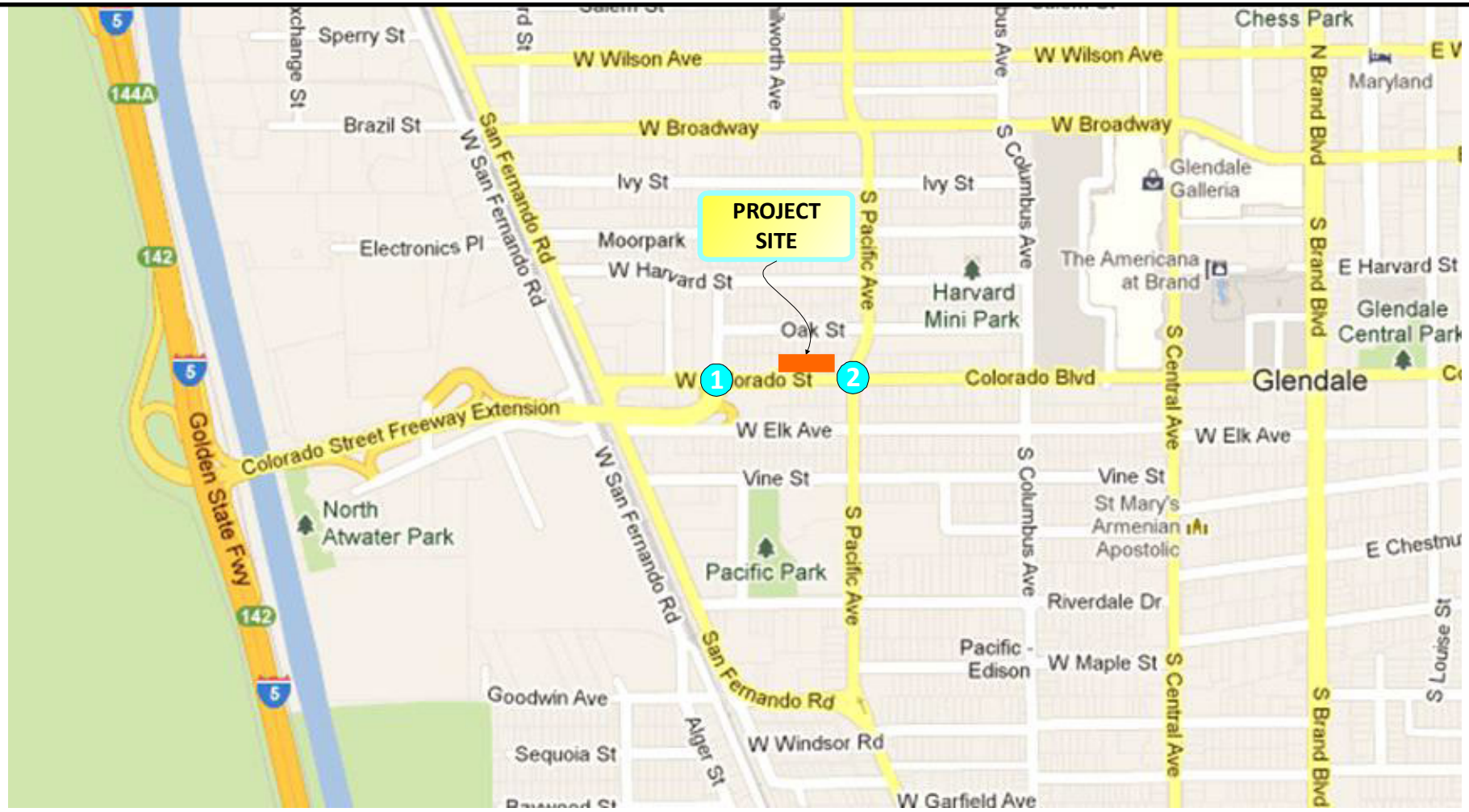
SOURCE: KOA Corporation – 2014.

FIGURE **5.0-6**

Alternative 4 - Project Traffic Volumes
AM and PM Peak Hour

Meridian Consultants

046-001-13



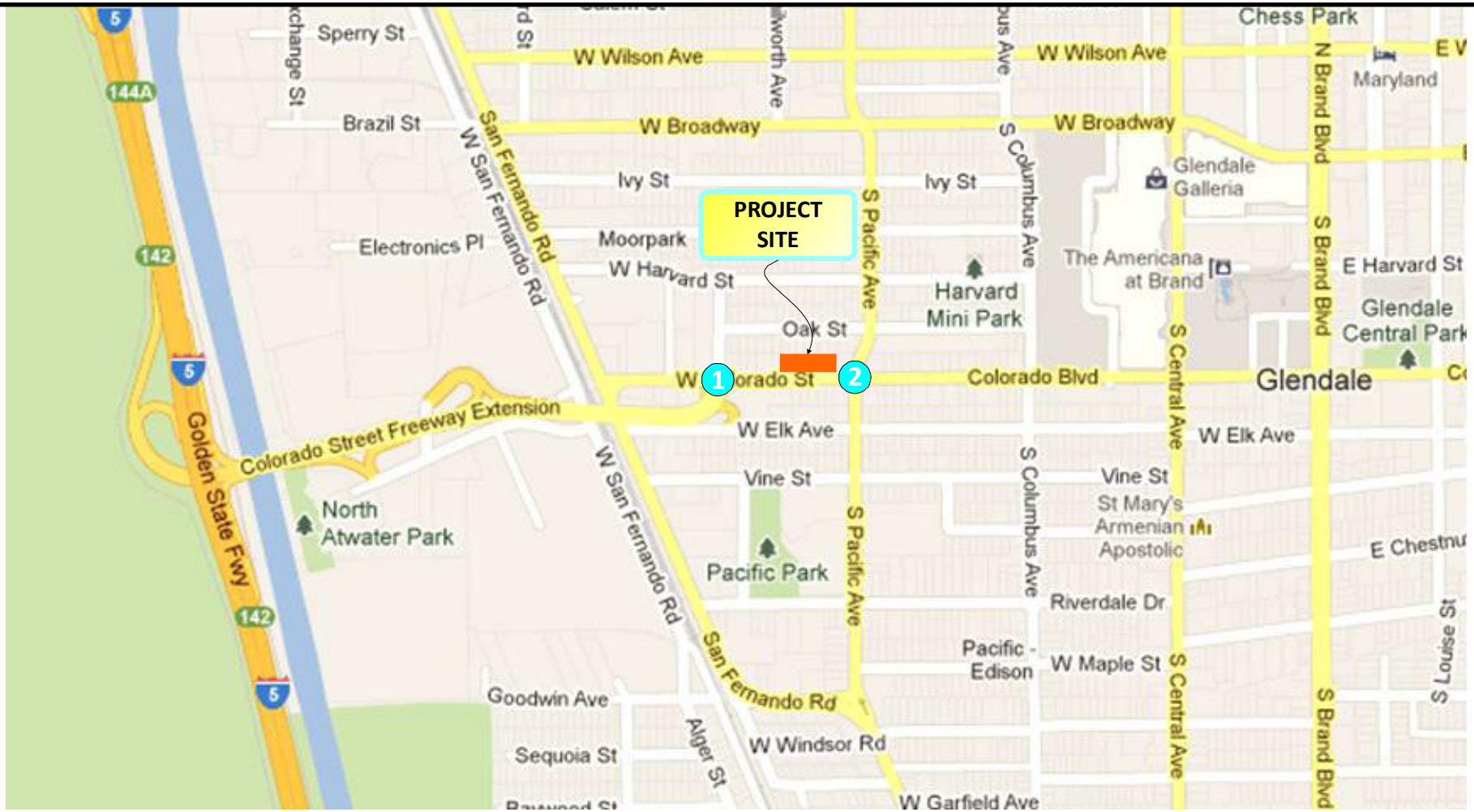
SOURCE: KOA Corporation – 2014.

FIGURE **5.0-7**

Existing Plus Alternative Traffic Volumes
AM and PM Peak Hour

Meridian Consultants

046-001-13



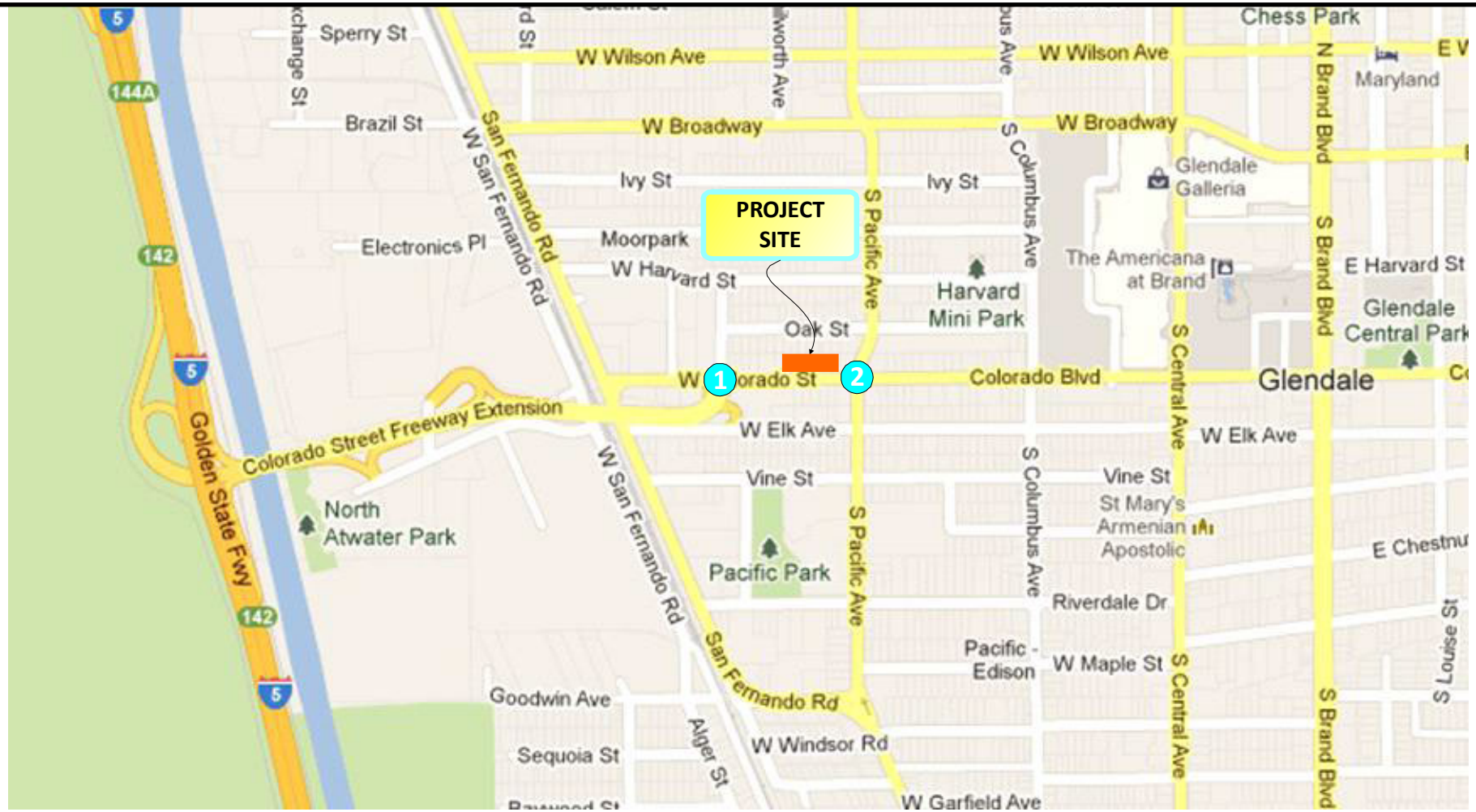
SOURCE: KOA Corporation – 2014.

FIGURE **5.0-8**

Alternative Traffic Volumes
(Prohibited Left-Turn Movements)

Meridian Consultants

046-001-13



SOURCE: KOA Corporation – 2014.

FIGURE **5.0-9**

Existing Plus Alternative Traffic Volumes
(Prohibited Left-Turn Movements)

Meridian Consultants

046-001-13

Table 5.0-7
Existing Plus Alternative 4 Average Daily Traffic Volumes (Scenario A)

				Daily Traffic Volume					
							Future (2015)		
Street Segment	**Street Classification**	**Daily Capacity**	**Direction**	**Existing**	**Alt Only**	**Existing Plus Alt**	**Without Alt**	**With Alt**	**Significant Alt Impact**
Kenilworth Avenue between Harvard St. and Colorado St.	Local	2500	NB	476	597	1073	486	1083	
			SB	316	0	316	322	322	**NO**
			Total	**792**	**597**	**1389**	**808**	**1405**	
Harvard St. between Kenilworth Ave. and Pacific Ave.	Local	2500	EB	771	133	904	786	919	
			WB	506	0	506	516	516	**NO**
			Total	**1277**	**133**	**1410**	**1302**	**1435**	
Oak St. between Kenilworth Ave. Pacific Ave.	Local	2500	EB	350	464	814	357	821	
			WB	305	0	305	311	311	**NO**
			Total	**655**	**464**	**1119**	**668**	**1132**	

**Project outbound trips to northbound Pacific Ave. via Harvard St. and to eastbound Colorado St. and southbound Pacific Ave. via Oak St.*

Table 5.0-8
Existing Plus Alternative 4 Average Daily Traffic Volumes (Scenario B)

				Daily Traffic Volume					
							Future (2015)		
Street Segment	Street Classification	Daily Capacity	Direction	Existing	Alt Only	Existing Plus Alt	Without Alt	With Alt	Significant Project Impact
Kenilworth Avenue between Harvard St. and Colorado St.	Local	2500	NB	476	597	1073	486	1083	
			SB	316	0	316	322	322	NO
			Total	**792**	**597**	**1389**	**808**	**1405**	
Harvard St. between Kenilworth Ave. and Pacific Ave.	Local	2500	EB	771	597	1368	786	1383	
			WB	506	0	506	516	516	NO
			Total	**1277**	**597**	**1874**	**1302**	**1899**	
Oak St. between Kenilworth Ave. Pacific Ave.	Local	2500	EB	350	0	350	357	357	
			WB	305	0	305	311	311	NO
			Total	**655**	**0**	**655**	**668**	**668**	

**Project outbound trips to northbound Pacific Ave., eastbound Colorado St. and southbound Pacific Ave. via Harvard St.*

Table 5.0-9
Existing Plus Alternative 4 Average Daily Traffic Volumes (Scenario C)

Street Segment	Street Classification	Daily Capacity	Direction	Daily Traffic Volume Future (2015) Existing	Alt Only	Existing Plus Alt	Without Alt	With Alt	Significant Project Impact
Kenilworth Avenue between Harvard St. and Colorado St.	Local	2500	NB	476	597	1073	486	1083	NO
			SB	316	0	316	322	322	
			Total	**792**	**597**	**1389**	**808**	**1405**	
Harvard St. between Kenilworth Ave. and Pacific Ave.	Local	2500	EB	771	0	771	786	786	NO
			WB	506	0	506	516	516	
			Total	**1277**	**0**	**1277**	**1302**	**1302**	
Oak St. between Kenilworth Ave. Pacific Ave.	Local	2500	EB	350	597	947	357	954	NO
			WB	305	0	305	311	311	
			Total	**655**	**597**	**1252**	**668**	**1265**	

**Project outbound trips to northbound Pacific Ave., eastbound Colorado St. and southbound Pacific Ave. via Oak St.*

Caltrans Analysis

As shown in **Table 5.0-10, Colorado Street Freeway Extension Queue for Alternative 4**, during the AM Peak hour, there is no queuing under both Existing conditions and Existing Plus Project conditions. During the PM Peak Hour the Existing Conditions queue length is 9 feet and the Existing Plus Project queue length would be 13 feet, an increase of 4 feet. Alternative 4 would increase the queue length at Colorado Street Freeway Extension by 3 feet during the PM Peak Hour when compared to the Project which is less than the average length of vehicle (12 feet). The Alternative would increase Peak AM trips at Pacific Avenue and SR-134 by 10 trips and increase Peak PM trips by 14 trips. Peak PM trips northbound along Pacific Avenue would increase by 14 trips and southbound along Pacific Avenue by 10 Peak AM and 4 PM Peak trips. Similar to the Project, this increase in queuing would be negligible.

Table 5.0-10
Colorado Street Freeway Extension Queue for Alternative 4

Intersection	Peak Hour	Existing	Existing Plus Project	Alternative Plus Project	Change
Colorado Street Freeway Extension/ Colorado Street	AM	0	0	0	0
	PM	9	10	13	3

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (February 3, 2014).

Design Hazards

As mentioned previously, alternative egress movements would result in less than significant impacts to traffic. Furthermore, outbound traffic from the site would be prohibited from turning left onto W. Colorado Street to travel eastbound during the afternoon PM peak hours, between 4:00 PM and 6:00 PM, similar to the Project. Impacts would be similar to the Project.

Public Transit Analysis

Pursuant to the CMP guidelines, over a 24-hour period, the Alternative is forecast to generate demand for 55 daily transit trips, 1 of which would occur during the AM peak hour and 1 of which would occur during the PM peak hour. The calculations for the morning, evening, and daily traffic conditions are as follows:

- Morning (AM) Peak Hour = 105 x 1.4 x 0.035 = 5 Transit Trips
- Evening (PM) Peak Hour = 176 x 1.4 x 0.035 = 9 Transit Trips
- Daily = 2,653 x 1.4 x 0.035 = 130 Transit Trips

Alternative 4 would result in an increase of 4 transit trips in the AM Peak Hour and 8 transit trips in the PM Peak Hour when compared to the Project. Transit service is provided by Metro and the Beeline Service. The Metro system includes Lines 183, 201, and 603 along Pacific Avenue and Colorado Street. The Beeline Bus system includes Lines GB5 and GB6 also along Pacific Avenue and Colorado Street.

Based on the projected increased demand for transit services generated by the Alternative, it is anticipated that the existing transit service in the Project area would adequately accommodate the Alternative-generated transit trips. Thus, based on the calculated number of generated transit trips, no Alternative impacts on existing or future transit services in the Project area are expected to occur and impacts would be similar to the Project.

Cumulative Analysis

To determine the potential cumulative impact of Alternative 4 on each study area intersection, Alternative traffic volumes were added to cumulative traffic conditions during the AM and PM Peak Hour, as shown in **Figure 5.0-10, Cumulative with Alternative Traffic Volumes**. **Figure 5.0-11, Cumulative with Alternative Traffic Volumes (Prohibited Left-Turn Movements)**, identifies the cumulative traffic volumes during AM and PM Peak Hour with prohibited left-turn movements from the site. **Table 5.0-11, Cumulative With Alternative Levels of Service**, identifies the Cumulative With Alternative traffic contribution at the study area intersections. As indicated in **Table 5.0-11**, cumulative traffic conditions would not significantly impact any of the study area intersections during the AM or PM peak hour. When compared to the Project, Alternative 4 would increase the V/C (ICU) at each intersection by 0.002 and 0.015.

Table 5.0-11
Cumulative With Alternative 4 Levels of Service

Intersection	Peak Hour	Cumulative Without Alternative 4 V/C (ICU)	LOS	Cumulative With Alternative 4 V/C (ICU)	LOS	Change	Significant Impact?[1]
Kenilworth Avenue	AM	0.573	A	0.577	A	0.004	No
at Colorado Street	PM	0.654	B	0.672	B	0.018	No
Pacific Avenue	AM	0.848	D	0.860	D	0.012	No
at Colorado Street	PM	0.903	E	0.916	E	0.013	No

Source: KOA Corporation. Traffic Impact Analysis – Mixed Use Development at 507-525 W. Colorado Street, Glendale (December 27, 2013).
Note: ICU = Intersection Capacity Utilization; LOS = level of service; V/C = volume-to-capacity ratio.
[1] In the City of Glendale, the impact is considered significant for signalized intersections if the project related increase in the V/C ratio equals or exceeds 0.02 that have LOS D or worse.

As shown in **Table 5.0-11**, the traffic V/C (ICU) rates would be incrementally greater under this alternative when compared to the Project. The increase would not exceed daily thresholds; therefore, impacts would be less than significant.

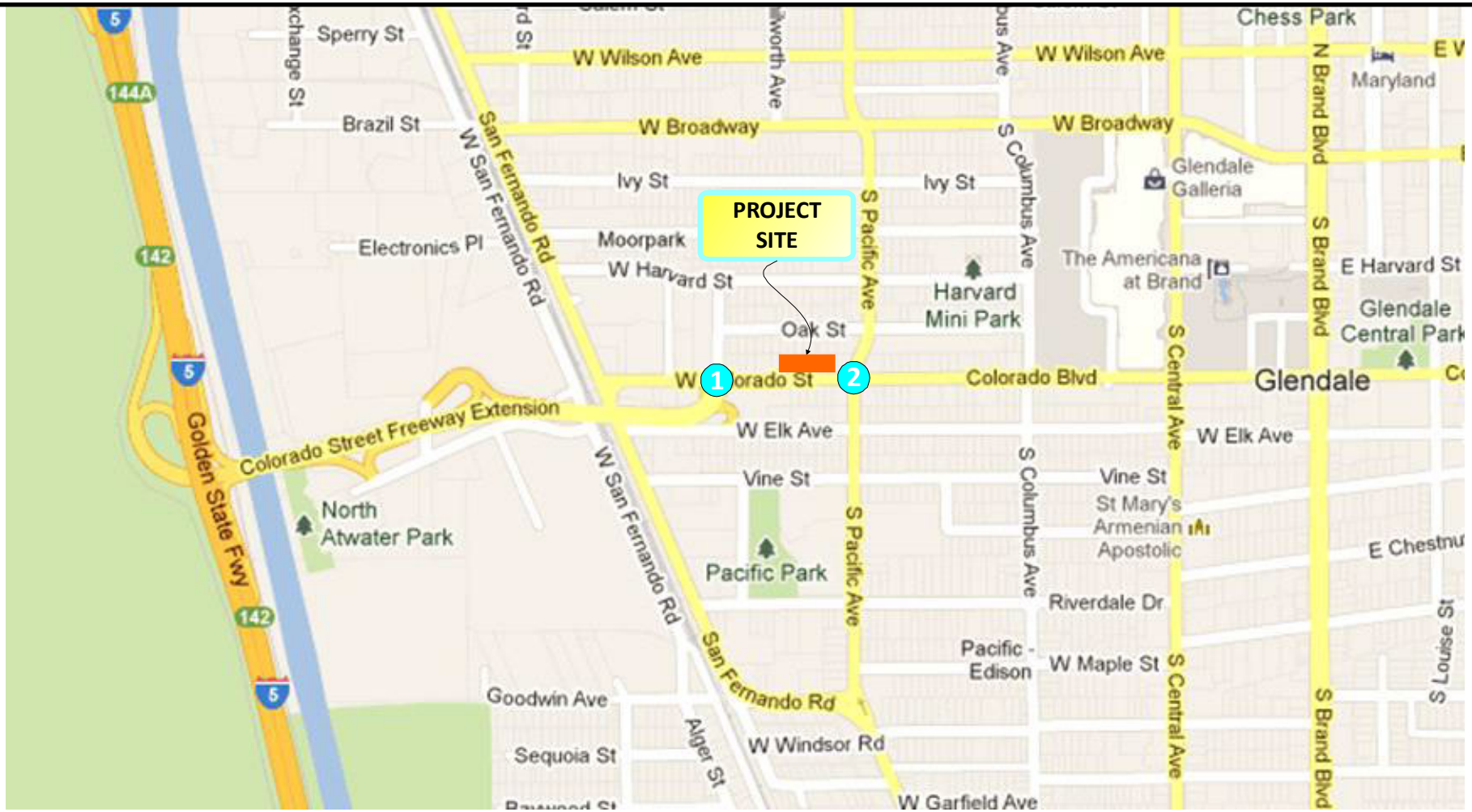
Caltrans Analysis

As shown in **Table 5.0-12, Alternative 4 Colorado Street Freeway Extension Queue with Related Projects,** there would be no queue length for Future conditions Without the Alternative at Colorado Street during the AM Peak Hour and would be 101 feet during the PM Peak Hour, similar to the Project. There would be no queue length for Future With Alternative conditions during the AM Peak Hour and would be 115 feet during the PM Peak Hour. In terms of the number of vehicles in the queue, a 14 foot increase would be considered less than significant.

Table 5.0-12
Alternative 4 Colorado Street Freeway Extension Queue with Related Projects

Intersection	Peak Hour	Existing	Existing Plus Alternative	Future without Alternative	Future with Alternative	Change
Colorado Street Freeway Extension/ Colorado Street	AM	0	0	0	0	0
	PM	9	10	101	115	14

Under the Future with Alternative conditions, the maximum 95th percentile queue length for the eastbound left-turn movement on Colorado Street west of Pacific Avenue is forecast to be

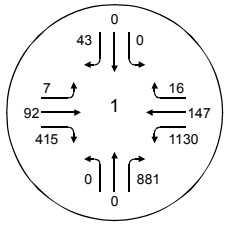


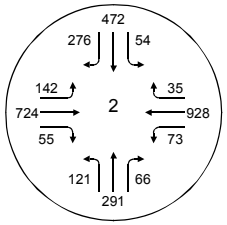
Legend

- Project Site Location
- # Study Intersection and Reference Number
- XXX Intersection Turn Volume

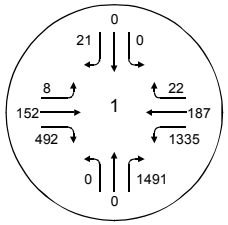
10/01/13

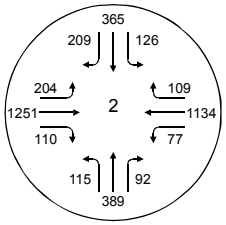
AM PEAK HOUR





PM PEAK HOUR





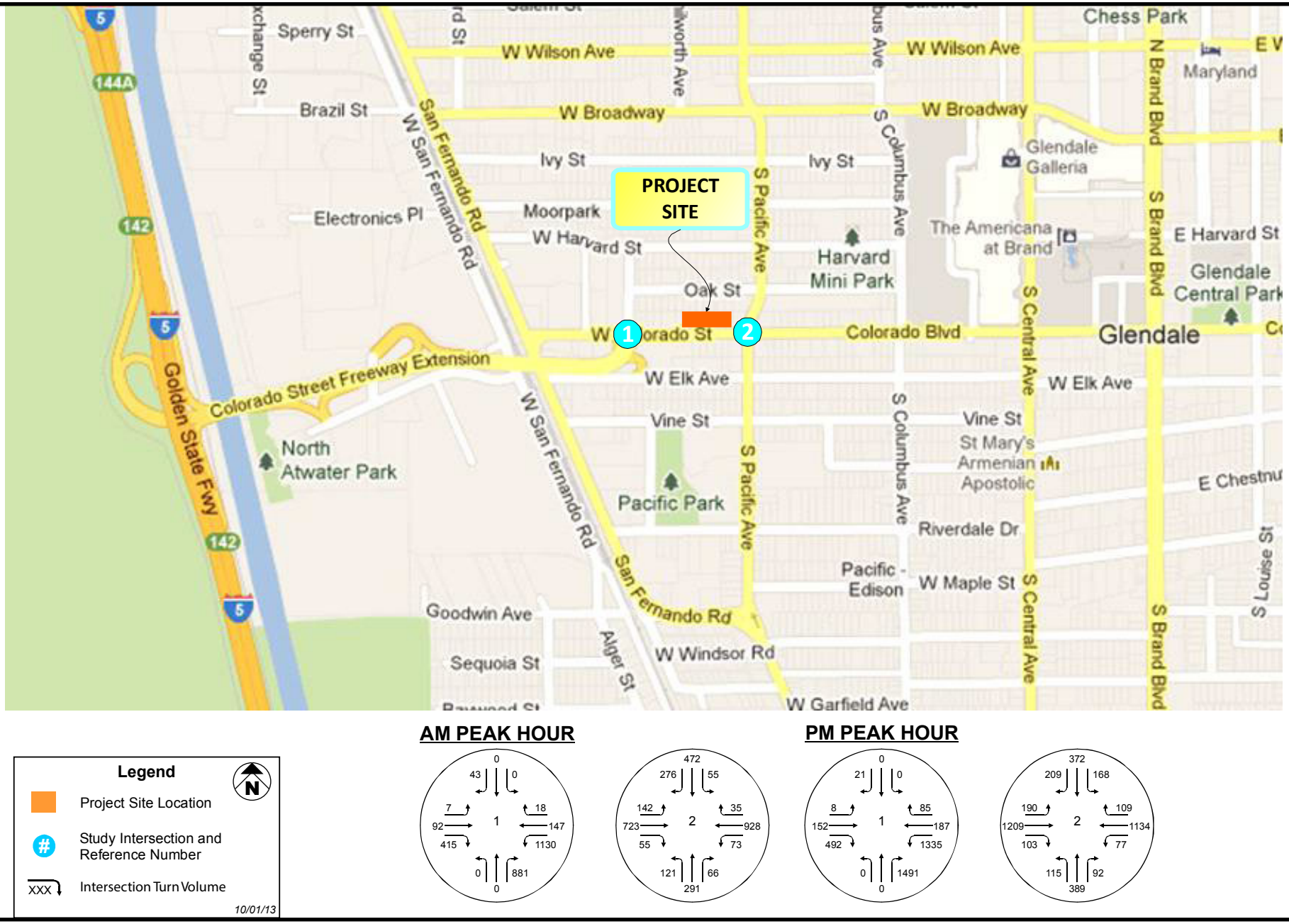
SOURCE: KOA Corporation – 2014.

FIGURE **5.0-10**

Meridian Consultants

Cumulative with Alternative Traffic Volumes

046-001-13



SOURCE: KOA Corporation – 2014.

FIGURE **5.0-11**

Meridian Consultants

Cumulative with Alternative Traffic Volumes
(Prohibited Left-Turn Movements)

046-001-13

approximately 120 feet during the AM Peak Hour and 222 feet during the PM Peak hour. The 50th percentile queue length is forecast to be 41 feet during the AM Peak Hour and 78 feet during the PM Peak Hour. Based on the 95th percentile queuing analysis, the eastbound left-turn queue during the PM Peak Hour would queue past the Alternative driveway and prevent left-turn outbound movements at the Alternative driveway on Colorado Street. As indicated previously, left-turn movements from the site would be prohibited during the PM Peak Hour (4:00 to 6:00 PM). Alternative queuing impacts would be less than significant. Impacts would be incrementally greater than the Project.

As previously indicated, the amount of Future With Alternative traffic projected to use Pacific Avenue and SR-134 was considered minimal. Queuing impacts at the Pacific Avenue and SR-134 ramp intersections would be less than significant. As shown in **Table 5.0-6,** the Cumulative With Alternative traffic levels would result in less than significant impacts to LOS at nearby intersections.

Public Utilities

Water

As with the Project, Alternative 4 would result in an increase in water demand in the City of Glendale. Alternative 4 would result in a demand for water of 22.57 acre-feet per year (afy), approximately 10 percent increase from the 20.21 afy needed for the Project because of the increase in medical office space. The amount of water needed for the Project would be within the projections of the GWP. Alternative 4, which would demand more water than the Project, would also be within the established GWP projections. Water demand impacts under both Alternative 4 and the Project would be less than significant.

Sewer

Alternative 4, like the Project, would result in an increase in the amount of wastewater generation in the City. Alternative 4 would result in an increase of 15,824 gallons per day (gpd) of sewage, a 11 percent increase from the 14,150 gpd of wastewater that would be generated by the Project. There is adequate treatment capacity at the Hyperion Treatment Plant to accommodate either Alternative 4 or the Project. However, the City imposes a sewer capacity increase fee on new developments that lead to an increase in the volume of wastewater discharged to the collection system in the City. Under CEQA, the payment of the sewer fee constitutes mitigation of project-related impacts on sewer facilities within Glendale. Alternative 4 impacts would be reduced to a less than significant level by payment of this fee, which provides the City the funds needed to improve the sewer system. Given that neither the Project nor Alternative 4 would result in a significant impact, impacts associated with Alternative 4 would not be substantially greater than the Project.

Solid Waste

Alternative 4, like the Project, would result in an increase in the demand for solid waste services. Alternative 4 would result in the generation of 67.2 tons of solid waste per year compared to the 86.3 tons of solid waste per year that would be generated by the Project, or approximately 22 percent less. Alternative 4 would generate less solid waste than the Project. There is adequate landfill capacity at the Scholl Canyon Landfill to accommodate either Alternative 4 or the Project. Therefore, impacts under both Alternative 4 and the Project would be less than significant. Both alternatives would contribute to cumulative significant and unavoidable solid waste impacts due to County landfill capacity.

The medical uses of the Alternative would increase may involve the delivery, handling, disposal, and the storage of medical supplies and medical hazardous waste, which may include pressurized oxygen tanks, medicine bottles, and insulin syringes incrementally greater than the Project. These types of waste would be collected, handled, and disposed of in accordance with all appropriate State laws such as the California Health and Safety Code Section 25218. Therefore, medical waste impacts would be similar to the Project.

Environmentally Superior Alternative

State *CEQA Guidelines,* Section 15126.6(e)(2) requires an EIR to identify an environmentally superior alternative among those evaluated in an EIR. Of the alternatives considered in this section, the No Project/No Development Alternative is environmentally superior to the other alternatives, because this alternative would avoid the significant and unavoidable impacts identified for the Project. It should be noted, however, that the No Project/No Development Alternative would result in greater hydrology and water quality impacts when compared to the Project.

According to the State *CEQA Guidelines,* if the No Project/No Development Alternative is identified as the environmentally superior alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Of the other alternatives considered, Alternative 3 – 50 Percent Reduced Density would be considered environmentally superior, as it would result in the greatest incremental reduction of the overall level of impact when compared to the Project due to the reduction in intensity of medical office space, restaurant, counter service with limited seating, and dwelling units on the Project site. It should be noted, however, that Alternative 3 would not result in the avoidance of a significant environment impact when compared to the Project. Overall, the significant and unavoidable short-term noise impact during construction, the long-term on-site noise impact due to vehicle operations, the long-term and cumulative impact to recreation facilities, and the cumulative impacts to fire, police, and solid waste would not be eliminated by this alternative.

Furthermore, Alternative 3 would not meet certain objectives of the Project. Alternative 3 would not provide for affordable housing within the City when the Project would provide an additional 5 very low income housing units. Alternative 3 would partially meet the objective of providing needed medical office space in the City; however, it would only provide 9,000 square feet when compared to the 18,000 square feet provided by the Project. Alternative 3 would provide 45 fewer residential units, 9,000 fewer square feet of medical office and 500 square feet of restaurant, counter service with limited seating. Less units and floor space would result in 50 percent less property tax revenues to the City than what would be provided by the Project. Fewer housing opportunities in an urban setting would also be provided under Alternative 3, thus partially meeting this objective. Finally, the reduced density under this alternative may not be sufficient to offset the cost of the land and may not be economically feasible for the applicant for this reason.

Alternative 4 – Nonresidential Alternative would also be considered environmentally superior, as it would result in a substantial reduction in the significant and unavoidable recreation impact when compared to the Project. Alternative 4 would also substantially reduce less than significant population and housing and school impacts as a result of the all commercial land uses proposed. The significant and unavoidable short-term noise impact during construction, the long-term on-site noise impact due to vehicle operations, and the cumulative impacts to fire, police, and solid waste would not be eliminated by this alternative.

Alternative 4 would meet the majority of the Project objectives by providing a well-designed development compatible with surrounding land uses. For example, the Alternative has been designed with a setback from the single family residential uses to the north with an open area for landscaping. Property tax revenues, as well as construction employment opportunities within the City, would be similar to the Project. Alternative 4 would utilize architectural design, lighting, and landscape design to enhance the architectural character of the proposed buildings and create a gateway building to the City of Glendale and implement the Redevelopment Plan Objectives. Alternative 4 would partially meet the first objective by redeveloping an underutilized site for the community of Glendale, albeit with commercial uses instead of mixed uses. Alternative 4 would not meet certain objectives of the Project. Alternative 4 would not provide for affordable housing within the City when the Project would provide an additional 5 very low income housing units nor would the Alternative provide housing opportunities in an urban setting close to employment opportunities, public facilities, goods, and services.

6.0 EFFECTS NOT FOUND TO BE SIGNIFICANT

INTRODUCTION

Section 15128 of the California Environmental Quality Act (CEQA) Guidelines requires an EIR to briefly describe any possible significant effects that were determined not to be significant and were, therefore, not discussed in detail in the EIR. The items listed below were not found to be significant. Any items not addressed in this section were addressed in **Section 4.0, Environmental Impact Analysis**, of this EIR.

AESTHETICS

Threshold: **Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.**

The Project site is developed and does not contain any natural scenic resources, such as native trees or rock outcroppings. In addition, the Project site is not located within the view corridor of any state scenic highway, as there are no state-designated scenic highways within the City of Glendale.[1] Therefore, the proposed Project would not significantly damage scenic resources within a state scenic highway, and no impact would result.

AGRICULTURE AND FORESTRY RESOURCES

Threshold: **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.**

The Project site and surrounding area are characterized by features typical of the urban landscape and include commercial, and residential uses. No Farmland, agricultural land, or related operations are found in the area or on the Project site. Implementation of the Project would not involve changes that could result in conversion of Farmland to non-agricultural uses because there are no agricultural uses or Farmland in proximity to the Project site. Therefore, there would be no conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use. No impact to agricultural resources would result.

1 California Department of Transportation. Officially Designated State Scenic Highways. January 2013. http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm.

Threshold: **Conflict with existing zoning for agricultural use or a Williamson Act contract.**

The Project site and surrounding area are currently zoned for urban development. Specifically, the Project site is currently zoned Commercial/Residential Mixed-Use (SFMU), which is intended for urban mixed use development. Therefore, no conflict with zoning for agricultural uses or a Williamson Act contract would occur and no impact to agricultural resources would result.

Threshold: **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).**

The Project site and surrounding area are currently zoned for urban development. Specifically, the Project site is currently zoned SFMU, which is intended for urban mixed use development. Therefore, no conflict with zoning for forest land, timberland, or timberland zoned Timberland Production would occur and no impact to forestry resources would result.

Threshold: **Result in the loss of forest land or conversion of forest land to non-forest use.**

Currently, the existing uses on the Project site consist of a one-story commercial building, daycare center, and vacant parking lots. As the Project site has been built out with existing urban development, the Project would not result in the loss of forest land or would not result in the conversion of forest land to non-forest use. No impacts would occur.

Threshold: **Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.**

There is no farmland or forest land in the vicinity of the Project site, as the area is highly urbanized and developed with commercial uses. No farmland or forest land would be converted to non-agricultural or non-forest uses under the Project. No impact would occur.

BIOLOGICAL RESOURCES

Threshold: **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.**

The majority of the local area, including the Project site, has been developed or landscaped and supports largely non-native plant communities and species. Therefore, only a limited number of plant species that flourish in urban environments, none of which are considered Rare or Endangered, can be found on the Project site. Suitable habitat for sensitive mammal, reptile, amphibian, or fish species does not exist on the Project site or within the surrounding area. No impact would occur.

Threshold: **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.**

The Project site and the surrounding area are completely developed and disturbed. No riparian habitat or sensitive natural community is located in these areas. Therefore, no impacts to biological resources would occur with implementation of the Project.

Threshold: **Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.), through direct removal, filling, hydrological interruption, or other means.**

The Project site is neither in proximity to, nor does it contain, wetland habitat or a blue-line stream. Therefore, Project implementation would not have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (CWA), through direct removal, filling, hydrological interruption, or other means. No impact would occur.

Threshold: **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.**

The local area consists of established, highly urbanized, and developed properties. The Project site and the immediate area are almost entirely paved or otherwise developed and do not contain native

resident or migratory species or native nursery sites. In addition, there are no wildlife migration corridors in the Project area. No impact would occur.

Threshold: **Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance.**

The Glendale Municipal Code, Chapter 12.44 Indigenous Trees, contains guidelines for the protection and removal of indigenous trees. These trees are defined as any oak species (Valley Oak, California Live Oak, Scrub Oak, Mesa Oak, and California Like Oak), California Bay or California Sycamore that measures 6 inches or more in diameter. No indigenous trees are located on the Project site and implementation of the Project would not conflict with any local policies or ordinances protecting biological resources. Thus, no impact would occur.

Threshold: **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan.**

The Project site and the surrounding area have been developed and heavily affected by past activities. No adopted Habitat Conservation Plan or Natural Community Conservation Plan exists for the Project site or immediate area. Consequently, implementation of the Project would not conflict with the provisions of any adopted conservation plan. Thus, no impact would occur.

CULTURAL RESOURCES

Threshold: **Cause a substantial adverse change in the significance of a historical resource as defined in State *CEQA Guidelines* Section 15064.5.**

A historic resources survey of the San Fernando Road Redevelopment Area, which includes the Project site, was prepared in November 1996. The survey identified properties eligible for listing on the National Register as well as other properties constructed before 1945. The survey did not identify any structure on the property as a "historical resource" as defined by CEQA.[2] Furthermore, the existing commercial building at 525 W. Colorado Street was constructed in 1970 and the existing daycare center at 515 W. Colorado Street was constructed in 1978.[3] Therefore, no impact would occur.

2 City of Glendale Redevelopment Agency, Initial Study No. 2004-43, (2005).

3 Los Angeles County Office of the Assessor, Property Assessment Information System, http://maps.assessor.lacounty.gov/mapping/viewer.asp, (December 2013).

Threshold: **Cause a substantial adverse change in the significance of an archaeological resource as defined in State *CEQA Guidelines* Section 15064.5.**

Prehistoric and historic archaeological sites are not known to exist within the local area. In addition, the Project site has already been subject to extensive disruption and contains fill materials. Any archaeological resources which may have existed at one time on or beneath the site have likely been disturbed. Nonetheless, construction activities associated with Project implementation would have the potential to unearth undocumented resources and result in a significant impact. In the event that archaeological resources are unearthed during Project subsurface activities, all earth-disturbing work within a 100-meter radius (328 feet) must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. With implementation of this standard requirement, which is incorporated as a Project design feature, no impact would occur.

Threshold: **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.**

Plant and animal fossils are typically found within sedimentary rock deposits. Most of the City of Glendale consists of igneous and metamorphic rock, and the local area is not known to contain paleontological resources. In addition, the Project site has already been subject to extensive disruption and development. Any superficial paleontological resources which may have existed at one time on the Project site have likely been previously unearthed by past development activities. Nonetheless, there is a possibility that paleontological resources may exist at deep levels and could be unearthed with implementation of the Project. In the event that paleontological resources are unearthed during Project subsurface activities, all earth-disturbing work within a 100-meter radius (328 feet) must be temporarily suspended or redirected until a paleontologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. With implementation of this standard requirement, which is incorporated as a Project design feature, no impact would occur.

Threshold: **Disturb any human remains, including those interred outside of formal cemeteries.**

The Project site and surrounding area are characterized by features typical of the urban landscape and include commercial, industrial, and residential uses. No known burial sites exist within the Project area or surrounding area. Nonetheless, if human remains are encountered during excavation and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County coroner has made the necessary findings as to origin and disposition pursuant to Public

Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC will then contact the most likely descendant of the deceased Native American, who will then serve as a consultant on how to proceed with the remains (i.e., avoid removal or rebury). With implementation of this standard requirement, which is incorporated as a Project design feature, no impact would occur.

GEOLOGY AND SOILS

Threshold: **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

- **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42.)**

The Project site is not located within an established Alquist-Priolo Earthquake Fault Zone or designated Fault-Rupture Hazard Zone for surface fault rupture hazards.[4] The Verdugo Fault, located approximately 1.5 miles to the northeast is the closest active fault,[5] and the nearest Fault-Rupture Hazard Zone for active faults with evidence of surface rupture is the Hollywood-Raymond Fault, which is located approximately 2 miles southeast of the Project site. Based on any available geologic data, active or potentially active faults with the potential for surface fault rupture are not known to be located directly beneath or projecting toward the Project site.[6] Therefore, the potential for surface rupture as a result of fault plane displacement during the design life of the Project is less than significant.

- **Strong seismic ground shaking.**

The Project site could be subject to strong ground shaking in the event of an earthquake originating along one of the faults listed as active or potentially active in the Southern California area. This hazard exists throughout Southern California and could pose a risk to public safety and property by exposing people, property, or infrastructure to potentially adverse effects, including strong seismic ground shaking. All structures would be designed in accordance with the International Building Code (IBC), 2010 California Building Code (CBC), applicable City codes and design recommendations found in the soils engineering report;[7] to ensure safety in the event of an earthquake. Since the Project would begin

4 City of Glendale, General Plan Safety Element, 2003, Plate P-1.

5 Ryaback Geotechnical, Inc., "Geotechnical Engineering Investigation for Proposed Colorado Mixed Use Project." October 4, 2013, page 6.

6 Ryaback, "Geotechnical Engineering Investigation for Proposed Colorado Mixed Use Project." 2013, 6.

7 Ryaback, "Geotechnical Engineering Investigation for Proposed Colorado Mixed Use Project." 2013.

construction on or about September 2014, all structures would be designed to the 2013 CBC design standards. Compliance with applicable building codes for the Project site would minimize structural damage to buildings and ensure safety in the event of a moderate or major earthquake. Therefore, impacts related to strong seismic ground shaking would be less than significant.

- **Seismic-related ground failure, including liquefaction.**

Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similarly to a fluid when subjected to high-intensity ground shaking. Liquefaction occurs as a result of three general conditions: (1) shallow groundwater; (2) low-density, fine, clean sandy soils; and (3) high-intensity ground motion. Studies indicate that saturated, loose and medium dense, near-surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential.

The Project site is not located within a mapped liquefaction hazard zone.[8] The soils that underlie the Project site (silty sand and sandy silt, gravel) are classified as moderately dense to dense and not considered prone to liquefaction. Furthermore, the groundwater level within the area exceeds a depth of 65 to 70 feet below the ground surface and, thus, is not considered shallow.[9] Due to the deep groundwater level and the type of soil underlying the Project site, the potential for liquefaction is very low. Therefore, impacts related to liquefaction would be less than significant.

- **Landslides.**

The topography of the Project site and its immediate built environment is relatively flat and, thus, devoid of any distinctive landforms. There are neither known landslides near the Project site nor is the Project site in the path of any known or potential landslides. Therefore, impacts related to landslides would be less than significant.

Threshold: Result in substantial soil erosion or the loss of topsoil.

Construction activity associated with Project development may result in wind and water driven erosion of soils due to grading activities if soil is stockpiled or exposed during construction. However, this impact is considered short-term in nature since the site would be covered with pavement and landscaping upon completion of construction activity. Further, as part of the Project, the applicant would be required to adhere to conditions under the National Pollutant Discharge Elimination System (NPDES) Permit set forth by the Regional Water Quality Control Board (RWQCB), and prepare and submit a Storm Water

8 California Department of Conservation, Division of Mines and Geology, Seismic Hazard Zones, Burbank Quadrangle, 1999.

9 Ryaback, "Geotechnical Engineering Investigation for Proposed Colorado Mixed Use Project." 2013, page 8.

Pollution Prevention Plan (SWPPP) to be administered throughout Project construction. The SWPPP would incorporate Best Management Practices (BMPs) to ensure that potential water quality impacts from water driven erosion during construction would be reduced to less than significant. In addition, the applicant would be required to adhere to SCAQMD Rule 403—Fugitive Dust, which would further reduce the impact related to soil erosion to less than significant.

Threshold: **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.**

The relatively flat topography of the Project site precludes both stability problems and the potential for lurching, which is earth movement at right angles to a cliff or steep slope during ground shaking. As previously discussed, the potential for hazards such as landslides and liquefaction as a result of an earthquake is considered low. Liquefaction may also cause lateral spreading. For lateral spreading to occur, the liquefiable zone must be continuous, unconstrained laterally, and free to move along gently sloping ground toward an unconfined area. However, if lateral containment is present for those zones, then no significant risk of lateral spreading will be present. Since the liquefaction potential at the Project site is low, earthquake-induced lateral spreading is not considered to be a significant seismic hazard at the site.

Ground surface subsidence generally results from the extraction of fluids or gas from the subsurface that can result in a gradual lowering of the ground level. No regional subsidence as a result of groundwater pumping has been reported in Glendale area.[10] Therefore, the potential for ground collapse and other adverse effects due to subsidence to occur on the Project site is considered low.

In order to minimize damage due to geologic hazards, Project design and construction would comply with applicable building codes including the IBC and CBC, and incorporate the recommendations presented in the soils engineering report prepared for the Project site. Therefore, impacts related to exposure to hazards including landslides, lateral spreading, subsidence, liquefaction and collapse would be less than significant.

10 Earth Consultants International, Technical Background Report to the 2003 Safety Element (July 2003), 2-20.

Threshold: **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2001), creating substantial risks to life and property.**

The natural soils underlying the Project site consists of gravel, sand, and silt. Such soils are typically in the low to moderately low range for shrink-swell (e.g., expansion).[11] Additionally, in order to minimize damage due to geologic hazards, the design and construction of the Project would comply with applicable building codes including the IBC and CBC. Therefore, the potential for impacts related to expansive soil would be less than significant.

Threshold: **Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.**

The Project does not include the use of septic tanks or alternative wastewater disposal systems. The Project would be connected to the City of Glendale's wastewater system. Therefore, no impact would occur with the implementation of the Project. Consequently, impacts would be less than significant.

HAZARDS AND HAZARDOUS MATERIALS

Threshold: **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.**

The Project involves the development of a mixed-use project with residential units, medical office space and a restaurant, counter service with limited seating. Associated uses do not generally involve the routine use, transport, or disposal of significant amounts of hazardous materials; however, on-site support service, such as janitorial services, may involve the use of small amounts of hazardous materials. These materials would be stored on site in small quantities. In addition, the medical uses of the Project may involve the delivery, handling, disposal, and the storage of medical supplies and medical hazardous waste, which may include pressurized oxygen tanks, medicine bottles, and insulin syringes. These types of waste would be collected, handled, and disposed of in accordance with all appropriate State laws such as the California Health and Safety Code Section 25218.

A variety of state and federal laws govern the generation, treatment, and disposal of hazardous wastes. The Glendale Fire Department and Los Angeles County have the authority to inspect on-site uses and to enforce state and federal laws governing the storage, use, transport, and disposal of hazardous materials and wastes. In addition, Los Angeles County requires that an annual inventory of hazardous

11 City of Glendale, General Plan Safety Element, 2003. Ryaback, "Geotechnical Engineering Investigation for Proposed Colorado Mixed Use Project." 2013, page 17.

materials in use on site, as well as a business emergency plan, be submitted for an annual review, as required by Emergency Planning and Right-to-Know Act (SARA Title III) and Chapter 6.95 of the California Health and Safety Code. These requirements would be mandated according to state and federal law and are incorporated as Project design features. As such, potential impacts are considered to be less than significant.

Threshold: **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.**

According to the California Department of Toxic Substances Control's (DTSC) EnviroStor Database, the Project site has not been listed as an environmental cleanup area, as a permitted hazardous waste facility and substance site (Cortese List).[12] Hazardous material impacts typically occur in a local or site–specific context. Although other foreseeable developments within the area will likely increase the potential to disturb existing contamination, the handling of hazardous materials would be required to adhere to applicable federal, state, and local requirements that regulate work and public safety. Therefore, impacts of the Project would not have the potential to create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts are considered less than significant.

Threshold: **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.**

Edison Elementary School is located 0.15 miles south of the Project site however; the Project would not emit hazardous emissions or handle hazardous materials. Therefore, no impact would occur.

Threshold: **Be located on a site that is included on a list of hazardous materials sites compiled by Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.**

The Project site is not located on a list of hazardous materials sites compiled by Government Code Section 65962.5. As mentioned above, DTSC's EnviroStor Database indicated that the Project site is not listed as a hazardous material site. The nearest sites with the potential for any hazardous materials which may affect the Project site were found on sites located at 637 W. Colorado Street (La Deau Manufacturing Co.) approximately 0.15 miles west of the site, 5040 San Fernando Road (Kinner Motors),

12 Department of Toxic Control Substances Control (DTSC), EnviroStor Database. Available at: http://www.envirostor.dtsc.ca.gov/public/. Accessed on October 28, 2013.

approximately 0.20 miles west of the Project Site, and 4685 San Fernando Road (Ralphs Grocery Company), approximately 0.40 miles south of the Project Site.[13] The Ralphs Grocery Company was certified and remediated in 1985 by the DTSC. The remaining sites are at a lower sea level elevation when compared to the Project site. As such, the previously discussed sites would not have the potential to directly or indirectly impact the Project site. Impacts would be less than significant.

The Project site is located within the Crystal Springs Wellfield Area 2 (Area 2), South Glendale Operable Unit of the San Fernando Valley National Priority List, or Superfund, site. The US EPA has made this classification based on findings of significant and widespread contamination of groundwater with trichloroethylene (TCE) and perchloroethylene (PCE). According to reports published by the US EPA, the Project site may be located on the edge of the San Fernando Valley Superfund site or outside of the plume altogether. The Project site was investigated in connection with the Superfund site in the early 1990s and was granted a No Further Action status by the US EPA in 1995. The City of Glendale assumed operation of the Glendale Water Treatment Plan to extract, treat, disinfect, and blend the contaminated groundwater. The strict regulatory control over water quality by the State's Department of Health, Office of Drinking Water, the RWQCB, and other agencies, ensure that the water residents consume is safe and that drinking water contains concentrations of contaminants above regulatory standards.

Related projects may be located on or near a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. Development of any of the related projects would be required to comply with applicable laws and regulations pertaining to hazardous wastes, and the risk with identified hazardous material sites would be eliminated or reduced through proper handling, disposal practice, and/or clean up procedures. Development would be denied by the City of Glendale if adequate cleanup or treatment is not feasible. Additionally, no violations or unauthorized releases have been reported at the Project site. Accordingly, cumulative impacts to the public or environment associated with development on or near listed contaminated sites would be less than significant.

Threshold: **Be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.**

The Project site is neither located within an airport land use plan nor is it located within 2 miles of a public airport or public use airport. The closest public airport or public use airport to the Project site is the Burbank-Glendale-Pasadena (Bob Hope) Airport located approximately 6.0 miles to the northwest. Therefore, no impact would occur.

13 Department of Toxic Control Substances Control (DTSC), EnviroStor Database. Available at: http://www.envirostor.dtsc.ca.gov/public/. Accessed on October 28, 2013.

Threshold: **Be within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.**

The Project site is not within the vicinity of a private airstrip. Therefore, no impact would occur.

Threshold: **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.**

According to the City of Glendale Safety Element, Brand Boulevard, which is to the east of the Project site, is a City disaster response route, and Colorado Street, which represents the southern border of the Project site, is a County evacuation route. These routes are the main thoroughfares to be used by emergency response services during an emergency and, if the situation warrants, the evacuation of an area. Implementation of the Project would neither result in a reduction of the number of lanes along these roadway segments in the Project area nor result in the placement of an impediment to the flow of traffic such as medians.

While construction of the Project would unlikely impede emergency traffic along W. Colorado Street, the construction contractor would notify the City of Glendale Police and Fire Department of construction activities along W. Colorado Street; to allow emergency response teams to reroute traffic to an alternate route, if needed. Impacts would be less than significant.

Threshold: **Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.**

The Project site and surrounding area are characterized by features typical of the urban landscape. The Project site is not contained within a fire hazard area as identified in the City of Glendale General Plan Safety Element. Additionally, landscaping plans do not include plantings of flammable brush, grass, or trees on or adjacent to the site. Consequently, implementation of the Project would not result in the exposure of people or structures to hazards associated with wildland fires, and no impact would occur.

HYDROLOGY AND WATER QUALITY

Threshold: **Violate any water quality standards or waste discharge requirements.**

Otherwise substantially degrade water quality.

The Project site currently contains a single story commercial office building, daycare center, and vacant paved lots. Demolition activities would result in the exposure of soils. However, the elevation of the

exposed soils would be below the adjacent sidewalks. The exposed on-site soils would infiltrate rainwater during a storm event.[14] During excavation and grading, contaminated soils may be exposed and/or disturbed; this could impact surface water quality through contact during storm events.

The applicant is required to satisfy all applicable requirements of the NPDES Program and Chapter 13.42, Storm Water and Urban Runoff Pollution Prevention Control and Standard Urban Storm Water Mitigation Plan (SUSMP) of the Glendale Municipal Code that are in effect at the time of Project construction to the satisfaction of the City of Glendale Public Works Department. These requirements include preparation of an SWPPP containing structural treatment and source control measures appropriate and applicable to the Project. The SWPPP will incorporate BMPs by requiring controls of pollutant discharges that utilize best available technology (BAT) economically achievable and best conventional pollutant control technology (BCT) to reduce pollutants. Examples of BAT/BCT that may be implemented during site grading and construction could include silt fences, sand bag barriers, and stabilization of the construction entrance/exit. Preparation of the SWPPP would be a requirement of the Project per city of Glendale requirements. Implementation of BMPs would ensure that Los Angeles RWQCB water quality standards are met during construction activities of the Project. Therefore, no impact during construction would occur. Consequently, impacts would be less than significant.

The Project would increase the intensity of activities on the site, including the potential deposition of pollutants generated by motor vehicle use on project roadways and parking areas, and the maintenance and operation of landscape areas. Storm water quality is generally affected by the length of time since the last rainfall, rainfall intensity, urban uses of the area, and quantity of transported sediment. Typical urban water quality pollutants usually result from motor vehicle operations, oil and grease residues, fertilizer/pesticide uses, human/animal littering, careless material storage and handling, and poor property management. The majority of pollutant loads are usually washed away during the first flush of the storm occurring after the dry-season period.

These pollutants have the potential to degrade water quality and may result in significant impacts. The quality of runoff from the Project site would be subject to Section 402(p) of the CWA under the NPDES program. Development projects are required by the Glendale Municipal Code to submit and implement a SUSMP containing design features and BMPs appropriate and applicable to the project. Applicable BMPs include the filtration of stormwater runoff through planters or equivalent landscape features. Once the onsite stormwater runoff is filtered it would be conveyed through the proposed curb and into the City storm drain system. Due to the size of the site and the Project design features, infiltration of

14 Ryback Geotechnical, Inc., Geotechnical Engineering Investigation Proposed Colorado Mixed Use Project, October 2013, 3.

stormwater is not required and approval of the SUSMP would not be required by the County.[15] Potential water quality impacts of the Project would be less than significant through the preparation of the SUSMP and implementation of the BMPs as specified in the NPDES Permit. Therefore, the potential for impacts related to water quality and stormwater discharge would be less than significant.

Threshold: **Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted).**

Currently, the City utilizes water from Glendale Water & Power (GWP), which relies on some local groundwater supplies. Consequently, implementation of the Project would result in additional development that could indirectly require an increased use of groundwater through the provision of potable water by GWP; however, as discussed in **Section 4.9, Utilities and Service Systems,** of this EIR, the Project's water demand is within water projections. Groundwater to be consumed by the Project would be utilized according to current plans and projections of the GWP groundwater supplies. As a result, implementation of the Project would not substantially deplete groundwater supplies. In addition, the groundwater basins are governed by the California Superior Court decision, *City of Los Angeles vs. City of San Fernando, et al.*, and the Basin Watermaster is vested with the responsibility to monitor and account for any groundwater extraction within the Project area with sustainability as a goal. The Project would not extract groundwater on an operational basis. Consequently, impacts would be less than significant.

The Project site largely consists of impervious surfaces at this time and this would not change substantially with the development of the site. Further, the site is neither a designated groundwater recharge area nor serves as a primary source of groundwater recharge within the San Fernando or Verdugo Basins. Consequently, the potential for impacts related to groundwater extraction and recharge will be less than significant.

15 Electronic communication between CMGT Construction Company and Maurice Oillataguerre, City of Glendale Department of Public Works on September 6, 2013.

Threshold: **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site.**

Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.

Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

The Project site is developed and is served by an existing storm water collection and conveyance system. As a large portion of the site is covered with impervious surfaces at this time, the quantity of runoff would not change substantially with implementation of the Project. All runoff would continue to be conveyed via streets and gutters to storm drain locations around the site. As a result, the Project would not require any substantial changes to the existing drainage pattern of the site or the area, nor would it affect the capacity of the existing storm drain system. Furthermore, as discussed above, the Project site is less than one acre and would only need to meet minimum requirements for stormwater runoff control. The Project would however, filter onsite drainage through planters and ground landscaped areas prior to being conveyed into the City storm drain system around the site. Filtered stormwater runoff would be conveyed through the existing curb into the City storm drain system. In addition, in accordance with Glendale Municipal Code Chapter 13.42, Storm Water and Urban Runoff Pollution Prevention Control and Standard Urban Storm Water Mitigation Plan, a SUSMP containing design features and BMPs to reduce post-construction pollutants in storm water discharges would be submitted and implemented as part of the Project. Consequently, the potential for impacts are considered to be less than significant.

Threshold: **Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.**

Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

According to Federal Emergency Management Agency flood hazard maps, the Project site is not located within a 100-year flood zone; therefore, the Project would not place housing within a 100-year flood

hazard area or result in structures being constructed that would impede or redirect flood flows.[16] The Project would not be subject to flooding, and, therefore, no impact would occur.

Threshold: **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.**

There are seven dams located within the City of Glendale.[17] The nearest dam to the Project site is the Diederich Reservoir, located approximately 2 miles north of the Project site. According to the City of Glendale General Plan Safety Element, the Project is not located within the inundation zone of this dam or other dams located within the City or elsewhere.[18] Accordingly, the risk associated with flooding resulting from dam failure is considered less than significant.

Threshold: **Create the potential for inundation by seiche, tsunami, or mudflow.**

The Project site is not located downslope of any large bodies of water that could adversely affect the site in the event of earthquake-induced seiches, which are wave oscillations in an enclosed or semi-enclosed body of water. The Project site is not in coastal area. Therefore, tsunamis (seismic sea waves) are not considered a significant hazard at the site. Additionally, the Project site is not located near any hillside areas that could produce mudflows. Therefore, no impacts related to inundation by seiche, tsunami, or mudflow would result from implementation of the Project.

LAND USE AND PLANNING

Threshold: **Conflict with any applicable habitat conservation plan or natural community conservation plan.**

The Project site and surrounding area have been developed and heavily affected by past activities. The Project site and immediate area are not located in an adopted habitat conservation plan or natural community conservation plan area. Consequently, implementation of the Project would not conflict with the provisions of any adopted conservation plan, and no impact would occur.

16 City of Glendale, General Plan Safety Element, (2003), p. 3-7.

17 City of Glendale, 2003. p. 3-7.

18 City of Glendale, 2003. Plate P-2.

MINERAL RESOURCES

Threshold: **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.**

Threshold: **Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.**

The Project site and surrounding area are characterized by features typical of the urban landscape and include commercial and residential uses. The State Geologist has mapped the Glendale area for aggregate resources. According to Map 4-28 of the City of Glendale General Plan Open Space and Conservation Element, the Project site is located within a Mineral Resource Zone (MRZ)-1. MRZ-1 is defined as an area where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence. As a result, no impact would occur.

NOISE

Threshold: **For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

The Project site is neither located within an airport land use plan nor is it located within 2 miles of a public airport or public use airport. The closest public airport or public use airport to the Project site is the Bob Hope Airport located about 6.0 miles to the northwest. Consequently, no impacts associated with excessive airport noise levels would result.

Threshold: **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.**

The Project site is not within the vicinity of a private airstrip. Consequently, no impacts associated with noise would result for employees or patrons of the Project.

POPULATION AND HOUSING

Threshold: **Would displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.**

Would displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

No residential dwelling units currently exist on the Project site. The Project would redevelop the Project site and add 90 multifamily residential units to the area. No housing or residential populations would be displaced by development of the Project, and the construction of replacement housing elsewhere would not be necessary. No impact would occur.

TRAFFIC

Threshold: **Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

The Project site is not located in the vicinity of an airport. Consequently, the Project would not result in a change in air traffic patterns that would result in safety risks. No impact would occur.

UTILITIES AND SERVICE SYSTEMS

Threshold: **Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.**

Under Section 401 of the CWA, the RWQCB issues NPDES permits to regulate waste discharged to "waters of the nation," which includes reservoirs, lakes, and their tributary waters. Waste discharges include discharges of storm water and construction Project discharges. A construction project resulting in the disturbance of more than 1 acre requires a NPDES Permit. Construction projects are also required to prepare a SWPPP. In addition, the Project would be required to submit an SUSMP to mitigate urban storm water runoff. Prior to the issuance of building permits, the Project applicant would be required to satisfy the requirements related to the payment of fees and/or the provisions of adequate wastewater facilities. The Project would comply with the waste discharge prohibitions and water quality objectives established by the Los Angeles RWCQB. Therefore, no impact would occur.

Threshold: **Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

No new sources of water supply, such as groundwater, are required to meet the Project's water demand. Water serving the Project would be treated by existing extraction and treatment facilities, and no new facilities, or expansion of existing facilities, would be required. Therefore, no impact would occur.

7.0 OTHER CEQA SECTIONS

This section considers and discusses other topics identified in the State *CEQA Guidelines,* including the potential for the Project to induce growth and the identification of irreversible impacts.

7.1 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the *California Environmental Quality Act (CEQA) Guidelines*, as amended, requires the discussion of the ways in which a project could directly or indirectly foster economic growth, population growth, or the construction of additional housing in the surrounding environment. This discussion should also include projects that would remove obstacles to population growth. It should include the characteristics of a project, which may encourage and/or facilitate other activities that could significantly affect the environment, either individually or cumulatively. CEQA emphasizes that growth in an area should not be considered beneficial, detrimental, or of little significance. The purpose of this section is to evaluate the growth-inducing potential and impact of this Project.

In general terms, a project may foster spatial, economic or population growth in a geographic area if it meets any one of the criteria that are identified as follows:

- Removal of an impediment to growth (e.g., the establishment of an essential public service or the provision of new access to an area)
- Economic expansion or growth (e.g., construction of additional housing, changes in revenue base, employment expansion)
- Establishment of a precedent-setting action (e.g., an innovation, a change in zoning or general plan designation)
- Development or encroachment in an isolated or adjacent area of open space (being distinct from an "infill" type of project)

Should a project meet any one of these criteria, it can be considered growth inducing. An evaluation of this Project compared against these growth-inducing criteria is provided in the following.

Removal of an Impediment to Growth

Growth in an area may result from the removal of physical impediments or restrictions to growth, as well as the removal of planning impediments resulting from land use plans and policies. In this context, physical growth impediments may include nonexistent or inadequate access to an area or the lack of essential public services (e.g., water service), while planning impediments may include restrictive zoning and/or general plan designations.

The surrounding area contains established land uses and has supporting infrastructure. Construction of the proposed uses would require the modification and/or improvement of existing infrastructure in order to support the increased land use intensity associated with the Project. Such modifications and

improvements to infrastructure are discussed in further detail as follows. Given the urban nature of the site and surroundings, and the existence of established infrastructure, no growth-inducing impacts would result from Project development.

An established transportation network exists in the surrounding area that offers local and regional access to the Project site. Access to the subterranean parking structure would be provided by a driveway on W. Colorado Street. A drop-off, circular driveway would be provided for all proposed uses on the site adjacent to W. Colorado Street. On-street parking will not be allowed along the frontage of the Project to facilitate inbound and outbound traffic and to maintain visibility for outbound drivers.

Sidewalks along the frontages of the Project site would be replaced to improve pedestrian access to the site. The existing 5 foot, 6-inch sidewalk would be widened to 10 feet with the inclusion of a 4 foot, 6-inch public easement on the Project site. Pedestrian access to the ground floor would be provided along the front façades of the building. The sidewalks would be constructed in compliance with the American with Disabilities Act (ADA) and would provide compliant handicap ramps. Each level of the parking structure would provide pedestrian access to each corresponding floor of the building. All improvements would be designed to serve the Project and would not induce growth within the area.

The water and energy (electricity and natural gas) infrastructure required to support the Project would be available to the Project site from surrounding streets. The Project site is currently served by multiple water lines corresponding to each of the four parcels. Existing water lines serving the site are 2-inches in diameter. These water lines would be extended and connect to an 8-inch water main, located in W. Colorado Street. No new water mains other than those required to serve the Project site would be constructed. As such, the development of on-site water infrastructure to serve the Project would not induce growth within the area.

Electricity and natural gas transmission infrastructure presently exists on and in the vicinity of the Project site. Development of the Project may require the construction of an on-site distribution system to convey this energy to uses on the site. This system would be designed to accommodate the uses proposed within the Project, and would not extend beyond the requirements or boundary of the Project. The on-site service lines would be sized to meet the demands of the Project. No growth-inducing impacts, due to the extension of electrical or natural gas service lines, would occur with the development of the Project.

Concerning sewer infrastructure, four existing 6-inch sewer lines serve the Project site and connect to a 21-inch main sewer line located in W. Colorado Street. City of Glendale policy requires upgrades to

sewer lines serving new development as needed to accommodate increases in the volume of wastewater discharged to the collection system.

In summary, the design and construction of roadway, water, sewer, electrical, and natural gas infrastructure needed to accommodate the Project would not induce growth within undeveloped areas surrounding the Project area.

Economic Growth

The second criterion by which growth inducement can be measured involves economic considerations. In the short term, the Project would provide for short-term construction employment opportunities. It is anticipated that construction employees would commute from elsewhere in the region, rather than relocate to the City of Glendale for a temporary assignment.

Long-term growth, should it occur, would be primarily in the form of an economic response to the new residents that would occupy the site. The increase of 264 new residents associated with the Project may result in a slight corresponding increase in demand for City goods and services. However, given the relatively small size of the Project in relation to City population, the economic contribution of this Project alone would not be considered growth inducing.

Precedent-Setting Action

Changes from a project that could be precedent setting include (among others) approval of General Plan Amendments, Subdivision, and Variances that could have implications for other properties or that could make it easier for other properties to develop.

The Project site is currently designated as "Mixed Use" on the general plan land use map and zoned as Commercial/Residential Mixed-Use (SFMU) on the Glendale Zoning Map. As stated in the General Plan Land Use Element, lots fronting San Fernando Road, Broadway, and Colorado Street must include commercial uses along the street frontage. The Mixed-Use designation permits a mix of commercial and residential uses as well as exclusively commercial, industrial, or residential land uses. According to *Glendale Municipal Code,* Section 30.14.010(B), Table 30.14-A, the SFMU zoning classification allows for a mix of residential and commercial, or just commercial, or just residential (when not fronting San Fernando Road, Broadway, or Colorado Street). Therefore, the mixed uses as proposed are permitted under the existing general plan and existing zoning designations. The SFMU zone designation also allows buildings on a site adjacent to the Moderate Density Residential (R-3050) zone to be up to 4 stories and 60 feet in height with a maximum density of 87 dwelling units per acre.

The applicant is requesting a discretionary approval, which may have the potential to set precedent-setting actions. The requested discretionary approval consists of a Density Bonus Housing Plan and Density Bonus Housing Agreement. State law indicates that a project is eligible for a 20 percent density bonus when at least 5 percent of the units are designated for very low income households or 10 percent of the units are designated for low income households. An applicant seeking a density bonus, incentive or concession is required to submit a Density Bonus Housing Plan identifying the allowed number of units, the number requested, and the amount of density bonus and the number and type of incentives or concessions requested.

The Project would provide 5 percent of the proposed units for very low income households and be eligible for a 20 percent density bonus increase. Implementation of the density housing bonus would allow the maximum residential density for the Project site to increase by 17 units (a 20 percent density bonus increase), including the five very low income household units, above the allowed 86 units under the *Glendale Municipal Code*. Therefore, the applicant would be allowed to develop up to 103 residential units on the site. It should be noted, however, that the applicant would develop only 5 percent of the 20 percent allowed density bonus increase of residential units for the site.

Since the applicant is seeking a density bonus, a Density Bonus Housing Plan is required by the City of Glendale identifying the allowed number of units, the number requested, and the amount of density bonus and the number and type of incentives or concessions requested. The Project would include at least 5 percent of the total units, approximately 5 units of the proposed 90 units, for very low income households as described in Section 30.36 of the *Glendale Municipal Code*. Accordingly, the Project is taking only partial advantage of the allowed number of bonus units for the site.

With respect to the height incentive, because the Project would provide five units of very low income housing, and because the project would qualify for a Density Bonus under State and local law, the Project would also qualify for an incentive, which, according to the *Glendale Municipal Code*, Section 30.36.30, is a “reduction in site development standards or a modification of zoning code requirements.” The incentive requested is a waiver from the story standard for 5 total stories. Incentives such as this would be granted to qualifying projects according to the *Glendale Municipal Code,* Section 30.36.070. As such, the Project would not be defined as precedent setting and thus not growth inducing.

Development can be considered growth inducing when it requires the extension of urban infrastructure into isolated localities, which are presently devoid of such facilities. The Project site is situated in an area that is surrounded to the north, east, south, and west by commercial and residential uses that contain established infrastructure. Existing uses surrounding the Project site consist of a 3-story commercial building to the west, four single-family residences and two 3-story multifamily buildings to the north, an

existing gas station to the east, and W. Colorado Street to the south with the ICIS apartment project and commercial uses. Consequently, the Project would not induce growth under this criterion because it would not result in the urbanization of land in an isolated location.

It must be emphasized that the State *CEQA Guidelines* require an EIR to "discuss the ways" a project could be growth inducing and "discuss the characteristics of some projects that may encourage activities that could significantly affect the environment." However, the State *CEQA Guidelines* do not require an EIR to predict or speculate where such growth would occur, in what form it would occur, or when it would occur. Attempting to determine the environmental impacts created by growth that might be induced by the Project is speculative because the size, type, and location of specific future projects that may be induced by this Project are unknown at the present time. Therefore, such impacts are too speculative to evaluate (see State *CEQA Guidelines,* Section 15145). To the extent that specific projects are known (as discussed in **Section 4.0, Environmental Impact Analysis**, of this EIR), those projects have already been or would be subjected to their own environmental analysis. Additionally, due to the variables that must be considered when examining the mechanics of urban growth (e.g., market forces, demographic trends), it would be speculative to state conclusively that implementation of the Project alone would induce growth in the surrounding area. Further analysis of impacts associated with growth in the Glendale area, and corresponding cumulative impact assessment methodology, can be found in the cumulative analyses for each individual topic addressed in **Section 4.0**.

7.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the State *CEQA Guidelines* states that use of nonrenewable resources during the initial and continued phases of a project may be irreversible if a large commitment of these resources makes their removal, indirect removal, or nonuse thereafter unlikely. This section of the environmental impact report (EIR) evaluates whether the Project would result in the irretrievable commitment of resources, or would cause irreversible changes in the environment. Also, in accordance with Section 15126.2 of the State *CEQA Guidelines*, this section identifies any irreversible damage that could result from environmental accidents associated with the Project.

Irreversible Commitment of Resources

The Project proposes to replace the existing structures with four "structures" connected at the podium level and by the two levels of subterranean parking underneath. The Mixed-Use Project would provide 90 multifamily residential units, a 1,200 square foot activity room, 18,000 square feet of medical office space, and 1,000 square feet of restaurant, counter service with limited seating. The subterranean parking structure would accommodate 246 parking spaces and 10 bicycle spaces. In addition, the Project is designed to include 3,661 square feet of ground floor planting area and 2,900 square feet of terrace planting area.

The construction and operation of the Project would contribute to the incremental depletion of resources, including renewable and nonrenewable resources. Resources, such as lumber and other forest products, are generally considered renewable resources. Such resources would be replenished over the lifetime of the Project. For example, lumber supplies are increased as seedlings mature into trees. As such, the development of the Project would not result in the irreversible commitment of renewable resources. Nevertheless, there would be an incremental increase in the demand for these resources over the life of the Project.

Nonrenewable resources, such as natural gas, petroleum products, asphalt, petrochemical construction materials, steel, copper, and other metals, and sand and gravel are considered to be commodities that are available in a finite supply. The processes that created these resources occur over a long period of time. Therefore, the replacement of these resources would not occur over the life of the Project. To varying degrees, the aforementioned materials are all readily available and some materials, such as asphalt or sand, and gravel, are abundant. Other commodities, such as metals, natural gas, and petroleum products, are also readily available, but they are finite in supply, given the length of time required by the natural process to create them.

The demand for all such resources is expected to increase regardless of whether or not the Project is developed. The State Department of Finance indicates that the population of Southern California will increase 62 percent over the 30-year period between 1990 and 2020. These increases in population would directly result in the need for more retail, commercial, and residential facilities in order to provide the needed services associated with this growth. If not consumed by this Project, these resources would likely be committed to other projects in the region intended to meet this anticipated growth. Furthermore, the investment of resources in the Project would be typical of the level of investment normally required for a residential use of this scale. Mitigation measures have been included in this EIR to reduce and minimize Project and cumulative impacts.

Irreversible Environmental Changes

Irreversible long-term environmental changes associated with the Project would include a change in the visual character of the site as a result of the conversion of the Project site to a new commercial/residential mixed use. Additional irreversible environmental changes would include the increase in local and regional vehicular traffic, and the resultant increase in air pollutants and noise emissions generated by this traffic, among other impacts. Design features have been incorporated into the development proposal and mitigation measures are proposed in this EIR that would minimize the effects of the environmental changes associated with the development of the Project to the maximum degree feasible. In addition, the Project site is an urban site already and the implementation of the Project would improve this location of the City. Even with this being the case, the Project would result in short-term noise and vibration impacts during construction; long-term and cumulative impacts to recreation facilities; and cumulative impacts to fire, police, sewer, and solid waste.

Potential Environmental Damage from Accidents

The Project proposes no uniquely hazardous uses, and its operation would not be expected to cause environmental accidents that would affect other areas. The Project site is located within a seismically active region and would be exposed to ground shaking during a seismic event. Conformance with the regulatory provisions of the City of Glendale, the California Building Code (CBC), and all other applicable building codes pertaining to construction standards would minimize, to the extent feasible, damage, and injuries in the event of such an occurrence.

8.0 ORGANIZATIONS AND PERSONS CONSULTED

LEAD AGENCY

City of Glendale

Community Development Department

Erik Krause, Principal Planner

Vilia Zemaitaitis, AICP, Senior Planner

Allen Castillo, Senior Development Officer

Public Works Department

Maurice Oillataguerre, Senior Environmental Program Specialist

Mike Whiederkehr, Assistant Integrated Waste Management Administrator

Wayne Ko, PE, Traffic Engineer

Chris Chew, Civil Engineer

Park Planning and Development

Emil Tatevosian, Project Management Administrator

Tereza Aleksanian, Executive Analyst

Glendale Fire Department

Douglas Nickles, Fire Prevention Coordinator

Glendale Police Department

Lieutenant Steve Robertson, Bureau Commander, Traffic & Air Support

Abigail Luczon, Senior Crime Analyst

Glendale Water and Power – Water Engineering

Gerald Tom, Senior Civil Engineer

Glendale Unified School District

Karolin Savarani, Executive Secretary, Business Services

Melanie Nazarbekian, Administrative Secretary, Facilities Planning, Development & Support Operations

EIR PREPARATION

Meridian Consultants

Tony Locacciato, AICP, Principal, EIR Oversight

Mark A. Austin, AICP, Principal, Air Quality & Noise Analysis

Joe Gibson, Principal, Water Impact Analysis

Chris Hampson, Project Manager

Brian McCarthy, Senior Project Planner

Roland Ok, Project Planner

Sarah Ekeberg, Project Planner

Christ Kirikian, Project Environmental Scientist

Lisa Maturkanic, Project Coordinator

Tom Brauer, Graphics Coordinator

Melissa Mathews, Editor

KOA Corporation

Bruce Chow, P.E.

Brian Marchetti, AICP

Rybak Geotechnical, Inc.

Richard Rybak, G.E., President

ArquiTaller Inc.

Efrain Olivares, AIA

Khan Consulting

Rodney Khan

9.0 REFERENCES

The following sources were used in the preparation of this EIR:

California Air Pollution Control Officers Association, *CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, www.capcoa.org/ (January 2008).

California Air Resources Board, *California Greenhouse Gas Inventory for 2000-2009- by Category as Defined in the Scoping Plan*, http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-08_2010-05-12.pdf (October 26, 2011).

California Air Resource Board, *Air Quality and Land Use Handbook* (2005).

California Air Resource Board, *California Greenhouse Gas Inventory for 2000-2009-by Category as Defined in the Scoping Plan,* http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-08_2010-05-12.pdf (October 26, 2011).

California Air Resource Board, *Climate Change Scoping Plan, a Framework for Change as Approved December 2008*. http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf (December 2008).

California Air Resource Board, *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration,* www.arb.ca.gov/cc/ejac/ghg_eamcommitteelist.pdf (October 2007).

California Air Resource Board, *Fact Sheet, Climate Change Emission Control Regulations* (December 10, 2004).

California Code of Regulations, Title 20, sec. 1605.1, *Federal and State Standards for Federally-Regulated Appliances.*

California Code of Regulations, Title 20, sec. 1605.3, *State Standards for Non-Federally Regulated Appliances*.

California Code of Regulations, Title 22, Division 4, Chapter 3, *Water Recycling Criteria*.

California Code of Regulations, Title 22, Group 4, Article 2, *Protection of Water System*.

California Department of Finance, *E-5: City/County Population and Housing Estimates* (January 1, 2013).

California Department of Resources Recycling and Recovery (CalRecycle), Jurisdictional Diversion/Disposal Rate Summary (1995-2006), Jurisdiction Glendale, http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/ JurisdictionDiversion.aspx.

California Department of Resources Recycling and Recovery (CalRecycle), Waste Characterization, Residential Developments: Estimated Solid Waste Generation Rates, http://www.calrecycle.ca.gov/wastechar/wastegenrates/Residential.htm.

California Department of Resources Recycling and Recovery (CalRecycle), Waste Characterization: Estimated Solid Waste Generation Rates, http://www.calrecycle.ca.gov/wastechar/wastegenrates/default.htm.

California Department of Resources Recycling and Recovery (CalRecycle), (formally known as the California Integrated Waste Management Board), *Senate Bill 1252 Amendment* (June 30, 2008).

California Department of Transportation, *Technical Noise Supplement, A Technical Supplement to the Traffic Noise Analysis Protocol* (Sacramento, CA: November 2009).

California Department of Transportation, Officially Designated State Scenic Highways, http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm (January 2013).

California Department of Water Resources, Bay-Delta Office, *Final - The State Water Project Delivery Reliability Report 2011* (June 2012).

California Energy Commission*, Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004, Staff Final Report, CEC-600-2006-013-SF* (December 2006).

California Environmental Protection Agency, *Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the California Legislature*, www.climatechange.ca.gov/climate_action_team /reports/index.html (March 2006).

California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, *Health Effects of Diesel Exhaust,* http://oehha.ca.gov/public_info/facts/dieselfacts.html (OEHAA 2002) California Air Resources Board, Vinyl Chloride, www.arb.ca.gov/research/aaqs/caaqs/vc/vc.htm (2002).

California Office of the Attorney General, *The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Level* (2008).

City of Glendale, *Bicycle Transportation Plan Final Draft* (May 2012).

City of Glendale, *General Plan, Safety Element* (2003).

City of Glendale, *General Plan*, *Housing Element 2006-2014* (2009).

City of Glendale, *General Plan, Recreation Element* (1996).

City of Glendale, *Municipal Code,* sec. 4.10, *Public Use Facilities Development Impact Fees* (2011).

City of Glendale, *Municipal Code,* sec. 4.10.050(G)(d)*, Exemptions* (2011).

City of Glendale, *Municipal Code,* sec. 8.58.010, *Definitions* (amended October 23, 2008).

City of Glendale, *Municipal Code,* Ch. 13.40 *Sewer System, Article II*.

City of Glendale, *Municipal Code,* sec. 13.36.060, "No Water Waste Policy."

City of Glendale, *Municipal Code,* Title 30, sec. 30.36.080*, Density Bonus Incentives*.

City of Glendale, *Municipal Code,* Title 30, *Zoning Code*, Ch. 30.35.020, *Affordable Housing*.

City of Glendale, *Open Space and Conservation Element* (revised September 2005).

City of Glendale, *Public Works, Capital Improvement Program* (May 8, 2012).

City of Glendale, San Fernando Road Redevelopment Project Area, http://www.ci.glendale.ca.us/dev-svcs/SFCorridor.asp.

City of Glendale, *Source Reduction and Recycling Element* (June 1991).

City of Los Angeles, *Northeast Los Angeles Community Plan* (May 2001).

City of Los Angeles Department of Public Works, Bureau of Sanitation, *Wastewater Facts and Figures*, http://www.lacitysan.org/wastewater/factsfigures.htm.

Code of Federal Regulations, Title 40, *Protection of Environment*, Part 403, *General Pretreatment Regulations for Existing and New Sources of Pollution*.

County of Los Angeles Department of Public Works, *Los Angeles County Countywide Integrated Waste Management Plan, 2012 Annual Report* (August 2013).

Department of Water Resources, *California Water Plan Update 2009,* Volume 4 (December 2009).

Department of water Resources, *Reference Guide, Legislation, 2009 Comprehensive Water Package, Special Session Policy Bills and Bond Summary* (November 2009).

Department of Water Resources, *California Water Code*, sec. 10610–10656, *Urban Water Management Planning Act* (commonly referred to as SB 610).

Earth Consultants International*, Technical Background Report to the 2003 Safety Element* (July 2003).

Federal Highway Administration (FHA), *Fundamentals and Abatement of Highway Traffic Noise* (1980).

Glendale Fire Department, *2010 Annual Report* (2011).

Glendale Fire Department, Fire Administration, http://fire.ci.glendale.ca.us/fireadm.asp.

Glendale Police Department, Geographic Area – South Command, http://www.ci.glendale.ca.us/police/area_command_south_command.aspx.

Glendale Police Department, *Monthly Crime Statistics and Activity Report* (December 2012).

Glendale Redevelopment Agency, *San Fernando Road Corridor Redevelopment Project Final EIR* (1992).

Glendale Unified School District, *Impact of Residential Development on the Need for Additional School Facilities* (February 2012).

Glendale Water and Power, *Annual Report: 2010–2011 Water Utility Operating Statistics*, http://www.glendalewaterandpower.com/reports/annual_reports.aspx.

Glendale Water and Power, *2007–2008 Annual Report: Operating Statistics: Water Utility*, Figure 3, http://www.glendalewaterandpower.com/pdf/annual_reports/07-08/OperatingStatistics.pdf .

Glendale Water and Power, *2010 Urban Water Management Plan* (adopted June 2011).

Institute of Transportation Engineers, *Trip Generation,* 8th edition (2008).

Intergovernmental Panel on Climate Change, *Summary for Policymakers, Climate Change 2007: The Physical Science Basis, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Avery, M. Tignor and H.L. Miller [eds.]). (Cambridge University Press: Cambridge, UK, 2007).

KOA Corporation, *Technical Impact Analysis – Mixed Use Development at 507–525 W. Colorado Street, Glendale* (October 3, 2013).

Metropolitan Water District of Southern California, *Integrated Water Resources Plan*, *2010 Update* (2010).

Office of Planning and Environment, Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* FTA-VA-90-1003-06 (May 2006).

Rybak Geotechnical, Inc., *Geotechnical Engineering Investigation Proposed Colorado Mixed Use Project* (October 4, 2013).

Sanitation Districts of Los Angeles County, *County of Los Angeles, Draft Regional Comprehensive Plan: Solid Waste,* http://dpw.lacounty.gov/epd/tf/Attachments/Minutes_Attachments/June_19_2008_TF/Item_VIII_RCP_Solid_Wa ste.pdf (2008).

Sanitation Districts of Los Angeles County, Future Solid Waste Management Activities, http://www.lacsd.org/info/publications_n_reports/fiscal04_05/futureactivities.asp (March 2010).

Sanitation Districts of Los Angeles County, Mesquite Regional Landfill, http://www.mrlf.org/index.php?build=view&idr=122&page2=&pid=32 (October 2008).

South Coast Air Quality Management District (SCAQMD), *Air Quality Management Plan*, www.aqmd.gov/aqmp/AQMD03AQMP.htm (2012).

SCAQMD, *CEQA Air Quality Handbook* (1993).

SCAQMD, *Final 2012 Air Quality Management Plan*, www.aqmd.gov/aqmp/07aqmp/index.html (2007).

SCAQMD, *Final 2007 Air Quality Management Plan*, www.aqmd.gov/aqmp/07aqmp/index.html (2007).

SCAQMD, Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting #14, http://www.aqmd.gov/ceqa/handbook/GHG/2009/nov19mtg/nov19.html (2009).

SCAQMD, Greenhouse Gases (GHG) CEQA Significance Thresholds Working Group Meeting #15, http://www.aqmd.gov/ceqa/handbook/GHG/2010/sept28mtg/sept29.html (2010).

Southern California Associations of Governments, *2012–2035 Regional Transportation Plan/Sustainable Communities Strategy* (April 2012).

State of California, *Executive Order S-3-05*, http://www.dot.ca.gov/hq/energy/ExecOrderS-3-05.htm (June 1, 2005).

State of California, Environmental Protection Agency, *Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the California Legislature*, www.climatechange.ca.gov/climate_action_team /reports/index.html (March 2006).

State Water Resources Control Board, Porter Cologne Water Quality Control Act, *California Water Code*, Division 7, *Water Quality* (effective January 1, 2008).

Transportation Research Board, National Research Council, *Highway Capacity Manual Special Report 209* (Washington, D.C., 2000).

U.S. Department of Transportation, *Construction Noise Handbook,* Chapter 9.0 (August 2006).

U.S. Department of Transportation, *Federal Highway Administration, Fundamentals and Abatement of Highway Traffic Noise* (Springfield, VA: U.S. Department of Transportation, Federal Highway Administration, September 1980).

U.S. Environmental Protection Agency (EPA). *A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions*, EPA420-P-02-001 (October 2002).

U.S. Environmental Protection Agency (EPA), *Benzene,* Technology Transfer Network, Air Toxics Website, www.epa.gov/ttn/atw/hlthef/benzene.html (revised in 2000).

U.S. Environmental Protection Agency (EPA). *Fact Sheet, Proposed Revisions to the National Ambient Air Quality Standards for Nitrogen Dioxide*, www.epa.gov/air/nitrogenoxides/pdfs/20090722fs.pdf (July 22, 2009).

U.S. Environmental Protection Agency (EPA). *Health and Environmental Impacts of CO*. http://www.epa.gov/airquality/carbonmonoxide/ health.html.

U.S. Environmental Protection Agency (EPA), *Health Effects Notebook for Hazardous Air Pollutants,* Technology Transfer Network, Air Toxics Website, www.epa.gov/ttn/atw/hlthef/hapindex.html, (last updated April 5, 2010).

U.S. Environmental Protection Agency (EPA). *Office of Air and Radiation. Nitrogen Oxides: Impact on Public Health and the Environment.* www.epa.gov/ttn/oarpg/t1/reports/noxrept.pdf (1997).

U.S. Environmental Protection Agency (EPA). *Ozone and your Health*, EPA-452/F-99-003, www.epa.gov/air/ozonepollution/pdfs/health.pdf (1999).

U.S. Environmental Protection Agency (EPA), *Pacific Southwest, Region 9: Superfund*, *San Fernando Valley (area 2 Glendale),* http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/vwsoalphabetic/San+Fernando+Valley+(Area+2+Glendale)?OpenDocument.

U.S. Environmental Protection Agency (EPA), *Particle Pollution and Your Health*, EPA-452/F-03-001, http://epa.gov/pm/pdfs/pm-color.pdf (September 2003).

United States Code, Title 33, sec. 404, *Navigation and Navigable Waters*.

United States Code, Title 42, sec. 300f, *Safety of Public Water Systems*.

White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions, SCAQMD Board Meeting, September 5, 2003, Agenda No. 29, Appendix D.