60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER

Draft Environmental Impact Report

State Clearinghouse No. 2007071049

Prepared for
City of Lancaster

December 2008

NOTICE OF AVAILABILITY
60TH STREET WEST AND AVENUE K SHOPPING CENTER
DRAFT ENVIRONMENTAL IMPACT REPORT (EIR)
SCH NO. 2007071049

Project Title: 60TH Street West and Avenue K

Project Location – City: Lancaster

Project Location – County: Los Angeles

Project Location – Specific: The proposed project consists of a total of approximately 22.34 acres in the City of Lancaster, within Los Angeles County, California. Specifically, the project site is located on the northwest corner of Avenue K and 60th Street West.

Description of the Project: The proposed project consists of a 236,109 square foot (sf) commercial shopping center, anchored by a 139,410 sf home improvement store with an attached 31,659 sf outdoor garden center. A total of eight buildings and a separate car wash facility are proposed on the project site. One of the buildings would consist of a combined gas station/convenience store. The other buildings would be used for retail, including a drug store, and fast food operations.

Significant Effects Discussed in the Draft EIR: The Draft EIR discusses the proposed project's impacts associated with land use and planning; population and housing, traffic, noise, air quality, hazards and hazardous materials, geology and soils, hydrology, biological resources, cultural resources, public services and utilities, and visual resources. All significant effects of the proposed project have been reduced to less than significant levels with implementation of mitigation, with the exception of traffic, construction and operational air quality, construction and operational noise, and aesthetics (lighting impacts).

Lead Agency: City of Lancaster

Department: Planning Department

Contact Person: Ms. Jocelyn Swain

Area Code/Phone/Extension: (661) 723-6249

Address Where Copy of the Draft Environmental Impact Report is Available:

The Draft EIR is available for public review at the:

CITY OF LANCASTER
Planning Department
44933 Fern Avenue
Lancaster, CA 93534
(661) 723-6100
Hours: 8:00 a.m. – 6 p.m., Mon. thru Thurs.
8:00 a.m. – 5 p.m., Friday

The Draft EIR is also available at the Reference Desk at the following library:

LANCASTER PUBLIC LIBRARY
601 W. Lancaster Boulevard
Lancaster, CA 93534
(661) 948-5029
Hours: 10 a.m. – 8 p.m., Mon. thru Wed.
10 a.m. – 5 p.m., Thurs. & Fri.
11 a.m. – 5 p.m., Saturday

Public Review Period: The Draft EIR is being circulated for a **45 day review period**, starting on **December 26, 2008** and closing on **February 9, 2009**. Due to the time limits mandated by State Law, your comments must be received at the earliest date, but not later than February 9, 2009. Please send your comments to Ms. Jocelyn Swain, City of Lancaster, Planning Department, 44933 Fern Avenue, Lancaster, CA 93534. Comments can also be submitted via email at jswain@cityoflancasterca.org or fax at (661) 723-5926. Ms. Swain can be reached at (661) 723-6249.

Written and oral comments regarding the draft EIR may also be submitted at a public hearing scheduled before the Lancaster Planning Commission on January 20, 2009, at 6:00 p.m. in the Council Chambers, Lancaster City Hall, 44933 Fern Avenue, Lancaster, California. Copies of all relevant material, including the Environmental Impact Report, and all documents referenced in the Environmental Impact Report, are available for review at the City of Lancaster, 44933 Fern Avenue, Lancaster and the Environmental Impact Report and Appendices are available for review at the Lancaster Public Library, 601 W. Lancaster Boulevard, Lancaster.

Hazardous Material Statement: The project site is not listed on any list of hazardous waste sites prepared pursuant to Government Code Section 65962.5.

Posted: Lancaster City Hall
City Planning Department
Lancaster Public Library

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EXECUTIVE SUMMARY

60th Street West and Avenue K Commercial Shopping Center

A. Introduction

This Executive Summary provides a brief summary of the 60th Street West and Avenue K Commercial Shopping Center (proposed project) Environmental Impact Report (EIR). This summary outlines the project description, the potential impacts of the proposed project, and proposed alternatives to the project. This summary also provides a summary table of all potential impacts and mitigation measures identified in this EIR.

B. Project Description

The project applicant, AV California, LLC, proposes to construct a 236,109 square-foot commercial shopping center on the northwest corner of the intersection of 60th Street West and Avenue K. Anchored by a 139,410 square-foot home improvement center with a 31,659 square-foot garden center, the shopping center would include approximately eight buildings. Of the eight buildings, one building would consist of a combined gas station and convenience store, with a car wash facility located on the northeastern corner of the project site. Apart from the home improvement center and the gas station, all of the other buildings would be used for retail and fast food/restaurant operations.

Parking would be provided throughout the site, toward the center of the site and between buildings. The project applicant proposes to provide a total of 950 parking spaces – approximately 845 standard spaces, approximately 30 spaces designated for handicapped drivers, and approximately 75 spaces for compact cars. The final number of required spaces would be determined by the City based on the final use of the buildings.

The project applicant proposes to install landscaped buffers around the project site. After project approval and before permits are issued, the City of Lancaster would require submission of a landscaping plan for approval. All landscaping is required by the City to be maintained in perpetuity.

The project would require amendments to the Lancaster General Plan and Zoning Ordinance that would change the current land use classification from residential use to commercial use. Currently classified as UR (Urban Residential 2.1-6.5 dwelling units per net acre), the project

applicant proposes to change the land use classification to C (Commercial) and to rezone the site from R-7000 (single-family residential, minimum lot size 7,000 square feet) to CPD (Commercial Planned Development).

At the time the Notice of Preparation (NOP) of an EIR was published, the proposed project site was occupied by the vandalized remnants of a former nine-hole golf course and ancillary structures, and two small unoccupied and vandalized residential structures. These buildings were subsequently demolished in late April 2008, by the developer upon the City's determination that these buildings constituted a hazard to the public.

The project site is located in western Lancaster, which is interspersed with pockets of land located in the unincorporated Los Angeles County area. These unincorporated areas include large housing tracts in southwest Lancaster in the Quartz Hill community; some multiple-family residential development; and some agricultural use. Commercial development is minimal. Land uses within the City limits in western Lancaster include agricultural uses, single-family development, and public/quasi-public facilities such as parks, schools, and churches. Multi-family development and commercial development are minimal. Within both the City and unincorporated areas, most of the land in western Lancaster is undeveloped.

C. Environmental Impacts and Mitigation Measures

The potential environmental impacts of the project are summarized in Table ES.1 at the end of this chapter. This table lists the impacts, mitigation measures, and level of significance after mitigation. Please refer to Chapter 3, Environmental Setting, Impacts, and Mitigation, for a complete discussion of each impact and associated mitigation measure(s).

D. Alternatives

The California Environmental Quality Act requires that a reasonable range of project alternatives be discussed in an Environmental Impact Report. This EIR identifies and analyzes a reasonable range of alternatives; identifies the environmental effects of each alternative; and compares the environmental effects of each alternative with the environmental setting with the effects of each other alternative, and with the proposed project. The alternatives consist of the following:

Alternative 1: No Project/No Build Alternative

Under this alternative, nothing would be built at the project site. The site would remain undeveloped, cleared, and vacant. The site would have to be maintained at a minimal level, as required by the City of Lancaster, but would continue to be vulnerable to dumping.

Alternative 2: No Project/Existing Zoning-Residential Alternative

Under the No Project/Existing Zoning-Residential Alternative, development of the project site for residential use would be a foreseeable consequence of the current General Plan land use designation and zoning. This alternative therefore envisions residential development at the site consistent with the existing General Plan land use classification and the existing zoning.

The General Plan currently designates the project site as UR (Urban Residential 2.1-6.5 dwelling units per net acre). As a result, under the 2020 General Plan, approximately 138 homes could be built at the project site. The zoning for the site is R-7,000, which is a low-density urban residential zone "intended to provide for single-family dwellings in an urban environment with full urban services." This zoning would permit one dwelling unit per minimum net area of 7,000 square feet or an approximate maximum of 138 single-family residences on the 22.34-acre project site.

Alternative 3: Reduced Density Alternative

The Reduced Density Alternative would result in less developed space at the shopping center. Under the Reduced Density Alternative, the shopping center would not include a big-box retail use, and would include 30-foot landscaped setbacks that could include a plaza along the northern and eastern perimeters. Maximum total development would not exceed 50 percent of the development proposed as part of the proposed project or a maximum of 117,394 square feet.[1]

Environmentally Superior Alternative

CEQA requires that another alternative, aside from the No Project Alternative, be identified as an Environmentally Superior Alternative. As a result, the Environmentally Superior Alternative would be the Reduced Density Alternative, which would result in fewer impacts or would result in less intense impacts on the environment than the proposed project. The Environmentally Superior Alternative would eliminate impacts to one intersection that would be affected by the project. In addition, impacts to air quality and noise would be reduced by the reduced traffic, although impacts would remain significant and unavoidable for criteria air pollutants.

This alternative would meet some of the goals and objectives of the developer, including construction of a commercial shopping center that serves the local community; and providing employment and shopping opportunities for local residents. However, it may not provide an economically sustainable project because of its smaller size.

[1] This square footage was selected because none of the traffic impacts of the proposed project would be reduced until the project reaches approximately 50 percent of its proposed size.

TABLE ES.1
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE 60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER PROJECT

Impact	Mitigation Measure	Significance after Mitigation
Land Use, Plans and Policies		
Impact 3.1-1: The proposed project could potentially physically divide an established community.	No mitigation measures are required.	
Impact 3.1-2: The proposed project would not conflict with the 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.		
Impact 3.1-3: The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan.		
Cumulative Impacts: The proposed project would not result in a cumulatively significant impact to existing land uses in the project vicinity.		
Population and Housing		
Impact 3.2-1: Implementation of the project could induce population growth in Lancaster.	No mitigation measures are required.	
Cumulative Impacts: Combined with the effects of other future residential and retail development, implementation of the project would not result in a cumulatively significant impacts to population and/or housing.		
Traffic, Circulation and Parking		
Impact 3.3-1: Development of the proposed project would increase traffic volumes at area intersections. **Impact 3.3-2:** Development of the proposed project would increase traffic volumes on area roadways. **Impact 3.3-3:** Development of the proposed project would generate demand for parking.	**Measure TRAF-1:** At the intersection of 60th Street West / Avenue J (#2), install traffic signals and widen 60th Street West to provide an additional southbound through lane. The developer would contribute its fair share of the funding for this improvement. **Measure TRAF-2:** At the intersection of 60th Street West / Avenue J-8 (#4), install traffic signals. The developer would contribute its fair share of the funding for this improvement. **Measure TRAF-3:** At the intersection of 70th Street West / Avenue K (#5), install traffic signals and widen 60th Street West to provide an additional southbound through lane. The developer would contribute its fair share of the funding for this improvement. **Measure TRAF-4:** At the intersection of 62nd Street West / Avenue K (#6), install traffic signals and widen 60th Street West to provide an additional southbound through lane. The developer would contribute its fair share of the funding for this improvement.	After implementation of Mitigation Measures TRAF-1 through TRAF-3, with one exception, all intersections would operate at an acceptable level of service or v/c ratio and all but one of the significant impacts of the proposed Project at the study intersections would be removed.

TABLE ES.1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE 60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER PROJECT

Impact	Mitigation Measure	Significance after Mitigation
	Measure TRAF-5: At the intersection of 60th Street West / Avenue K (#7), widen 60th Street West to provide an additional northbound through lane and an additional southbound through lane. The developer would contribute its fair share of the funding for this improvement. **Measure TRAF-6:** At the intersection of 50th Street West / Avenue K (#8), install traffic signals and widen Avenue K to provide eastbound and westbound left turn lanes. The developer would contribute its fair share of the funding for this improvement. **Measure TRAF-7:** At the intersection of 45th Street West / Avenue K (#9), install traffic signals and widen Avenue K to provide an additional eastbound through lane and an additional westbound through lane. The developer would contribute its fair share of the funding for this improvement. **Measure TRAF-8:** At the intersection of 60th Street West / Avenue K-8 (#10), install traffic signals. The developer would contribute its fair share of the funding for this improvement. **Measure TRAF-9:** At the intersection of 60th Street West / Avenue L (#12), widen 60th Street West to provide an additional northbound through lane. The developer would contribute its fair share of the funding for this improvement. **Measure TRAF-10:** At the intersection of 50th Street West / Avenue L (#13), widen Avenue L to provide an additional eastbound through lane and an additional westbound through lane. The developer would contribute its fair share of the funding for this improvement. **Measure TRAF-11:** Widen Avenue K, east of 60th Street West to a four-lane roadway, between 60th Street West and 45th Street West. The developer would contribute its fair share of the funding for this improvement.	
Noise		
Impact 3.4-1: Project construction could expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. **Impact 3.4-2:** Operation of the project could expose persons to or generate noise levels in excess of standards established in the local general plans or noise ordinances, or applicable standards of other agencies.	**Measure NOISE-1:** Signs shall be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a contact name and number in the event of problems. **Measure NOISE-2:** An on-site complaint and enforcement manager shall respond to and track complaints and questions related to noise. **Measure NOISE-3:** During construction, the contractor shall outfit all equipment, fixed or mobile, with properly operating and maintained exhaust and intake mufflers, consistent with manufacturers' standards.	Significant and Unavoidable (With the implementation of Mitigation Measures NOISE-1 through NOISE-10, operational, non-transportation noise; and construction noise would remain significant and unavoidable)

TABLE ES.1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE 60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER PROJECT

Impact	Mitigation Measure	Significance after Mitigation
Impact 3.4-3: Traffic associated with operation of the project would result in an increase in ambient noise levels on nearby roadways used to access the shopping center. **Cumulative Impacts:** The proposed project would not result in a cumulative noise impact (traffic).	**Measure NOISE-4:** Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. External jackets on the tools themselves shall be used where feasible. Quieter procedures, such as use of drills rather than impact tools, shall be used whenever feasible. **Measure NOISE-5:** Stationary noise sources shall be located as far from adjacent receptors as possible. **Measure NOISE-6:** No amplified sources (e.g., stereo "boom boxes," etc.) shall be used in the vicinity of adjacent residences during project construction. **Measure NOISE-7:** Building equipment (e.g., HVAC units) shall be located away from nearby residences, on building rooftops, and properly shielded by either the rooftop parapet or within an enclosure that effectively blocks the line of site of the source from the nearest receptors to the west. The resultant HVAC noise level shall not exceed 45 dBA at the nearest receptors to the west. **Measure NOISE-8:** For the proposed buildings that would be located on the western edge of the project site, the following design features shall be incorporated: appropriate wing-walls around the truck wells, rubberized gaskets at the loading bays, and acoustically absorptive materials at the primary loading docks of each facility to reduce noise. **Measure NOISE-9:** An 8-foot tall sound wall shall be constructed along the entire western edge of the property, to reduce noise that would reach the existing residences to the west of the project from loading dock operations, maintenance, and truck circulation. **Measure NOISE-10:** The noise from the car wash shall not exceed a maximum sound level of 60 dBA at a distance of 100 feet from the eastern exit.	

TABLE ES.1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE 60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER PROJECT

Impact	Mitigation Measure	Significance after Mitigation
Air Quality		
Impact 3.5-1: The project could conflict with or obstruct implementation of the applicable air quality plan. **Impact 3.5-2:** Project construction would generate short-term emissions of criteria air pollutants, including particulate matter and equipment exhaust emissions. **Impact 3.5-3:** Project operations would result in an increase in criteria air pollutant emissions due to project-related traffic, stationary sources, and on-site area sources. **Impact 3.5-4:** The project would not create objectionable odors affecting a substantial amount of people. **Impact 3.5-5:** Project traffic would increase localized carbon monoxide concentrations at sensitive receptors in the project vicinity. **Impact 3.5-6:** The project could conflict with implementation of state goals for reducing greenhouse gas emissions and thereby have a negative effect on Global Climate Change. **Cumulative Impacts:** Air pollutant emissions associated with the project would result in an adverse impact to cumulative air quality.	**Measure AIR-1:** General contractors shall implement a fugitive dust control program pursuant to the provisions of AVAQMD Rule 403.2 **Measure AIR-2:** All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications. **Measure AIR-3:** General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues shall turn their engines off when not in use to reduce vehicle emissions. Construction emissions shall be phased to avoid compression of such activities, and scheduled to avoid emission exceedances, and discontinued during second-stage smog alerts. **Measure AIR-4:** Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used to the extent feasible. **Measure AIR-5:** All construction vehicles shall be prohibited from idling in excess of five minutes, both on- and off-site. **Measure AIR-6:** The project applicant shall utilize coatings and solvents that are consistent with applicable AVAQMD rules and regulations. **Measure AIR-7:** The project applicant shall install a Stage II Vapor Recovery System for the proposed gasoline dispensing facility that meets CARB's Enhanced Vapor Recovery requirements.	Significant and Unavoidable (With the implementation of Mitigation Measures AIR-1 through AIR-7, short-term construction impacts related to ROG; operational impacts related to ROG, CO, NO_x, and PM_{10}; cumulative air quality impacts would remain significant and unavoidable)
Hazards and Hazardous Materials		
Impact 3.6-1: Disturbance and release of contaminated soil during excavation and grading for the project, or transportation of excavated material, could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling. **Impact 3.6-2:** Disturbance and release of hazardous building components (i.e., asbestos, lead, PCBs) during demolition and construction phases of the project or transport of these materials could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling.	**Measure HAZ-1:** Prior to issuance of grading permits, the developer shall conduct a focused soil investigation to determine the whether pesticides and herbicides are present in the soil on-site. The analytical results of the soil sampling investigation shall be evaluated with regard to California/EPA's California Human Health Screening Levels (CHHSLs) for commercial land use. If soil contaminants exceed these preliminary screening levels, further site characterization, risk assessment, or remediation would be necessary, as described in the Department of Toxic Substances Control (DTSC) Preliminary Endangerment Assessment Guidance Manual. **Measure HAZ-2:** Limited soil sampling (or a Phase II) shall be conducted to assess the presence of pesticides or herbicides in soil at the project site, as described in Measure HAZ-1. If the results of this Phase II Soil Investigation identify hazardous materials in soil, the developer shall	Less than Significant

2 AVAQMD Rule 403 requirements are detailed in Appendix E.

TABLE ES.1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE 60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER PROJECT

Impact	Mitigation Measure	Significance after Mitigation
Impact 3.6-3: Hazardous materials used on-site during construction activities could be released to the environment through improper handling or storage. **Impact 3.6-4:** Project operations would involve the storage and use of hazardous materials in USTs and the handling of small quantities of general commercial/retail hazardous waste, which could result in potential hazards to the public or the environment. **Cumulative Impacts:** the proposed project, with implementation of the above mitigation measures, would not result in a cumulative impact associated with hazardous materials and/or hazards.	prepare a Soil Management Plan outlining soil handling procedures to be followed during grading and construction activities. The Soil Management plan shall specify the following: • Soils generated by construction activities shall be stockpiled onsite in a secure and safe manner, and sampled prior to reuse or disposal at an appropriate facility; • Specific sampling methodology and laboratory analyses required for reuse and disposal, including criteria for the various Class I, II, and III disposal facilities; • Methods to ensure compliance with applicable laws and regulations for handling, storage, and transport of these materials; and • Any special health and safety precautions to mitigate worker exposure to contaminated soils or sediments, dust control measures to prevent the generation of dust that could migrate off-site, stormwater runoff controls to minimize migration of soils to storm drains. **Measure HAZ-3:** The developer shall prepare a project-specific Health and Safety Plan (HSP) in accordance with 29 CFR 1910 to protect construction workers and the public during all excavation, grading, and construction services. The HSP shall identify the following, but not be limited to: • A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals; • Specified personal protective equipment and decontamination procedures, if needed; • Safety procedures to be followed in the event suspected hazardous materials are encountered; • Emergency procedures, including route to the nearest hospital; and • The identification of a site health and safety officer and responsibilities of the site health and safety officer. **Measure HAZ-4:** Prior to the commencement of excavations, the developer shall conduct a well survey to locate, identify, and confirm all existing groundwater wells on the project site. Information regarding well locations shall be obtained, if available, from DWR, LACPHD, and the former property owners. All wells shall be properly destroyed and removed in accordance with the DWR Well Standards and under permit and inspection from the LACPHD. The well destruction shall be designed	

TABLE ES.1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE 60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER PROJECT

Impact	Mitigation Measure	Significance after Mitigation
	to create a sanitary seal that would not conduct vertical water flow in the event that the well is truncated or damaged during mining operations. **Measure HAZ-5:** Any known septic tank(s) shall be removed by a licensed contractor prior to construction activities in accordance with applicable regulations. **Measure HAZ-6:** The liquid propane AST shall be removed prior to construction activities in accordance with applicable regulations. **Measure HAZ-7:** If previously unidentified USTs are encountered during construction, construction in the immediate area shall cease until the UST is removed with oversight from the LADPW. Removal of the UST shall include, to the extent deemed necessary by LADPW, over-excavation and disposal of any impacted soil. Excavated soils shall be managed and disposed of in accordance with the Soil Management Plan described above. **Measure HAZ-8:** The contractor shall be required to implement construction best management practices (BMPs) for handling hazardous materials onsite. The use of construction BMPs shall minimize potential negative effects, and shall include, without limitation, the following: • Follow manufacturers' recommendations and regulatory requirements for use, storage, and disposal of hazardous materials and petroleum products used in construction; • Avoid overtopping construction equipment fuel tanks; • Properly contain and dispose of grease and oils used for routine maintenance of construction equipment; and, • Properly dispose of discarded containers of fuels and other chemicals.	
Geology and Soils		
Impact 3.7-1: Implementation of the proposed project would expose people and structures to strong ground shaking as a result of an earthquake on a regional or nearby fault. **Impact 3.7-2:** The proposed project could expose people and structures to seismic hazards such as surface fault rupture, soil liquefaction, and landslides. **Impact 3.7-3:** Structures, buildings, or other proposed improvements could be subject to geologic hazards, including expansive soils, differential settlement, and erosion.	**Measure GEO-1:** A site-specific, design-level geotechnical report shall be prepared prior to project approval to address the potential for seismic and geologic impacts, including ground shaking, settlement, soil expansion, and other site-specific geotechnical issues. The investigation, to be conducted by a licensed geotechnical engineer, shall provide design and/or construction recommendations to prevent structural damage to proposed structures and facilities. Geotechnical and seismic design criteria would conform to engineering recommendations consistent with the seismic requirements of Zone 4 of the 1997 Uniform Building Code and California Building Code (Title 24) additions. At a minimum, the report shall evaluate the following:	Less than Significant

TABLE ES.1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE 60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER PROJECT

Impact	Mitigation Measure	Significance after Mitigation
Cumulative Impacts: The proposed project, when combined with other foreseeable development in the area, would not result in a cumulatively significant impact by exposing people or structures to risk associated with geologic hazards, soils, and/or seismic risk.	• Characteristics of the soil materials at the site. • The most appropriate techniques to correct inadequacies in site soils. • Design criteria for the most appropriate foundations for proposed structures. • The estimated ground settlement rate at each foundation. • The necessary subgrade preparation for foundations. • Lateral pressures for retaining walls. • Pre- and post development drainage conditions. • Suitability of site soils for use as backfill.	
Hydrology and Water Quality		
Impact 3.8-1: Development of the project site could alter drainage patterns in the project area, potentially having adverse effects on the volume and/or timing of peak runoff in the municipal storm drain system. **Impact 3.8-2:** Construction activities associated with development of the project could result in construction-related impacts on surface water quality. **Impact 3.8-3:** Development of the project site could result in increased nonpoint source pollution in stormwater runoff. **Impact 3.8-4:** The existing groundwater well could become a conduit for groundwater contamination if left inactive. **Cumulative Impacts:** The proposed project would not result in an adverse cumulative impact to water quality with the implementation of proposed mitigation measures.	**Measure HYDRO-1:** The project applicant shall adhere to the requirements of the City of Lancaster Master Plan of Drainage as directed by the City of Lancaster Engineering Division. Drainage facilities of the proposed project shall be capable of handling post-project flows from the site to the extent deemed appropriate by the Engineering Division. All improvements to the drainage infrastructure necessary to accommodate the project shall be made by the applicant. All drainage improvements shall be reviewed and approved by the Engineering Division and any additional requirements identified by the Engineering Division shall be incorporated into project specifications. **Measure HYDRO-2:** Prior to construction of the proposed project, a NOI and SWPPP shall be submitted to the RWQCB in accordance with the NPDES General Construction Permit requirements. Implementation of the SWPPP shall start with the commencement of construction and continue through the completion of the project. At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact storm water during construction; site-specific erosion control and storm water quality BMPs to be employed during construction; and an inspection and monitoring program. At a minimum, the following measures shall be included as part of the SWPPP to prevent adverse impacts to water quality during project construction: • The amount of exposed soil shall be limited and erosion control procedures implemented for those areas that must be exposed.	Less than Significant

TABLE ES.1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE 60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER PROJECT

Impact	Mitigation Measure	Significance after Mitigation
	• Grading activities shall be phased so that graded areas are revegetated or otherwise covered as soon as possible following disruption. • Appropriate dust suppression techniques, such as watering and tarping, shall be used in areas that must be exposed. • The area shall be secured to control off-site migration of pollutants. • Construction entrances shall be designed to facilitate removal of debris from vehicles exiting the site, by passive means such as paved/graveled roadbeds, and/or by active means such as truck washing facilities. • Truck loads shall be tarped. • Roadways and parking lots shall be regularly swept to prevent generation of fugitive dust by local traffic. • Simple sediment filters shall be constructed at or near all entrances to any storm drainage systems. • During construction and operation, all construction materials shall be handled and disposed of in accordance with all applicable laws and regulations. Properly labeled recycling bins shall be utilized for recyclable construction materials including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and vegetation. Non-recyclable materials and wastes must be taken to an appropriate landfill. Toxic wastes must be discarded at a licensed, regulated disposal site by a licensed waste hauler. • The developer shall conduct truck wheel cleaning and truck washing to prevent dirt in storm water. • The developer shall keep vehicles in good working order. • Protocols for the investigation and evaluation of any previously unidentified contaminated soils that may be encountered during project construction, including controls that may be required to prevent the migration of contaminated soils into storm water runoff. **Measure HYDRO-3:** The applicant shall comply with the requirements of the City of Lancaster SWMP. The applicant shall be required to submit and then implement SWMP design features and BMPs that are appropriate and applicable to the proposed change in land use. In accordance with SWMP requirements, the applicant shall provide for the treatment/filtration of on-site runoff before it enters the public storm water	

TABLE ES.1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE 60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER PROJECT

Impact	Mitigation Measure	Significance after Mitigation
	conveyance system in order to minimize the introduction of pollutants of concern, as required. **Measure HYDRO-4:** The project applicant shall abandon the existing onsite groundwater supply well in accordance with the requirements of the City of Lancaster and the Lahonton Regional Water Quality Control Board.	
Biological Resources		
Impact 3.9-1: Implementation of the proposed project, through habitat modification and construction activities, would affect Nesting/Migratory Birds and Raptors protected by the MBTA. **Impact 3.9-2:** Activities associated with the construction of the proposed project could result in adverse impacts to special-status bat species including pallid bat and spotted bat. **Cumulative Impacts:** With the implementation of the proposed mitigation measures, the proposed project would not result in a contribution to a cumulative impact.	**Measure BIO-1:** Nesting and Migratory Birds and Raptors. The following measures would apply on and adjacent to the project site to reduce the potential for impacts to a less than significant level and avoid incidental take or impact to nesting and migratory birds and raptors. • To the extent feasible, all vegetation removal must be completed during the non-nesting season (September 1 – March 1). • Within 15 days of any project actions (e.g., grading, vegetation removal, etc.) the developer shall have a qualified biologist conduct a pre-construction, migratory bird and raptor nesting survey. The biologist must be qualified to determine the status and stage of nesting efforts by migratory birds and all locally breeding raptor species without causing intrusive disturbance. This survey should conduct focused preconstruction breeding-bird surveys to include the great horned owl and red-tailed hawk, as well as other species protected under MBTA, in all areas that may provide suitable nesting. It shall also cover all reasonably potential nesting locations for the relevant species on or closely adjacent to the project site. • If an active nesting effort is confirmed or considered very likely by the biologist, no construction activities should occur within at least 500 feet of the nesting site. Measures available as options to address this constraint are dependent on the species and any other protections afforded it, details of the nest site, the nest stage, types and levels of ongoing disturbances, the relevant project actions, and distances involved. Potentially appropriate measures may include one or more of the following as authorized by the USFWS and CDFG : (1) delaying work at the nest site location until either the nest has failed (for non-project-related reasons) or seven days after the last young leaves the nest, or (2) taking the young nestlings to a qualified wildlife rehabilitation center.	Less than Significant

TABLE ES.1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE 60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER PROJECT

Impact	Mitigation Measure	Significance after Mitigation
Cultural Resources		
Impact 3.10-1: Project construction could adversely affect unknown cultural resources, including unique archaeological resources. **Impact 3.10-2:** The proposed project could adversely affect unidentified paleontological resources. **Impact 3.10-3:** Project construction could result in damage to previously unidentified human remains. **Impact 3.10-4:** The proposed project would not have an impact on historic architectural resources. **Cumulative Impacts:** The potential construction impacts of the proposed project, in combination with other projects in the area, would not contribute to a cumulatively significant impact on cultural or paleontological resources.	**Measure CUL-1:** If any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, all work within 50 feet of the resources shall be halted and the project proponent shall consult with a qualified archaeologist to assess the significance of the find according to CEQA Guidelines Section 15064.5. Any finds shall be documented in a report to the City. If any find is determined to be significant, the project proponent and the archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be, as necessary and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards. **Measure CUL-2:** In the event that paleontological resources are discovered during project construction, the project proponent shall notify a qualified paleontologist and the City of Lancaster. The paleontologist shall document the discovery, evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. If fossil or fossil bearing deposits are discovered during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the project proponent determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important. The plan shall be submitted to the City staff for review and approval prior to implementation. **Measure CUL-3:** If human skeletal remains are uncovered during project construction, the project proponent (depending upon the project component) shall immediately halt work, contact the Los Angeles County coroner to evaluate the remains, contact the City of Lancaster, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County coroner determines that the remains are Native American, the project proponent shall contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641), and the City of Lancaster. Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and	Less then Significant

TABLE ES.1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE 60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER PROJECT

Impact	Mitigation Measure	Significance after Mitigation
	conferred, as prescribed in this section (PRC 5097.98), with the most likely descendents regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. All reports filed with the County shall also be provided to the City.	
Public Services and Utility Service Systems		
Impact 3.11-1: The proposed project would not affect the provision of police protection services in the City of Lancaster. **Impact 3.11-2:** The proposed project could affect the provision of fire protection or emergency medical services in the City of Lancaster. **Impact 3.11-3:** As a commercial project, the proposed project would not be expected to substantially affect school services in the City of Lancaster. **Impact 3.11-4:** The proposed project would not affect park services in the City of Lancaster. **Impact 3.11-5:** Implementation of the proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Board or require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. **Impact 3.11-6:** The proposed project could potentially cause local landfills to exceed their permitted capacity to accommodate the project's solid waste disposal needs. **Impact 3.11-7:** The proposed project would not affect electrical services in the City of Lancaster that would require new facilities. **Impact 3.11-8:** The proposed project would not affect additional gas services in the City of Lancaster and would not require new facilities. **Impact 3.11-9:** The proposed project could potentially require or result in the construction of new storm water drainage facilities, or expansion of existing facilities. **Cumulative Impacts:** The proposed project would not result in adverse cumulative impacts to public services, recreation, and utilities.	**Measure UTILITIES-1:** The proposed project shall participate in an appropriate financing mechanism, such as a developer fee or an in-kind consideration in lieu of developer fees, to provide funds for fire protection facilities that are required by new commercial, industrial and residential developments in an amount proportionate to the demand created by this project. Currently, this finance mechanism is a developer fee per square foot of building space, adjusted annually, and is due and payable at the time a building permit is issued.	Less than Significant
Visual Quality		
Impact 3.12-1: The proposed project could have an effect on a scenic vista. **Impact 3.12-2:** The proposed project would affect the visual quality of the proposed project site and its vicinity.	**Measure VIS-1:** The developer shall modify the site design to provide a fully articulated northern elevation for the proposed home improvement center, as reasonable, including either windows or means to open the northern elevation of the home improvement center to the residential neighborhood north of the project site.	Significant and Unavoidable (After the implementation of Mitigation Measures VIS-1 and VIS-2, the proposed project would result in

TABLE ES.1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE 60TH STREET WEST AND AVENUE K COMMERCIAL SHOPPING CENTER PROJECT

Impact	Mitigation Measure	Significance after Mitigation
Impact 3.12-3: The proposed project would result in new lighting at the project site. **Cumulative Impacts:** With implementation of the proposed mitigation measures, the proposed project, in combination with other projects, would result in significant and unavoidable cumulative impacts to visual quality.	**Measure VIS-2:** The developer shall set any big box store in the shopping center back from Avenue J-12, as feasible, to include a minimum setback of 10 feet of landscaping and then a wall that would not extend more than five feet in height between proposed surface parking and landscaping. Landscaping will contain, to the extent feasible, both drought-resistant plants, as well as plants that will provide visual color throughout the year.	significant and unavoidable impacts to project-related effects related to lighting and cumulative effects related to lighting.)

CHAPTER I
Introduction

This Environmental Impact Report (EIR) has been prepared by the City of Lancaster, California, pursuant to the applicable provisions of the California Environmental Quality Act (CEQA) and its implementing guidelines, known as the *CEQA Guidelines*.[1] The City of Lancaster is the Lead Agency for this EIR, which examines potential physical impacts to the environment as a result of a proposed amendment to the General Plan and rezoning, and subsequent development of a shopping center on a 22.34-acre site at the northwest corner of 60th Street West and Avenue K.

This EIR is intended to inform the City decision makers, responsible agencies, and the public of the proposed project's environmental effects. As the Lead Agency, the City of Lancaster has the "principal responsibility for carrying out or approving a project which may have a significant effect upon the environment" (CEQA Section 21067). The EIR is therefore intended to publicly disclose those impacts that may be significant and adverse, describe possible measures that would mitigate or eliminate such impacts, and describe a range of alternatives to the proposed project.

1.1 Environmental Review

On March 25, 2005, AV California, LLC (project applicant), submitted an application to the City of Lancaster to develop a 22.34-acre site located on the northwest corner of 60th Street West and Avenue K as a commercial shopping center. Since the project site is currently designated as Urban Residential (UR) and zoned R-7000 (single-family residential, minimum lot size 7,000 square feet, the project would require amendments to both the General Plan and Zoning Code.

This proposed project qualifies as a "project" under CEQA and is therefore subject to the requirements of CEQA for environmental review. According to CEQA Section 21065:

> "Project" means an activity which may cause either a direct physical change in the environment, a reasonably foreseeable indirect physical change in the environment, and which is any of the following:
>
> - An activity directly undertaken by any public agency.
> - An activity undertaken by a person which is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.
> - An activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

[1] California Code of Regulations, Title 14, Sections 15000 through 15387.

The proposed project would result in foreseeable changes to the environment, and would require entitlements from the City. These entitlements include approval of the amendments to the General Plan and Zoning Code, and approval of a Conditional Use Permit because the shopping center is greater than two net acres (Municipal Code 17.12.080) (all approvals are together referred to as "the proposed project").

This EIR has been prepared as a project-specific EIR, and therefore analyzes the specific impacts of the proposed project.

On July 12, 2007, in accordance with CEQA Section 21092, the City published a Notice of Preparation (NOP) of a Draft EIR, and circulated it to governmental agencies, organizations, and persons that may be interested in this project, including nearby property owners. The NOP requested comments on the scope of the EIR. The NOP and responses to the NOP are included in this EIR as Appendices A and B, respectively.

On July 25, 2007, the City held a public scoping meeting to obtain comments from interested parties on the scope of the EIR. The issues addressed by participants are summarized and included in this EIR as part of Appendix B.

As required by CEQA Section 15105(a), this Draft EIR is being circulated for public review and comment for a 45-day period that ends on February 9, 2009. Written comments must be sent on or before February 9, 2009 by the close of business to:

Jocelyn Swain, Associate Planner – Environmental
City of Lancaster Planning Department
44933 Fern Avenue
Lancaster, CA 93534-2461
Fax: (661) 723-5926
E-Mail: jswain@cityoflancasterca.org

The City will schedule a publicly noticed hearing on the Draft EIR before the City of Lancaster Planning Commission at a date and time to be determined. Written and oral comments will be accepted at this public hearing.

Following the end of the 45-day comment period, responses to all written comments will be prepared and compiled in the Final EIR (FEIR). Publicly noticed hearings on the proposed project will be scheduled before both the City Planning Commission and City Council at dates and times to be determined.

1.2 Project Overview and Background

The proposed project consists of the redevelopment of a 22.34-acre site in the City of Lancaster that is now designated for residential use. Located at the northwest corner of 60th Street West and Avenue K in western Lancaster, the project site was occupied by the remnants of a nine-hole golf

course, including small buildings and two small homes, as well as evidence of old utility connections, construction debris, weeds, and dumped soil. The project applicant proposes to demolish all of the existing structures,[2] grade the site, and build a 236,109 square-foot commercial shopping center with approximately 950 surface parking spaces. Proposed buildings would range in size from 3,000 square feet to approximately 139,410 square feet. The largest building would be occupied by a 139,410 square-foot home improvement center with an additional 31,659 square foot garden center. The proposed development would be accessible from Avenue K (south), 60th Street West (west), and Avenue J-12 (north).

The proposed development would be located in western Lancaster, adjacent to existing residential land uses. The nearest businesses include an active ranch (southeast corner of Avenue L and 60th Street West), located approximately 1.0 mile to the south; and a combined gas station/fast food store, located on the northeast corner of 60th Street West and Avenue L-8, approximately 1.5 miles to the south. Quartz Hill High School is located approximately one mile south of the project site at the southwest corner of Avenue L and 60th Street West. Residential uses are the dominant use in the project site vicinity.

The project site itself is surrounded primarily by residential uses. The northern boundary of the project site is bordered by Avenue J-12. On the northeastern corner, where Avenue J-12 and 60th Street West intersect, there are a few older single-family residences surrounded by undeveloped land to their north and west. Across from the northwestern corner of Avenue J-12, and directly west of the project site, are newly developed single-family residences located behind a large retaining wall. East of the project site, across 60th Street West, are the Sunset Point single-family residential homes (also located behind a retaining wall). The southern perimeter of the project site is bordered by Avenue K. On the south side of Avenue K, southeast of the project site, is a portion of undeveloped land, followed by single-family homes. Directly south of the project site, on the south side of Avenue K, is a large brick wall that parallels Avenue K. Behind the wall are newly constructed homes; a sign on the brick wall states “KB Homes Coming.”

1.3 Approach to Analysis

Because the analysis in this EIR is based on potential changes to the physical environment, the approach taken is to quantify assumptions about future development that could reasonably be expected to occur within the analysis horizon year. If approved, the project would be fully built out by 2012.

In addition to the proposed project, the EIR also provides an analysis of a range of alternatives, including the No Project/No Build Alternative, the No Project/Existing Zoning-Residential Alternative and the Reduced Density Alternative.

[2] The structures were demolished in April 2008 pursuant to the City’s request because they were deemed by the City to be a public safety hazard.

1.4 Organization of the Draft EIR

The Draft EIR is organized into seven chapters as follows:

Chapter 1 (Introduction): This section provides an introduction to the environmental review process, a project overview, the approach to analysis in the EIR, and this outline of how the Draft EIR is organized.

Chapter 2 (Project Description): This section contains a complete description of the proposed project including project location, project site characteristics, project characteristics, project objectives, and required discretionary actions.

Chapter 3 (Environmental Setting, Impacts, and Mitigation): A discussion of the setting (existing conditions), the environmental impacts that could result from the proposed project, and the mitigation measures that would reduce or eliminate the adverse impacts identified by the analysis is presented. The criteria used to assess the significance of adverse environmental effects are identified, and the significance of the impact following mitigation, if required, is reported.

Chapter 4 (Other CEQA Considerations / Impact Overview): This section addresses other CEQA issues not addressed in Chapter 3, including impacts found to be less than significant; and provides a summary of significant and unavoidable impacts of the proposed project, a discussion of potential growth inducing effects, and an explanation of the significant irreversible environmental changes.

Chapter 5 (Alternatives to the Proposed Project): This section includes an analysis of a range of reasonable alternatives to the proposed project. The range of alternatives selected is based on their ability to feasibly attain most of the projects and alternatives that would avoid or substantially lessen any of the significant effects of the projects.

Chapter 6 (Preparers of the EIR and Persons Consulted): This section presents a list of City and consultant team members that contributed to preparation of the EIR, and a list of persons consulted.

Chapter 7 (References): This section includes a list of materials used in the preparation of this Draft EIR.

CHAPTER 2
Project Description

This chapter describes the proposed project, objectives for the proposed project; and the required reviews and discretionary approvals.

2.1 Introduction

The project applicant, AV California, LLC, proposes to construct a 236,109 square-foot commercial shopping center on the northwest corner of the intersection of 60th Street West and Avenue K. Anchored by a 139,410 square-foot home improvement store with a garden center, the shopping center would include approximately eight buildings. The project would require amendments to the Lancaster General Plan and Zoning Ordinance that would change the current land use classification from residential use to commercial use. At the time the NOP was published, the proposed project site was occupied by the vandalized remnants of a former nine-hole golf course and ancillary structures, and two small unoccupied and vandalized residential structures. These buildings were subsequently demolished in late April 2008 by the developer upon the City's determination that these buildings constituted a hazard to the public.

Currently classified as UR (Urban Residential 2.1-6.5 dwelling units per net acre), the project applicant proposes to change the land use classification to C (Commercial) and to rezone the site from R-7000 (single-family residential, minimum lot size 7,000 square feet) to CPD (Commercial Planned Development).

2.2 Project Goals and Objectives

The City of Lancaster and the project applicant have identified the following goals and objectives for this project:

- Provide a commercial shopping center that serves the local community;
- Build an economically sustainable and financially feasible shopping center that provides goods and services to the community in the future, as needed;
- Reduce trips to comparable shopping opportunities elsewhere in the City of Lancaster and/or the Antelope Valley;
- Provide a shopping center that is convenient to both vehicles and pedestrians;
- Provide a use that will generate revenue for the City of Lancaster;

- Create an opportunity for local employment; and
- Create a commercial shopping opportunity that minimizes impacts to the environment and that is compatible with the adjacent residential land uses.

2.3 Project Location and Site Location Description

2.3.1 Project Site Vicinity

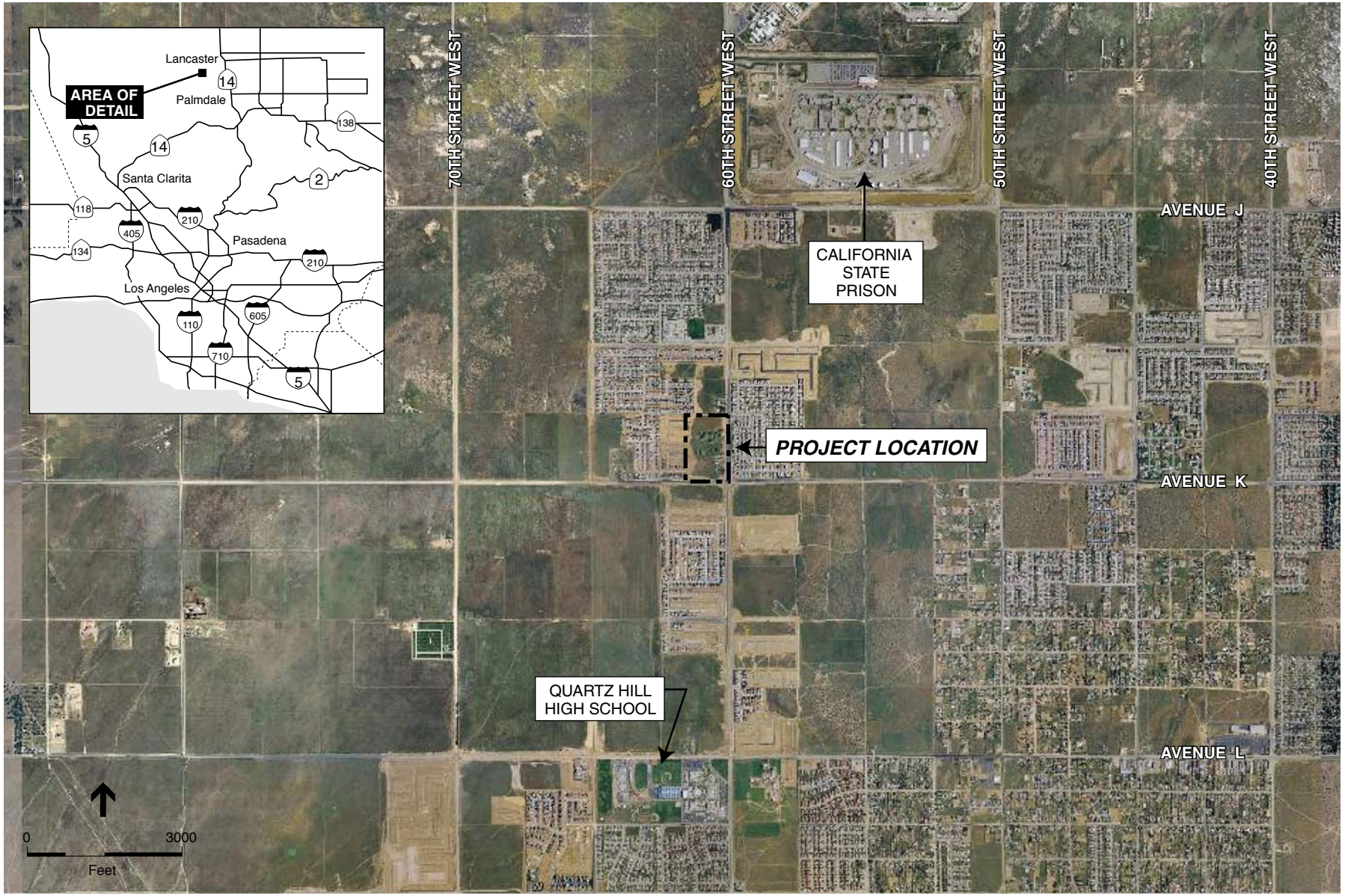
The City of Lancaster is located in northern Los Angeles County, in the Antelope Valley, over 120 miles inland from the Pacific Ocean (see Figure 2-1). The Antelope Valley is part of the Mojave Desert, which extends for over 20,000 square miles. State Route (SR) 14, which extends along a north-south axis between US Route 395 (US 395) and Interstate Highway 5 (I-5), is the major regional freeway that passes through Lancaster; several smaller highways and roadway connections also provide access to the city. The City of Lancaster is adjacent to the City of Palmdale and the cities share a common border. Other nearby facilities and cities include Edwards Air Force Base (30 miles northeast) and the City of Santa Clarita (45 miles southwest).

The western part of Lancaster is interspersed with pockets of land located in the unincorporated Los Angeles County area. These unincorporated areas include large housing tracts in southwest Lancaster in the Quartz Hill community; some multiple-family residential development; and some agricultural use. Commercial development is minimal. Land uses within the City limits in western Lancaster include agricultural uses, single-family development, and public/quasi-public facilities such as parks, schools, and churches. Multi-family and commercial development are minimal. Within both the City and unincorporated areas, most of the land is undeveloped.

The immediate vicinity of the project site consists of residential development and undeveloped land, a high school, an active ranch, a small gas station/convenience store, and large areas that are vacant or undeveloped (see Figure 2-1). The project site itself is surrounded by residential land uses and undeveloped land. The northern boundary of the project site is bordered by Avenue J-12. On the northeastern corner, where Avenue J-12 and 60th Street West intersect, there are a few older single-family residences surrounded by undeveloped land to their north and west. Across from the northwestern corner of Avenue J-12, and directly west of the project site, are newly developed single-family residential structures located behind a large retaining wall. East of the project site, across 60th Street West, are the Sunset Point single-family residential homes (located behind a retaining wall). To the south lies an expanse of undeveloped land along the south side of Avenue K. The southern edge of the project site is bordered by Avenue K. On the south side of Avenue K, southeast of the project site, is a portion of undeveloped land followed by single-family homes.

2.3.2 Project Site

The 22.34-acre project site is located on the northwest corner of the intersection of 60th Street West and Avenue K. Located along the eastern boundary of the project site, 60th Street West is designated by the City of Lancaster as a regional arterial. Avenue K, which is located along the



SOURCE: GlobeXplorer, 2006; ESA, 2007.

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 2.1
Project Location Map

southern boundary of the project site, has been designated as a major arterial. Avenue J-12, a local street, abuts the northern boundary of the project site.

Relatively flat, the project site is currently occupied by the remnants of a nine-hole golf course built in the late 1960s, and unused since the late 1990s. The site includes the shells of buildings associated with the golf course, including a golf pro shop, an equipment storage building, and a shed; and two small single-family residences. Although some of the buildings are boarded up, most show signs of having been vandalized. The site is overgrown, with few remaining features of the golf course. These features include a dry pond, although most of the above-ground infrastructure has been vandalized. Figure 2-2 provides photographs of the site and some of the buildings.[1]

2.4 Project Characteristics

The project applicant proposes to build a 236,109 square-foot commercial shopping center, anchored by a 139,410 square-foot home improvement store with an attached 31,659 square-foot outdoor garden center. A total of eight buildings and a separate car wash facility are proposed on the project site. One of the buildings would consist of a combined gas station/convenience store. This building (on Pad E) would be located in the northeastern corner of the project site, on the southwestern corner of Avenue J-12 and 60th Street West, immediately adjacent to the car wash. The other buildings would be used for retail, and fast food operations. Figure 2-3 provides a conceptual site plan; and Table 2.1 provides a summary of the proposed project.

TABLE 2.1
SUMMARY OF PROPOSED PROJECT

Building	Square Feet (sf)
Home Improvement Center	139,410 sf
Garden Center (Outdoors)	31,659 sf
Major Building A	10,700 sf
Shops	9,600 sf
Pad A	6,300 sf
Pad B	3,715 sf
Pad C	13,225 sf
Pad D	3,500 sf
Pad E	3,000 sf
Space Associated with Pad E (pumps, car wash)	15,000 sf
Total Gross Leasable Area	**236,109 sf**

NOTE: All square footages are approximate.

[1] These photographs were taken within a few months of the issuance of the NOP. In fall, 2007, most of the trees on the project site were removed. In early 2008, all of the buildings were deemed by the City to be hazards and were subsequently removed.

View A - View of project site looking north from a point near Avenue K.

View B - View of project site looking northeast from a point near the intersection of 60th Street West and Avenue K.

SOURCE: ESA, 2007.

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 2.2
Project Site Photos

Two of the proposed buildings would consist of fast food operations (Pad B and Pad C) with drive-through facilities. Other drive-through facilities would include the proposed pharmacy at Pad C (and the car wash at Pad E).

The project would result in grading and excavation related to construction of the new shopping center.

2.4.1 Site Circulation and Parking

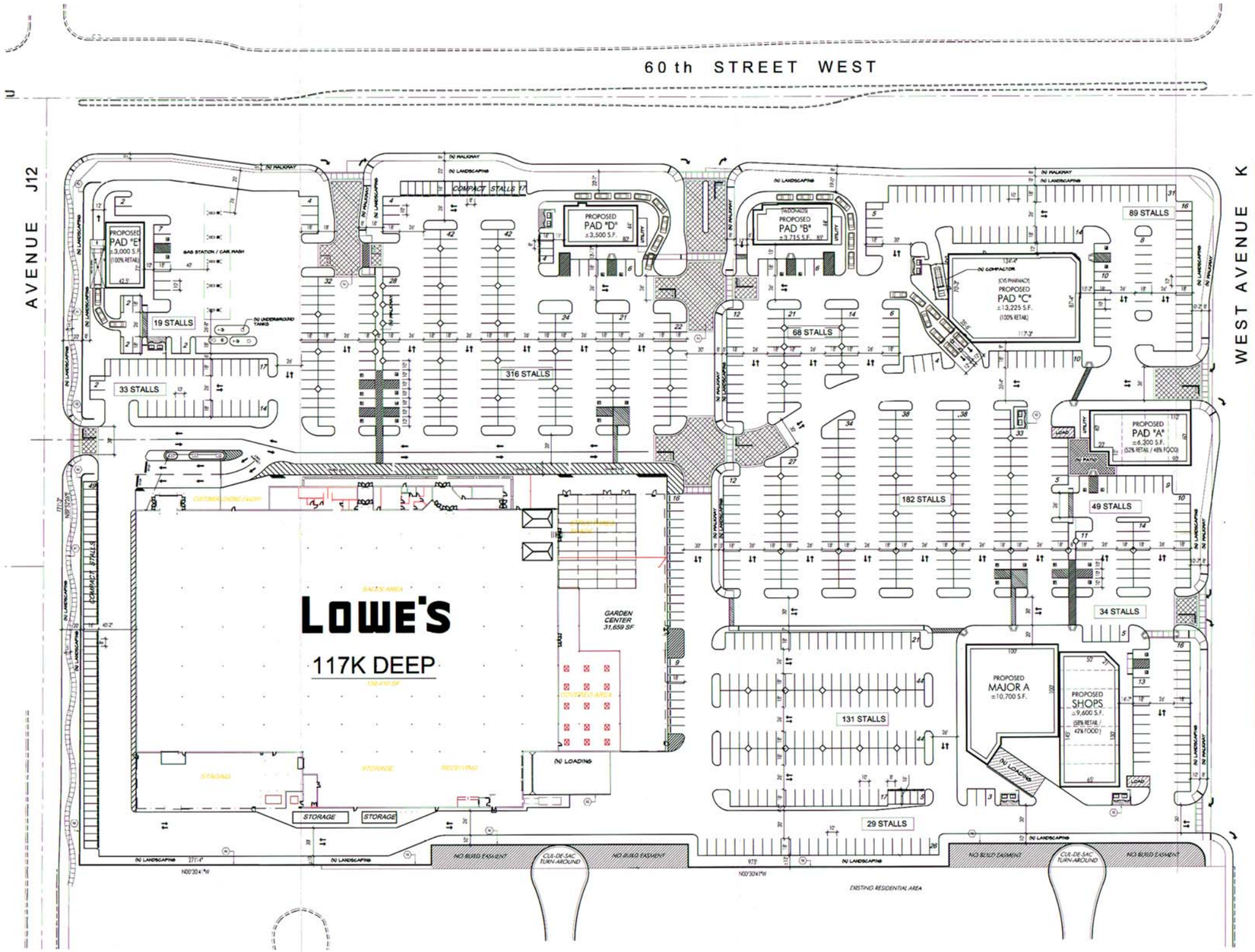
Access to the project site would be provided by driveways along Avenue J-12, 60th Street West, and Avenue K. One driveway along 60th Street West and one along Avenue K would be considered full access driveways that would allow entry across the concrete street median for eastbound and westbound traffic on Avenue K and entry from northbound and southbound traffic on 60th Street West. Other driveways would allow right-in, right-out access only. The project applicant proposes to use decorative paving at all driveway entrances.

Parking would be located throughout the site. The majority of the parking would be located between each proposed building and in the center of the project site. The project applicant proposes to provide a total of 950 parking spaces, which is fewer than the 1,019 parking spaces required by the City of Lancaster's Zoning Code Section 17.12.220(E)(18), for general commercial use (5 spaces for each 1,000 gross square feet of commercial space). See Table 2.2 below for details on parking. Of the 950 parking spaces provided, approximately 845 would be standard stalls, approximately 30 would be handicapped and approximately 75 would be compact stalls. The final number of required spaces would be determined by the City based on the final use of the buildings.

TABLE 2.2
PROPOSED PARKING

Building	Parking Requirement
Home Improvement Center	697 stalls
Garden Center (Outdoors)	N/A
Retail	179 stalls
Food Use	143 stalls
Total Parking Required	1,019 stalls
10% Reduction	-101 stalls
Net Parking Required	918 stalls
Total Parking Provided	950 stalls

SOURCE: McKently Malak Architects, 2008.



PROJECT DATA

CLIENT:	ANTELOPE VALLEY LAND, LLC 5022 WEST AVENUE N, SUITE 104 PALMDALE, CALIFORNIA 93551
PROJECT ADDRESS:	NORTHWEST CORNER OF 60TH STREET WEST AND WEST AVENUE K LANCASTER, CALIFORNIA
JURISDICTION:	CITY OF LANCASTER
BOUNDARIES INFORMATION:	THIS PLAN HAS BEEN PREPARED AS PER ALTA PROVIDED BY C&C AERIAL MAPPING, JOB # 06-3091 :

SITE SUMMARY

GROSS SITE AREA (±22.34 A. C.)	±973,130 SF
TOTAL GROSS LEASEABLE AREA	±236,109 SF
COVERAGE	24.26 %
PROPOSED BUILDINGS:	
HOME IMPROVEMENT	±139,410 SF
GARDEN CENTER	±31,659 SF
MAJOR A (RETAIL)	±10,700 SF
SHOPS (58% RETAIL / 42% FOOD USE)	±9,600 SF
PAD A (52% RETAIL / 48% FOOD USE)	±6,300 SF
PAD B (100% FOOD USE)	±3,715 SF
PAD C (100% RETAIL)	±13,225 SF
PAD D (100% FOOD USE)	±3,500 SF
PAD E (100% RETAIL)	±3,000 SF
TOTAL GLA	±221,109 SF
PARKING DATA:	
PARKING REQUIRED:	
HOME IMPROVEMENT BUILDING AREA ±139,410 SF @ 1/200SF	±697 STALLS
GARDEN CENTER ±31,659 SF (NOT INCLUDED)	N.A.
RETAIL ±35,769 SF @ 1/200 SF	±179 STALLS
FOOD USE ± 14,271 SF @ 1/100SF	±143 STALLS
TOTAL PARKING REQUIRED:	±1,019 STALLS
10% REDUCTION	-101 STALLS
TOTAL NET PARKING REQUIRED:	±918 STALLS
TOTAL PARKING PROVIDED:	±950 STALLS
(92%) STANDARD (10' x 18') = ±845 STALLS; HANDICAP (10' x 18') = ±30 STALLS	
(8%) COMPACT (8' x 16') = ±75 STALLS	
PARKING RATIO PROVIDED:	±4.3/1000 SF

SOURCE: McKently Malak Architects, 2007

Figure 2.3
Site Plan

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2.4.2 Building Elevations and Building Heights

The project applicant proposes to build one-story stucco buildings in complementary browns, beiges, and rust colors, along with exterior design elements such as the use of river rock. Buildings would extend to a maximum height of approximately 30 to 35 feet, including the apex of pitched roof facades. The project applicant proposes the use of articulated facades that would include awnings, arched windows, pitched roof facades, and pitched roof "towers" that would provide visual interest. Differentiated pavement would be used to designate walkways and parking areas, as well as areas for shopping carts. Figures 2-4 through 2-7 show conceptual elevations of the larger proposed buildings to provide conceptual design materials, and overall shape of the buildings.

2.4.3 Landscaping and Buffers

The project applicant proposes to install landscaped buffers around the entire project site, as follows (measurements are approximate):

- Avenue J-12: 20-foot landscaped buffer;
- 60th Street West: 18-foot to 30-foot landscaped buffer (including sidewalk);
- Western Edge: 10-foot to 13-foot landscaped buffer; and
- Avenue K: 10-foot to 11-foot landscaped buffer.

Upon project approval and before permits are issued, the City of Lancaster would require submission of landscaping plans for approval. All landscaping would be required to be maintained in perpetuity (see Section 2.5, below).

2.4.4 Hours of Operation/Project Operations

The proposed project, once completed, would be open from approximately 6 AM to 11 PM.

2.4.5 Construction Schedule

The project applicant estimates that construction would begin upon project approval in early 2009. Construction would be complete by 2012.

2.4.6 General Plan Amendment and Rezoning

As a part of the project, the project applicant is requesting an amendment to the General Plan to change the General Plan land use designation from UR (Urban Residential 2.1-6 dwelling units per net acre) to C (Commercial). According to the General Plan (p. VIII-6), the C (Commercial) land use designation generally "[i]ncludes a broad spectrum of uses, including regional

community, community, neighborhood, and highway-oriented uses with floor area ratios ranging from 0.5 to 1.0."

Also as part of the project, the project applicant is requesting that the zoning for the project site be changed from R-7000 (single-family residential, minimum lot size 7,000 square feet) to CPD (Commercial Planned Development). The new zoning is intended to apply to commercial land and applied to development that "involves special consideration such as proximity to residential neighbors which merit the attention of the planning commission and applications of special conditions to deal with such concerns. This zone is intended to provide for the daily commercial needs of residents of the city and adjoining areas, visitors and business in an urban environment with full urban services" (Municipal Code, Section 17.12.470). Projects must conform to the permitted uses of the C zone, with additional requirements for the project subject to a Conditional Use Permit.

2.4.7 Conditional Use Permit

This project, which exceeds two acres, would require a Conditional Use Permit. Under Municipal Code Section 17.12.530, conditional use permits for a CPD zone are subject to regulations regarding the following:

- Access and Parking - vehicular access, parking and loading facilities must be adequate to prevent traffic congestion on adjacent streets;
- Building Coverage - must not occupy more than 40 percent of the net area of the site;
- Design - must minimize adverse impacts on adjacent properties;
- Development Features - must include features to make the development attractive and to buffer the site from adjacent uses;
- Development Schedule - the Planning Commission must approve a progress schedule;
- Need - the proposed commercial development must be needed to serve the immediately adjacent area based on development that has either occurred or is proposed that would warrant such commercial development;
- Signs - no outdoor advertising signs are permitted; one sign may be approved that lists the tenants; and
- Utilities - the developer must demonstrate that arrangements have been made to adequately serve the project site.

SOURCE: McKently Malak Architects, 2007

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 2.4
Conceptual Elevations

MAJOR-A

SOURCE: McKently Malak Architects, 2007

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 2.5
Conceptual Elevations

MAJOR-B

SOURCE: McKently Malak Architects, 2007

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 2.6
Conceptual Elevations

MAJOR-C

SOURCE: McKently Malak Architects, 2008

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 2.7
Conceptual Elevations

2.5 Conditions of Approval

In February, 2006, the City of Lancaster adopted Resolution No. 06-16 entitled *A Resolution of the Planning Commission of the City of Lancaster, California, Adopting Certain Standardized Conditions of Approval for Conditional Use Permits* that adopts standardized conditions of approval for conditional use permits. These conditions of approval are considered standard conditions to be used by reference in conjunction with all Conditional Use Permit approvals. The 39 listed conditions are already required by the City, and therefore, in most cases, are not included as mitigation measures in this EIR. These conditions include, but are not limited to:

- Submission to the Public Works Department, and subsequent routing to the Planning Department for concurrent review and approval of the following before the issuance of permits:
  - Lighting Plan;
  - Building Plan;
  - Grading Plan;
  - Landscape Plan; and
  - Trash Enclosure Plan.

- Payment of the following fees before the issuance of building permits:
  - Los Angeles County Residential Sewer Connection Fee;
  - Interim School Facilities Financing Fee;
  - Installation or Upgrade of Traffic Signals Fee;
  - Planned Local Drainage Facilities Fee;
  - Dwelling Unit Fee;
  - Traffic Impact Fee; and
  - Urban Structure Fee (Park Development Fee, Administrative Office Fee, Corporate Yard Fee, Operations Impact Fee, etc.).

- A Dust Control Plan prepared and submitted to the Antelope Valley Air Quality Management District (AVAQMD) in accordance with Rule 403 of the AVAQMD; and submission of an approved copy of the plan to the Lancaster Department of Public Works prior to issuance of a grading permit;
- Installation by the developer of a conduit pull rope, and pull boxes along regional, primary, and secondary arterials to the nearest arterial intersection to be used for future Traffic Signal Communication Interconnect;
- Compliance with the Best Management Practices of the National Pollutant Discharge Elimination System (NPDES) and all NPDES permit requirements;
- Install street lights per adopted City ordinance or policy;
- Mitigate on-site developmental storm water runoff to the satisfaction of the Public Works Director;
- Maintenance of approved landscape materials in perpetuity; and
- Compliance with the Congestion Management Plan mitigation requirements, including mitigation fees.

2.6 Project Approvals

The proposed project would be subject to approval of the following actions by the Planning Commission and the City Council:

- Certification of the Final EIR (Planning Commission);
- Amendment to the General Plan (City Council);
- Rezoning (City Council); and
- Conditional Use Permit (Planning Commission).

CHAPTER 3
Environmental Setting, Impacts, and Mitigation Measures

3.1 Land Use and Planning

3.1.1 Introduction

This section addresses the potential impacts of the proposed project on existing and planned land uses in the project vicinity. This land use analysis considers the compatibility of the proposed project with applicable local and regional policies and regulations, including the City of Lancaster General Plan (General Plan), and also considers the compatibility of the project with adjacent land uses.

3.1.2 Environmental Setting

Land Uses in the Vicinity of the Project Site

The project site is located on the western edge of the City of Lancaster. Within a two-mile radius of the project site there are a variety of land uses including, educational, residential, vacant land, recreational, and governmental uses. Commercial uses consist of less than five percent of Lancaster's developed land uses. On the west side of the City of Lancaster, there is a substantial amount of vacant/undeveloped land. There is a large portion of undeveloped land located to the west of the project site past the existing development along 70th Street West. To the southwest there is another large parcel of undeveloped land that is zoned R-7000. The Good Shepherd Cemetery is located to the southwest, approximately one mile from the project site along 70th Street West and Avenue K-8. Quartz Hill High School is located south of the project site, approximately one mile away, at the southwest corner of the intersection of 60th Street West and Avenue L, adjacent to residential developments. Portions of the unincorporated community of Quartz Hill are also located within a two-mile radius of the project site. The George Lane County Park in Quartz Hill is located approximately one and a half miles away, southeast of the project site, along Avenue L-8. North of the project site are the Antelope Valley State Prison, approximately three-quarters of a mile away; the Mira Loma Detention Facility,[1] approximately one and a half miles away; and a medical clinic[2]

[1] The Mira Loma Detention Facility is a Los Angeles County facility contracted by the U.S. Immigration and Naturalization Service to house illegal immigrants until their immigration case is decided. This facility includes three courtrooms.

[2] The Los Angeles County High Desert Hospital was a 170-bed County hospital owned by Los Angeles County and operated by the County Department of Health Services. This facility is now only a medical clinic.

approximately one and three-quarter miles away. The Los Angeles County Challenger Youth Memorial Center (CMYC) is located off of Avenue I, to the north of the project site. Much of the land to the north is undeveloped. Please see Figure 3.1-1 for details on existing surrounding land uses.

The project site itself is surrounded primarily by residential uses. The northern boundary of the project site is formed by Avenue J-12. On the northeastern corner of Avenue J-12 and 60th Street West, there are a few older single-family residences surrounded by undeveloped land to the north and west. Across from the northwestern corner of Avenue J-12 and 60th Street West, and directly west of the project site, are newly developed single-family residential structures located behind a large retaining wall. To the east of the project site, across 60th Street West, are single-family residential homes (located behind a retaining wall). Directly south of the project site is Avenue K. On the south side of Avenue K, southeast of the project site, is a portion of undeveloped land followed by single-family homes. Directly south of the project site, on the south side of Avenue K, is a large brick wall that parallels Avenue K; behind the wall are newly constructed homes.

Land Uses at the Project Site

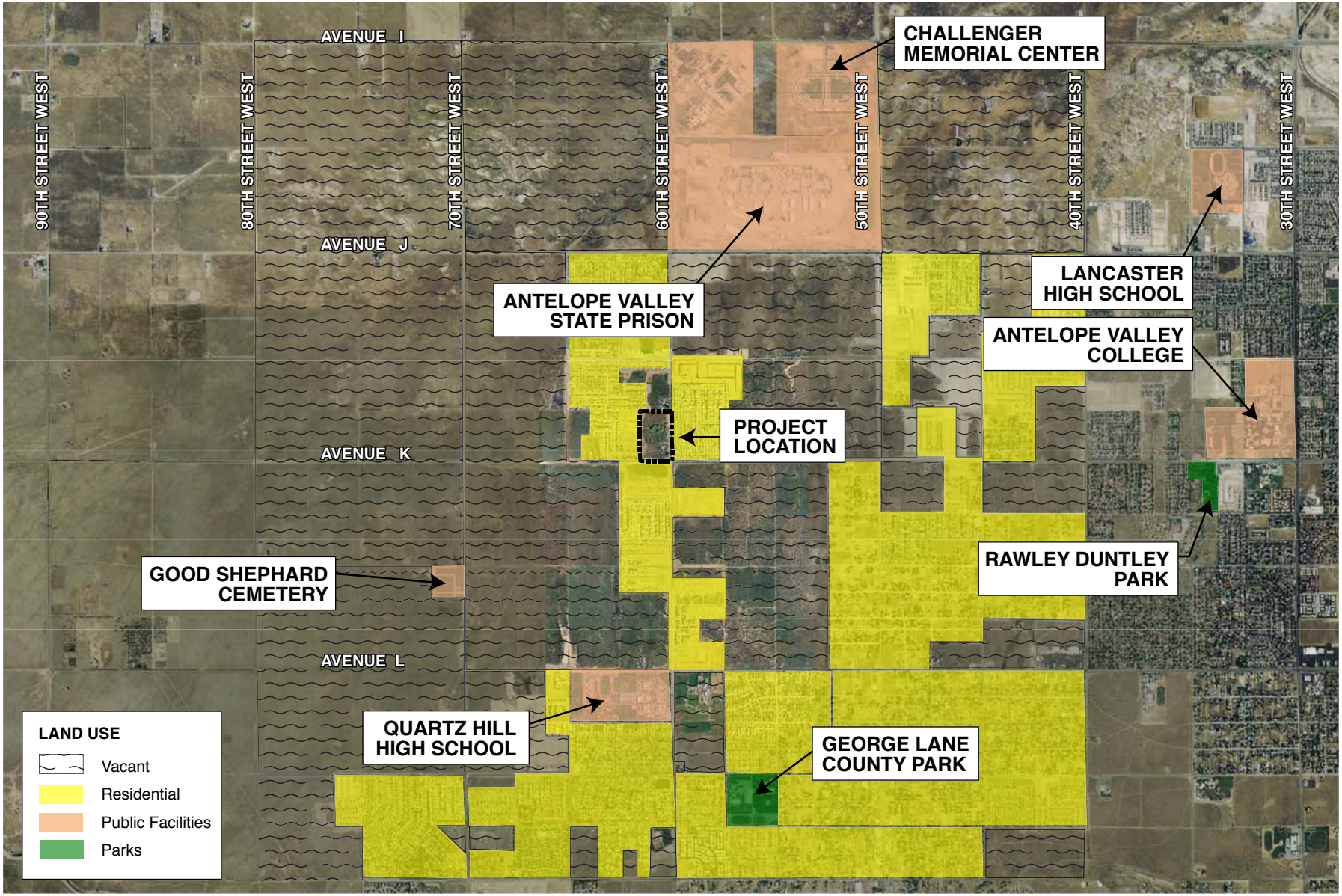
The project site was used for agricultural purposes from approximately 1952 until the early 1960s. During this period a small number of residences were located on the southeast corner of the site. In the 1960s a portion of the site (approximately 17 acres) was developed into a nine-hole golf course. The remaining portion of the site remained vacant. The golf course was abandoned in the late 1980s. The site was occupied by dilapidated structures associated with the former golf course and residential use either at the site or nearby.[3] These buildings appeared to be the old Pro-Shop, restroom facilities, a shed and two small former residences. Additional elements on the site include a water tank, old telephone poles, wire fencing, pieces of concrete, and ornamental trees and vegetation. After the NOP was issued, the site was cleared of rubbish, and most of the trees, and the former buildings were demolished, leaving the site vacant.

3.1.3 Regulatory Framework

City of Lancaster General Plan

Adopted in October, 1997, and last amended in September 2008, the *Lancaster 2020 General Plan* contains policies that guide the development of land within the City including the proposed project area and provides a long-term vision for the City. The General Plan sets forth the land use designations for the City, including the permitted uses for each land use designation. Land use classifications for the City include non urban residential (NU), urban residential (UR), multi-family residential (MR1 and MR2), commercial (commercial and office/ professional), employment (light industry and heavy industry), specific plan, and facilities (public uses, public school, park, health care, cemetery and open space).[4] The land use classification for

[3] Structures were demolished and removed in early 2008, after the City determined the buildings to be hazards.
[4] City of Lancaster General Plan Land Use Map, adopted October 28, 1997.



SOURCE: GlobeXplorer, 2006; ESA, 2007.

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 3.1-1
Existing Land Use

the project site is Urban Residential (UR), which allows from 2.1 to 6.5 dwelling units per acre.[5] Figure 3.1-2 provides zoning for the project site and its vicinity.

General Plan Policies

The following is a summary and discussion of the applicable General Plan policies relevant to the proposed project.

Air Quality

The General Plan provides policies designed to protect Lancaster's air resources. The General Plan policies that are related to air resources include Policies 3.3.1, 3.3.2, 3.3.3, 3.3.4, and 3.3.5. The purpose of these policies is to increase public transportation (i.e., minimize vehicle trip miles generated by new developments); facilitate alternative modes of transportation, such as bicycle riding and walking; decrease air polluting emissions; and protect sensitive receptors.

Air quality is regulated by several agencies, including the US Environmental Protection Agency, California Air Resources Board, and the local Air Quality Management District. Each of these agencies develops rules and/or regulations to attain the goals or directives imposed through legislation. Air quality impacts have been quantified by examining the existing conditions of the air quality basin, identifying sensitive receptors, modeling both construction and operational pollutant concentration impacts of the proposed project, and recommending mitigation measures where appropriate. Impacts of local pollutants are significant when modeling shows that the emissions from the project would exceed air quality standards.

A detailed discussion of the potential impacts of the project on air quality is provided in Section 3.5, Air Quality, in this Draft EIR.

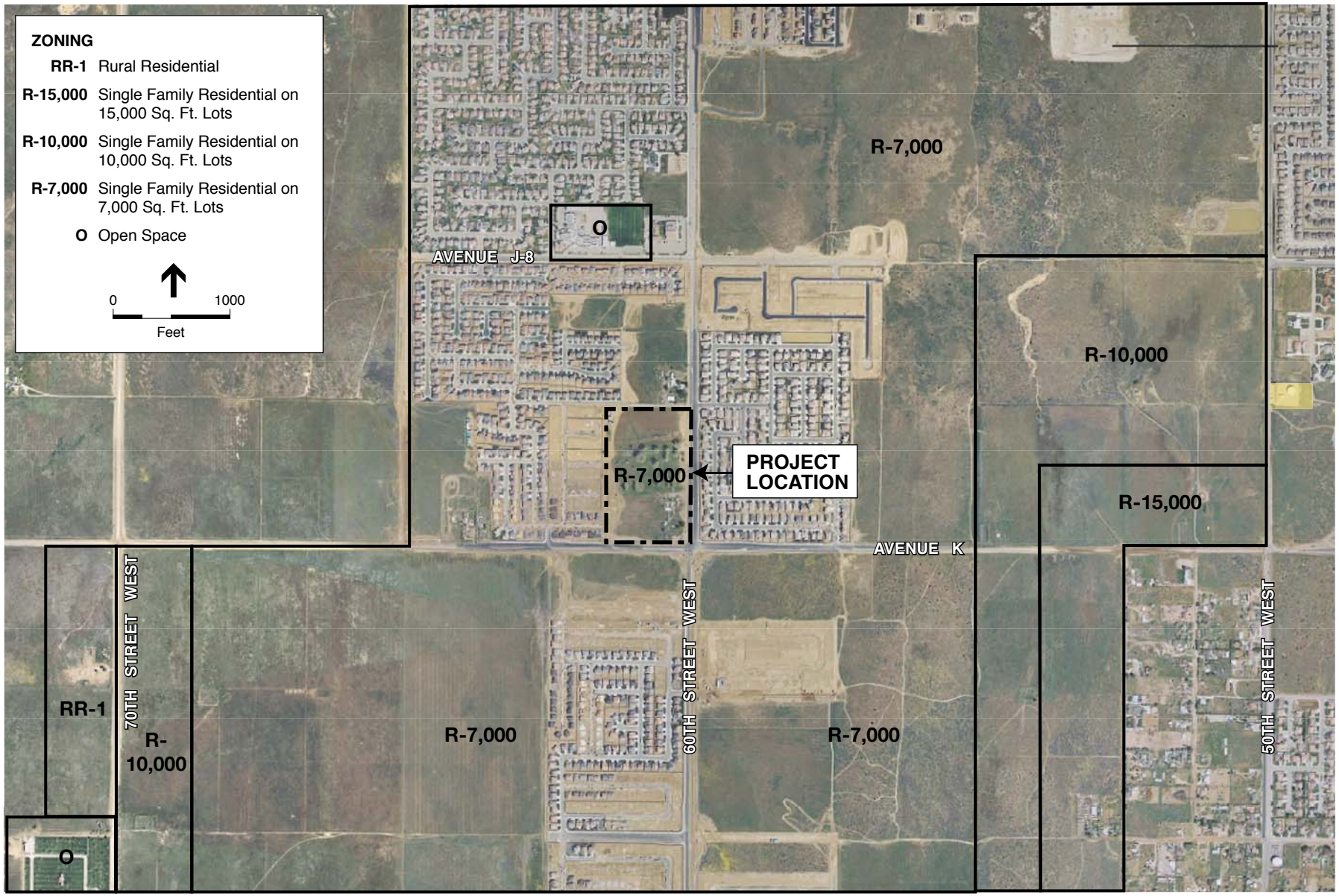
Cultural Resources

The Plan for the Natural Environment in the General Plan contains a number of goals, objectives, and policies related to the identification and protection of cultural resources. The goals, objectives, and policies that would apply to the proposed project are Goal 11, Objective 11.1, and Policy 11.11. The intent is to preserve and restore "those features of cultural, historical, or architectural significance" and/or sites of significant historical and cultural value. A detailed discussion of the potential impacts of the project on cultural resources is provided in Section 3.10, Cultural Resources, in this Draft EIR.

Geology

The General Plan includes policies related to seismic and geologic hazards. Policies 3.5.1, 3.5.2, 4.1.1, and 4.1.2 are relevant to the proposed project. These policies relate to minimizing erosion problems resulting from development activities, subsidence, and reducing the potential for damages resulting from soil movement. These policies are also intended to reduce hazards

[5] City of Lancaster General Plan Land Use Map, adopted October 28, 1997.



SOURCE: GlobeXplorer, 2006; City of Lancaster, 2006.

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 3.1-2
Zoning Map

associated with seismic hazards resulting from fault rupture and strong ground shaking. A detailed discussion of the potential impacts of the project on cultural resources is provided in Section 3.7, Geology and Soils, in this Draft EIR.

Hazards

To a large extent, the classification, handling, transportation, disposal, and cleanup of hazardous materials are regulated by federal, state, and county agencies. The General Plan, Plan for Public Health and Safety, sets forth policies and actions relevant to the proposed project. These policies include Policies 4.5.1 and 4.1.1; and Specific Actions 4.5.1(b), 4.5.1(c), and 4.7.1(c). These policies and relate to the transport, use, storage, and disposal of hazardous materials, and to ensuring that an adequate number of fire stations and equipment are provided to protect any proposed development. As noted, hazardous materials are subject to numerous federal, state and local laws and regulations designed to protect health and safety. A detailed discussion of the potential exposure of residents and workers to hazards and hazardous materials is provided in Sections 3.6, Hazards and Hazardous Materials, and Section 3.11, Public Services and Utilities, of this Draft EIR.

Hydrology

The General Plan contains objectives, policies, and actions to ensure that future growth and development in the City do not adversely affect the groundwater basin, including the quality of water in the groundwater basin and the demand for water from the groundwater basin. These policies also address flood control and drainage. Policies and objectives relevant to the proposed project include Policies 3.1.1a, 3.1.1b, 3.1.1c, 3.1.1d, 15.1.3, 15.1.4 and Objective 3.1. A detailed discussion of the potential impacts of the project on hydrology and water quality is provided in Section 3.8, Hydrology and Water Quality, of this Draft EIR.

Land Use

Policies that pertain to land use within the General Plan include Policies 3.1.1(d), 16.4.2, 17.1.3 and 18.1.3. These policies are fully analyzed in this section under Impacts; (see Impact 3.1-2 below). In addition, although the project proposes to amend the General Plan, the proposed project would be consistent with the General Plan policies.

Noise

Local regulation of noise involves implementation of General Plan policies and standards. The General Plan recognizes that different types of land uses have different sensitivities toward their noise environment. The following policies are applicable to the proposed project and address noise: Policies 4.3.1, 4.3.2, and 4.3.3. Objective 4.3 establishes noise compatible land use objectives. These policies and Objective 4.3 are intended to ensure the protection of noise-sensitive land uses, and provide standards for the both short-term and long-term noise. These noise-related policies set forth objectives related to construction activities, nuisance noise sources, and operational activities, and include goals related to noise insulation, building design and building design features, single event noise, noise analyses for development projects, and the

use of noise barriers. A detailed discussion of the potential impacts of the project on noise is provided in Section 3.4, Noise, of this Draft EIR.

Population/Housing

A summary of the General Plan policies related to population, jobs/housing balance relevant to the proposed project include Policies 16.1.1, 16.1.2, 16.1.3, 16.2.3, 16.3.1, 16.3.2, 16.3.4, 16.4.1, 16.4.2, 17.1.1, and 17.1.3, along with various other goals and objectives. These policies are all aimed at promoting the local economy, maximizing employment, and establishing a diversity of commercial uses. In addition, these policies promote retail development, which attracts merchants that offer goods and services not locally available to meet local and regional demand. A detailed discussion of the potential impacts of the project on population growth and housing is provided in Section 3.2, Population and Housing, of this Draft EIR.

Public Services and Utilities

The General Plan contains goals and objectives that have been adopted by the City with regards to public services and utilities. Policies 4.6.2, 4.7.3, 15.1.5 and 15.3.1 are relevant to the proposed project. These policies are intended to discourage opportunities for criminal activity by providing adequate funds to support crime prevention and law enforcement services, and to ensure that the design of new development minimizes the potential for fire. Additionally, these policies are designed to ensure that sufficient infrastructure is built and maintained, to support growth with adequate utility service systems such as solid waste disposal (that do not degrade the environment) and public services, and to ensure equitable sharing in the cost of public services through fees and exactions. A detailed discussion of the potential impacts of the project on public services and utilities is provided in Section 3.11, Public Services and Utilities, of this Draft EIR.

Transportation

The General Plan contains policies that address transportation issues in Chapter V, Plan for Physical Mobility, and Chapter VI, Plan for Municipal Services and Facilities. The following policies, goals, and objectives are relevant to the proposed project: Goals 14 and 15; Objectives 14.1 and 15.1; Policy 14.1.2, and Specific Action 14.1.2(b). These policies pertain to a well-balanced transportation and circulation system within the City, maintaining and improving the operation of the roadway network, and achieving and sustaining a “C” level of service. Per City guidelines, impacts are to be examined for the project increment only, and to mitigate a project traffic impact, feasible mitigation measures are provided. A detailed discussion of the potential impacts of the project on traffic, circulation, and parking is provided in Section 3.3, Traffic, Circulation, and Parking, of this Draft EIR.

Zoning Ordinance

Title 17 of the City’s Municipal Code addresses zoning within the City. The intent of the zoning ordinance is to protect public health, safety and the general welfare of residents and visitors. The Zoning Ordinance provides detailed definitions and requirements of uses allowed by the General Plan in residential, commercial, industrial, and special zones. Additionally, the ordinance regulates the use of buildings and structures and provides restrictions on the location, height, and

bulk area covered by said uses.[6] The City of Lancaster implements portions of its zoning ordinances through the use of the City's two zoning maps – the Central Zoning Map and the Westside Zoning Map. The proposed project is located in City of Lancaster Westside Zoning Map.[7] This map indicates that the project site is zoned as R-7000 (single-family residential, minimum lot size 7,000 square feet). Any changes to the zoning designation of a site require rezoning.

3.1.4 Impacts

Significance Criteria

Appendix G of the CEQA Guidelines provides guidance for assessing the significance of potential environmental impacts to land use and planning. Typically, a project would normally have a significant effect on the environment 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; and/or
- Conflict with any applicable habitat conservation plan or natural community conservation plans.

Methodology and Assumptions

Land use impacts are assessed based upon the physical effects related to land use compatibility (for example, air quality, aesthetics, and circulation) and consistency with adopted plans and regulations (e.g. policies and goals listed above). Specifically, this section of the Draft EIR addresses potential environmental impacts related to compatibility and/or consistency with regard to on-site and adjacent land uses and applicable plans and regulations. Information obtained from a site visit was used to analyze specific physical impacts of the proposed project for potential land use compatibility impacts.

Impacts

Impact 3.1-1: The proposed project could potentially physically divide an established community.

The project site is immediately surrounded on three sides by residential developments that are separated from the project site by both perimeter walls and site orientation. These developments are generally oriented inward (residential property side-yards and property backyards facing the project site), toward local streets within each development. One of the residential developments is

6 Title 17.04.100 of the City's Municipal Code, accessed on July 18, 2007 at http://municipalcodes.lexisnexis.com/codes/lancaster/_DATA/TITLE17/Chapter_17_04__GENERAL_PROVISI.html#4.

7 The Westside Zoning Map was adopted October 13, 1998.

separated from the project site by 60th Street West, which is considered by the General Plan to be a secondary arterial roadway.[8]

The proposed project would be located on the formerly occupied, but now overgrown nine-hole golf course, which has not been operational since the 1990s. The proposed development would be located in a relatively undeveloped area of western Lancaster, although residential, institutional, and small commercial land uses are found within a two-mile radius of the site. The residential uses located in the project site vicinity are discrete, separated by existing walls and/or public rights-of-way; in general, these residential developments are not physically joined. Although the project site is designated for residential purposes by the General Plan, this site is currently not part of the existing residential environment, nor is existing residential use predominantly oriented toward the project site.

Although the proposed project would be a new commercial use for the area, because of the size and scale of existing institutional uses in the project vicinity, the size and orientation of residential uses in the project site vicinity, and the scale of 60th Street West, the proposed project could not be considered a project that would substantially physically divide an established neighborhood. The proposed project would have less than a significant impact on substantially dividing an established neighborhood.

Impact 3.1-2: The proposed project would not conflict with the 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 General Plan land use designation for the project site is urban residential (UR) A UR classification allows for 2.1 to 6.5 dwelling units per acre. The project applicant it proposing a General Plan Amendment to change the land use designation from UR to commercial (C). The commercial land use designation allows for commercial developments. Table 3.1.1 Permitted Land Uses provides a summary of permitted land uses for the proposed land use change of the project site from residential to commercial.

TABLE 3.1.1
PERMITTED LAND USES

Designation	Land Use	Type and Intensity of Use
UR	Urban Residential	Densities range from 2.1 to 6.5 dwelling units per acre
C	Commercial	Includes a broad spectrum of uses with floor area ratios ranging from 0.5 to 1.0

SOURCE: City of Lancaster General Plan 2020, Table VIII-1 General Plan Land Use Categories, as amended to December 11, 2007.

8 Secondary arterials provide "[m]obility with controlled access to collectors and major traffic generators and restricted access to adjacent land uses" (General Plan, p. V-7).

The project site is zoned R-7000 (single-family residential, minimum lot size 7,000 square feet). The project applicant proposes to rezone the site from R-7000 to CPD (Commercial Planned Development). Title 17 of the City of Lancaster Municipal Code states the intent and purpose of commercial zoned property:

> *This zone is intended to allow the development of neighborhood, community, regional and travel oriented commercial uses within the City. This zone is intended to be consistent with applicable goals, objectives, policies and specific actions set forth by the general plan. This zone is intended to provide for the daily commercial needs of residents of the City and adjoining areas, visitors and businesses, in an urban environment with full urban services.*

The project site is located in an urbanized area that includes residential and institutional uses, with limited commercial uses.

Permitted uses for a CPD zoning designation allow for any use that is acceptable in a commercial zone.[9] Additional permissible uses in the CPD zone can include the following:

- Existing single-family residential uses which may continue to be used as a permitted use provided that such uses may not be expanded in any manner.
- Any use which is permitted in the C zone, subject to the director's approval of a site plan[10] which demonstrates conformity with the provisions of the C zone and this title, and provided that all of the following conditions exist:

  1. The area of the lot or parcel of land to be used is two acres or less.
  2. The proposed use is found by the director to be compatible with surrounding development.
- Existing premises may be used for any use which is permitted in the C zone provided that the proposed use is found by the director to be compatible with surrounding development.
- Water reservoirs, dams, treatment plants, gauging stations, pumping stations, tanks, wells, and any use normal and appurtenant to the storage and distribution of water.[11]

The proposed project falls under the jurisdiction of the City of Lancaster General Plan 2020 and Zoning Ordinance, and is not located within a Specific Plan or any other land use plan.

General Plan Policy Discussion:

As discussed below, the proposed project would not conflict with any applicable plans or policies and the project would result in less than significant impacts on land use.

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9 Section 17.12.490 of the City of Lancaster Zoning Ordinance. Per Section 17.12.040, permitted uses within the Commercial Zone can include but are not limited to, churches, religious, fraternal or social organizations, communications facilities and services, eating and drinking establishments. Financial institutions and services, business offices (including both government and professional), public utilities, recycling facilities, rental establishments, retail sales establishments, schools, personal services, and existing residential uses, and automobile stores.

10 The director's determinations on these items may be appealed to the Planning Commission. (Ord. 711 §§ 28, 30 (part), 1995; prior zoning ord. § 223.021)

11 Section 17.12.490 of the City of Lancaster Zoning Ordinance.

Policy 3.1.1(d): Consistent: The proposed project would be required to provide a factual statement on the current water demand, the proposed water demand, potential conservation and water from any new sources. Please see Section 3.8, Hydrology and Water Quality, and Section 3.11, Public Services and Utilities, of this DEIR for more detail. The proposed project would be consistent with policy 3.1.1 (d.)

Policy 16.4.2: Consistent: The proposed project is a commercial development intended to serve the existing neighborhood developments and nearby approved residential developments. The proposed project would consist of neighborhood retail stores needed to serve the growing retail demand generated by population growth. The proposed project would be consistent with the policy and specific actions of Policy 16.4.2.

Policy 17.1.3: Consistent: The proposed project would adhere to the desired hierarchical pattern of attractive commercial developments. The project is intended to serve the community, specifically the surrounding growing neighborhoods. The project would provide the necessary accessibility and access via of 60th Street West and Avenue K. The proposed project would be consistent with Policy 17.1.3.

Policy 18.1.3: Consistent: The proposed project would abut existing residential homes on the west side. As proposed, the project would be separated from the homes by a block wall. The proposed project includes an amendment of the General Plan and rezoning. Upon approval of the General Plan and rezoning, the proposed project would be consistent with Policy 18.1.3.

In order to achieve approval, the proposed project would require an amendment of the General Plan and the Zoning Ordinance, in addition to entitlements from the City.[12] The proposed project would therefore be consistent with the proposed new land use and zoning designations. The proposed project would be consistent with the land use classification because the project includes an amendment to the General Plan and Zoning Ordinance and a Conditional Use Permit (CUP).

In reference to other policies identified in the General Plan, detailed discussions are provided in topical discussions in Chapter 3 of this Draft EIR. In general, the proposed project would not conflict with policies found within the General Plan regarding: Air quality (the project would provide neighborhood-serving commercial uses that would reduce the need to travel to shopping and restaurants further away); cultural resources (the project would protect potential historic resources); geology and soils; public services and utilities (including fire protection services); drainage and water quality; noise; population and job growth; and traffic and circulation.

The project would have a less than significant conflict with existing land uses, plans or policies.

Impact 3.1-3: The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan.

The proposed project site has been disturbed by previous occupied uses and developments, and is not subject to a Habitat Conservation Plan, Natural Community Conservation Plan, or other

[12] These entitlements would include approval of an amendment to the General Plan and Zoning Ordinance, and approval of a Conditional Use Permit (CUP) because the shopping center is greater than ten net acres (Municipal Code 17.12.080).

approved habitat conservation plan. Development of the project site would therefore not conflict with any local plans or ordinances protecting biological resources, or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan. Please see Section 3.9, Biological Resources, for further discussion of biological resources at the project site and its vicinity.

Cumulative Impacts

According to Section 15355 of the CEQA Guidelines, the cumulative impact of individual projects in close proximity must be considered when looking at the impact of an individual proposed project. A substantial amount of proposed development is proposed in the vicinity of thie proposed project. Of the 52 additional proposed projects, 50 are located within the City of Lancaster and two are located in unincorporated Los Angeles County. Further, of the 52 planned projects, 48 are single-family residential projects; one project is for a church; and the remaining three planned developments are commercial shopping centers.

Two commercial shopping centers are proposed south of the proposed project. One is proposed for the southeast corner of 60th Street West and Avenue L. This project proposes approximately 394,575 square feet of commercial development and would require a General Plan Amendment and a CUP. The second planned commercial shopping center is proposed for the northwest corner of 60th Street West and Avenue L. This planned shopping center would consist of approximately 395,000 square feet of commercial development and would require a General Plan Amendment and a CUP. Taken together with the proposed project, the total cumulative commercial development proposed along 60th Street West is approximately 1,025,684 square feet (394,575 square feet plus 395,000 square feet plus 236,109 square feet). The proposed project is the smallest of all planned commercial projects and is intended to be more neighborhood-serving rather than mostly regional-serving.

As stated earlier, the project area is within the western city limits, mostly surrounded on all sides by residential uses. This area is, for the most part, currently expanding. There are approximately 48 planned residential projects including sizable developments such as 245 single-family residences (TTM 65509), 600 single-family residences, and one development of approximately 1,594 units of residential development, which would be the largest proposed residential development. The proposed project is not out of context with other proposed developments in the general area. Increased residential development would require increased commercial development to address demand. The proposed project is consistent on a cumulative level with General Plan Policy 16.4.2 (promote regional, community and neighborhood retail development to serve the growing retail demand generate by population growth).

Taken together, the contribution of the proposed project to these 48 residential planned developments, church and multipurpose building and two commercial planned development projects, the proposed project would not result in the division of an established community and therefore would not have a cumulatively considerable impact. Development in western Lancaster would continue to be primarily residential. Cumulative impacts are therefore considered less than significant. The western area of the City of Lancaster does not fall within any habitat

conservation or natural community conservation areas; there would be no impact from a conflict between such an area and proposed cumulative projects.

3.1.5 Mitigation Measures

The proposed project would result in no significant land use impacts. No mitigation measures are required.

3.1.6 Level of Significance after Mitigation

No mitigation is required of the proposed project; and all impacts are less than significant.

3.2 Population and Housing

3.2.1 Introduction

This section evaluates potential impacts to the City's population and housing as a result of the proposed project. The section describes the local area's existing and projected population, employment, and housing conditions. The analysis gives particular attention to an evaluation of the current and future population and housing supply in the City of Lancaster where most of the proposed development's future employees would be expected to live.

3.2.2 Setting

Existing Population

The current population of the City of Lancaster is approximately 144,000 persons. According to the 2000 Census and the State of California Department of Finance, Lancaster's population now increases an average of 2.8 percent per year, a rate of growth considerably higher than the Los Angeles County average population increase of 1.3 percent per year. Both the City of Lancaster and the Antelope Valley region continue to grow rapidly as families are attracted to the area in search of quality housing at more affordable prices.

Income and Employment

In 2006, the estimated average household income of Lancaster residents was approximately $60,600 per year. For residents within the "Westside" neighborhoods[1] that surround the project site, household incomes are generally higher, averaging more than $81,600 per year. In recent years, the fastest growing population segment consists of households with incomes of more than $100,000.[2]

During the last ten years, the City of Lancaster's unemployment rate has fluctuated considerably. Table 3.2.1 shows the estimated past unemployment rates for both the City of Lancaster and Los Angeles County between 1997 and 2006.

Between 1997 and 1999, the unemployment rate for the City of Lancaster was lower than the county-wide average. However, since 2000 the unemployment rate in Lancaster has consistently been far higher than that of Los Angeles County as a whole, generally remaining 40 percent above the county rate. A primary cause of the rise in Lancaster's unemployment level has been the decline in the area's aerospace and manufacturing sectors following the 1990s recession. Since the beginning of the 1990s, federal defense spending cutbacks resulted in a critical period of consolidation within the aerospace manufacturing industry and also led to sharp declines in related manufacturing industries. Restructuring of major local employers such as the Edwards Air Force Base, the Naval Air Warfare Center at China Lake, Lockheed-Martin and Northrop-Grumman Companies resulted in major local job losses.[3]

1 The "westside" area generally consists of housing located within the 93536 zip code.
2 California Department of Finance, 2007.
3 GAVEA, 2004.

TABLE 3.2.1
EMPLOYMENT FOR CITY OF LANCASTER AND LOS ANGELES COUNTY (1997–2006)

	Lancaster			Los Angeles County		
Year	Labor Force	Employment	% Unemployed	Labor Force	Employment	% Unemployed
1997	44,854	41,906	6.6%	4,422,595	4,117,002	6.9%
1998	46,112	43,221	6.3%	4,575,727	4,246,142	6.6%
1999	46,472	43,865	5.6%	4,579,635	4,309,393	5.9%
2000	52,476	48,397	7.8%	4,677,326	4,424,894	5.4%
2001	53,392	49,037	8.2%	4,752,839	4,483,355	5.7%
2002	53,861	48,640	9.7%	4,770,207	4,447,115	6.8%
2003	53,947	48,571	10.0%	4,773,457	4,440,806	7.0%
2004	54,005	48,978	9.3%	4,788,991	4,477,937	6.5%
2005	54,247	50,106	7.6%	4,837,365	4,581,129	5.3%
2006	54,359	50,658	6.8%	4,860,620	4,631,626	4.7%

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics, 2007.

Recent Housing Trends

Due to its comparatively affordable housing supply, the Antelope Valley area has long been a housing-rich region within Los Angeles County. It is not unusual for workers living in this area to commute two or more hours each way daily to jobs located in southern Los Angeles County. More than 30 percent of Antelope Valley residents are on the road at least two hours a day and roughly 30 percent of employed residents in the area commute out of the area for work.[4]

Single-family detached residences are the predominant form of housing in the Antelope Valley region, accounting for 80.7 percent of the region's housing stock, while 8.5 percent of the region's households live in apartments. Over the last ten years there has been strong growth in new housing construction within both the City of Lancaster and the Greater Antelope Valley Region.[5] An estimated 61.6 percent of Lancaster residents are homeowners. This reflects the fact that the area remains a very affordable enclave in an otherwise costly Southern California housing market.[6]

Compared with its employment figures (shown in Table 3.2.1), Lancaster has a high proportion of housing to jobs. This reflects the City's current character as a "bedroom" community for Los Angeles County. The recent continued growth in new residential housing development and decline of the region's manufacturing and aerospace industries have both contributed to the high proportion of housing to jobs within the City of Lancaster.

4 GAVEA, 2004.
5 *Ibid*.
6 GAVEA, 2007.

Population, Housing and Job Projections

The Southern California Association of Government's (SCAG) Forecasting Section, under the Community Development Division, Planning and Policy Department, is responsible for producing socioeconomic projections and developing, refining and maintaining SCAG's regional and small area forecasting models. The Forecasting Section works closely with the Plans and Programs Technical Advisory Committee, the California Department of Finance (DOF), subregions, local jurisdictions, the public and other major stakeholders. These forecast numbers are used by SCAG's Modeling section to forecast travel demand and air quality for planning activities such as the Regional Transportation Plan (RTP), the Air Quality Management Plan and the Regional Housing Plan.

As shown in Table 3.2.2**,** SCAG projects that the City of Lancaster's future population will increase to 215,468 in 2020 and to 259,696 by 2030. For the foreseeable future, growth in the number of Lancaster households is also expected to continue. In 2020, SCAG expects there to be 66,591 households living in Lancaster, and 81,403 households in 2030. During this same period, Lancaster's employment base is projected to increase from 66,081 in 2020 to 71,816 in 2030.

TABLE 3.2.2
POPULATION, HOUSEHOLD AND JOBS PROJECTIONS FOR LANCASTER AND LOS ANGELES COUNTY, 2005 TO 2030

Geographic Area	2005	2020	2030	2005–2020 Change	2005–2020 Annual Rate	2005–2030 Change	2005–2030 Annual Rate
Total Population							
Lancaster	142,043	215,468	259,696	73,425	2.8%	117,653	2.4%
County of Los Angeles	10,258,304	11,870,799	12,221,799	1,612,495	1.0%	1,963,495	0.7%
Households							
Lancaster	42,673	66,591	81,403	23,918	3.0%	38,730	2.6%
County of Los Angeles	3,235,358	3,763,875	4,120,270	528,517	1.0%	884,912	1.0%
Jobs							
Lancaster	52,791	66,081	71,816	13,290	1.5%	19,025	1.2%
County of Los Angeles	4,503,683	5,366,865	5,660,992	863,182	1.2%	1,157,309	0.9%
Jobs to Housing Ratio							
Lancaster	1.24	0.99	0.88				
County of Los Angeles	1.39	1.43	1.37				

NOTE: The number of households is equivalent to the number of occupied housing units.

SOURCE: SCAG, 2004.

The future rate of growth in Lancaster households (which is equivalent to future housing) is expected to be twice that of its future job base between 2005 and 2020. Between 2005 and 2030, the growth rate in Lancaster households is projected to be greater than the City's growth in jobs. As a result of this disparity, Lancaster's job-to-housing ratio is expected to decrease from its

2005 value of 1.24 to 0.99 in 2020. According to SCAG, a balanced region would have a ratio of approximately 1.22 jobs for each housing unit in the community. Although Lancaster's current job/housing ratio is apparently balanced, the ratio itself does not reveal the characteristics of the local job market. Many of the jobs currently available in Lancaster are low paying service-oriented jobs and therefore a significant portion of the working population must continue to commute to Los Angeles or other areas for adequate employment.

By 2030, the ratio is projected to continue to fall even further to approximately 0.88. During the same periods, the job-to-housing ratio for the County of Los Angeles as a whole is projected to remain relatively stable. This projected change in Lancaster's future housing and employment represents a worsening imbalance in the City's economy as an increasing proportion and number of its resident are expected to commute out of the city to jobs located elsewhere. As a result, Lancaster will become even more of a "bedroom" community with insufficient jobs to meet future employment needs of its residents.

3.2.3 Regulatory Setting

This section summarizes relevant policies contained in the Lancaster General Plan that apply to the project's population and housing impacts.

City of Lancaster 2020 General Plan

Adopted in October 1997 and last amended in September 2008, the *Lancaster 2020 General Plan* contains policies that regulate the land within the City including the project site and its vicinity, and provides a long-term vision for the City. Relevant policies are included in Section 3.1, Land Use and Planning.

3.2.4 Impacts

Significance Criteria

In accordance with Appendix G of the State CEQA Guidelines, impacts on population and housing would be considered significant if the proposed project would:

- Induce substantial population growth or concentration of population in an area, either directly (for example, by proposing new housing and/or 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; and/or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

This EIR does not address the second and third bullets since the proposed project would not displace any existing housing and therefore would not displace or require the relocation of any current residents. Therefore, no impact would occur, and no additional analysis is required.

The population and housing impact analysis assesses the impact of employee population associated with the proposed project in the context of other population growth and increases in the housing supply expected in the City of Lancaster.

Methodology and Assumptions

The analysis estimates the expected new employment associated with the proposed project to determine the magnitude of the potential new population of residents that could be potentially attracted to the area by the project's new employment opportunities. The analysis also conservatively assumes one project employee per household and also accounts for the "dependent" population residing in the households of project-related new employees.

Impacts

Impact 3.2-1: Implementation of the project could induce population growth in Lancaster.

The proposed project would not involve the development of new homes and would not extend roads or other infrastructure as the project site is located within an urbanized area currently served by existing roads and infrastructure. As a result, the proposed project would not be expected to result in any direct housing-related or indirect infrastructural-related population impacts.

As shown in Table 3.2.3 implementation of the proposed project would result in the development of approximately 221,109[7] square feet of new retail. The majority of the new retail would be a "big box"-type home improvement retail store. In addition, three other mid-sized retail stores would also be developed. These mid-sized retail businesses would primarily serve a neighborhood market of customers; however, they may also attract some customers and spending from Palmdale and the unincorporated community west of Lancaster. The smaller retail pads would be expected to provide retail that would serve a smaller and more neighborhood-oriented customer base.

As a result, the proposed retail development would be expected to reduce lost retail spending (and thereby associated sales tax revenues) that is currently leaking out of the local economy as Lancaster residents currently shop elsewhere either as part of their daily work commute or due to the current lack of convenient or adequate local retail opportunities. Currently, the westside of Lancaster is relatively under-retailed despite the favorable transportation infrastructure and growing local customer base.

Besides serving local Lancaster residents, the proposed retail development would also be expected to attract retail spending from nearby areas located in unincorporated Los Angeles and other non-Lancaster residents. This new retail spending would have an additional benefit to the City's economy by generating increase sales tax revenues.

7 Does not include 15,000 square feet of gas station pumps and car wash. Employment numbers associated with the car wash/ gas station have been included in the numbers for Pad E. Total development proposed is 236,109 square feet.

TABLE 3.2.3
EXPECTED PROJECT RELATED EMPLOYMENT

Proposed Land Use	Square Feet	Employment Density	Estimated Employment (FTE)
Home Improvement Center	139,410	857 sq. ft. / FTE (a)	163
Garden Center	31,659	857 sq. ft. / FTE (a)	37
Major A	10,700	344 sq. ft. / FTE (b)	31
Proposed Shops	9,600	344 sq. ft. / FTE (b)	28
Pad A	6,300	344 sq. ft. / FTE (b)	18
Pad B	3,715	344 sq. ft. / FTE (b)	11
Pad C	13,225	344 sq. ft. / FTE (b)	38
Pad D	3,500	344 sq. ft. / FTE (b)	10
Pad E	3,000	344 sq. ft. / FTE (b)	9
Total	**221,109 (c)**		**345**

[a] Average employee density ratios for "regional retail" within the SCAG Region applied to proposed retail development.
[b] Average employee density ratios for "other retail / services" within the SCAG Region applied to proposed retail development.
[c] Does not include 15,000 square feet of gas station pumps and car wash. Employment numbers associated with the car wash/ gas station have been included in the numbers for Pad E.

SOURCE: Natelson Company, Inc. "Employment Density Study Summary Report," 2001.

As shown in Table 3.2.3, although the project would serve local demand, SCAG employment density factors[8] of one employee for each 857 square feet of "regional retail" and one employee for each 344 square feet of "other retail/services" have been conservatively applied to the proposed project. Using these employment density factors, it is estimated that the proposed project would generate approximately 345 new jobs. The analysis does not include a reduction for existing employees since the project site currently does not provide any employment.

Employment generated by the proposed project may result in direct growth in the City's population since the potential exists that "future employees" (and their families) may choose to relocate to the City. However, estimating the number of these future employees who would choose to relocate to the Lancaster may be highly speculative since many factors influence personal housing location decisions (i.e., family income levels and the cost and availability of suitable housing in the local area). Under the most conservative assumptions, the estimated 345 new jobs could attract 345 new residents to the City of Lancaster. Based on the current proportion of employed residents to total population,[9] a total of 929 new residents could be generated.[10] In addition, these new residents would require approximately 278 new homes (or 278 existing unoccupied homes). Given that SCAG's projected future population growth rate for

8 Average employment density factors for the SCAG region are taken from Table II-B of The Natelson Company, Inc., *Employment Density Study Summary Report,* prepared for the Southern California Association of Governments, October 2001.
9 Based on the 2005 data in Table 3.2-4, Lancaster's jobs to population ratio is 2.7 and jobs to housing ratio is 1.24.
10 This estimate conservatively assumes that all project related employment would come from new residents with demographic characteristics similar to the city's current residential population.

Lancaster is over 4,000 residents per year, the addition of 929 new residents by the project's expected completion would be well within Lancaster's currently anticipated population growth. As a result, the projected related population growth can be considered consistent with SCAG's projections for Lancaster and project implementation would therefore not induce substantial employment growth within Lancaster.

In addition, several factors suggest that the induced population and housing growth from the new projected related employment would actually be far less than the conservatively estimated 926 new residents. While Lancaster's relatively affordable housing market might attract some new residents, the city's comparatively high current unemployment rate suggests that many of the new jobs would likely be taken by existing residents. In 2006, there were approximately 3,700 unemployed Lancaster residents. Compared to the countywide unemployment levels, 1,142 of these residents may be unemployed due to lack of local job opportunities. This population of currently unemployed residents could easily absorb the project's addition jobs in which case no increased population or housing impacts would occur.

Furthermore, it may also be expected that many local residents currently commuting to jobs out of the region would likely prefer to work locally if new job opportunities were available. This would reduce the number of "excess" project jobs and again reduce the project's potential to attract new residents to the area. Many of the jobs generated by the project would also be likely to provide part-time or secondary employment opportunities that would be suitable for existing residents that are currently not recognized as part of the city's labor force (e.g., home-makers or retirees). In this case, impacts related to the new jobs created by the project would be lessened as current residents absorb some of the new employment opportunities.

The previous conservative impact assumption does not recognize the potential for future project employees to come from existing or new residents in the surrounding communities such as Palmdale, which would also reduce the impacts to the Lancaster housing and population growth.

Finally, SCAG's projected trend of a worsening future jobs to housing imbalance for Lancaster suggests that the project's addition of new job opportunities to the local community would be a beneficial impact that would reduce the severity of the future jobs to housing conditions.

Consequently, the proposed project would have a less than significant effect on population (including residents and employees) and housing.

Cumulative Impacts

Combined with the effects of other future residential and retail development, implementation of the project could induce population in Lancaster. As shown in Table 3.2.2, SCAG projects continued strong growth in Lancaster's future residential population. While the City's future employment is also expected to grow, the job growth rate is expected to be slower than the future population increase. As a result, SCAG expects there to be an increasing job-to-housing imbalance within Lancaster that will further increase its current conditions as a bedroom community lacking adequate jobs for its residents.

According to the City of Lancaster's most recent assessment of development projects currently approved or project applications now under review by the City applicable to the proposed project area (a two-mile radius from the project site), there are approximately 7,640 new housing units that may be expected within the City of Lancaster over the reasonably foreseeable future. Over 1,025,684 square feet of new retail is also currently foreseen. This future residential growth expected by City of Lancaster's Planning Department is consistent with SCAG's comparable future growth projections for the City.

Future construction of the projected 1,025,685 square feet of new Lancaster retail development may be expected to add approximately 1,320 full time equivalent jobs (assuming the new retail would generate job growth comparable to the proposed project). This new job growth would be equivalent to less than 1.5 years of job creation expected by SCAG's current projections. As a result, unless considerable additional retail or non-retail job growth occurs to offset the anticipated residential growth, the City's future housing and job imbalance may worsen further. Consequently, the proposed project's creation of 345 new full time equivalent jobs would have a beneficial impact to the local economy by reducing the expected imbalance in Lancaster's future job-to-housing conditions.

Combined with the effects of the expected other future residential and retail development, the proposed project would have a less than significant effect on population (including residents and employees) and housing.

3.2.5 Mitigation Measures

The expected project related impacts to population and housing are expected to be less than significant. No mitigation measures are required.

3.2.6 Level of Significance after Mitigation

No mitigation is required and potential impacts related to population and housing would be less than significant.

3.3 Traffic, Circulation and Parking

3.3.1 Introduction

This section presents the results of the transportation impact analysis conducted for the proposed 60th Street West and Avenue K Commercial Shopping Center. A copy of the traffic report can be found in Appendix C.

3.3.2 Environmental Setting

Regional Setting

The City of Lancaster is located in northern Los Angeles County, in the Antelope Valley. SR-14 (Antelope Valley Freeway), which extends along a north-south axis between US Route 395 (US-395) and I-5, is the major regional freeway that passes through Lancaster. State Route 138 (SR-138) (Lancaster Road – West Avenue D) also provides access to the city (via an interchange with I-5).

Local Setting

Existing Roadway Network

Key roadways within the study area are described below, and are limited to roadways that are approaches to the study intersections or provide regional access.

70th Street West is a two-lane secondary arterial roadway that provides north-south access between Kern County and the City of Lancaster, with its southern terminus at Avenue N. Within the study area, traffic on this roadway is controlled by stop signs at key intersections, and parking is generally prohibited. The posted speed limit is 55 miles per hour (mph).

60th Street West is a two- to three-lane secondary arterial roadway that provides north-south access between Kern County and the City of Lancaster. At the project site, the roadway is currently configured with one southbound lane and three northbound lanes; in addition, some two-lane segments of the roadway south of Avenue K have been widened from two lanes to four lanes. At its southern terminus (at Avenue N), 60th Street West becomes Godde Hill Road, which connects with Elizabeth Lake Road (a County highway). Within the study area, traffic on this roadway is controlled by traffic signals and stop signs at key intersections, and parking is generally prohibited. The posted speed limits range from 45 mph (on the southbound side of the roadway) to 55 mph (on the northbound side). The Antelope Valley Transit Authority (AVTA) bus Route 7 runs on this road in the project area.

50th Street West is a two- to three-lane secondary arterial roadway that provides discontinuous north-south access within the City of Lancaster. In the study area, its northern terminus is at Avenue G (where it transitions into the main on-site roadway within General William J. Fox Airfield); at its southern terminus (south of Avenue N), 50th Street West becomes Rancho Vista

Boulevard, which extends to Palmdale. Within the study area, traffic on this roadway is controlled by traffic signals and stop signs at key intersections, and parking is generally prohibited. The posted speed limits range from 35 mph (south of Avenue L), and 45 mph to 55 mph (north of Avenue L).

45th Street West is a two-lane collector roadway that provides discontinuous north-south access within the City of Lancaster. In the study area, its northern terminus is at Avenue I, and its southern terminus is Avenue L-14. Within the study area, traffic on this roadway is controlled by stop signs at key intersections. Parking is generally permitted in both directions, and the posted speed limit is 40 mph.

62nd Street West is a two-lane local roadway that provides discontinuous north-south access within the City of Lancaster. Within the study area, on-street parking is generally permitted on both sides of the road. Within the immediate project area, it provides access from Avenue K to a residential subdivision.

Avenue J is a two-lane secondary arterial roadway that provides east-west access within the City of Lancaster. Within the study area, traffic on this roadway is controlled by traffic signals and stop signs at key intersections, and parking is generally prohibited. The posted speed limit is 55 mph.

Avenue J-8 is a two- to three-lane local roadway that provides discontinuous east-west access within the City of Lancaster. Within the study area, parking is generally permitted on the westbound (north) side of the roadway, west of 60th Street West. The posted speed limits range from 30 mph (on the westbound side of the roadway) to 45 mph (on the eastbound side).

Avenue K is a two-lane secondary arterial roadway that provides east-west access within the City of Lancaster. Within the study area, traffic on this roadway is controlled by traffic signals and stop signs at key intersections, and parking is generally prohibited. The posted speed limits range from 45 mph to 55 mph.

Avenue K-8 is a two- to four-lane local roadway that provides discontinuous east-west access within the City of Lancaster. Within the vicinity of 60th Street West, at the center of the study area, the roadway is built with a four-lane cross-section and serves local neighborhoods. Within the study area, parking is generally prohibited along the roadway. The posted speed limit is 40 mph.

Avenue L is a two-lane secondary roadway that provides east-west access within the City of Lancaster. Within the study area, traffic on this roadway is controlled by traffic signals and stop signs at key intersections. Parking is generally permitted along the eastbound (south) side of the roadway and prohibited along the westbound (north) side of the roadway. The posted speed limit is 45 mph.

Avenue L-8 is a four-lane local roadway that provides discontinuous east-west access within the City of Lancaster. Within the study area, parking is generally prohibited along the roadway. The posted speed limit is 40 mph.

Existing Transit Conditions

AVTA operates fixed-route bus and dial-a-ride services throughout the high desert area within and near the cities of Lancaster and Palmdale. In the vicinity of the project site, AVTA operates bus Route 7, providing service between the Palmdale Transportation Center on the south, the Quartz Hill neighborhood, and the city center of Lancaster on the north. It operates on an hourly trip frequency during weekdays and a two-hour frequency on weekends, and also provides connections to other AVTA bus routes at either end of the route.

Existing Traffic Conditions

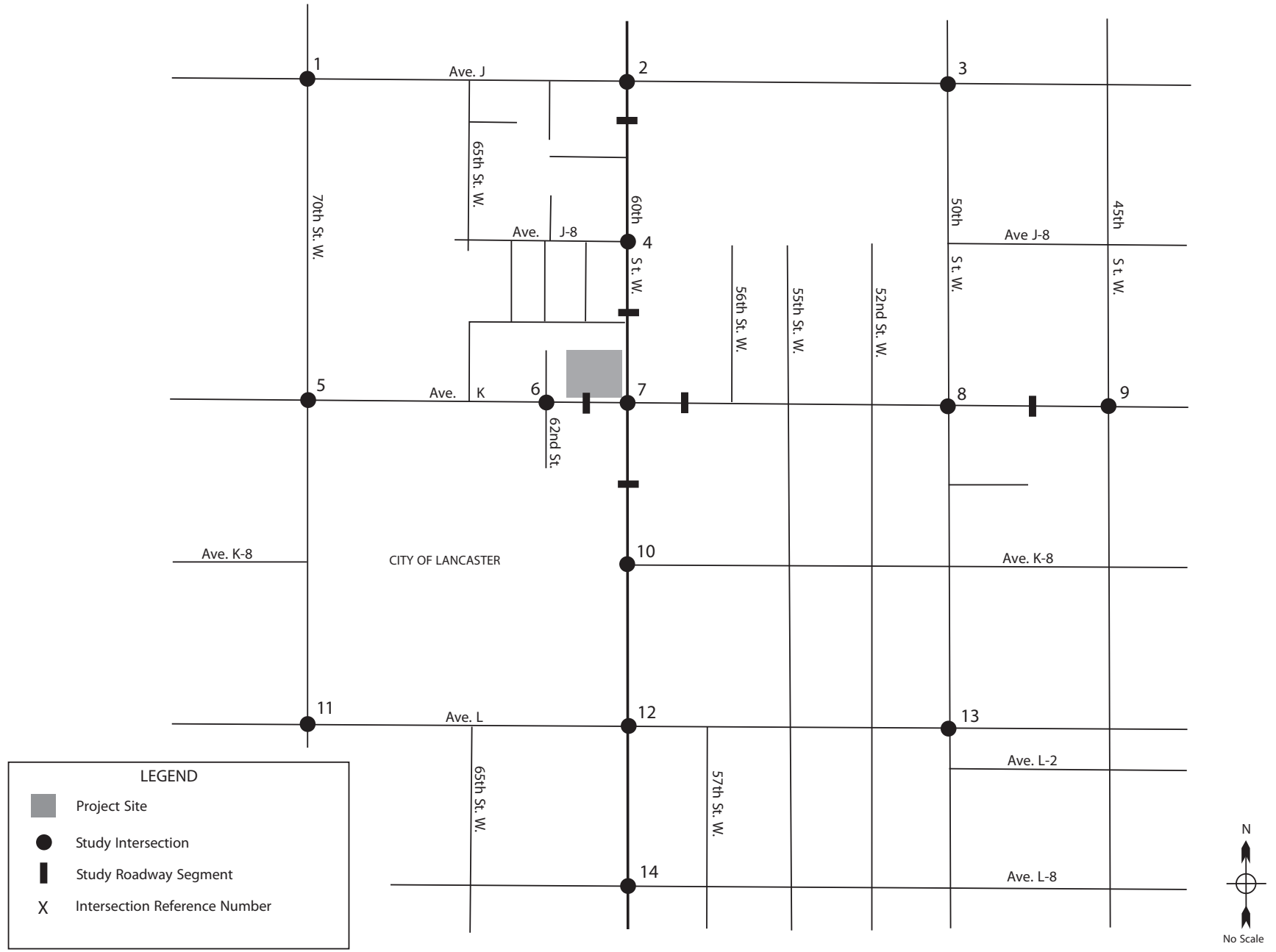
The project study area, as defined through consultation with the City of Lancaster, encompasses 14 intersections (listed below and shown in Figure 3.3-1). These 14 intersections were selected because they represent locations along major routes to and from the project site, and are expected to have the greatest potential for significant project impacts. The study intersection analysis is based on peak-hour volumes within the two weekday peak periods (morning and evening).[1] Weekday traffic volumes were collected on the study roadway segments for a continuous 48-hour period. New counts were conducted at locations where existing count data were not available.

1. 70th Street West / Avenue J
2. 60th Street West / Avenue J
3. 50th Street West / Avenue J
4. 60th Street West / Avenue J-8
5. 70th Street West / Avenue K
6. 62nd Street West / Avenue K
7. 60th Street West / Avenue K
8. 50th Street West / Avenue K
9. 45th Street West / Avenue K
10. 60th Street West / Avenue K-8
11. 70th Street West / Avenue L
12. 60th Street West / Avenue L
13. 50th Street West / Avenue L
14. 60th Street West / Avenue L-8

In addition to intersection analysis, the study area also included the following six roadway segment locations (also shown in Figure 3.3-1), where traffic volumes were analyzed within each study scenario:

1. 60th Street West, south of Avenue J
2. 60th Street West, north of Avenue K
3. Avenue K, west of 60th Street West
4. Avenue K, east of 60th Street West
5. Avenue K, east of 50th Street West
6. 60th Street West, south of Avenue K

[1] The morning peak hour generally falls in the peak period from 6:30 AM to 9:00 AM, and the evening peak hour generally falls in the period from 4:00 PM to 6:00 PM.



SOURCE: KOA Corporation

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 3.3-1
Location of Study Intersections
and Roadway Segments

Level of Service Analysis Methodologies

Traffic flow conditions are measured in terms of a grading system called Level of Service (LOS), which qualitatively characterizes traffic conditions associated with varying levels of vehicle traffic, ranging from LOS A (indicating excellent operating conditions with little delay to motorists) to LOS F (indicating congested conditions with excessive vehicle delay). LOS A, B, and C are generally considered satisfactory service levels, while the influence of congestion becomes more noticeable at LOS D. LOS E is typically defined as the operating "capacity" of a roadway. Generally, the City of Lancaster defines LOS C as the design LOS, and strives to keep facilities operating at LOS D or better, as allowed by facility constraints.

Intersections

The analysis of peak-hour intersection LOS is the primary indicator of circulation system performance. For this analysis, LOS at signalized intersections is based on the Intersection Capacity Utilization (ICU) methodology, which provides an output value that represents a volume-to-capacity (V/C) ratio. For the unsignalized (all-way stop-controlled and side-street stop-controlled) study intersections, LOS was evaluated using methodologies from the *2000 Highway Capacity Manual*. For this methodology, the LOS is related to the total delay per vehicle for the intersection as a whole (for all-way stop-controlled intersections), and for each stop-controlled movement or approach only (for side-street stop-controlled intersections). For the latter type of unsignalized intersection, the movement or approach with the highest delay is reported. Table 3.3.1 summarizes the relationship between LOS and V/C ratios (signalized) and vehicle delay (unsignalized).

Roadway Segments

The level of service analysis for the study roadway segments was conducted utilizing the following capacity-level volumes, as defined by City traffic study guidelines:

Level of Service (LOS)	Volume-to-Capacity (V/C) Ratio	Undivided Road, Two Lanes	Undivided Road, Four Lanes	Divided Road, Four Lanes	Divided Road, Five Lanes	Divided Road, Six Lanes
A	0-50%	1,500	3,000	3,600	4,500	5,400
A	51-60%	1,800	3,600	4,300	5,400	6,500
B	61-70%	2,100	4,200	5,000	6,300	7,600
C	71-80%	2,400	4,800	5,800	7,200	8,600
D	81-90%	2,700	5,400	6,500	8,100	9,700
E	91-100%	3,000	6,000	7,200	9,000	10,800

The volumes provided within the bottom row (for LOS E conditions) represent the assumed maximum carrying capacity of each roadway, and any volumes above the defined range for LOS E represent LOS F conditions. For the analysis of three-lane roadways that exist in the study area, an average of the two-lane and four-lane capacities was used.

TABLE 3.3.1
DEFINITIONS FOR INTERSECTION LEVEL OF SERVICE

Unsignalized Intersections		Level of Service Grade	Signalized Intersections	
Description	Average Total Vehicle Delay (Seconds)		Volume-to-Capacity (V/C) Ratio	Description
No delay for stop-controlled approaches.	≤10.0	A	≤0.60	Excellent: No vehicle waits longer than one red light, and no approach phase is fully used.
Operations with minor delay.	>10.0 and ≤15.0	B	>0.60 and ≤0.70	Very Good: An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
Operations with moderate delays.	>15.0 and ≤25.0	C	>0.70 and ≤0.80	Good: Occasionally, drivers may have to wait through more than one Red light; backups may develop behind turning vehicles.
Operations with increasingly unacceptable delays.	>25.0 and ≤35.0	D	>0.80 and ≤0.90	Fair: Delays may be substantial during portions of the rush hours, but enough lower-volume periods occur to permit clearing of developing queues, preventing excessive backups.
Operations with high delays, and long queues.	>35.0 and ≤50.0	E	>0.90 and ≤1.00	Poor: Represents the most vehicles that intersection approaches can accommodate; can have long lines of waiting vehicles through several signal cycles.
Operations with extreme congestion, and with very high delays and long queues unacceptable to most drivers.	>50.0	F	>1.00	Failure: Backups from nearby intersections or on cross streets may restrict or prevent movements of vehicles out of the intersection approaches. Lengthy delays with continuously increasing queue lengths.

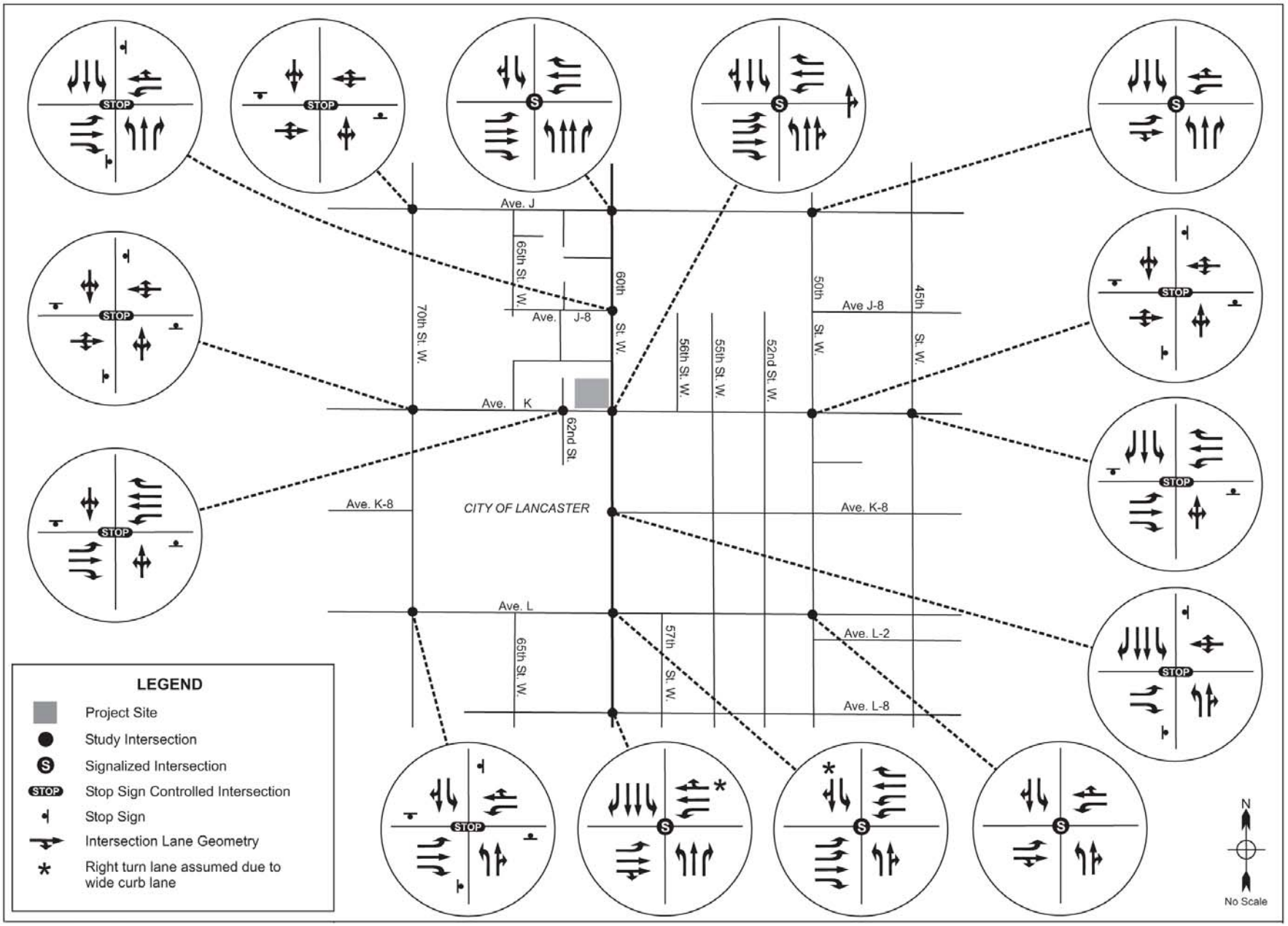
SOURCES: ***Transportation Research Board,*** **Highway Capacity Manual*, updated 2000; Transportation Research Board,* Transportation Research Circular No. 212, Interim Materials on Highway Capacity*, 1980.***

Existing Traffic Operating Conditions

Intersections

The existing intersection lane configurations and peak-hour traffic volumes are shown in Figures 3.3-2 through 3.3-4.[2] The existing AM and PM peak-hour intersection LOS are summarized in Table 3.3.2. Detailed intersection LOS calculation worksheets are included in Appendix C. With the exception of two of the 14 study intersections, traffic operating conditions currently are at an acceptable LOS D or better during both the AM and PM peak hours. The stop-sign-controlled Avenue J-8 approach to 60th Street West and the signalized intersection of 50th Street West / Avenue L currently operate at an unacceptable LOS E during the AM peak hour.

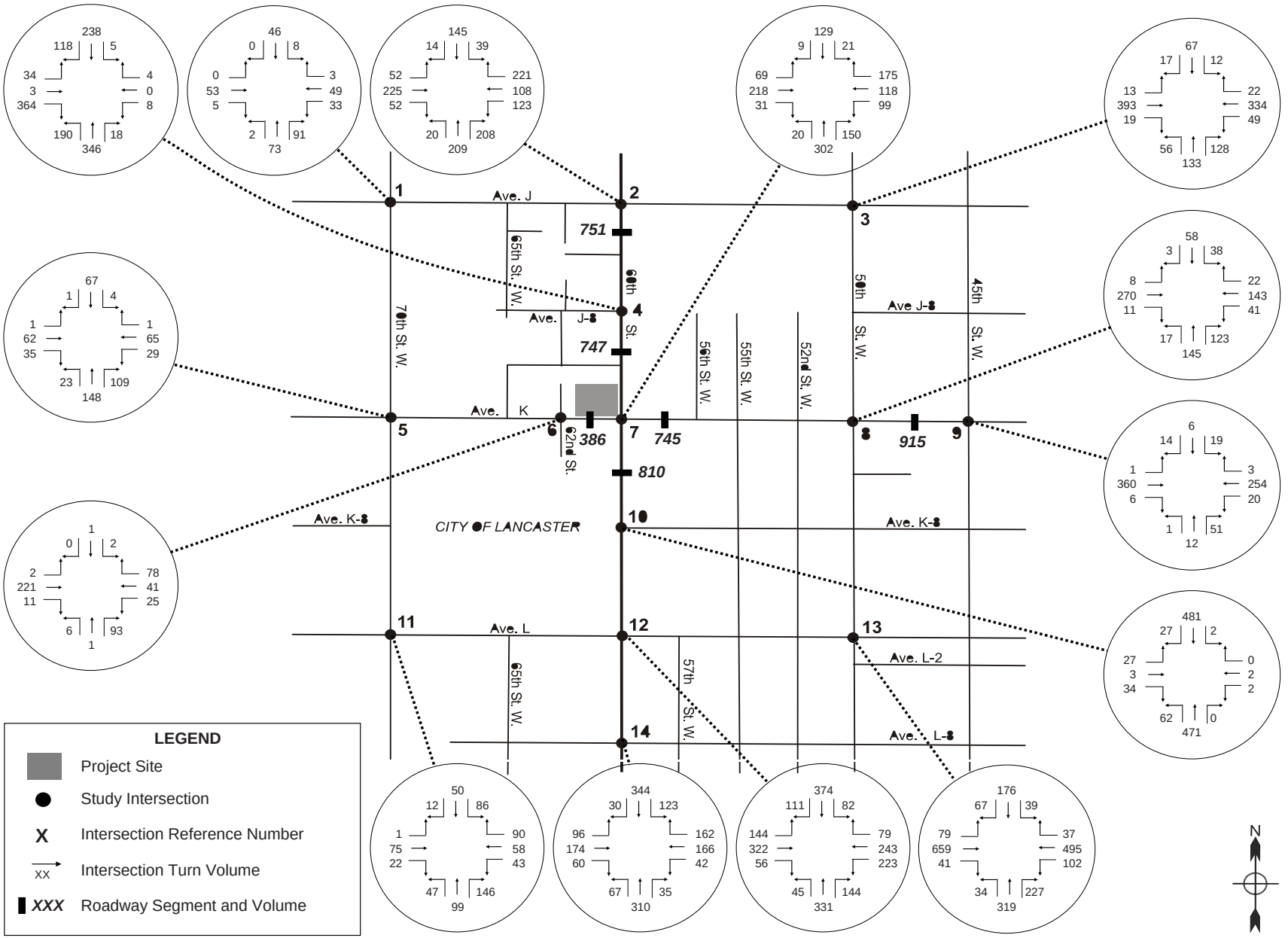
[2] Weekday morning and evening peak period turning movement counts were conducted at the study intersections in August 2006, March 2007, and May 2007.



SOURCE: KOA Corporation

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 3.3-2
Intersection Geometrics

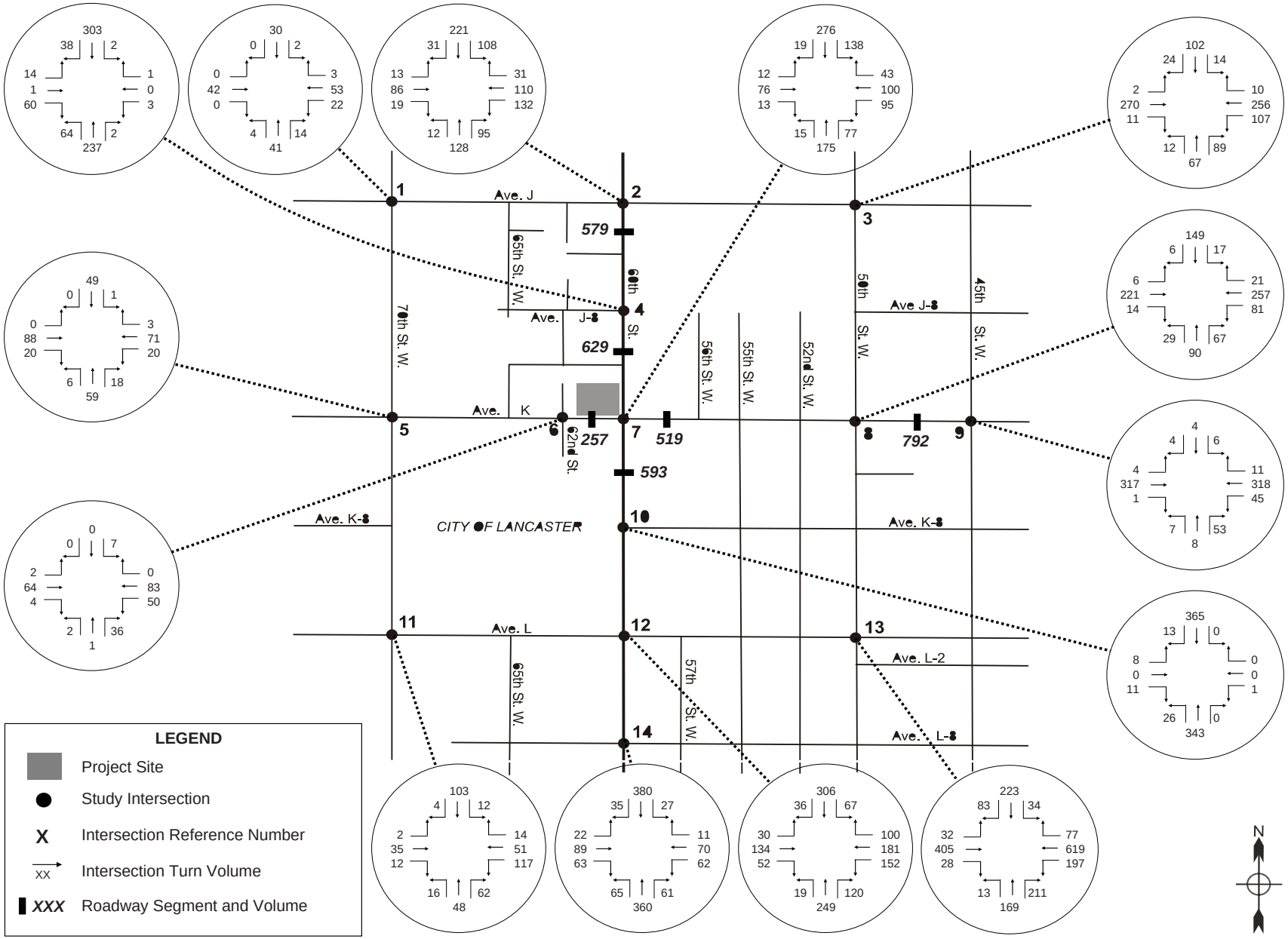


SOURCE: KOA Corporation

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 3.3-3

Existing (2007) AM Peak Turn Movement Volume & Roadway Segment Volumes



60th Street West and Avenue K Commercial Shopping Center . 206453

SOURCE: KOA Corporation

Figure 3.3-4

Existing (2007) PM Peak Turn Movement Volume & Roadway Segment Volumes

TABLE 3.3.2
INTERSECTION LEVELS OF SERVICE (LOS) –EXISTING (2007) CONDITIONS

Intersection		Traffic Control	AM Peak Hour V/C Ratio or Delay (seconds) [a]	AM Peak Hour LOS	PM Peak Hour V/C Ratio or Delay (seconds) [a]	PM Peak Hour LOS
1.	70th Street / Avenue J	Side Street Stop	10.7	B	10.1	B
2.	60th Street / Avenue J	Signal	0.42	A	0.37	A
3.	50th Street / Avenue J	Signal	0.48	A	0.41	A
4.	60th Street / Avenue J-8	Side Street Stop	***42.1***	***E***	15.1	C
5.	70th Street / Avenue K	All-Way Stop	8.8	A	7.8	A
6.	62nd Street / Avenue K	Side Street Stop	11.7	B	10.7	B
7.	60th Street / Avenue K	Signal	0.45	A	0.37	A
8.	50th Street / Avenue K	All-Way Stop	11.1	B	12.1	B
9.	45th Street / Avenue K	Side Street Stop	14.1	B	15.3	C
10.	60th Street / Avenue K-8	Side Street Stop	21.3	C	13.6	B
11.	70th Street / Avenue L	All-Way Stop	9.7	A	8.8	A
12.	60th Street / Avenue L	Signal	0.73	C	0.51	A
13.	50th Street / Avenue L	Signal	***0.97***	***E***	0.81	D
14.	60th Street / Avenue L-8	Signal	0.53	A	0.43	A

a The LOS for unsignalized intersections (side street stop or all-way stop) is defined by average delay (expressed in seconds per vehicle). The LOS for signalized intersections is defined by the volume-to-capacity (V/C) ratio.

Note: The LOS/Delay for Side-Street Stop-Control intersections represent the worst movement or approach; for All-Way Stop-Control intersections, the LOS/Delay represent the overall intersection. The LOS / V/C Ratio for Signalized intersections represent the overall intersection. ***Bold Italicized typeface*** signifies unacceptable conditions.

SOURCE: KOA Corporation, 2007.

Roadway Segments

The existing daily roadway LOS are summarized in Table 3.3.3.[3] Based on the City traffic study guidelines, all resulting volumes correspond to LOS A.

3.3.3 Regulatory Setting

City of Lancaster General Plan

Adopted in 1997 (last amended in September, 2008), the City of Lancaster *2020 General Plan* contains policies that address transportation issues in Chapter V, *Plan for Physical Mobility*, and Chapter VI, *Plan for Municipal Services and Facilities*,.

City of Lancaster Municipal Code

The City of Lancaster, through Municipal Code Section 15.56.030, has established a Transportation Demand Management (TDM) program. Per this program, prior to approval of any development project, developers are required to make provisions for, at a minimum, all of the

3 Two days (48 hours) of daily automatic (machine) traffic counts were conducted on each of the study roadway segments. The two days of weekday count data were averaged to create the analyzed weekday totals.

TABLE 3.3.3
ROADWAY SEGMENT LEVELS OF SERVICE (LOS) –EXISTING (2007) CONDITIONS

Roadway Segment	Posted Speed Limit (mph)	Daily Roadway Volume Capacity	Existing Daily Volume	V/C	LOS
1. 60th Street West, south of Avenue J	45	38,800	7,215	0.186	A
2. 60th Street West, north of Avenue K	45	38,800	8,779	0.226	A
3. Avenue K, west of 60th Street West	45	36,800	3,530	0.096	A
4. Avenue K, east of 60th Street West	45	18,300	7,562	0.413	A
5. Avenue K, east of 50th Street West	45	18,300	10,701	0.585	A
6. 60th Street West, south of Avenue K	45	36,800	8,530	0.232	A

SOURCE: KOA Corporation, 2008.

following applicable TDM and trip reduction measures for nonresidential development of 100,000 square feet or more:

a. A bulletin board, display case, or kiosk displaying transportation information located in a highly visible place. Information in the area is to include, but is not limited to, the following:

   i. Current maps, routes and schedules for public transit routes serving the site;

   ii. Telephone numbers for referrals on transportation information including numbers for the regional ridesharing agency and local transit operators;

   iii. Ridesharing promotional material supplied by commuter-oriented organizations;

   iv. Bicycle route and facility information, including regional/local bicycle maps and bicycle safety information;

   v. A listing of activities available for carpoolers, vanpools, bicyclists, transit riders and pedestrians at the site.

b. Not less than 10 percent of employee parking area shall be located as close as is practical to the employee entrance(s), and shall be reserved for use by potential carpool/vanpool parking vehicles, without displacing handicapped and customer parking needs. Spaces will be signed/striped as demand warrants; provided that at all times at least [ ] two spaces for projects over 100,000 square feet will be signed/striped for carpool/vanpool vehicles;

c. Preferential parking spaces reserved for vanpools must be accessible to vanpool vehicles;

d. Bicycle racks or other secure bicycle parking shall be provided to accommodate four bicycles per the first 50,000 square feet of nonresidential development, and one bicycle per each additional 50,000 square feet of nonresidential development. A

bicycle parking facility may also be a fully enclosed space or locker accessible only to the owner or operator of the bicycle, which protects the bike from inclement weather;

e. A safe and convenient zone in which vanpool and carpool vehicles may deliver or board their passengers;

f. Sidewalks or other designated pathways following direct and safe routes from the external pedestrian circulation system to each building in the development;

g. If determined necessary by the city to mitigate the project impact, bus stop improvements must be provided; and

h. Safe and convenient access from the external circulation system to bicycle parking facilities on-site.

3.3.4 Impacts

Significance Criteria

Based on Appendix G of the State CEQA Guidelines, a project may be deemed to have a significant effect on the environment with respect to traffic, circulation, and parking if it would:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections);
- Exceed, either individually or cumulatively, a level of service standard 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;
- 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;
- Result in inadequate parking capacity; and/or
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

As stated above, the City of Lancaster strives to keep facilities operating at LOS D or better, as allowed by facility constraints. In addition, the City of Lancaster has established the following specific thresholds for project-related increases in the volume-to-capacity (V/C) ratio of analyzed facilities, including roadway intersections and roadway segments that operate at LOS D or worse without the project:

SIGNALIZED STUDY INTERSECTION AND ROADWAY SEGMENT IMPACTS

Level of Service	Volume-to-Capacity (V/C) Ratio	Project-Related Increase in V/C Ratio
D	> 0.80 – 0.90	Equal to or greater than 0.02
E, F	> 0.90 or greater	Equal to or greater than 0.01

UNSIGNALIZED STUDY INTERSECTION IMPACTS

Level of Service	Project-Related Increase in Delay Value
D	Equal to or greater than 2%
E, F	Equal to or greater than 1%

Review and comparison of the setting circumstances and proposed project characteristics, with the significance criteria stated above, clearly show that no impacts would be associated with some of the above criteria. The following provides a discussion of each topic area for which there would be no transportation and traffic impact:

- The proposed project would neither involve aircraft, nor would the project structures intrude into aircraft flight paths or air traffic spaces. Therefore, the proposed project would have no impact on air traffic patterns that results in substantial safety risks;

- The proposed project would not involve redesign or reconfiguration of roadways, and there would be no incompatible uses. Measures that are needed to mitigate traffic volume effects would eliminate any increase in hazards due to project-generated traffic on area roadways. Therefore, the proposed project would have no impact on road hazards;

- The proposed project would not involve obstruction, redesign or reconfiguration of roadways. The site's multiple access points would ensure adequate access for emergency services providers. Therefore, the proposed project would have no impact on emergency access; and

- The proposed project would not involve obstruction, redesign or reconfiguration of roadways, nor would it affect bus routes or bicycle racks. The proposed project would have no impact on adopted policies, plans, or programs supporting alternative transportation.

The remaining significance criteria are discussed under three impact statements, Impacts 3.3-1 through 3.3-3.

Analysis Methodology and Assumptions

The analysis in this section follows guidelines defined within the City of Lancaster *Interim Traffic Study Guidelines* (July 31, 2007). Weekday AM and PM peak-hour capacity analyses were evaluated at the study intersections and daily capacity analyses were evaluated at roadway segments for each of the following traffic scenarios:

- Scenario A: Existing (Year 2007) Conditions;

- Scenario B: Future (Year 2012) Ambient Growth Conditions;
- Scenario C: Scenario B plus Related Projects (Future Pre-Project Conditions);
- Scenario D: Scenario C plus Project (Future Post-Project Conditions); and
- Scenario E: Scenario D plus Mitigation Measures.

Future Pre-Project Conditions: In order to define regional traffic growth that would affect operations at the study intersections during the project year, an ambient/background traffic growth rate of two percent per year was utilized, based on development trends in the area. This rate was used to increase existing (2007) traffic volumes to future (2012) base traffic volumes.

In addition to future ambient growth, traffic from 52 cumulative/area projects (approved and pending) within an approximate two-mile radius from the project site (in the City of Lancaster and unincorporated Los Angeles County) was considered before examining significant traffic impacts from the proposed project. The locations of these projects are illustrated in Appendix C. These projects are anticipated to be operational by the project-analysis year of 2012. The City guidelines were followed in the application of these projects to the traffic analysis study area. Peak-hour trips that would be generated from each of the area projects were computed based on *Trip Generation* (7th edition), published by the Institute of Transportation Engineers (ITE, 2003).

Project Trip Generation and Distribution: The project's estimated trip generation was defined by trip rates for shopping center floor area within ITE *Trip Generation* (7th Edition), and the proposed total floor area of the project. All proposed floor area was conglomerated into a single shopping center use for the trip generation analysis. A 15 percent Pass-by Trip Reduction (the maximum allowed by current City policy within traffic studies) was applied to the trip generation calculations to provide reduction for trips that currently pass the site, but would deviate to the site on a mid-point linked trip. Turns into and out of the site due to pass-by trips are added back into the analysis, both at the study driveways and at the closest intersection where the new turns would occur. As described above, AVTA operates a bus route on 60th Street West on an hourly trip frequency during weekdays and a two-hour frequency on weekends. This level of transit service is skeletal and may provide some employee access to and from the project site, but would not likely be patronized by customers of the shopping center. Therefore, transit trip reduction credits were not taken within the trip generation analysis, as the mode split of transit for the project is expected to be minimal.

Anticipated project trip distribution was based on the hierarchy of area roadways and the predominant development patterns within a study area. Cardinal-direction percentages are as follows:

North: 30 percent;	East: 32 percent; and
South: 23 percent;	West: 15 percent.

Future Pre-Project Conditions

Intersection Levels of Service

As described above, an annual traffic growth rate factor of two percent was applied to existing (2007) traffic volumes to provide for ambient (non-project-specific) increases in traffic. In addition, traffic associated with 52 approved and other pending projects within an approximate two-mile radius from the project site, anticipated to be operational by the project-analysis year of 2012, was calculated. The estimated trips were defined by rates published in ITE's *Trip Generation*, and the anticipated intensity of each development. In total, the approved and pending projects would generate about 89,000 daily vehicle trips, with about 5,240 trips during the AM peak hour, and 8,670 trips during the PM peak hour. For purposes of analysis, the area projects were separated into zones, and traffic from each area project zone was added to the surrounding street system using the same distribution and assignment methodology applied for project trips, with some adjustments for projects of various uses and for those located near the edges of the study area.

Table 3.3.4 summarizes the peak-hour LOS operations of the study area intersections under future (2012) conditions with both ambient growth rates and trips generated by area projects. With the inclusion of trips that would be generated by area projects, the LOS at the following 10 of the 14 study intersections would worsen during both the AM and PM peak hours:

2. 60th Street / Avenue J: from LOS A to LOS F (PM peak hour);
4. 60th Street / Avenue J-8: increased delays within LOS F (AM peak hour)'; from LOS C to LOS F (PM peak hour);
5. 70th Street / Avenue K: from LOS A to LOS F (AM and PM peak hours);
6. 62nd Street / Avenue K: from LOS B to LOS E (AM and PM peak hours);
7. 60th Street / Avenue K: from LOS A to LOS E (AM and PM peak hours);
8. 50th Street / Avenue K: from LOS B to LOS F (AM and PM peak hours);
9. 45th Street / Avenue K: from LOS C to LOS F (AM and PM peak hours);
10. 60th Street / Avenue K-8: from LOS C to LOS F (AM peak hour); from LOS B to LOS F (PM peak hour).
12. 60th Street / Avenue L: from LOS C to LOS F (AM peak hour); from LOS A to LOS F (PM peak hour);
13. 50th Street / Avenue L: increased delays within LOS F (AM peak hour); and from LOS D to LOS F (PM peak hour).

Roadway Segment Levels of Service

The same annual traffic growth rate and traffic generated by approved and pending projects were applied to existing (2007) traffic volumes to provide for ambient (non-project-specific) increases in traffic volumes on study roadway segments. Table 3.3.5 summarizes the daily LOS operations of the study area road segments under future (2012) conditions with both ambient growth rates and trips generated by area projects. With the increased traffic volumes, all but one of the study road segments would continue to operate at an acceptable service level during both the AM and PM peak hours. The roadway segment of Avenue K, east of 60th Street West, would worsen from LOS A to LOS F.

TABLE 3.3.4
INTERSECTION LEVELS OF SERVICE (LOS) – FUTURE (2012) PRE-PROJECT CONDITIONS

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		V/C Ratio or Delay[a]	LOS	V/C Ratio or Delay[a]	LOS
1. 70th Street / Avenue J	Side Street Stop	14.6	B	13.7	B
2. 60th Street / Avenue J	Signal	0.63	B	***1.03***	***F***
3. 50th Street / Avenue J	Signal	0.71	C	0.72	C
4. 60th Street / Avenue J-8	Side Street Stop	***>100***	***F***	***>100***	***F***
5. 70th Street / Avenue K	All-Way Stop	***57.8***	***F***	***63.9***	***F***
6. 62nd Street / Avenue K	Side Street Stop	***35.0***	***D***	***41.4***	***E***
7. 60th Street / Avenue K	Signal	***0.93***	***E***	***0.92***	***E***
8. 50th Street / Avenue K	All-Way Stop	***>100***	***F***	***>100***	***F***
9. 45th Street / Avenue K	Side Street Stop	***>100***	***F***	***>100***	***F***
10. 60th Street / Avenue K-8	Side Street Stop	***79.5***	***F***	***76.4***	***F***
11. 70th Street / Avenue L	All-Way Stop	22.1	C	29.3	D
12. 60th Street / Avenue L	Signal	***1.12***	***F***	***1.31***	***F***
13. 50th Street / Avenue L	Signal	***1.30***	***F***	***1.52***	***F***
14. 60th Street / Avenue L-8	Signal	0.70	C	0.86	D

[a] The LOS for unsignalized intersections (side street stop or all-way stop) is defined by average delay (expressed in seconds per vehicle). The LOS for signalized intersections is defined by the volume-to-capacity (V/C) ratio.

NOTE: The LOS/Delay for Side-Street Stop-Control intersections represent the worst movement or approach; for All-Way Stop-Control intersections, the LOS/Delay represent the overall intersection. The LOS / V/C Ratio for Signalized intersections represent the overall intersection. ***Bold Italicized typeface*** signifies unacceptable conditions.

SOURCE: KOA Corporation, 2008.

TABLE 3.3.5
ROADWAY SEGMENT LEVELS OF SERVICE (LOS) – FUTURE (2012) PRE-PROJECT CONDITIONS

Road Segment	Posted Speed Limit (mph)	Daily Roadway Volume Capacity	Existing Daily Volume	Ambient Growth %	Area Projects	Future + Area Projects	V/C	LOS
1. 60th Street West, south of Avenue J	45	38,800	7,215	10	14,797	22,733	0.44	A
2. 60th Street West, north of Avenue K	45	38,800	8,779	10	15,525	25,182	0.24	A
3. Avenue K, west of 60th Street West	45	36,800	3,550	10	10,881	14,764	0.31	A
4. Avenue K, east of 60th Street West	45	18,300	7,562	10	13,132	21,450	0.40	A
5. Avenue K, east of 50th Street West	45	18,300	10,701	10	273	12,044	1.08	F
6. 60th Street West, south of Avenue K	45	36,800	8,530	10	12,297	21,680	0.57	B

SOURCE: KOA Corporation, 2008.

Future (2012) Post-Project Conditions

Project Trip Generation

Trip generation calculations for the proposed project include rates established within Trip Generation, (7th edition), published by the Institute of Transportation Engineers (ITE). Application of these rates to the proposed land uses are summarized in Table 3.3.6. The gross project trip generation was reduced to account for "pass-by" trips (i.e., drivers already on the road adjacent to the site who stop and patronize a retail business within a larger trip to a final

TABLE 3.3.6
PROJECT TRIP GENERATION[a]

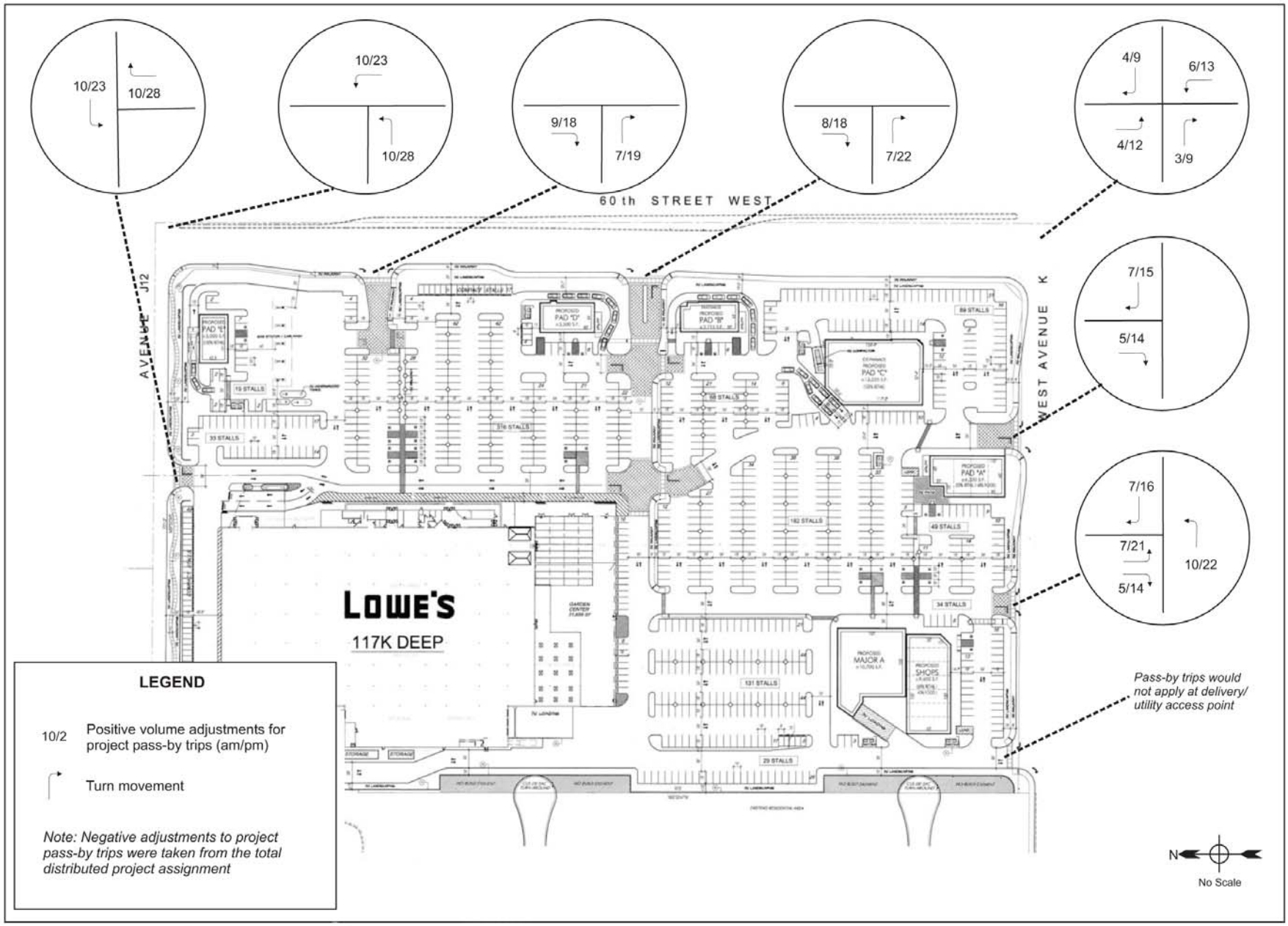
Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail (Shopping Center)	233,109 sf	11,772	159	101	260	525	569	1,094
Services (Gas Station, Market, and Car Wash)	10,000	1,528	54	52	106	67	67	133
Pass-by Trip Reduction for Retail (15%) [b]		*(1,766)*	*(24)*	*(15)*	*(39)*	*(79)*	*(85)*	*(164)*
Pass-by Trip Reduction for Gas Station (15%) [b]		*(764)*	*(27)*	*(26)*	*(53)*	*(33)*	*(33)*	*(67)*
Total Net New Project Trips		***10,770***	***162***	***112***	***274***	***480***	***517***	***997***

a Trip generation was estimated using fitted curve equations from ITE *Trip Generation* (7th Edition).
b Pass-by trips represent drivers passing by the site (i.e., already on the road adjacent to the site) who stop and patronize a retail business or gas station/convenience store/car wash within a larger trip to a final destination. Pass-by trip reductions were applied based on maximums allowed by the City of Lancaster.

SOURCE: KOA Corporation, 2008; ITE, *Trip Generation* (7th Edition), 2003.

destination). Pass-by trip rates were applied based on maximums allowed by the City of Lancaster. The pass-by trip "through routes" were deducted from the study area analysis because those trips would already exist in the future pre-project period. The related turning movements that those existing trips would take to access the site were added back in, to account for the additional localized turn movements that would be affected by these diverted trips. To provide a conservative analysis of these turns, it was assumed that pass-by trips approaching from any direction or departing the site to any direction would create new turns at the intersection of 60th Street West and Avenue K. These pass-by trip adjustments at this intersection and the Project driveways are illustrated on Figure 3.3-5. Pass-by trip adjustments are included in the Project trip assignment totals and the future post-Project volume analysis.

As shown in Table 3.3.6, the project would generate a net new increase of about 10,770 trips per day, with about 274 trips during the AM peak hour, and 997 trips during the PM peak hour.



SOURCE: KOA Corporation

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 3.3-5
Pass-By Trip Additions

Project Trip Distribution / Assignment

Trip distribution is the process of assigning the directions where traffic will travel to and from a project site. Trip distribution is dependent upon the land use characteristics of the project and the general locations of complementary land uses. Project trip distribution was based on development trends in the area, local and sub-regional traffic routes, and regional traffic flows. For regional routes, freeway-oriented access was assumed. For routes that are local in relation to the project site, arterial access was assumed.

The project trip assignment is provided in Figure 3.3-6 (weekday AM peak hour) and Figure 3.3-7 (weekday PM peak hour). Study intersection turn movement volumes for Future (2012) Post-Project Conditions are provided in Figure 3.3-8 (AM peak hour) and Figure 3.3-9 (PM peak hour).

Intersection Levels of Service

Impact 3.3-1: Development of the proposed project would increase traffic volumes at area intersections.

To analyze future post-project conditions, intersection turn volumes with ambient growth, area projects trips, and trips generated by the proposed project, were processed with the same LOS methodologies used for the previous scenarios. Table 3.3.7 summarizes the weekday LOS of the study area intersections under this scenario.

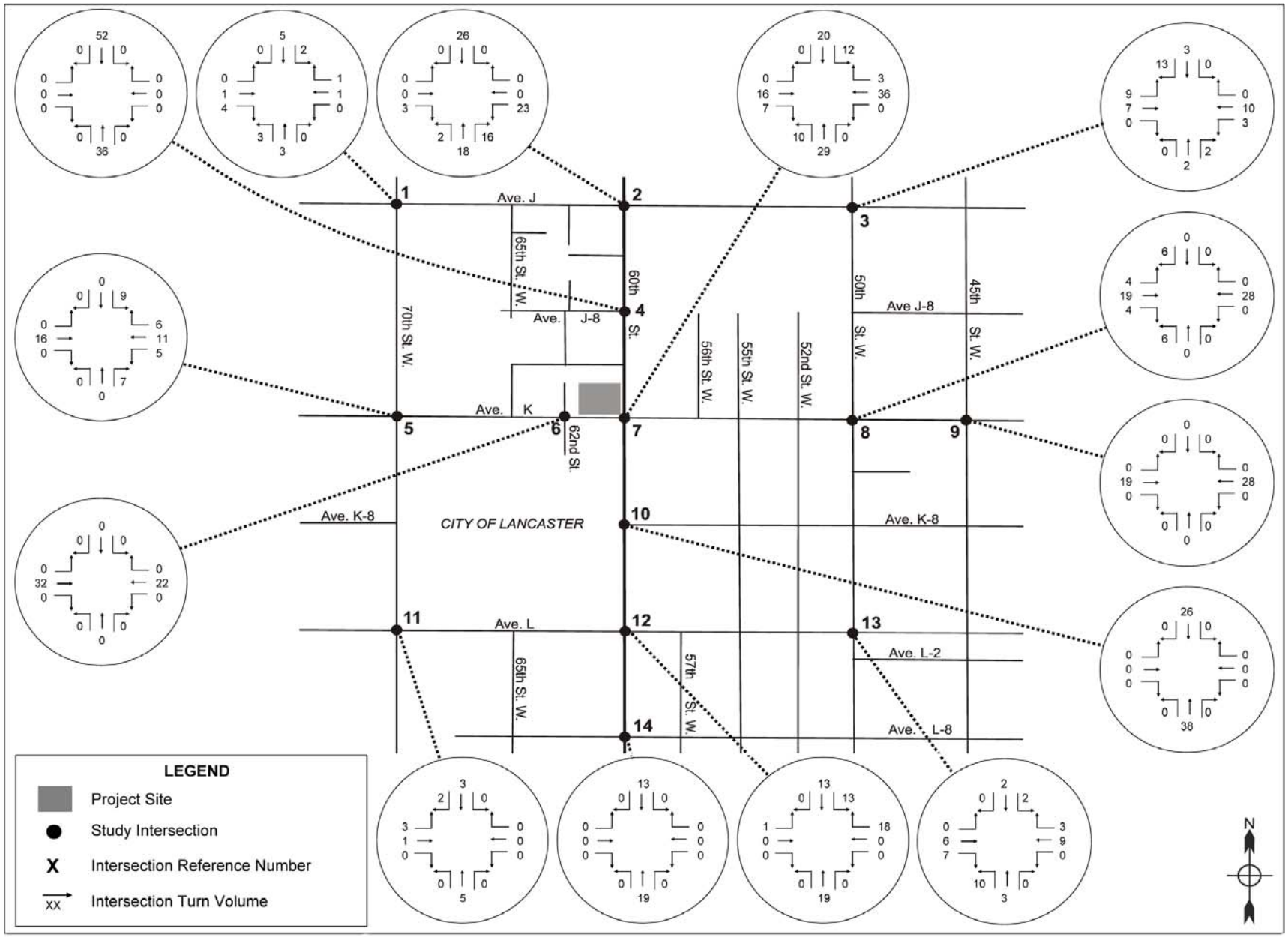
TABLE 3.3.7
INTERSECTION LEVELS OF SERVICE (LOS) – FUTURE (2012) POST-PROJECT CONDITIONS

Intersection		Traffic Control	AM Peak Hour V/C Ratio or Delay [a]	AM Peak Hour LOS	PM Peak Hour V/C Ratio or Delay [a]	PM Peak Hour LOS
1.	70th Street / Avenue J	Side Street Stop	14.9	B	14.7	B
2.	60th Street / Avenue J	Signal	0.65	B	***1.10***	***F***
3.	50th Street / Avenue J	Signal	0.72	C	0.75	C
4.	60th Street / Avenue J-8	Side Street Stop	***>100***	***F***	***>100***	***F***
5.	70th Street / Avenue K	All-Way Stop	***69.5***	***F***	***>100***	***F***
6.	62nd Street / Avenue K	Side Street Stop	***38.9***	***E***	***59.8***	***F***
7.	60th Street / Avenue K	Signal	***0.96***	***E***	***1.06***	***F***
8.	50th Street / Avenue K	All-Way Stop	***>100***	***F***	***>100***	***F***
9.	45th Street / Avenue K	Side Street Stop	***>100***	***F***	***>100***	***F***
10.	60th Street / Avenue K-8	Side Street Stop	***95.0***	***F***	***>100***	***F***
11.	70th Street / Avenue L	All-Way Stop	22.6	C	31.7	D
12.	60th Street / Avenue L	Signal	***1.14***	***F***	***1.38***	***F***
13.	50th Street / Avenue L	Signal	***1.30***	***F***	***1.57***	***F***
14.	60th Street / Avenue L-8	Signal	0.72	C	0.90	D

c The LOS for unsignalized intersections (side street stop or all-way stop) is defined by average delay (expressed in seconds per vehicle). The LOS for signalized intersections is defined by the volume-to-capacity (V/C) ratio.

NOTE: The LOS/Delay for Side-Street Stop-Control intersections represent the worst movement or approach; for All-Way Stop-Control intersections, the LOS/Delay represent the overall intersection. The LOS / V/C Ratio for Signalized intersections represent the overall intersection. ***Bold Italicized typeface*** signifies unacceptable conditions.

SOURCE: KOA Corporation, 2008.

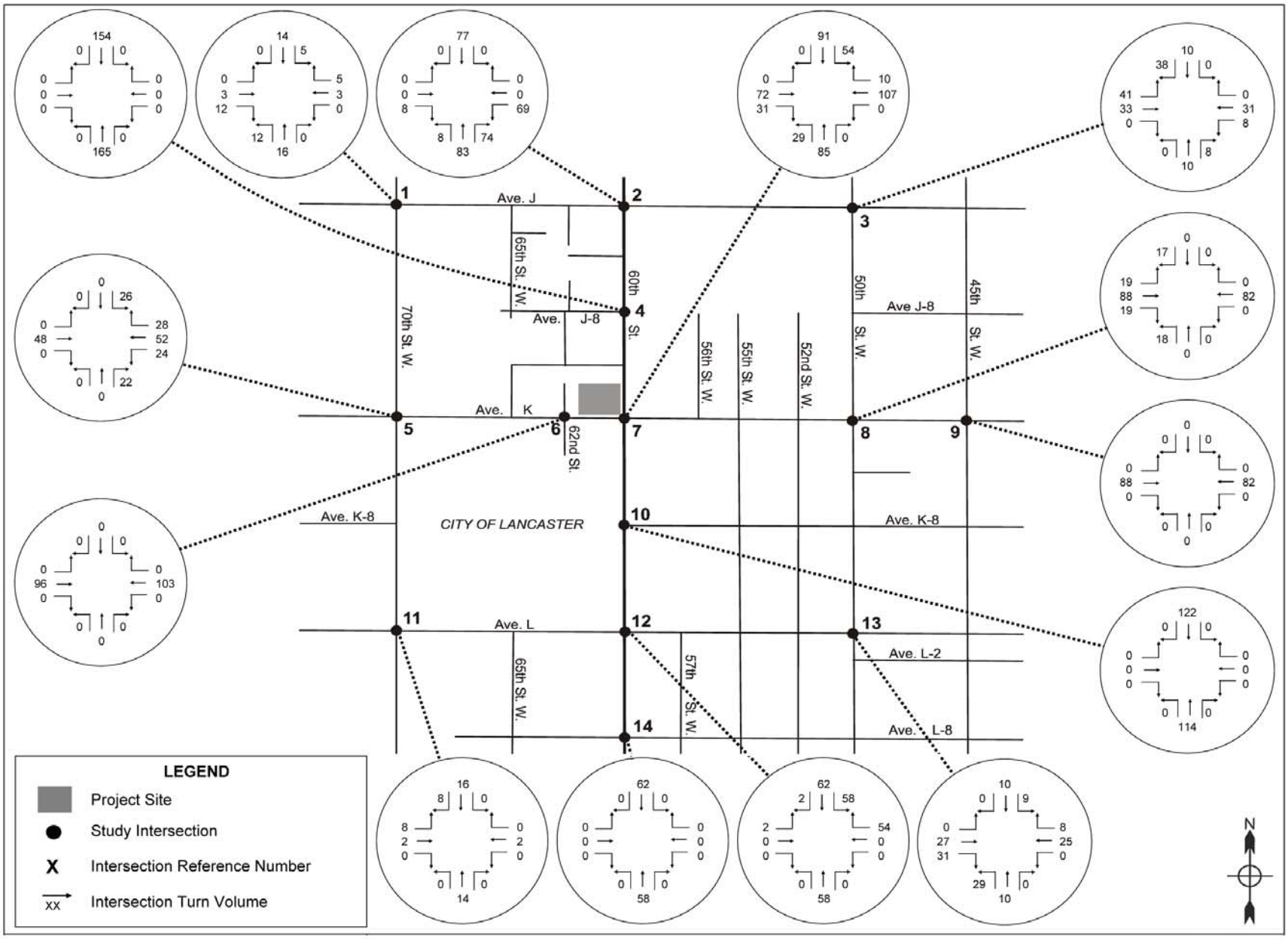


SOURCE: KOA Corporation

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 3.3-6

AM Peak Project Trip Assignment

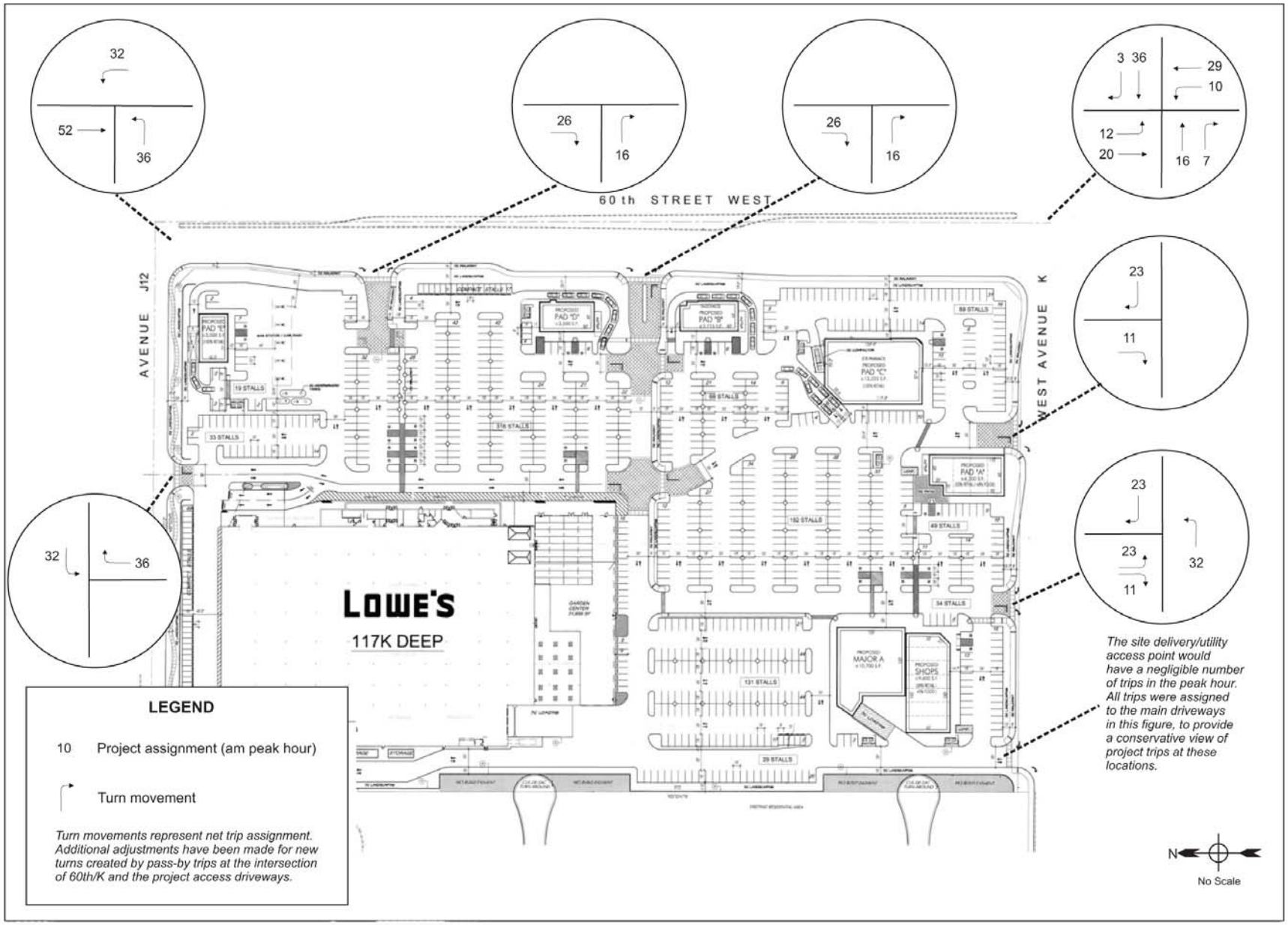


SOURCE: KOA Corporation

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 3.3-7

PM Peak Project Trip Assignment

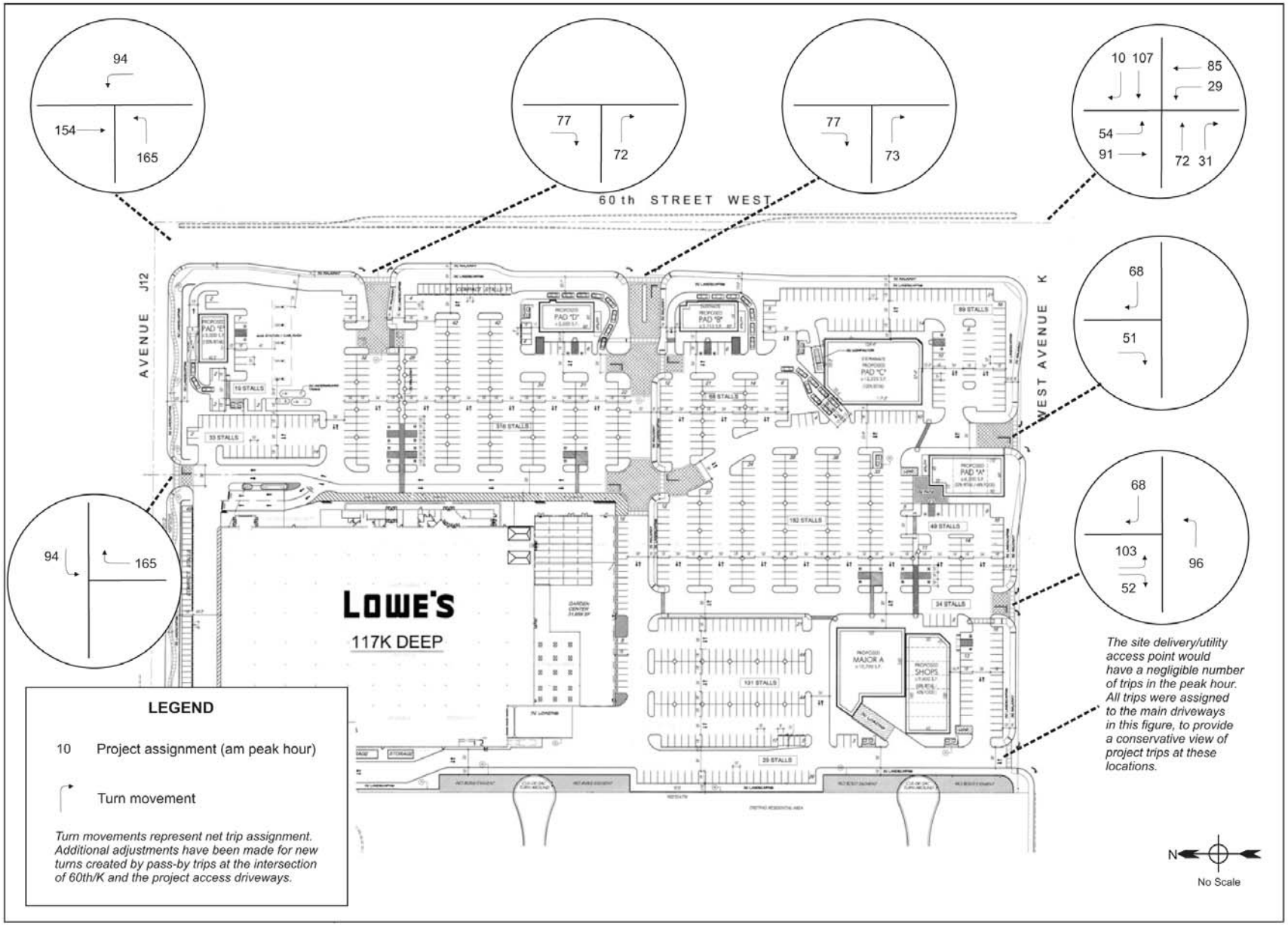


60th Street West and Avenue K Commercial Shopping Center . 206453

SOURCE: KOA Corporation

Figure 3.3-8

Future (2012) Growth with Area Projects and Project - AM Peak Turn Movement Volumes and Roadway Segment Volumes



SOURCE: KOA Corporation

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 3.3-9

Future (2012) Growth with Area Projects and Project - PM Peak Turn Movement Volumes and Roadway Segment Volumes

A summary of the study scenarios for the existing and future timeframes are provided in Table 3.3.8 (AM peak hour) and Table 3.3.9 (PM peak hour). The effects of project-generated traffic are determined by comparing conditions within the "Future Pre-Project Conditions (2012)" column versus those within the "Future Post-Project Conditions (2012)" column. Significant impacts caused by the project are signified by LOS in bold italicized typeface in the "Future Post-Project Conditions (2012)" column. Project traffic would worsen the service levels to LOS E or LOS F at the following intersections:

6. 62nd Street / Avenue K – Operations would worsen from LOS E to LOS F in the PM peak hour.
7. 60th Street / Avenue K – Operations would worsen from LOS E to LOS F in the PM peak hour.

TABLE 3.3.8
INTERSECTION LEVELS OF SERVICE (LOS) – DETERMINATION OF PROJECT IMPACTS
(WEEKDAY AM PEAK HOUR)

	Existing (2007) Conditions		Future Pre-Project Conditions (2012)		Future Post-Project Conditions (2012)	
Intersection [a]	**V/C Ratio or Delay** [b]	**LOS**	**V/C Ratio or Delay** [b]	**LOS**	**V/C Ratio or Delay** [b]	**LOS**
1. 70th Street / Avenue J (SSSC)	10.7	B	14.6	B	14.9	B
2. 60th Street / Avenue J (Signal)	0.43	B	0.63	B	0.65	B
3. 50th Street / Avenue J (Signal)	0.48	A	0.71	C	0.72	C
4. 60th Street / Avenue J-8 (SSSC)	42.1	E	>100	F	***>100***	***F***
5. 70th Street / Avenue K (AWSC)	8.8	A	57.8	F	***69.5***	***F***
6. 62nd Street / Avenue K (SSSC)	11.7	B	35.0	E	***38.9***	***E***
7. 60th Street / Avenue K (Signal)	0.45	A	0.93	E	***0.96***	***E***
8. 50th Street / Avenue K (AWSC)	11.1	B	>100	F	***>100***	***F***
9. 45th Street / Avenue K (SSSC)	14.1	B	>100	F	***>100***	***F***
10. 60th Street / Avenue K-8 (SSSC)	21.3	C	79.5	F	***95.0***	***F***
11. 70th Street / Avenue L (AWSC)	9.7	A	22.1	C	22.6	C
12. 60th Street / Avenue L (Signal)	0.73	C	1.12	F	***1.14***	***F***
13. 50th Street / Avenue L (Signal)	0.97	E	1.30	F	1.30	F
14. 60th Street / Avenue L-8 (Signal)	0.53	A	0.70	C	0.72	C

a SSSC = Side-Street Stop Control; AWSC = All-Way Stop Control; Signal = Traffic Signal Control.
b The LOS for unsignalized intersections (side street stop or all-way stop) is defined by average delay (expressed in seconds per vehicle). The LOS for signalized intersections is defined by the volume-to-capacity (V/C) ratio.

Note: The LOS/Delay for Side-Street Stop-Control intersections represent the worst movement or approach; for All-Way Stop-Control intersections, the LOS/Delay represent the overall intersection. The LOS / V/C Ratio for Signalized intersections represent the overall intersection. ***Bold Italicized typeface*** indicated a significant project impact.

SOURCE: KOA Corporation, 2008.

In addition to the above-cited degradations in level of service, the proposed project would cause significant impacts by substantially increasing delays at study intersections that would operate at unacceptable service levels without the project (nine intersections during the AM peak hour, and eight intersections during the PM peak hour).

TABLE 3.3.9
INTERSECTION LEVELS OF SERVICE (LOS) – DETERMINATION OF PROJECT IMPACTS
(WEEKDAY PM PEAK HOUR)

	Existing (2007) Conditions		Future Pre-Project Conditions (2012)		Future Post-Project Conditions (2012)	
Intersection [a]	**V/C Ratio or Delay** [b]	**LOS**	**V/C Ratio or Delay** [b]	**LOS**	**V/C Ratio or Delay** [b]	**LOS**
1. 70th Street / Avenue J (SSSC)	10.1	B	13.7	B	14.7	B
2. 60th Street / Avenue J (Signal)	0.37	A	>100	F	***>100***	***F***
3. 50th Street / Avenue J (Signal)	0.41	A	0.72	C	0.75	C
4. 60th Street / Avenue J-8 (SSSC)	15.1	C	>100	F	***>100***	***F***
5. 70th Street / Avenue K (AWSC)	7.8	A	63.9	F	***>100***	***F***
6. 62nd Street / Avenue K (SSSC)	10.7	B	41.4	E	***59.8***	***F***
7. 60th Street / Avenue K (Signal)	0.37	A	0.925	E	***1.06***	***F***
8. 50thStreet / Avenue K (AWSC)	12.1	B	>100	F	***>100***	***F***
9. 45th Street / Avenue K (SSSC)	15.3	C	>100	F	***>100***	***F***
10. 60th Street / Avenue K-8 (SSSC)	13.6	B	76.4	F	***>100***	***F***
11. 70th Street / Avenue L (AWSC)	8.8	A	29.3	D	31.7	E
12. 60th Street / Avenue L (Signal)	0.51	A	1.31	F	***1.38***	***F***
13. 50th Street / Avenue L (Signal)	0.81	D	1.52	F	***1.57***	***F***
14. 60th Street / Avenue L-8 (Signal)	0.43	A	0.86	D	0.90	D

a SSSC = Side-Street Stop Control; AWSC = All-Way Stop Control; Signal = Traffic Signal Control.
b The LOS for unsignalized intersections (side street stop or all-way stop) is defined by average delay (expressed in seconds per vehicle). The LOS for signalized intersections is defined by the volume-to-capacity (V/C) ratio.

Note: The LOS/Delay for Side-Street Stop-Control intersections represent the worst movement or approach; for All-Way Stop-Control intersections, the LOS/Delay represent the overall intersection. The LOS / V/C Ratio for Signalized intersections represent the overall intersection. ***Bold Italicized typeface*** indicated a significant project impact.

SOURCE: KOA Corporation, 2008.

With incorporation of Mitigation Measures TRAF-1 through TRAF-10, traffic impacts would be less than significant. Responsibility for the mitigation measures would be shared among the multiple pending development projects that would contribute to the unacceptable LOS conditions.

Per City guidelines, impacts are to be examined for the project increment only, and to mitigate a project traffic impact, feasible mitigation measures to reduce the project's impact to a level of significance must be identified for implementation (i.e., measures to reduce the incremental impact of the project to a point that falls below the established impact thresholds). The feasibility of each of the above-described mitigation measures was evaluated based on a planning-level analysis of intersection configuration and approach/roadway widths. At all of the locations where widening has been recommended as part of intersection or roadway segment mitigation, the related roadways would be improved to the necessary width or beyond at build-out of the facilities, with the exception of the widening of 50th.

Impact 3.3-2: Development of the proposed project would increase traffic volumes on area roadways.

The same project trip generation and distribution/assignment, described above were used to determine road segment traffic volumes under this scenario. Table 3.3.10 provides a summary of future peak-hour volumes at the study area roadway segments, after the inclusion of project-generated trips.

TABLE 3.3.10
ROADWAY SEGMENT LEVELS OF SERVICE (LOS) – FUTURE (2012) POST-PROJECT CONDITIONS

Roadway Segments	Posted Speed Limit	Daily Roadway Volume Capacity	Future Pre-Project	Project Only	Future Post-Project	LOS
1. 60th Street West, south of Avenue J	45	38,800	22,733	3,446	26,179	B
2. 60th Street West, north of Avenue K	45	38,800	25,182	3,446	28,628	C
3. Avenue K, west of 60th Street West	45	36,800	14,764	2,154	16,918	A
4. Avenue K, east of 60th Street West	45	18,300	21,450	2,622	24,072	***F***
5. Avenue K, east of 50th Street West	45	18,300	12,044	1,830	13,874	C
6. 60th Street West, south of Avenue K	45	36,800	21,680	2,548	24,228	B

NOTE: ***Bold Italicized typeface*** signifies unacceptable conditions.

SOURCE: KOA Corporation, 2008.

A summary of the study scenarios for the existing and future timeframes are provided in Table 3.3.11. As was done for study intersections, the effects of project-generated traffic on roadway LOS are determined by comparing conditions within the "Future Pre-Project Conditions (2012)"column versus those within the "Future Post-Project Conditions (2012)" column. Significant impacts caused by the project are signified by LOS in bold italicized typeface in the "Future Post-Project Conditions (2012)" column. As all of the increases in roadway segment volumes that would be attributable to the proposed Project would occur within LOS D or better in the AM peak hour, the project impact would be less than significant. In the PM peak hour, the project would cause a substantial worsening within LOS F conditions on the two-lane Avenue K roadway segment east of 50th Street, which would be a significant impact.

With incorporation of Mitigation Measure TRAF-11, traffic impacts would less than significant along Avenue K, east of 60th Street West. Responsibility for the mitigation measure would be shared among the multiple pending development projects that would contribute to the unacceptable LOS condition.

TABLE 3.3.11
ROADWAY SEGMENT LEVELS OF SERVICE (LOS) – DETERMINATION OF PROJECT IMPACTS (WEEKDAY AM PEAK HOUR)

Roadway Segments	Posted Speed Limit	Daily Roadway Volume Capacity	Existing Daily Volume	Future Pre-Project	Future Post-Project	LOS	Percent Increase	Significant Impact Criteria	Significant Impact
1. 60th Street West, south of Avenue J	45	38,800	7,215	22,733	26,179	B	15%		No
2. 60th Street West, north of Avenue K	45	38,800	8,779	25,182	28,628	C	14%		No
3. Avenue K, west of 60th Street West	45	36,800	3,530	14,764	16,918	A	15%	2% or higher increase at LOS E or F	No
4. Avenue K, east of 60th Street West	45	18,300	7,562	21,450	24,072	***F***	12%		***Yes***
5. Avenue K, east of 50th Street West	45	18,300	10,701	12,044	13,874	C	15%		No
6. 60th Street West, south of Avenue K	45	36,800	8,530	21,680	24,228	B	12%		No

Note: ***Bold Italicized typeface*** signifies a significant impact.

SOURCE: KOA Corporation, 2007.

Impact 3.3-3: Development of the proposed project would generate demand for parking.

City Code Requirements

In accordance with Municipal Code Section 17.12.220-18 (Shopping Center or Other Commercial Center of 2 Acres or More), the basic requirement of five spaces per 1,000 square feet of gross floor area was applied to the anchor store, retail uses, and the gas station proposed for the project. In accordance with Municipal Code Section 17.12.220-5 (Eating and Drinking Establishments), the basic requirement of 1 parking space per 100 square feet of gross floor area was applied to all food service uses. The proposed project site plan, dated April 15, 2008, provides for an off-street parking supply of 950 spaces. Based on the total floor area, the total parking requirement per City Municipal Code would be 1,019 spaces, resulting in a 69-space supply deficit.

Cumulative Impacts

Cumulative impacts for traffic are considered in the Post-Project scenario, which includes the proposed project, related projects, and ambient growth. The mitigation measures proposed below would reduce potential impacts to less than significant.

3.3.5 Mitigation Measures

Measure TRAF-1: At the intersection of 60th Street West / Avenue J (#2), install traffic signals and widen 60th Street West to provide an additional southbound through lane. The developer would contribute its fair share of the funding for this improvement.

Measure TRAF-2: At the intersection of 60th Street West / Avenue J-8 (#4), install traffic signals. The developer would contribute its fair share of the funding for this improvement.

Measure TRAF-3: At the intersection of 70th Street West / Avenue K (#5), install traffic signals and widen 60th Street West to provide an additional southbound through lane. The developer would contribute its fair share of the funding for this improvement.

Measure TRAF-4: At the intersection of 62nd Street West / Avenue K (#6), install traffic signals and widen 60th Street West to provide an additional southbound through lane. The developer would contribute its fair share of the funding for this improvement.

Measure TRAF-5: At the intersection of 60th Street West / Avenue K (#7), widen 60th Street West to provide an additional northbound through lane and an additional southbound through lane. The developer would contribute its fair share of the funding for this improvement.

Measure TRAF-6: At the intersection of 50th Street West / Avenue K (#8), install traffic signals and widen Avenue K to provide eastbound and westbound left turn lanes. The developer would contribute its fair share of the funding for this improvement.

Measure TRAF-7: At the intersection of 45th Street West / Avenue K (#9), install traffic signals and widen Avenue K to provide an additional eastbound through lane and an additional westbound through lane. The developer would contribute its fair share of the funding for this improvement.

Measure TRAF-8: At the intersection of 60th Street West / Avenue K-8 (#10), install traffic signals. The developer would contribute its fair share of the funding for this improvement.

Measure TRAF-9: At the intersection of 60th Street West / Avenue L (#12), widen 60th Street West to provide an additional northbound through lane. The developer would contribute its fair share of the funding for this improvement.

Measure TRAF-10: At the intersection of 50th Street West / Avenue L (#13), widen Avenue L to provide an additional eastbound through lane and an additional westbound through lane. The developer would contribute its fair share of the funding for this improvement.

Measure TRAF-11: Widen Avenue K, east of 60th Street West to a four-lane roadway, between 60th Street West and 45th Street West. The developer would contribute its fair share of the funding for this improvement.

3.3.6 Level of Significance after Mitigation

After implementation of Mitigation Measures TRAF-1 through TRAF-11, all intersections would operate at an acceptable level of service or v/c ratio and impacts would be less than significant. With implementation of the recommended signalization and approach capacity improvements summarized above, all but one of the significant impacts of the proposed Project at the study intersections would be removed.

3.4 Noise

This section provides an overview of the existing noise environment at the project site and surrounding area, the regulatory framework, an analysis of potential noise impacts that would result from implementation of the project, and mitigation measures where appropriate.

3.4.1 Environmental Setting

Noise Principles and Descriptors

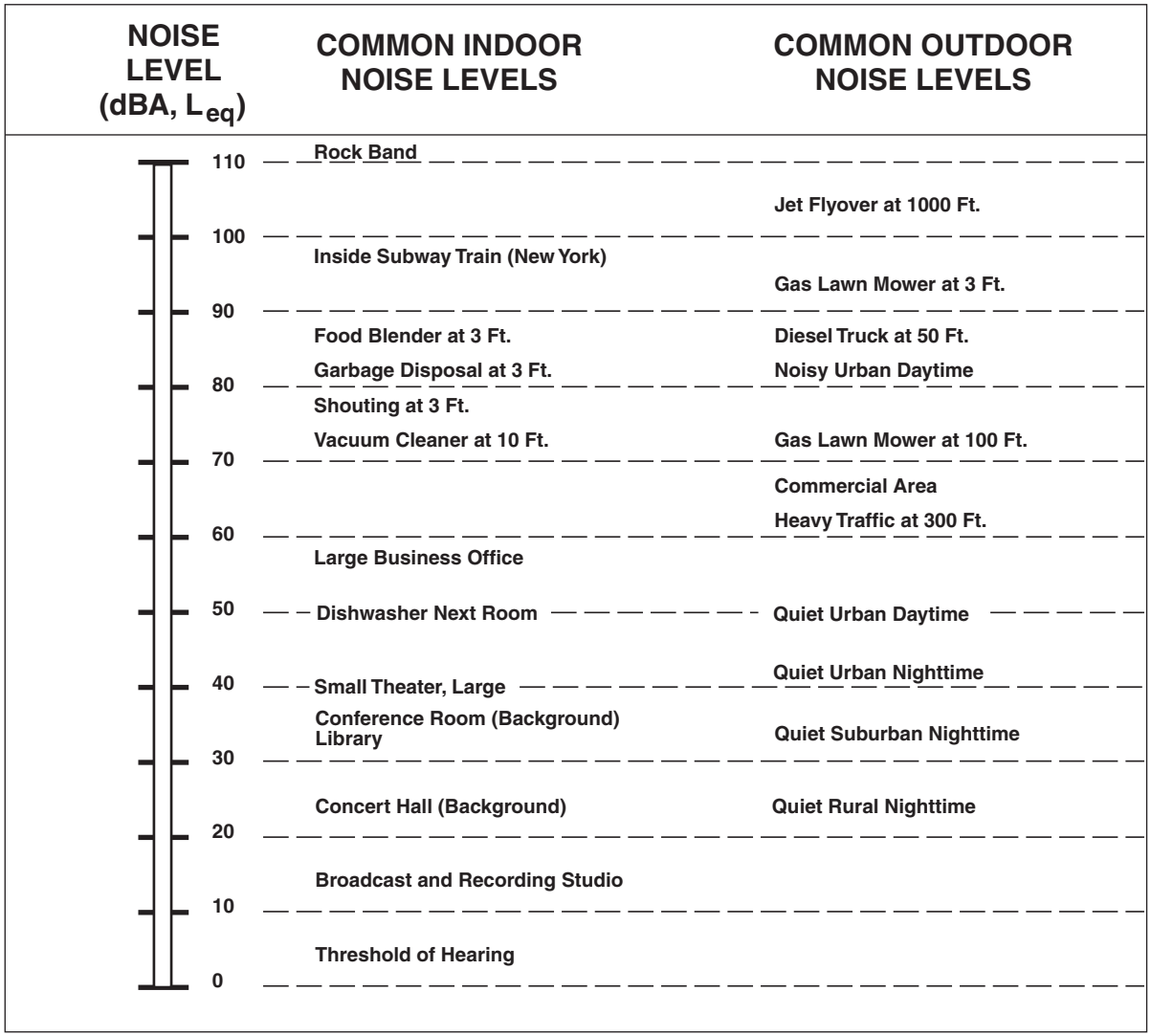
Noise is defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements. Some representative noise sources and their corresponding A-weighted noise levels are shown in Figure 3.4-1.

Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time. A noise level is a measure of noise at a given instant in time. The noise levels presented in Figure 3.4-1 are representative of measured noise at a given instant in time; however, they rarely persist consistently over a long period of time. Rather, community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes



SOURCE: ESA, 2007

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 3.4-1
Noise Levels for Common Indoor Noise Levels and Common Outdoor Noise Levels

community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

These successive additions of sound to the community noise environment varies the community noise level from instant to instant requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

L_{eq}: The equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The L_{eq} is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

L_{max}: The instantaneous maximum noise level for a specified period of time.

L50: The noise level that is equaled or exceeded 50 percent of the specified time period. The L50 represents the median sound level.

L90: The noise level that is equaled or exceeded 90 percent of the specified time period. The L90 is sometimes used to represent the background sound level.

DNL: 24-hour day and night A-weighted noise exposure level, which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10:00 PM and 7:00 AM is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises.

CNEL: Similar to the DNL the Community Noise Equivalent Level (CNEL) adds a 5-dBA "penalty" for the evening hours between 7:00 PM and 10:00 PM, in addition to a 10-dBA penalty between the hours of 10:00 PM and 7:00 AM.

As a general rule, in areas where the noise environment is dominated by traffic, the L_{eq} during the peak-hour is generally equivalent to the DNL at that location.

Effects of Noise on People

The effects of noise on people can be placed into three categories:

- Subjective effects of annoyance, nuisance, dissatisfaction;
- Interference with activities such as speech, sleep, learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so called "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion; hence the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate between 6 dBA for hard sites and 7.5 dBA for soft sites for each doubling of distance from the reference measurement. Hard sites are those with a reflective surface between the source and the receiver such as parking lots or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the changes in noise levels with distance (the drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface such as soft dirt, grass or scattered bushes and trees. In addition to geometric spreading, an excess ground attenuation value of 1.5 dBA (per doubling distance) is normally assumed for soft sites. Line sources (such at traffic noise from vehicles) attenuate at a rate of between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement.

Fundamentals of Vibration

As described in the Federal Transit Administration's Transit Noise and Vibration Impact Assessment, ground-borne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, ground-borne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving and operating heavy earth-moving equipment.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the affect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (Vdb) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, the elderly and sick), and vibration sensitive equipment.

The effects of ground-borne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings. The Federal Transit Administration (FTA) measure of the threshold of architectural damage for conventional sensitive structures is 0.2 in/sec PPV and the FTA threshold of human annoyance to ground-borne vibration is 80 RMS.

3.4.2 Regulatory Framework

Federal

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 Code of Federal Regulations (CFR), Part 205, Subpart B. The federal truck pass-by noise standard is 80 dBA at approximately 50 feet from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers.

State

The State of California establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the State pass-by standard is consistent with the federal limit of 80 dB. The State pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dBA at approximately 50 feet from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by state and local law enforcement officials.

The State has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of DNL 45 dBA in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than DNL 60 dBA. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

Local

City of Lancaster General Plan Noise Element

Relevant objectives from the Noise Element are stated below:

> **Objective 4.3:** Promote noise compatible land use relationships by implementing the noise standards identified in Table III-1 (as below in this report as Table 3.4.1) to be utilized for design purposes in new development, and establishing a program to attenuate existing noise problems.

TABLE 3.4.1
NOISE COMPATIBLE LAND USE OBJECTIVES

Land Use	Maximum Exterior CNEL	Maximum Interior CNEL
Rural, Single Family, Multiple Family Residential	65 dBA	45 dBA
Schools:		
Classrooms	65 dBA	45 dBA
Playgrounds	70 dBA	--
Libraries	--	50 dBA
Hospitals/Convalescent Facilities:		
Living Areas	--	50 dBA
Sleeping Areas	--	40 dBA
Commercial and Industrial	70 dBA	--
Office Areas	--	50 dBA

SOURCE: City of Lancaster, 2001.

City of Lancaster Municipal Code

Section 8.24.030 of the Lancaster Municipal Code prohibits loud, unnecessary and unusual noises. Section 8.24.040 prohibits construction- and building-related noise on Sundays or any day between the hours of 8:00 PM and sunrise. Section 8.24.050 states that under special conditions, written permission from the city engineer can be obtained to perform such work at times otherwise prohibited in Section 8.24.040.

3.4.3 Existing Noise Environment

The noise environment surrounding the project site is influenced primarily by traffic on local roadways. Noise levels away from these noise sources can be quite low depending on the amount of nearby human activity.

A Metrosonics Model db308 sound level meter was used to measure the existing ambient noise levels at various locations on the project site. The meter was calibrated to ensure the accuracy of the measurements. Short-term noise level measurements were taken at four locations around the project site. The noise measurement results are presented below in Table 3.4.2. Noise measurement locations are shown on Figure 3.4-2.

TABLE 3.4.2
EXISTING NOISE ENVIRONMENTS AT PROJECT LOCATION

Location	Time Period	L_{eq} (dBA)	Noise Sources
Short-term Location 1: 100 ft northwest of the center of the intersection of Avenue K and 60th Street West.	6/12/07 4:40 – 4:50 PM	5-minute L_{eq}s 69, 69	Traffic; loud vehicles when stop light changes
Short-term Location 2: 300 ft north of intersection of Avenue K and 60th Street West, 50 ft west of the center of 60th Street West.	6/12/07 4:55 – 5:05 PM	5-minute L_{eq}s 63, 66	Traffic pass-bys up to ~ 70 dBA Birds
Short-term Location 3: 100 feet south of J12 and 100 feet east of existing homes.	6/12/07 5:21 – 5:31 PM	5-minute L_{eq}s 59, 61	Traffic Wind gusts ~ 55 – 66 dBA
Short-term Location 4: 100 feet northwest of center of Avenue K, 100 feet east of existing homes.	6/12/07 5:41 – 5:51 PM	5-minute L_{eq}s 64, 65	Traffic pass-bys ~ 60 – 79 dBA

SOURCE: ESA, 2007.

Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others because of the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, hotels, schools, rest homes, and hospitals are generally more sensitive to noise than commercial and industrial land uses. The nearest sensitive receptors to the project are houses located approximately 10 feet west and 60 feet north of the project site. Quartz Hill High School is located one mile south of the project site at the southwest corner of the intersection of 60th Street West and Avenue L.

3.4.4 Impacts

Methodology

Noise impacts are assessed based on a comparative analysis of the noise levels resulting from the project and the noise levels under existing conditions. Analysis of temporary construction noise effects is based on typical construction phases, equipment noise levels and attenuation of those noise levels due to distances, and any barriers between the construction activity and the sensitive receptors near the sources of construction noise.

Significance Criteria

Based on Appendix G of the State CEQA Guidelines, a project may be deemed to have a significant effect on the environment with respect to noise and/or ground-borne vibration if it would result in:

- 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;

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- Exposure of people residing or working in the project area to excessive noise levels (for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport);
- Exposure of people residing or working in the project area to excessive noise levels (for a project within the vicinity of a private airstrip); and/or
- Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

The following analysis discusses the first three criteria; the fourth and fifth are not discussed because the site lies outside a two-mile radius of a public airport or private air strip. The sixth significance criterion is not discussed further since project construction would not involve activities that are typically associated with significant ground-borne vibration (i.e., pile driving, blasting, rock drilling).

Some guidance as to the significance of changes in ambient noise levels is provided by the 1992 findings of the Federal Interagency Committee on Noise (FICON), which assessed the annoyance effects of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Annoyance is a summary measure of the general adverse reaction of people to noise that generates speech interference, sleep disturbance, or interference with the desire for a tranquil environment. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been asserted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the Ldn, as shown in Table 3.4.3.

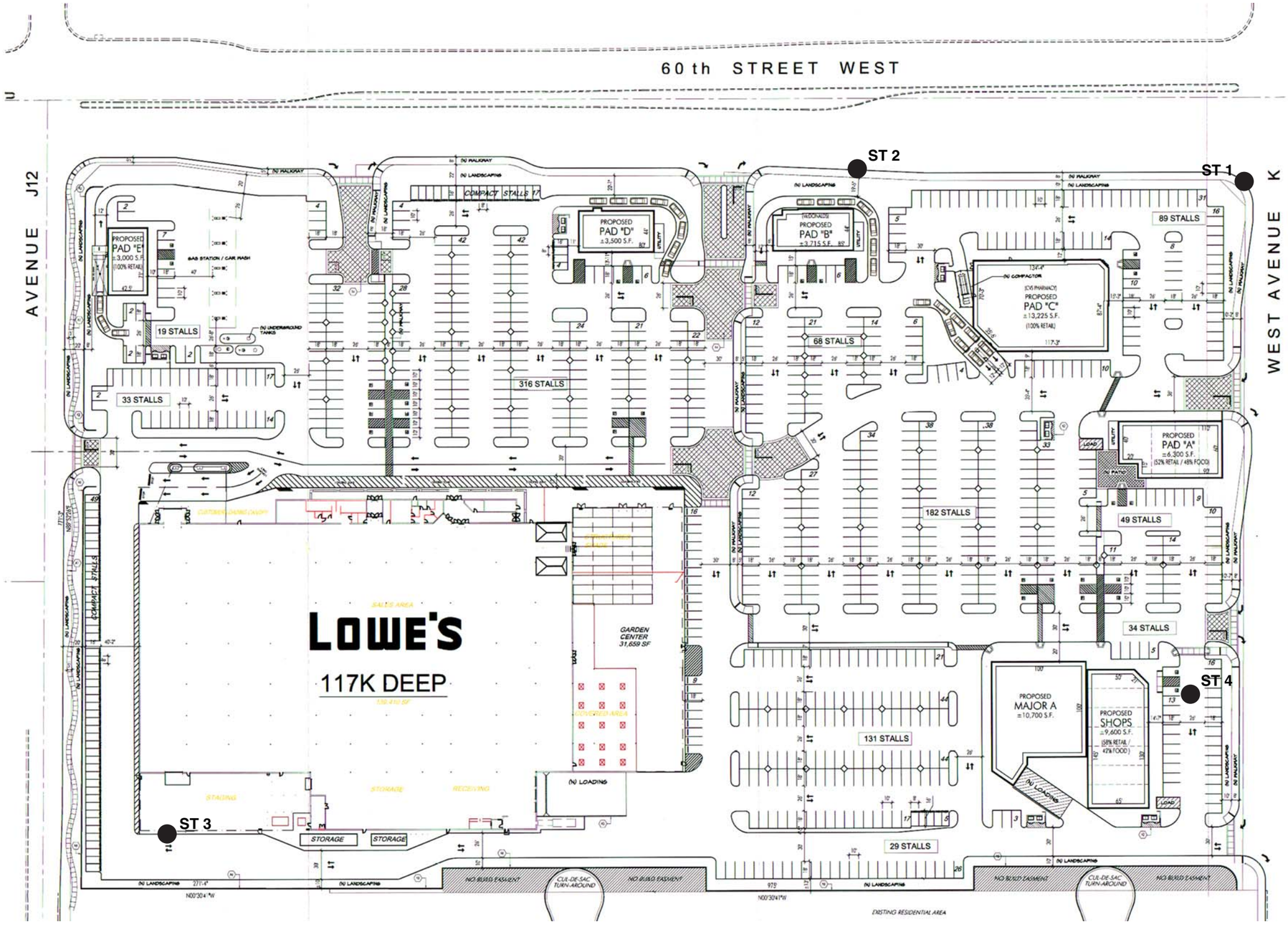
The rationale for the Table 3.4.3 criteria is that, as ambient noise levels increase, a small increase in decibel levels is sufficient to cause significant annoyance. The quieter the ambient noise level is, the more the noise can increase (in decibels) before it causes significant annoyance.

TABLE 3.4.3
MEASURES OF SUBSTANTIAL INCREASE FOR NOISE EXPOSURE

Ambient Noise Level Without Project (Ldn)	Significant Impact Assumed to Occur if the Project Increases Ambient Noise Levels By:
<60 dB	+ 5.0 dB or more
60-65 dB	+ 3.0 dB or more
>65 dB	+ 1.5 dB or more

SOURCE: Federal Interagency Committee on Noise (FICON), 1992.

Construction Noise. According to the City's noise ordinance, construction noise would be a significant impact if construction activity occurs between the hours of 8:00 PM and sunrise (Monday through Saturday) or anytime on Sunday, or if it exceeds the standards in the General Plan.



● Noise Measurement Locations

SOURCE: McKently Malak Architects, 2007

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 3.4-2

Noise Measurement Locations

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Stationary Noise. A resulting offsite noise level at residences from stationary non-transportation sources that exceed an exterior maximum of 65 dBA CNEL or an interior maximum of 45 dBA CNEL would result in a significant noise impact. For some noise sources, however, including loading dock and truck pass-by noise, the noise occurrences would be intermittent and would have the potential to cause nuisances or disturb sleep at nearby sensitive receptors (depending on noise level and time of day). Noise generated by these sources will therefore be compared to short-term criteria of 55 dB L_{eq} and 65 dB L_{max} during daytime hours (7:00 AM until 10:00 PM), and 45 dB Leq and 65 dB L_{max} during nighttime hours (10:00 PM until 7:00 AM).

Traffic Noise. As described in Table 3.4.3 above, the project would result in a significant traffic noise impact if mobile noise would result in increased noise levels of 1.5 dBA Ldn or more in an ambient noise environment greater than 65 dBA Ldn; or increased noise of 3 dBA Ldn or more in an ambient noise environment between 60 and 65 dBA Ldn; or increased noise of 5 dBA Ldn or more in an ambient environment of less than 60 dBA Ldn.

Impacts

Impact 3.4-1: Project construction could expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Construction noise levels at and near the project site would fluctuate depending on the particular type, number, and duration of use of various pieces of construction equipment. Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. In addition, certain types of construction equipment generate impulsive noises (such as pile driving), which can be particularly annoying. Pile driving, however, is not proposed for project development. Table 3.4.4 shows typical noise levels during different construction stages. Table 3.4.5 shows typical noise levels produced by various types of construction equipment.

Noise from construction activities generally attenuates at a rate of 6 to 7.5 dBA per doubling of the distance. Based on the project site layout and terrain, an attenuation of 6 dBA was assumed. Residences are about 40 feet from the nearest buildings on site. These residences would experience noise levels at about 91 dBA during finishing and excavation, the loudest of construction activities that would occur.

TABLE 3.4.4
TYPICAL CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level (dBA, L_{eq})[a]
Ground Clearing	84
Excavation	89
Foundations	78
Building Construction	85
Finishing	89

[a] Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.

SOURCE: ESA, 2007.

TABLE 3.4.5
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Construction Equipment	Noise Level (dBA, L_{eq} at 50 feet)
Dump Truck	88
Portable Air Compressor	81
Concrete Mixer (Truck)	85
Scraper	88
Jack Hammer	88
Dozer	87
Paver	89
Generator	76
Pile Driver	101
Backhoe	85

SOURCE: ESA, 2007.

Construction noise at these levels would be substantially greater than existing noise levels at nearby sensitive receptor locations. These construction noise levels would be significant without mitigation. The noise levels from construction can exceed daytime ambient levels and be a substantial annoyance to nearby residential units. Mitigation measures NOISE-1 through NOISE-8 would reduce construction noise levels. The identified mitigation measures would reduce impacts but would not reduce them to a less than significant level. Therefore, construction noise would be a significant impact of the proposed project after mitigation.

Impact 3.4-2: Operation of the project could expose persons to or generate noise levels in excess of standards established in the local general plans or noise ordinances, or applicable standards of other agencies.

Heating, Ventilating, and Air Conditioning (HVAC) Equipment Noise

The HVAC system for maintaining comfortable temperatures within the proposed buildings would consist of packaged rooftop air conditioning systems. Such rooftop HVAC units typically generate noise levels of approximately 55 dB at a distance of 100 feet from the operating units during maximum heating or air conditioning operations. The noise level of the HVAC if on the edge of the building nearest the sensitive receptors (about 40 feet) would be about 63 dBA. Constant nighttime noise levels should be controlled to 45 dBA or less at the nearest residential receptor. Therefore, rooftop air conditioners would need to be located at the furthest away point from the nearest residential receptor and/or include additional noise attenuation (i.e., barriers between the air conditioner and the nearest sensitive receptor to absorb or deflect the noise) of approximately 20 dBA. This impact would be potentially significant.

Home Improvement Center Internal Equipment Noise

Power tools and electric machinery could be used within the home improvement building for cutting, preparing and modifying store products for individual use by the consumer. Based on measurements conducted at Home Depot stores, interior noise levels from these activities would be less than 75 dBA at a distance of 50 feet. These levels would be attenuated by the building and

noise levels from these activities would be less than 45 dBA immediately outside the building. This would be a less than significant impact.

Loading Docks Noise

To determine impacts from the loading docks on sensitive receptors, noise measurements, and activity profiles from similar home improvement centers and other big-box retailers were used in this analysis. For the project, the loading areas in the rear of the buildings on the western side of the project would be the main loading areas. There would also be a lumber pickup area on the northeastern side of the home improvement center building. The home improvement center for the project includes a loading dock on the southwestern corner of the building and an outdoor staging area on the northwestern corner of the building. At other home improvement stores, product from the lumber off-loading area is temporarily staged on a slab area outside and brought into the stores by a forklift through large roll-up/sliding doors. In addition to the loading areas on the western side of the home improvement center, a loading area is also indicated on the western side of Major A.

The analysis is based on a summary of short-term noise measurements from two Home Depot facilities as described in Table 3.4.6. Except for one anomaly in Table 3.4.6, the L_{eq} values are 72 dBA or less at a distance of 50 feet, and L_{max} values are 87 or less at a distance of 50 feet. Using these levels as a basis to calculate the likely offsite noise at the closest residential areas to the west (assumed to be 40 feet), it is estimated that short-term noise levels would be approximately 74 decibels Leq (idling truck) and 89 decibels L_{max} (truck arrival, unloading, departure). These values are considerably more than 3 dBA greater than the existing levels measured at Location 3 (see Table 3.4.2) and would exceed the short-term noise level criteria applied to this project of 55 dB L_{eq} and 75 dB L_{max} during daytime hours (7:00 AM until 10:00 PM), and 45 dB L_{eq} and 65 dB during nighttime hours (10:00 PM until 7:00 AM) and would therefore be a significant impact.

On-Site Truck Circulation Noise

The onsite truck traffic would likely be routed to the rear (west end) of the major stores via Avenue K or Avenue J-12. While onsite, the trucks behind the major stores would pass within approximately 25 feet of the residential property line to the west.

Truck pass-bys on roads en route to the project site are expected to be relatively brief. As described in Table 3.4.6, the typical L_{max} level due to a truck pass-by has been measured to be approximately 70.1 dB at a distance of 50 feet, which equates to approximately 75 dB at 25 feet. For this assessment, the nearest residential locations were conservatively assumed to be 25 feet away from the truck passage area.

The predicted L_{eq} at the nearest residences resulting from truck passages would depend on the number of hourly truck operations. Based on ESA staff observations of loading dock activity at a Super Wal-Mart store, the project would be conservatively expected to generate up to 10 truck pass-bys in any given daytime hour. Truck deliveries would not be allowed during nighttime hours. These estimates are conservative for the project and assume the trucks would be distributed between the home improvement center and buildings A, B, and C.

TABLE 3.4.6
SUMMARY OF SHORT-TERM NOISE MEASUREMENT DATA COLLECTED AT THE POWER INN ROAD AND VISALIA HOME DEPOTS

	Noise level (dBA) at a distance of 50 feet[a]		
Noise Source/Activity	**L_{eq}**	**L_{max}**	**L50**
Lumber Truck Arrival, Unloading and Departure	62.0	86.7	56.0
Main Loading Bay Activities	72.0	85.5	NA
Idling Truck	72.3	84.8	NA
Passing Truck	68.0	70.1	NA
Forklift (gas-powered)	69.2	79.0	NA
Miter Saw and Vacuum	71.9	77.6	NA
Table Saw	63.0	73.4	NA
Waste Removal Truck Replacing Trash Compactor	74.6	93.4[b]	NA

a Noise measurement data was collected at the Power Inn Road Home Depot in Sacramento, CA. on May 28, 1999 and the Visalia CA. Home Depot on July 7, 1999. Data presented here is representative of data collected at both sites. Appendix E contains raw noise data.

b This L_{max} likely occurred when the metal dumpster was dropped roughly two feet to the ground.

SOURCE: ESA, 1999, Mitigated Negative Declaration for proposed Meadowview Home Depot location, Sacramento, CA.

Based on these projections, the worst-case hourly L_{eq} was computed at the nearest residential property line to the west assuming a 4.5 dB decrease for each doubling of distance from the source. The results of that analysis are provided in Table 3.4.7. As shown in Table 3.4.7, truck circulation noise levels would exceed the short-term noise level criteria applied to this project of 55 dB L_{eq} and 65 dB L_{max} during daytime hours (7:00 AM until 10:00 PM), and impacts would be significant.

Site Maintenance

Maintenance activities associated with project-related parking and landscaped areas could include the use of parking lot sweepers and leaf blowers. Leaf blower noise levels have been measured to be in the range of 69 to 81 dBA at a distance of 50 feet from the operator. This impact would be less than significant after mitigation.

TABLE 3.4.7
TRUCK CIRCULATION NOISE GENERATION[a]

Property Line	**Hourly Truck Passages (Daytime Only)**	**Predicted L_{max} (Unmitigated)**	**Predicted L_{eq}(h) (Unmitigated)**
West –Home Improvement Center and Major Retail A/B/C	10	75 dB	61 dB

a Noise values based on a distance of 25 feet between the center of the truck circulation route and the property line.

SOURCE: ESA, 2007.

Gas Station and Car Wash

Operation of the drying system in the car wash would be the loudest of activities performed at the proposed gas station. A previous ESA noise study that included a car wash found that the modern blowers used at new car wash facilities are designed to produce a maximum sound level of approximately 60 dBA at 100 feet. For this project, the car wash exit, where the blowers are located, faces sensitive receptors across 60th Street West that are approximately 180 feet away. The noise from the blowers would be reduced by distance alone to approximately 55 dBA at the residences across 60th Street West. The residences across 60th Street West already have sound walls that would further reduce sound levels to approximately 50 dBA in the yards (behind the soundwalls) of the residences across 60th Street West. Residents located across Avenue J-12 would not be affected by carwash noise due to the orientation of the exit opening. This would be a less than significant impact.

Impact 3.4-3: Traffic associated with operation of the project would result in an increase in ambient noise levels on nearby roadways used to access the shopping center.

Most of the noise generated by the implementation of the project would primarily be traffic-generated noise. The project would contribute to an increase in local traffic volumes, resulting in higher noise levels along local roadways. Using a spreadsheet based upon algorithms from the Federal Highway Administration's Highway Traffic Noise Prediction Model (FHWA-RD-77-108), traffic noise levels were analyzed for four roadway segments. The segments analyzed and results of the modeling are shown in Table 3.4.8.

As depicted in Table 3.4.8, the project would not cause a significant increase to traffic in the project vicinity.

TABLE 3.4.8
FUTURE PEAK-HOUR NOISE LEVELS ALONG SELECTED ROADWAYS (2012)

Modeled Roadway Segment	Peak Hour Noise Levels (L_{eq})[a]			
	Future 2012 with Area Projects	Project 2012 with Area Projects Plus Project	Incremental Increase from Project	Significant (Yes/No)
60th St., North of Avenue K	70	70	0	No
60th St., South of Avenue K	69	69	0	No
Avenue K, East of 60th Street	69	70	1	No
Avenue K, West of 60th Street	69	69	0	No

[a] Noise levels are estimated at a distance of 50 feet from roadway centerline. Data based on PM Peak Hour.

SOURCE: ESA, 2007.

Cumulative Impacts

A cumulative impact arises when two or more individual projects, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts

can result from individually minor but collectively significant impacts, meaning that the project's incremental effects must be viewed in connection with the effects of past, current, and probable future projects. Notably, any project that would individually have a significant noise impact would also be considered to have a significant cumulative noise impact.

When considered alone, the proposed project would generate noise mainly by adding more traffic to the area. Many of the other anticipated projects would contribute to noise in the area due to increased traffic volumes. As depicted in Table 3.4.8 traffic associated with development of the proposed project in the Future plus Project (2012) scenario would not result in a cumulatively significant impact along local roadways.

3.4.5 Mitigation Measures

Measure NOISE-1: Signs shall be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a contact name and number in the event of problems.

Measure NOISE-2: An on-site complaint and enforcement manager shall respond to and track complaints and questions related to noise.

Measure NOISE-3: During construction, the contractor shall outfit all equipment, fixed or mobile, with properly operating and maintained exhaust and intake mufflers, consistent with manufacturers' standards.

Measure NOISE-4: Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. External jackets on the tools themselves shall be used where feasible. Quieter procedures, such as use of drills rather than impact tools, shall be used whenever feasible.

Measure NOISE-5: Stationary noise sources shall be located as far from adjacent receptors as possible.

Measure NOISE-6: No amplified sources (e.g., stereo "boom boxes," etc.) shall be used in the vicinity of adjacent residences during project construction.

Measure NOISE-7: Building equipment (e.g., HVAC units) shall be located away from nearby residences, on building rooftops, and properly shielded by either the rooftop parapet or within an enclosure that effectively blocks the line of site of the source from the nearest receptors to the west. The resultant HVAC noise level shall not exceed 45 dBA at the nearest receptors to the west.

Measure NOISE-8: For the proposed buildings that would be located on the western edge of the project site, the following design features shall be incorporated: appropriate wing-walls around the truck wells, rubberized gaskets at the loading bays, and acoustically absorptive materials at the primary loading docks of each facility to reduce noise.

Measure NOISE-9: An eight-foot tall sound wall shall be constructed along the entire western edge of the property, to reduce noise that would reach the existing residences to the west of the project from loading dock operations, maintenance, and truck circulation.

Measure NOISE-10: The noise from the car wash shall not exceed a maximum sound level of 60 dBA at a distance of 100 feet from the eastern exit.

3.4.6 Level of Significance after Mitigation

Mitigation Measure NOISE-9 (eight-foot sound walls) would reduce all loading dock, truck circulation, and other equipment usage-related L_{eq} and L_{max} noise levels at existing residences behind (west of) the Home Improvement Center and Major Retail stores by approximately 8 dB. However, even with the required setbacks, landscaping (including required trees), and identified mitigation measures, the operational (non-transportation) and construction noise impacts of the project would be significant and unavoidable.

3.5 Air Quality

3.5.1 Introduction

This section addresses the impacts of the project on ambient air quality and the exposure of people, especially sensitive individuals, to air pollutant emissions that would be generated by the construction and operation of the project. The analysis of project emissions focuses on whether the project would cause an exceedance of a state ambient air quality standard or an exceedance of a threshold set forth by the Antelope Valley Air Quality Management District (AVAQMD). Copies of air quality worksheets are provided in Appendix D.

3.5.2 Environmental Setting

Regional Setting

The project is located in Los Angeles County in the western portion of the Mojave Desert Air Basin (MDAB.) The AVAQMD is the local air district with jurisdiction over air pollution sources in Lancaster. The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains which dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada Mountains to the north; air masses pushed onshore in Southern California by differential heating are channeled through the MDAB. The MDAB is separated from the southern California coastal and central California Valley regions by mountains (highest elevation approximately 10,000 feet), whose passes form the main channels for these air masses. Antelope Valley is bordered on the northwest by the Tehachapi Mountains, separated from the Sierra Nevada Mountains to the north by the Tehachapi Pass (3,800 ft elevation.) The Antelope Valley is bordered to the south by the San Gabriel Mountains, bisected by Soledad Canyon (3,300 feet above mean sea level).

During the summer, the MDAB is generally influenced by a Pacific Subtropical High cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. Most desert moisture arrives from infrequent warm, moist and unstable air masses from the south. The MDAB averages between three and seven inches of precipitation per year (from 16 to 30 days with at least 0.01 inches of precipitation.) The MDAB is classified as a dry-hot desert climate, with portions classified as dry-very hot desert, to indicate at least three months have maximum average temperatures over 100.4°F.

Existing Air Quality in the Study Area

The AVAQMD maintains monitoring stations within the City of Lancaster that monitor air quality and compliance with associated ambient standards. The closest station to the project site is located at 43301 Division Street. The following pollutants are monitored at this station: ozone (O_3), particulate matter less than 10 and less than 2.5 microns (PM_{10} and $PM_{2.5}$, respectively). The most recent in published data for the monitoring station are presented in Table 3.5.1. In addition, air pollutants of interest to the regulatory agencies for their potential adverse impacts on sensitive receptors are described below.

TABLE 3.5.1
AMBIENT POLLUTANT LEVELS AT NEARBY MONITORING STATION
AIR QUALITY DATA SUMMARY (2005–2007)

Pollutant	Monitoring Data by Year			
	Standard[a]	2005	2006	2007
Ozone (O_3)				
Highest 1 Hour Average (ppm)[b]	0.09	**0.13**	**0.13**	**.12**
Days over State Standard		42	22	16
Highest 8 Hour Average (ppm)[b]	0.08	**0.10**	**0.11**	**.10**
Days over National Standard		1	2	0
Particulate Matter (PM_{10})				
Highest 24 Hour Average ($\mu g/m^3$)[b]	50	**54**	**64**	**86**
Est. Days over State Standard[c]		1	4	8
Highest 24 Hour Average ($\mu g/m^3$)b – National Measurement	150	55.5	65.8	58.6
Est. Days over National Standard[c]		0	0	0
State Annual Average ($\mu g/m^3$) [b]	20	NA	**25.2**	**26.5**
Particulate Matter ($PM_{2.5}$)				
Highest 24 Hour Average ($\mu g/m^3$)[b]	35	18	28	18
Days over National Standard		0	0	0
State Annual Average ($\mu g/m^3$)[b]	12	NA	8.9	7.4

a Generally, state standards and national standards are not to be exceeded more than once per year.
b ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.
c PM_{10} is not measured every day of the year. Number of estimated days over the standard is calculated based on 365 days per year.

NOTES: Values in **bold** are in excess of at least one applicable standard. NA = Not Available.

SOURCE: California Air Resources Board, 2008a. *Summaries of Air Quality Data*, 2005, 2006, 2007; http://www.arb.ca.gov/adam/cgi-bin/db2www/polltrendsb.d2w/start

Ozone (O_3)

Short-term exposure to ozone can irritate the eyes and cause construction of the airways. Besides causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Ozone, the main component of photochemical smog, is primarily a summer and fall pollution problem. Ozone is not emitted directly into the air but is formed

through a complex series of chemical reactions involving other compounds that are directly emitted. These directly emitted pollutants (also known as ozone precursors) include reactive organic gases (ROG) and nitrogen oxides (NO_x) The time period required for ozone formation allows the reacting compounds to spread over a large area, producing a regional pollution problem. Ozone problems are the cumulative result of regional development patterns rather than the result of a few significant emission sources.

Once formed, ozone remains in the atmosphere for one or two days. Ozone is then eliminated through reaction with chemicals on the leaves of plants, attachment to water droplets as they fall to earth and absorption by water molecules in clouds that later fall to earth with rain.

Carbon Monoxide (CO)

Ambient carbon monoxide concentrations normally are considered a local effect and typically correspond closely to the spatial and temporal distributions of vehicular traffic. Wind speed and atmospheric mixing also influence carbon monoxide concentrations. Under inversion conditions, carbon monoxide concentrations may be distributed more uniformly over an area that may extend some distance from vehicular sources. When inhaled at high concentrations, carbon monoxide combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, as well as for fetuses. Carbon monoxide concentrations have declined dramatically in California due to existing controls and programs. Carbon monoxide concentrations are expected to continue declining due to the ongoing retirement of older, more polluting vehicles from the mix of vehicles on the road network.

Particulate Matter (PM_{10} and $PM_{2.5}$)

PM_{10} and $PM_{2.5}$ consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. A micron is one-millionth of a meter. PM_{10} and $PM_{2.5}$ represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis and respiratory illnesses in children. Recent mortality studies have shown a direct association between mortality and daily concentrations of particulate matter in the air. Particulates can also damage materials and reduce visibility. One common source of $PM_{2.5}$ is diesel particulate emissions.

Traffic generates particulate matter and PM_{10} emissions through entrainment of dust and dirt particles that settle onto roadways and parking lots. PM_{10} also is emitted by burning wood in residential wood stoves and fireplaces and open agricultural burning. PM_{10} can remain in the atmosphere for up to seven days before gravitational settling; heavy rains assist with atmospheric removal.

Nitrogen Dioxide (NO_2)

NO_2 is a reddish brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to ozone formation,

nitrogen dioxide can increase the risk of acute and chronic respiratory disease and reduce visibility. NO_2 may be visible as a coloring component of a brown cloud on high pollution days, especially in conjunction with high ozone levels.

Toxic Air Contaminants (TACs)

Non-criteria TACs, also known as hazardous air pollutants (HAPs), are those pollutants that are capable of causing short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness.) TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes approximately 200 compounds, including particulate emissions from diesel-fueled engines.

Diesel particulate matter (DPM), considered a carcinogen, results from diluted and cooled exhaust gases. Because of their small size, inhaled particles may easily penetrate deep into the lungs. Exposures have been linked with acute short-term symptoms such as headache, dizziness, light-headedness, nausea, coughing, difficult or labored breathing, tightness of chest, and irritation of the eyes and nose and throat. Long-term exposures can lead to chronic, more serious health problems such as cardiovascular disease, cardiopulmonary disease, and lung cancer. Exposure to diesel exhaust can result from diesel fueled equipment operations.

Odorous Emissions

Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Vinyl Chloride

Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1978, ARB established a state ambient air quality standard for vinyl chloride. The standard was set at 0.01 ppm for a 24-hour duration because that was the lowest level that could be detected at that time. In 1990, ARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor. Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness, and headaches

Hydrogen Sulfide (H_2S)

H_2S is a flammable, colorless, poisonous gas that smells like rotten eggs. High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause symptoms like headache, nausea, vomiting, and cough. Long exposure to hydrogen sulfide can cause pulmonary edema.

Volatile Organic Compounds (VOCs) and Reactive Organic Gases (ROG)

ROG or VOCs are defined as any compound of carbon (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate), which participates in atmospheric photochemical reactions. Although there are slight differences in the

definition of ROG and VOCs, the two terms are often used interchangeably. VOCs consist of non-methane hydrocarbons and oxygenated hydrocarbons, and can be emitted form gas dispensing facilities. There are no state or national ambient air quality standards for VOCs because they are not classified as criteria pollutants. They are regulated, however, because VOCs are ozone precursors. As such, a reduction in VOCs emissions reduces certain chemical reactions that contribute to the formulation of ozone. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches, loss of coordination, nausea, damage to liver, kidney, and the central nervous system.

Greenhouse Gases

Gases that trap heat in the atmosphere are called greenhouse gases. The major concern is that increases in greenhouse gases are causing Global Climate Change. Global Climate Change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation and temperature. Although there is tremendous disagreement as to the speed of global warming and the extent of the impacts attributable to human activities, most agree that there is a direct link between the increased emission of so-called greenhouse gases and long-term global temperature. What greenhouse gases have in common is that they allow sunlight to enter the atmosphere, but trap a portion of the outward-bound infrared radiation and warm up the air. The process is similar to the effect greenhouses have in raising the internal temperature, hence the name greenhouse gases. Both natural processes and human activities emit greenhouse gases. The accumulation of greenhouse gases in the atmosphere regulates the earth's temperature; however, emissions from human activities such as electricity production and motor vehicles have elevated the concentration of greenhouse gases in the atmosphere. This accumulation of greenhouse gases has contributed to an increase in the temperature of the earth's atmosphere and contributed to Global Climate Change. The principal greenhouse gases are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H_2O.) Carbon dioxide is the reference gas for climate change because it gets the most attention and is considered the most important greenhouse gas. To account for the warming potential of greenhouse gases, greenhouse gas emissions are often quantified and reported as CO_2 equivalents (CO_2E.) Large emission sources are reported in million metric tons of CO_2E ($MMTCO_2E$.) HFCs are used in refrigeration systems as substitutes for chloroflurocarbons (CFCs), which were banned for destroying the ozone layer.

3.5.3 Regulatory Framework

A number of statutes, regulations, plans, and policies have been adopted that address air quality issues. The project site and vicinity are subject to air quality regulations developed and implemented at the federal, state, and local levels. At the federal level, the United States Environmental Protection Agency (USEPA) is responsible for implementation of the federal Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile source and other requirements) are implemented directly by the USEPA. Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies. A summary of plans and policies that have been adopted by various agencies that address air quality concerns specific to the project area are discussed below.

Federal

Federal Clean Air Act

The federal CAA requires the USEPA to identify National Ambient Air Quality Standards (NAAQS or national standards) to protect public health and welfare. The sections of the CAA, which are most applicable to the proposed project, include Title I (Ambient Air Quality), Title II (Mobile Sources), and Title III (HAPs). As required by Title I of the federal CAA, NAAQS have been established for O_3, NO_X, SO_2, PM_{10}, CO, and lead. Table 3.5.2 shows current national air quality standards and provides a brief discussion of the related health effects and principal sources for each pollutant.

Pursuant to Title I of the 1990 Federal CAA Amendments, the USEPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether or not the NAAQS had been achieved. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. Title I requirements are implemented for the purpose of attaining NAAQS for criteria pollutants and Table 3.5.3 shows the current attainment status for the project area.

The federal CAA requires each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP.) The federal CAA added requirements for states containing areas that violate the NAAQS to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The USEPA has the responsibility to review all state SIPs to determine if they conform to the mandates of the federal CAA and will achieve air quality goals when implemented. In addition, Title I (Section 182(b)(3) of the federal CAA requires emissions to be controlled by a Stage II vapor recovery system at gasoline dispensing facilities located in an ozone nonattainment area (USEPA, 2006). A Stage II vapor recovery system provides a vapor control system to minimize VOC (also referred to as ROG) emissions from process operations at gasoline dispensing facilities.

Title II of the federal CAA regulates mobile vehicle emissions and promulgates fuel standards. Reformulated gasoline and automobile pollution control devices are a few of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of the federal CAA Title II have resulted in tailpipe emission standards for vehicles, which have strengthened in recent years to improve air quality. Title II provides for the development of low-emission vehicles, motor vehicle compliance program fees, the clean engine certification (e.g. smog tests).

Title III of the federal CAA establishes a list of 189 hazardous compounds known or suspected to cause cancer or other serious health effects. Since the sources of HAPS (or TACs) are often specific industries, EPA identified categories of the HAPs sources and has developed recommended control technologies for each category based on the best control technologies that have been demonstrated in these categories. State and local air pollution agencies have the primary responsibility to make sure sources meet the standards. An example of a control

TABLE 3.5.2
STATE AND NATIONAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone	1 hour 8 hours	0.09 ppm 0.07 ppm[a]	0.12 ppm 0.08 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases (ROG) and nitrogen oxides (NO_X) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
Carbon Monoxide	1 hour 8 hours	20 ppm 9 ppm	35 ppm 9 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
Nitrogen Dioxide	1 hour Annual Avg.	0.18 ppm 0.030	--- 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide	1 hour 3 hours 24 hours Annual Avg.	0.25 ppm --- 0.04 ppm ---	--- 0.5 ppm 0.14 ppm 0.03 ppm	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
Respirable Particulate Matter (PM_{10})	24 hours Annual Avg.	50 µg/m^3 20 µg/m^3	150 µg/m^3 50 µg/m^3	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays.)
Fine Particulate Matter ($PM_{2.5}$)	24 hours Annual Avg.	--- 12 µg/m^3	35 µg/m^3 15 µg/m^3	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NO_X, sulfur oxides, and organics.
Lead	Monthly Ave. Quarterly	1.5 µg/m^3 ---	--- 1.5 µg/m^3	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
Hydrogen Sulfide	1 hour	0.03 ppm	No National Standard	Geothermal Power Plants, Petroleum Production and refining	Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations)
Sulfates	24 hour	25 µg/m^3	No National Standard	Produced by the reaction in the air of SO2.	Breathing difficulties, aggravates asthma, reduced visibility
Visibility Reducing Particles	8 hour	Extinction of 0.23/km; visibility of 10 miles or more	No National Standard	Reduces visibility, reduced airport safety, lower real estate value, discourages tourism.	See $PM_{2.5}$.
Vinyl Chloride	24 hour	0.01 ppm	No National Standard	California Air Resources Board identified as a TAC with no threshold for exposure.	Industrial processes.

NOTE: ppm = parts per million; µg/m^3 = micrograms per cubic meter.

[a] This concentration was approved by the Air Resources Board on April 28, 2005 and became effective May 17, 2006.

SOURCE: California Air Resources Board, 2007b. *Ambient Air Quality Standards,* available at http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm; standards last updated February 22, 2007; California Air Resources Board, 2001. *ARB Fact Sheet: Air Pollution Sources, Effects and Control,* http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm, page last updated December 2005.

TABLE 3.5.3
MDAB ATTAINMENT STATUS

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone – one hour	No Federal Standard[a]	Nonattainment
Ozone – eight hour	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Nonattainment
$PM_{2.5}$	Nonattainment	Unclassified
CO	Attainment	Attainment
Nitrogen Dioxide	Unclassified	Attainment
Sulfur Dioxide	Unclassified	Attainment
Lead	Attainment	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Unclassified
Visibility-Reducing Particles	No Federal Standard	Unclassified

[a] Federal One Hour Ozone National Ambient Air Quality Standard was revoked on June 15, 2005

SOURCES: California Air Resources Board, 2007c. *Area Designation Maps,* http://www.arb.ca.gov/desig/adm/adm.htm, page updated February 2006; Federal Ozone 8-hour: http://www.epa.gov/air/oaqps/greenbk/gncs.html#CALIFORNIA; Federal PM_{10}: http://www.epa.gov/air/oaqps/greenbk/pncs.html#CALIFORNIA

technology is the requirement to install vapor recovery nozzles on gas pumps as a mechanism for the USEPA to regulate HAPs. Title III, Section 324(a) regulates vapor recovery from fueling of motor vehicles at retail outlets of gasoline and requires the installation of vapor recovery equipment that complies with applicable provisions adopted by a State.

State

The California Air Resources Board (CARB) manages air quality, regulates mobile emissions sources, and oversees the activities of Air Pollution Control Districts and Air Quality Management Districts. CARB establishes state ambient air quality standards and vehicle emissions standards. California has adopted ambient standards that are more stringent than the federal standards for the criteria air pollutants. These are shown in Table 3.5.2. Under the California CAA, which is patterned after the federal CAA, areas have been designated as attainment or nonattainment with respect to the state standards. Table 3.5.3 summarizes the attainment status with California standards in the project area.

Toxic Air Contaminants (TACs)

California state law defines TACs as air pollutants having carcinogenic effects. A total of 243 substances have been designated as TACs under California law; they include the 189 (federal) HAPs adopted in accordance with Assembly Bill (AB) 2728. The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) seeks to identify and evaluate risk from air toxics sources; however, AB 2588 does not regulate air toxics emissions. Toxic air contaminant emissions from individual facilities are quantified and prioritized. Depending on the risk levels, emitting facilities are required to implement varying levels of risk reduction measures.

The project does not include developing facilities that may be categorized as "high-priority," which are required to perform a health risk assessment.

California Enhanced Vapor Recovery

CARB has developed regulations for gas dispensing facilities in Section 18 of Certification Procedure 201 (CP-201), initially approved in October 6, 2001. The regulations primarily relate to the reduction of TACs and VOCs, and establish a methodology for controlling vapors, as well as certification procedures for Vapor Recovery Systems for Gasoline Dispensing Facilities (to control vapors). The rule provides specifications pertaining to the pressure integrity of Vapor Recovery Equipment, limits spillage from State II Systems, and limits gasoline retention in nozzles and hoses. In addition, CARB is responsible for implementing Title I (Section 182(b)(3) of the federal CAA, which requires emissions at gasoline dispensing facilities located in an ozone nonattainment area to be controlled by a Stage II vapor recovery system.

CARB has also promulgated its own program of Enhanced Vapor Recovery requirements. The purpose of the program is to increase the control efficiencies achieved by Stage II vapor recovery systems in ozone nonattainment areas to 98 percent and requires specific valves on all vapor recovery systems. The program also contains additional specifications to prevent leaks. The Stage II vapor recovery certification process establishes other requirements for static pressure performance, liquid removal, nozzle/dispenser compatibility, vapor piping requirements, condensate traps, and leak-tight connectors and fittings.

Diesel Particulate Matter

In August 1998, CARB identified particulate emissions from diesel-fueled engines (diesel particulate matter, or DPM) as TACs. CARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* This document provides a plan to reduce diesel particulate emissions, with the goal of reducing emissions and the associated health risks by 75 percent in 2010 and by 85 percent in 2020. The program aims to require the use of state-of-the-art catalyzed diesel particulate filters and ultra low sulfur diesel fuel on diesel-fueled engines.

CARB Community Health Perspective

CARB recently published the *Air Quality and Land Use Handbook: A Community Health Perspective.* The primary goal in developing the handbook was to provide information that will help keep California's children and other vulnerable populations out of harm's way with respect to nearby sources of air pollution. The handbook highlights recent studies that have shown that public exposure to air pollution can be substantially elevated near freeways and certain other facilities. However, the health risk is greatly reduced with distance. For that reason, CARB provided some general recommendations aimed at keeping appropriate distances between sources of air pollution and sensitive land uses, such as residences.

Greenhouse Gas Emissions

In 2005, in recognition of California's vulnerability to the effects of climate change, Governor Schwarzenegger signed Executive Order S-3-05, which sets forth a series of target dates by which statewide emissions of greenhouse gases would be progressively reduced, as follows:

- By 2010, reduce greenhouse gas emissions to 2000 levels;
- By 2020, reduce greenhouse gas emissions to 1990 levels; and
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill (AB) No. 32; California Health and Safety Code Division 25.5, Sections 38500, et seq.), which requires CARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide greenhouse gas emissions are reduced to 1990 levels by 2020. This reduction would represent an approximate 25 percent reduction in greenhouse gas emissions.

In June 2007, CARB directed staff to pursue 37 early actions for reducing greenhouse gas emissions under the California Global Warming Solutions Act of 2006. The broad spectrum of strategies to be developed, including a Low Carbon Fuel Standard, regulations for refrigerants with high global warming potentials, guidance and protocols for local governments to facilitate greenhouse gas reductions, and green ports, reflects the seriousness of the threat of climate change and the need for action as soon as possible.

In addition to approving the 37 greenhouse gas reduction strategies, CARB directed staff to further evaluate early action recommendations made at the June 2007 meeting, and to report back to CARB within six months. The general sentiment of CARB suggested a desire to try to pursue greater greenhouse gas emissions reductions in California in the near-term. Since the June 2007 CARB hearing, CARB staff has evaluated all 48 recommendations submitted by several stakeholders and several internally-generated staff ideas, which were published in the *Draft List of Early Action Measures To Reduce Greenhouse Gas Emissions In California Recommended For Board Consideration* in September 2007. Based on its additional analysis, CARB staff is recommending the expansion of the early action list to a total of 44 measures.

The 2020 target reductions are currently estimated to be 174 $MMTCO_2E$. In total, the 44 recommended early actions (see Table 3.5.4) have the potential to reduce greenhouse gas emissions by at least 42 $MMTCO_2E$ emissions by 2020, representing about 25 percent of the estimated reductions needed by 2020. CARB staff is working on 1990 and 2020 greenhouse gas emission inventories in order to refine the projected reductions needed by 2020 and expects to present its recommendations to CARB by the end of 2007. The 44 measures address various sectors, including fuels, transportation, forestry, agriculture, education, energy efficiency, commercial, solid waste, cement, oil and gas, electricity, and fire suppression.

TABLE 3.5.4
RECOMMENDED GREENHOUSE GAS MEASURES
TO BE INITIATED BY CARB BETWEEN 2007 AND 2012

ID #	Sector	Strategy Name	ID #	Sector	Strategy Name
1	Fuels	Above Ground Storage Tanks	23	Commercial	SF_6 reductions from the non-electric sector
2	Transportation	Diesel – Offroad equipment (non-agricultural)	24	Transportation	Tire inflation program
3	Forestry	Forestry protocol endorsement	25	Transportation	Cool automobile paints
4	Transportation	Diesel – Port trucks	26	Cement	Cement (A): Blended cements
5	Transportation	Diesel – Vessel main engine fuel specifications	27	Cement	Cement (B): Energy efficiency of California cement facilities
6	Transportation	Diesel – Commercial harbor craft	28	Transportation	Ban on HFC release from Motor Vehicle AC service / dismantling
7	Transportation	Green ports	29	Transportation	Diesel – offroad equipment (agricultural)
8	Agriculture	Manure management (methane digester protocol)	30	Transportation	Add AC leak tightness test and repair to Smog Check
9	Education	Local government greenhouse gas reduction guidance / protocols	31	Agriculture	Research on greenhouse gas reductions from nitrogen land applications
10	Education	Business greenhouse gas reduction guidance / protocols	32	Commercial	Specifications for commercial refrigeration
11	Energy Efficiency	Cool communities program	33	Oil and Gas	Reduction in venting / leaks from oil and gas systems
12	Commercial	Reduce high Global Warming Potential (GWP) greenhouse gases in products	34	Transportation	Requirement of low-GWP greenhouse gases for new Motor Vehicle ACs
13	Commercial	Reduction of PFCs from semiconductor industry	35	Transportation	Hybridization of medium and heavy-duty diesel vehicles
14	Transportation	SmartWay truck efficiency	36	Electricity	Reduction of SF_6 in electricity generation
15	Transportation	Low Carbon Fuel Standard	37	Commercial	High GWP refrigerant tracking, reporting and recovery program
16	Transportation	Reduction of HFC-134a from DIY Motor Vehicle AC servicing	38	Commercial	Foam recovery / destruction program
17	Waste	Improved landfill gas capture	39	Fire Suppression	Alternative suppressants in fire protection systems
18	Fuels	Gasoline disperser hose replacement	40	Transportation	Strengthen light-duty vehicle standards
19	Flues	Portable outboard marine tanks	41	Transportation	Truck stop electrification with incentives for truckers
20	Transportation	Standards for off-cycle driving conditions	42	Transportation	Diesel – Vessel speed reductions
21	Transportation	Diesel – Privately owned on-road trucks	43	Transportation	Transportation refrigeration – electric standby
22	Transportation	Anti-idling enforcement	44	Agriculture	Electrification of stationary agricultural engines

SOURCE: CARB, 2007D

In addition to identifying early actions to reduce greenhouse gases, CARB is also developing the greenhouse gas mandatory reporting regulation that is required by January 1, 2008 pursuant to the

requirements of AB 32. These regulations are expected to require reporting for certain types of facilities that make up the bulk of the stationary source emissions in California.

Currently, the draft regulation language identifies major facilities as those that generate more than 25,000 metric tons (MT) of CO_2 per year (CO_2/yr.) This reporting limit is consistent with European Union reporting limits. Cement plants, oil refineries, electric generating facilities/providers, co-generation facilities, and hydrogen plants and other stationary combustion sources that emit more than 25,000 MT CO_2/yr, make up 94 percent of the point source CO_2 emissions in California.

Regional and Local Regulations

Southern California Association of Governments (SCAG)

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial counties and addresses regional issues relating to transportation, the economy, community development, and the environment. SCAG is the federally-designated metropolitan planning organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. As the designated MPO, SCAG is mandated by the federal government to develop and implement regional plans that address transportation, growth management, hazardous waste management, and air quality issues. With respect to air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG) for the Los Angeles County region, which includes Growth Management and Regional Mobility chapters that form the basis for the land use and transportation components of the Air Quality Management Plan (AQMP) and are utilized in the preparation of air quality forecasts and the consistency analysis that is included in the AQMP.

Antelope Valley Air Quality Management District

The AVAQMD has jurisdiction over air quality for the project area. The AVAQMD has adopted an AQMP for determination of the significance of a project's contribution to local or regional pollutant concentrations. In addition, the AQMP for the basin establishes a program of rules and regulations directed at attainment of state and national air quality standards. All development projects within the AVAQMD are required to comply with existing rules as they apply to each specific project.

2004 Ozone Attainment Plan

The AVAQMD has established the 2004 Ozone Attainment Plan, adopted in April 2004, for the purpose of developing the methods and means to implement reduction measures to ensure applicable attainment goals and standards are met. The pollutants targeted in both attainment plans include NO_x and VOC. The AVAQMD' s 2004 Ozone Attainment Plan (State and Federal) is an update of the Antelope Valley portion of the South Coast Air Quality Management District's AQMP. The 2004 Ozone Attainment Plan establishes a plan to implement, maintain, and enforce the measures necessary to bring the Antelope Valley into attainment with the state and federal standards.

CEQA and Federal Conformity Guidelines

The guidelines published by AVAQMD are intended to assist persons preparing environmental analysis or review documents for any project within the jurisdiction by providing background

information and guidance on the preferred analysis approach. The document characterizes the topography and climate of the Basin, defines cumulative impacts, and provides emissions thresholds for construction and operation.

Gas Dispensing: Transfer and Dispensing Operations (Rule 461)

The AVAQMD has established regulations to limit emissions of VOC from gasoline dispensing facilities through equipment and operational requirements. AVAQMD Rule 461 (Gasoline Transfer and Dispensing) applies to the transfer of gasoline from any tank truck, trailer, or railroad tank car into any stationary storage tank, and from any stationary storage tank into any motor vehicle fuel tank. The rule requires tank specifications, testing, maintenance, and recordkeeping for gasoline dispensing facilities.

New Source Review - For Toxic Air Contaminants (Rule 1401)

The new source review rule for new sources of TACs sets forth the requirements for preconstruction review of all new, modified, relocated or reconstructed facilities that emit or have the potential to emit any Hazardous Air Pollutant, TAC, or Regulated Toxic Substance. The rule requires that each new emission source comply with the best available control technology (BACT) to decrease emissions.

City of Lancaster Municipal Code

The City of Lancaster Municipal Code provisions relevant to maintaining the quality of air for the area include a prohibition against disturbing surface or subsurface soils, such that the dust would contribute to dust emissions (Section 8.16.030), and a requirement for submission of a Dust Control Plan prior to issuance of a grading permit for residential projects ten acres or larger, and for commercial/industrial projects five acres or larger (Resolution No. 06-16)

3.5.4 Impacts

Significance Criteria

Based on Appendix G of the State CEQA Guidelines the project may result in a significant impact if it would:

- Conflict with or obstruct implementation of the applicable air quality attainment 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 non-attainment 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; and/or
- Create objectionable odors affecting a substantial number of people.

In addition, AB 32 requires consideration of whether or not the project would conflict with the state goal of reducing greenhouse gas emissions in California to 1990 levels by 2020, as set forth by the timetable established in AB 32, California Global Warming Solutions Act of 2006.

Impacts are also considered significant if criteria pollutant emissions exceed the significance criteria provided in Table 3.5.5.

Construction. The project would result in a significant construction air quality impact if emissions exceed the significance thresholds set forth in Table 3.5.5.

TABLE 3.5.5
AIR QUALITY SIGNIFICANCE THRESHOLDS

Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
CO	100	548
ROC	25	137
NO_x	25	137
SO_2	25	137
PM_{10}	15	82

SOURCE: AVAQMD, California Environmental Quality Act (CEQA) and Federal Conformity Guidelines. May 2008

Operations. The project would result in a significant operational air quality impact if either of the following occurs:

- Emissions exceed the significance thresholds set forth in Table 3.5.5.
- The project would not be compatible with AVAQMD or the City of Lancaster air quality goals and policies.

Impacts and Mitigation Measures

Impact 3.5-1: The project could conflict with or obstruct implementation of the applicable air quality plan.

The proposed project would conflict with the AQMP if it would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emission reductions specified in the AQMP. The AQMP control measures and related emission reduction estimates are based upon emissions projections for future development derived from land use, population, and employment characteristics defined in consultation with local governments. The project would result in ROG emissions that would exceed AVAQMD significance thresholds during the duration of construction (see Table 3.5.6 and Impact 3.5-2.) Although temporary emissions from construction would contribute to air pollution in the basin, these activities would not result in measurably more frequent or more severe air quality violations. The AQMP identifies construction activities as factors contributing to overall emissions sources and provides source control measures to reduce this contribution. The AQMP does not, however, conclude that individual construction projects would delay the attainment of air quality standards for the basin. Compliance with the rules established by AVAQMD to reduce construction emissions, including fugitive dust control measures and vehicle maintenance measures, would ensure that project construction would not conflict with the current AQMP.

As described in Impact 3.5.3, operation of the project would exceed AVAQMD significance thresholds for CO, NO_x and PM_{10} emissions associated with project-related vehicle traffic. Conformance with the AQMP is determined by demonstrating compliance with local land use plans and/or population projections, meeting the land use designation set forth in the local General Plan, and comparing assumed emissions in the AQMP to proposed emissions. The proposed project was not contemplated in the current General Plan and a General Plan amendment and zone change would be required. As the current AQMP is based on land uses, population estimates, and employment projections set forth in the applicable General Plan, implementation of the proposed project would conflict with the current AQMP. Therefore, impacts related to conflicts with the AQMP would be significant.

Impact 3.5-2: Project construction would generate short-term emissions of criteria air pollutants, including particulate matter and equipment exhaust emissions.

Criteria Air Pollutants

Construction-related emissions would be short-term, but may still cause adverse effects on air quality. A project's most common construction activities include site preparation, earthmoving, and general construction. Site preparation includes activities such as general land clearing and grubbing. Earthmoving activities include cut-and-fill operations, trenching, soil compaction, and grading. General construction includes adding improvements such as roadway surfaces, structures, and facilities. Emissions generated from these construction activities include:

- Dust (including PM_{10} and $PM_{2.5}$) primarily from "fugitive" sources (i.e., emissions released through means other than through a stack or tailpipe) such as soil disturbance;
- Combustion emissions of criteria air pollutants (ROG, NO_x, CO, CO_2, PM_{10}, and $PM_{2.5}$) primarily from operation of heavy off-road construction equipment (primarily diesel-operated), portable auxiliary equipment, and construction worker automobile trips (primarily gasoline-operated); and
- Evaporative emissions (ROG) from asphalt paving and architectural coatings.

Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. In the absence of mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM_{10} concentrations may be adversely affected on a temporary and intermittent basis during construction. In addition, the fugitive dust generated by construction would include not only PM_{10}, but also larger particles, which would fall out of the atmosphere within several hundred feet of the site and could result in nuisance-type impacts. It is mandatory for all construction projects in the basin to comply with AVAQMD Rule 403 for fugitive dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce PM_{10} and $PM_{2.5}$ fugitive dust emissions associated with construction activities by 61 percent.

NO_x, ROG, PM_{10}, $PM_{2.5}$, CO, and CO_2 construction emissions were estimated for a worst-case day based on default crew, truck trip, and equipment usage data from the Urban Emissions model or URBEMIS. Emissions are based on criteria pollutant emission factors from URBEMIS 2007. The results of this analysis are summarized in Table 3.5.6. As shown in Table 3.5.6, the estimated maximum daily unmitigated ROG emissions would be greater than the significance criteria.

TABLE 3.5.6
ESTIMATED WORST CASE DAY UNMITIGATED EMISSIONS FROM PROJECT CONSTRUCTION (POUNDS PER DAY)[a]

Project Component	ROG	NO_x	CO	PM_{10}[b]	$PM_{2.5}$[b]
2008 worst-case day	5	28	36	65	13
2009 worst-case day	**295**	22	35	2	1
AVAQMD Thresholds of Significance	137	137	548	82	NA
Significant (Yes or No)?	**Yes**	No	No	No	No

a Project construction emissions estimates for off-road equipment were made using URBEMIS2007, version 9.2. The emissions listed above are for a worse-case day, where it was assumed that all components of the project would overlap. See Appendix D for more details.

b PM10 and PM2.5 emission estimates are based on compliance with AVAQMD Rule 403 requirements for fugitive dust suppression, which require that no visible dust be present beyond the site boundaries and achieves 61 percent or greater reduction in dust. A copy of AVAQMD Rule 403 is included in Appendix D.

NOTE: Values in **bold** are in excess of the applicable AVAQMD significance threshold. NA = Not Available

SOURCE: ESA, 2007.

Toxic Air Contaminants

The primary source of TACs during project construction includes diesel fueled construction equipment and associated diesel particulate emissions. According to AVAQMD methodology,[1] health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime would contract cancer, based on the use of standard risk-assessment methodology. The project would not result in a long-term (i.e., 70 years) substantial source of TAC emissions during construction. In addition, there would be no residual emissions after construction and corresponding individual cancer risk. As such, project-related toxic emission impacts during construction would be less than significant.

Impact 3.5-3: Project operations would result in an increase in criteria air pollutant emissions due to project-related traffic, stationary sources, and on-site area sources.

Operational emissions for the project would be generated primarily from on-road vehicular traffic and indirectly by the energy consumption of the retail stores on site. Because power is provided over an integrated electricity grid, indirect emissions from the use of electricity could occur at any

1 AVAQMD CEQA Guidelines state that the use of the methodologies as presented in the latest South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook are acceptable. This methodology is from the SCAQMD.

of the fossil-fueled power plants in California or neighboring states, or from hydroelectric or nuclear plants or renewable energy sources. For all power plants, it can be assumed that the emissions are reviewed as part of the permitting process before the power plant is built or expanded. In California, the California Energy Commission uses the Application For Certification (AFC) process for major power plants that are greater than 49 megawatts. The potential impacts on air quality are reviewed in the local context prior to plants being permitted and licensed. Emissions are based on criteria pollutant emission factors from URBEMIS 2007. The results of this analysis are summarized in Table 3.5.7. As shown in Table 3.5.7, emissions of ROG, NO_x, CO, and PM_{10} would be significant.

TABLE 3.5.7
ESTIMATED WORST CASE DAY UNMITIGATED EMISSIONS FROM PROJECT OPERATIONS (POUNDS PER DAY)[a]

Project Component	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Area Source Emission Estimates	2	3	2	<1	<1
Operational (vehicle) Emission Estimates	**140**	**215**	**1457**	**207**	41
Stationary Sources (fuel dispensing facility)	**31**	<1	<1	<1	<1
Total	**173**	**218**	**1459**	**2077**	41
AVAQMD Thresholds of Significance	137	137	548	82	NA
Significant (Yes or No)?	**Yes**	**Yes**	**Yes**	**Yes**	No

[a] Project operational emissions estimates were made using URBEMIS2007, version 9.2. See Appendix E for more details.

NOTE: Values in **bold** are in excess of the applicable AVAQMD significance threshold. NA = Not Available

SOURCE: ESA, 2007.

Toxic Air Contaminants

The primary TACs during project operations would result from operation of the proposed gas station. The facility would provide Stage II Vapor Recovery, which requires the process of reclaiming vapor to levels that meet the requirements of the California Air Resources Board (CARB). In addition, the fuel dispensing operation would be required to comply with AVAQMD Rule 461, which pertains to gasoline transfer and dispensing facilities. The rule requires specific design to ensure the integrity of the dispensing facility, including storage and dispensing controls, nozzle configuration, tank leak testing, recordkeeping, and maintenance.

TAC emissions from operation of the proposed gas station were calculated using emissions factors published by the AVAQMD.[2] TACs identified in the analysis were benzene, ethyl-benzene, methyl tert-butyl ether (MTBE), toluene, and xylene. Benzene emissions would result from storage tank operations such as loading and breathing losses from those tanks, as well as pump operations. The remaining TACs would only be emitted during pumping operations. It was assumed that daily throughput would average 10,000 gallons. Estimated emissions and resultant concentrations for the maximum exposed individual resident (MEIR) from TAC emissions

[2] AVAQMD, *Emission Factors for Gasoline Dispensing*, available online at www.avaqmd.ca.gov/forms/documents/ef_gasolinesta_2005.xls, accessed November 11, 2008.

generated for the above-listed TACs at the proposed gas station are displayed in Table 3.5.8. The closest sensitive receptor (a nearby home, located in the residential neighborhood across Avenue J-12) was located approximately 150 feet north of the proposed station. The estimated concentrations were modeled using AERMOD, which is the USEPA preferred dispersion model.

TABLE 3.5.8
MAXIMUM CONCENTRATIONS OF TACS AT OFFSITE RECEPTORS FROM FUEL STATION OPERATIONS

Pollutant	Emissions Rate (g/s)	Pollutant Concentration (ug/m3)
Benzene		
6-Hour	4.19E-04	1.584
Annual	4.19E-04	0.239
Ethyl-Benzene		
Annual	3.53E-04	0.218
MTBE		
Annual	2.43E-03	1.498
Toluene		
1-Hour	1.76E-03	12.416
Annual	1.76E-03	1.090
Xylene		
1-Hour	5.29E-04	3.725
Annual	5.29E-04	0.327

SOURCE: AVAQMD, 2008; ESA, 2008, and Office of Environmental Health Hazard Assessment, 2003.

Table 3.5.9 shows the maximum non-cancer acute and chronic risk at the off-site receptor, as well as reference exposure levels (RELs) and the hazard quotients/hazard index values used to determine risk. As shown, the maximum chronic non-carcinogenic hazard index would be 0.0081 and the maximum acute hazard index would be 0.0012. Since these hazard indices would be less than 1.0, the non-cancer health effects associated with emissions from the operation of the project are less than significant.

TABLE 3.5.9
MAXIMUM NON-CANCER IMPACTS

Target Organ/ System	Pollutant	Pollutant Concentration (ug/m3)	REL (ug/m3)	HQ/HI
ACUTE				
Reproductive/Developmental	Benzene	1.584	1300	**1.2E-03**
CHRONIC				
Developmental	Benzene	0.239	60	4.0E-03
	Ethyl-benzene	1.090	300	3.6E-03
	Toluene	0.327	700	4.7E-04
				8.1E-03

Note: Hazard indices are displayed in **BOLD.**

SOURCE: ESA, 2008; and California Office of Environmental Health Hazard Assessment, 2003.

The maximum incremental cancer risk from exposure to TACs at the MEIR was calculated following the guidelines established by California Office of Environmental Health Hazard Assessment (OEHHA), in which it is assumed that a person would be exposed to the maximum concentration continuously for 350 days a year for 70 years, which represents a worst case assumption. Table 3.5.10 details the dose-inhalation values for each pollutant at the maximum exposed residential receptor, as well as the cancer potency slopes set by OEHHA. Using these values, it was determined that the maximum incremental cancer risk for residents would be approximately 3.87 in one million. This risk is less than the CEQA significance threshold of 10 in one million; therefore impacts would be less than significant.

TABLE 3.5.10
INCREMENTAL CANCER RISK

Receptor	Pollutant	Dose-Inhalation (mg/kg-d)	Cancer Potency Slope $(mg/kg\text{-}d)^{-1}$	Incremental Cancer Risk
Maximum Exposed Resident				
	Benzene	6.92E-05	0.1	6.92E-06
	MTBE	4.34E-04	0.0018	7.81E-07
			Total Incremental Cancer Risk	**7.70E-06**

SOURCE: ESA, 2008; OEHHA, 2003.

Impact 3.5-4: The project would not create objectionable odors affecting a substantial amount of people.

Land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. Restaurant operations can result in odorous emissions from activities such as the cooking of meat and other food, as well as associated refuse. Odorous emissions can also result from the solid waste associated with transient residential use if decomposing materials are not properly managed or contained. Compliance with District Rule 402 (Nuisance) would ensure the proposed project does not discharge, from any source, quantities of air contaminants or other material which cause nuisance or annoyance to any persons or to the public, or have a natural tendency to cause injury or damage to business or property. The provisions of this rule apply to odors emanating from restaurant operations. Compliance with this rule would ensure the project does not emit odorous emissions in a manner that would affect a substantial amount of people. As a result, impacts would be less than significant.

Impact 3.5-5: Project traffic would increase localized carbon monoxide concentrations at sensitive receptors in the project vicinity.

Traffic generated by the project was analyzed to determine its potential to affect carbon monoxide concentrations along surface streets and at sensitive receptors in the project area. The modeling method included background CO concentration levels obtained from the Lancaster 43301 Division Street Monitoring station, and traffic projections prepared for the project at the most affected streets with sensitive receptors in the project vicinity (portions of Avenue K and 60th

Street West). As these sensitive receptors (e.g. residences) would be the most affected by project-related traffic, it was assumed that if carbon monoxide concentrations on these roadway segments would not exceed the ambient air quality standards, the project's contribution to impacts at other intersections affected by project traffic to a lesser extent, would be less than significant. As shown in Table 3.5.11, the analysis demonstrated that no exceedances of the CO one-hour or eight-hour standard would occur at any of the receptors located close to the intersection under any of the scenarios. The project would contribute a very small increment to CO levels in the area, and the total concentrations would be in compliance with federal; and state standards. Thus, project-related traffic emissions would have a less-than-significant impact on local carbon monoxide concentrations.

TABLE 3.5.11
ESTIMATED CARBON MONOXIDE CONCENTRATIONS

		Concentrations (ppm)[a]				
Receptor location	**Averaging Time (hrs.)**	**State Standard**	**Existing (2007)**	**PM Peak Project (2007)**	**Area Projects (2012)**	**Area Projects and Project (2012)**
Receptor 1 North side of Ave. K West of 60th St.	1	20	2.7	2.6	2.7	2.8
	8	9	1.8	1.7	1.8	1.9
Receptor 2 East side of 60th St. North of Ave. K.	1	20	2.7	2.6	2.8	2.8
	8	9	1.8	1.7	1.9	1.9
Receptor 3 North Side of Ave. K West of 60th St.	1	20	2.7	2.6	2.8	2.8
	8	9	1.8	1.7	1.9	1.9
Receptor 4 West Side of 60th St. South of Ave. K.	1	20	2.7	2.6	2.6	2.6
	8	9	1.7	1.7	1.7	1.7

[a] The carbon monoxide analysis focuses on the average daily traffic. Carbon monoxide estimates shown above include background concentrations of: 1.72 for 8 hour and 2.6 for 1 hour.

NOTE: All concentrations are run from PM peak hour traffic numbers. More information can be found in the Appendix E

SOURCE: ESA, 2007.

Impact 3.5-6: The project could conflict with implementation of state goals for reducing greenhouse gas emissions and thereby have a negative effect on Global Climate Change.

As with other individual relatively small projects (i.e., projects that are not cement plants, oil refineries, electric generating facilities/providers, co-generation facilities, or hydrogen plants or other stationary combustion sources that emit more than 25,000 MMT CO_2E/yr), the project-specific emissions from this project would not expected to individually have an impact on Global Climate Change. Given the lack of guidance from the State of California and the CEQA Guidelines on thresholds for assessing the impact of greenhouse gas emissions, three considerations were used to determine whether the project could be in conflict with the state goals for reducing greenhouse gas emissions. These considerations were developed from a review of

recent publications and actions from CARB that address how the state plans to achieve the goals of reducing greenhouse gases. The considerations are shown directly below and include a review of:

A. The potential conflicts with the 44 early action strategies identified by CARB (see Table 3.5.4);

B. The relative size of the project in comparison to the estimated greenhouse reduction goal of 174 $MMTCO_2E$ by 2020 and in comparison to the size of major facilities that are required to report greenhouse gas emissions (25,000 metric tons of CO_2E/yr)[3]; and

C. The basic parameters of a project to determine whether its design is inherently energy efficient.

With regard to Item A, the project does not pose any apparent conflict with the most recent list of the CARB early action strategies (see Table 3.5.4.)

With regard to Item B, project construction greenhouse gas emissions from vehicle trips and area sources would account for 20,439 metric tons of CO_2E. The project would not be classified as a major source of greenhouse gas emissions (actually total emissions would be below the lower reporting limit, which is 25,000 metric tons of CO_2E/yr.) When compared to the overall state reduction goal of approximately 174 million metric tons CO_2E/yr, the maximum greenhouse gas emissions for the project (20,439 metric tons CO_2E/yr or 0.061 percent of the state goal) are quite small in comparison and should not conflict with the state's ability to meet the AB32 goals.

With regard to Item C, the project would serve the local population and could reduce travel distances for some users of the commercial center when compared to current options. The proposed project is an infill shopping center in a newly developing area and as such the location would be energy efficient for at least some of the users of the commercial center.

The review of Items A, B, and C indicates that the project would not conflict with the state goals in AB32 and therefore this impact would be less than significant.

Cumulative Impacts

A cumulative impact arises when two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant impacts, meaning that the project's incremental effects must be viewed in connection with the effects of past, current, and probable future projects. Notably, any project that would individually have a significant air quality impact would also be considered to have a significant cumulative impact. As noted in Table 3.5.3, the MDAB is already nonattainment for ozone, PM_{10} and $PM_{2.5}$. Existing projects in the MDAB already have caused exceedances of the standard and the project (both the construction and operational phases) would have a cumulatively considerable contribution to this

[3] The State of California has not provided guidance as to quantitative significance thresholds for assessing the impact of greenhouse gas emissions on climate change and global warming concerns. Nothing in the CEQA Guidelines has yet addressed this issue.

significant cumulative impact. Thus the project contribution to this existing cumulative impact would be significant.

3.5.5 Mitigation Measures

The following mitigation measures shall be required.

Measure AIR-1: General contractors shall implement a fugitive dust control program pursuant to the provisions of AVAQMD Rule 403.

Measure AIR-2: All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.

Measure AIR-3: General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues shall turn their engines off when not in use to reduce vehicle emissions. Construction emissions shall be phased to avoid compression of such activities, and scheduled to avoid emission exceedances, and discontinued during second-stage smog alerts.

Measure AIR-4: Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used to the extent feasible.

Measure AIR-5: All construction vehicles shall be prohibited from idling in excess of five minutes, both on- and off-site.

Measure AIR-6: The project applicant shall utilize coatings and solvents that are consistent with applicable AVAQMD rules and regulations**.**

Measure AIR-7: The project applicant shall install a Stage II Vapor Recovery System for the proposed gasoline dispensing facility that meets CARB's Enhanced Vapor Recovery requirements.

3.5.6 Level of Significance after Mitigation

The proposed project was not considered in the applicable General Plan and the increase in CO, NO_x and PM_{10} beyond applicable thresholds would result in a significant and unavoidable impact. In addition, mitigated short-term construction-related emissions of ROG and the associated air quality impacts would be significant and unavoidable. Impacts from project operations would be significant and unavoidable in relation to increased ROG, CO, NO_x and PM_{10} emissions. Due to the potential for significant and unavoidable impacts form project construction and operation, cumulative impacts are also considered significant**.** Compliance with regulations applicable to the control of odorous emissions would minimize impacts resulting in a less than significant impact.

3.6 Hazards and Hazardous Materials

3.6.1 Introduction

This section presents an evaluation of the potential for hazards and hazardous materials impacts related to the proposed project. The information in this report is based upon the Phase I Environmental Site Assessment prepared for the project entitled, *Phase I Environmental Site Assessment, Proposed Lancaster Commercial Shopping Center.* A copy of the report is provided in Appendix E.

Hazardous Materials

The term "hazardous materials" refers to both hazardous substances and hazardous wastes. Under federal and state laws, materials, including wastes, may be considered hazardous if they are specifically listed by statute as such or if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode or generate vapors when mixed with water (reactivity). The term "hazardous material" is defined in law as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.[1] In some cases, past industrial or commercial activities on a site could have resulted in spills or leaks of hazardous materials to the ground, resulting in soil and/or groundwater contamination. The presence of certain hazardous materials can also lead to the buildup of methane gas which, if trapped under structures, can become an explosive hazard. Hazardous materials may also be present in building materials and released during building demolition activities.

Federal and state laws require that hazardous materials be specially managed. Excavated soils having concentrations of contaminants such as lead, gasoline, or industrial solvents that are higher than certain acceptable levels, must be managed, treated, transported, and/or disposed of as a hazardous waste. The California Code of Regulations, Title 22, §66261.20-24 contains technical descriptions of characteristics that would cause a soil to be designated a hazardous waste. The California regulations are consistent with the federal regulations and in most cases, more stringent. Regulations also govern the management of potentially hazardous building materials such as asbestos, lead-based paint, and polychlorinated biphenyls (PCBs) during renovation or demolition activities that would potentially disturb the existing building materials.

Environmental Site Assessments

In order to identify the presence or likely presence of hazardous materials at a project site, an environmental assessment, commonly referred to as a "Phase I" investigation, is performed. During a Phase I investigation, environmental professionals research the site history, perform a regulatory agency database review, and conduct a site reconnaissance of the site and surrounding area. A Phase I generally includes a review of potential offsite sources of contamination that may

1 State of California, Health and Safety Code, Chapter 6.95, Section 25501(o).

be of potential environmental concern due to their proximity to the project site. The results of the Phase I indicate the likelihood of an existing release, a past release, or a material threat of release of hazardous materials into the ground, groundwater, or surface water of the site. The Phase I may recommend further investigation of subsurface soil or groundwater to evaluate the extent of known or suspected contaminant releases. Such subsurface sampling is known as a "Phase II" investigation.

This environmental setting section discusses the potential presence of soil and groundwater contamination within the project area and relies on the Preliminary Environmental Site Assessment completed by Ninyo & Moore in 2007. In addition to hazardous materials in soil and groundwater, this section also discusses the potential for hazardous material in building components. This Phase I report summarizes site history, regulatory agency records, and site reconnaissance observations of the project area. Because of the dilapidated condition of the abandoned site structures in existence at the time the assessment was completed, the interior of these buildings was not observed, therefore, the potential presence of hazardous materials in building components could not be evaluated. Although sampling was not conducted, assumptions regarding the potential for hazardous materials can be made based on the age of the structures. These buildings have since been demolished in accordance with all regulations addressing hazardous materials and hazardous wastes.

3.6.2 Environmental Setting

Soil and Groundwater

Past and current land use can be an important indicator of whether hazardous materials were used at a site and whether hazardous materials could have been released to the subsurface soil and groundwater. The subject property consists of a 22.34-acre parcel that was formerly used for agricultural purposes during the 1950s and early 1960s, and subsequently as a 9-hole golf course until the late 1980s. At the time the NOP was issued, five abandoned structures (two single-family residences, a shed, a golf pro shop, and a golf equipment storage building) remained on the site. Other features associated with former site use included a water production well, an aboveground water storage tank (AST), a dry, man-made pond (former golf course feature) and associated water pump, a septic system, and a liquefied propane AST. Agricultural land use and golf course maintenance typically use pesticides and fertilizers. Based on this usage, it is possible that low levels of pesticide residues may persist in soil.

The Phase I assessment of the property included a regulatory database review to identify onsite or near-vicinity properties with reported hazardous materials use or contamination issues. As reported in the Phase I, the regulatory database review did not identify the project site or any sites within a one-mile radius on regulatory agency lists of known or suspected soil or groundwater contamination sites or facilities that generate, use or store hazardous materials.

Structural and Building Components

Hazardous materials, such as asbestos, lead, and polychlorinated biphenyls (PCBs), may also be contained in building materials and released during demolition activities. As noted above, the interior of the site buildings were not accessible during the Phase I site reconnaissance, however, the likelihood of hazardous materials in building components can be generally assessed based on the age of the buildings.

Asbestos Potential

Asbestos is a naturally-occurring fibrous material that was used as a fireproofing and insulating agent in building construction before such uses were banned by the Environmental Protection Agency (EPA) in the 1970's, although some nonfriable[2] use of asbestos in roofing materials still exists. The presence of asbestos can be found in such materials as ducting insulation, wallboard, shingles, ceiling tiles, floor tiles, insulation, plaster, floor backing, and many other building materials. Asbestos and asbestos-containing materials (ACMs) are considered both a hazardous air pollutant and a human health hazard. The risk to human health is from inhalation of airborne asbestos, which commonly occurs when ACMs are disturbed during demolition and renovation activities. Due to the age of the former buildings on the project site, it is very likely that ACMs were present.

Lead Potential

Lead and lead compounds can be found in many types of paint. In 1978, the Consumer Product Safety Commission set the allowable lead levels in paint at 0.06 percent by weight in a dry film of newly applied paint. In the 1970s, the chief concern of lead paint was its cumulative effect on bodily systems, primarily when paint chips containing lead were ingested by children. Research in the early 1980s showed that lead dust is of special concern, because the smaller particles are more easily absorbed by the body. Common methods of paint removal, such as sanding, scraping, and burning, create excessive amounts of dust. Lead dust is especially hazardous to young children because they play on the floor and engage in a great deal of hand-to mouth activity, increasing their potential for exposure. Lead based paints are considered likely present in buildings constructed prior to 1960, and potentially present in buildings built prior to 1978. Since many of the former structures located on-site were built prior to the federal regulations banning the use of lead based paints, lead-based paint were likely to be present.

PCBs Potential

PCBs are organic oils that were formerly placed in many types of electrical equipment, such as transformers and capacitors, primarily as electrical insulators. They may also be found in hydraulic fluid used for hoists, elevators, etc. Years after widespread and commonplace installation, it was discovered that exposure to PCBs may cause various health effects and that PCBs are highly persistent in the environment. The EPA has listed these substances as carcinogens. PCBs were banned from use in electrical capacitors, electrical transformers, vacuum

[2] Nonfriable asbestos refers to ACMs that contain asbestos fibers in a solid matrix that does not allow for them to be easily released.

pumps, and gas turbines in 1979. Because no electrical equipment was observed on the site, other than utility-owned, pole-mounted electrical transformers adjacent to the site, the potential impact of PCBs is considered low.

Underground Storage Tanks

In general, an underground storage tank (UST) has at least 10 percent of its volume underground. USTs commonly include septic tanks and/or fuel tanks. Septic tanks are used to treat wastewater. Fuel tanks can include oil or other liquids or gases. Because USTs were commonly used in the early part of the twentieth century, they are often undocumented and abandoned.

3.6.3 Regulatory Framework

Federal, state and local regulations govern the range of hazardous materials issues that may be encountered during development and operation of the proposed project. Various state and local regulatory agencies implement the regulations to minimize the risk to human health and the environment from hazardous materials. This section describes the regulatory process for site investigation, site cleanup, hazardous materials and hazardous waste storage and handling, and worker safety.

Hazardous Materials

Hazardous Materials and Waste Handling

Excavated soil containing hazardous substances and hazardous building materials would be classified as a hazardous waste if they exhibit the characteristics of ignitability, corrosivity, reactivity, or toxicity.[3] The California Environmental Protection Agency (Cal EPA), Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. These laws require hazardous materials users to prepare written plans, such as Hazard Communication Plans and Hazardous Materials Business Plans. Laws and regulations require hazardous materials users to store these materials appropriately and to train employees to manage them safely. A number of agencies participate in enforcing hazardous materials management requirements, including DTSC, the RWQCB, and the Los Angeles County Public Health Department (LACPHD).

Throughout Los Angeles County, a Hazardous Materials Business Plan must be prepared and submitted to the County by businesses that use or store certain quantities of hazardous materials. The Federal Resource Conservation and Recovery Act of 1976 (RCRA) established a “cradle-to-grave” regulatory program for governing the generation, transportation, treatment, storage and disposal of hazardous waste. Under RCRA, individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as Federal

[3] California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 3.

RCRA requirements. In California, the DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous material waste. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills.

Hazardous Materials Underground Storage Tanks

Local, state and federal laws governing USTs specify requirements for permitting, monitoring, closure, and cleanup. Regulations set forth construction and monitoring standards for new and existing tanks, release reporting requirements, and closure requirements. The LADPW is the local oversight agency designated to permit and inspect USTs and to implement applicable regulations. Los Angeles County Code, Title 11, Division 4 is the ordinance for the UST program. In addition to the Los Angeles County Code, state law governs the UST Program and regulates the program in CCR Title 23, Division 3, Chapters 16 and 18. Most of the federal UST requirements can be found in 40 CFR Parts 280-281. The LADPW Local Oversight Program also has regulatory authority for removal of USTs. A closure plan for each UST to be removed must be submitted to the County prior to tank removal. Upon approval of the UST closure plan, the County would issue a permit, oversee removal of the UST, require additional subsurface sampling if necessary, and issue a site closure letter when the appropriate removal and/or remediation has been completed.

Hazardous Materials Transportation

The United States Department of Transportation regulates hazardous materials transportation on all interstate roads. Within California, the state agencies with primary responsibility for enforcing federal and state regulations and for responding to transportation emergencies are the California Highway Patrol (CHP) and Caltrans. Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications. Although special requirements apply to transporting hazardous materials, requirements for transporting hazardous waste are more stringent, and hazardous waste haulers must be licensed to transport hazardous waste on public roads.

Soil and Groundwater Contamination

In Los Angeles County, remediation of contaminated sites is generally performed under the oversight of the DTSC, the RWQCB, and/or the Los Angeles County Department of Public Works (LADPW). For typical development projects, site remediation is completed either before or during the construction phase of the project. If, for example, dewatering of a hazardous waste site were required during construction, subsequent discharge to the sewer system could require a permit from LADPW, and discharge to the storm water collection system could require an NPDES permit from the RWQCB.

Worker Safety

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the work place. The California Division of Occupational

Safety and Health (Cal OSHA) and the federal OSHA are the agencies responsible for ensuring worker safety in the workplace. Cal OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. At sites known or suspected to be contaminated by hazardous materials, a Site Safety Plan must be prepared. The Site Safety Plan establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

Emergency Response

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government and private agencies. Responding to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES), which coordinates the responses of other agencies, including Cal EPA, CHP, the Department of Fish and Game, the RWQCB, and the local fire department. The Los Angeles County Fire Department provides first response capabilities, if needed, for hazardous materials emergencies within the project area.

Water Wells

The California Department of Water Resources (DWR) has responsibility for developing standards for wells for the protection of water quality under California Water Code Section 231, enacted in 1949. Authority for enforcing the standards for construction and destruction of water wells rests with LACPHD (Los Angeles County Ordinance 10075). The California Water Code requires that contractors that construct or destruct water wells have a C-57 Water Well Contractor's License, follow DWR well standards, and file a completion report with DWR (CWC Sections 13750.5, et seq).

Hazardous Structural and Building Components

Asbestos

Similar to federal laws, state laws and regulations also pertain to building materials containing asbestos. Inhalation of airborne fibers is the primary mode of asbestos entry into the body, making friable (easily crumbled) materials the greatest health threat. These existing laws and regulations prohibit emissions of asbestos from asbestos-related manufacturing, demolition, or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local governmental agencies prior to beginning renovation or demolition that could disturb asbestos.

Prior to renovation or demolition of buildings containing asbestos, contractors licensed to conduct asbestos abatement work must be retained. Asbestos abatement contractors must follow state regulations contained in 8 CCR 1529, and 8 CCR 341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos containing material. The Antelope Valley Air Quality Management District (AVAQMD) and the State Occupational Safety and Health Administration (OSHA) must be notified ten days prior to initiating

construction and demolition activities. Asbestos encountered during demolition of an existing building must be transported and disposed of at an appropriate facility. The contractor and hauler of the material are required to file a Hazardous Waste Manifest which details the hauling of the material from the site and the disposal of it. Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos.

Polychlorinated Biphenyls (PCBs)

In 1979, the U.S. EPA banned the use of PCBs in most new electrical equipment and began a program to phase out certain existing PCB-containing equipment. The use and management of PCBs in electrical equipment is regulated pursuant to the Toxic Substances Control Act, 15 U.S.C. § 2601 *et seq*. (TSCA). TSCA and its implementing regulations generally require labeling and periodic inspection of certain types of PCB equipment and set forth detailed safeguards to be followed for disposal of such items.

Lead and Lead-Based Paint

Pursuant to California Code of Regulations, Title 22 Section 66261.24, soil containing lead is classified as hazardous if the lead exceeds a total concentration of 1,000 parts per million (ppm) and a soluble concentration of 5 ppm. Hazardous soil would be subject to the regulations for hazardous waste transport and disposal described above.

Regulations to manage and control exposure to lead-based paint are described in CFR Title 29, Section 1926.62 and CCR Title 8 Section 1532.1. These regulations cover the demolition, removal, cleanup, transportation, storage and disposal of lead-containing material. The regulations outline the permissible exposure limit, protective measures, monitoring and compliance to ensure the safety of construction workers exposed to lead-based material.

Septic Tanks

Regulations regarding septic tanks require that firms engaged in cleaning of septic tanks or sewage seepage pits be registered in accordance with California Health and Safety Code Sections 117400-117450. Cleaning and disposal of waste by the registered contractor must be performed in accordance with all public health regulations.

3.6.4 Impacts

Significance Criteria

According to Appendix G of the State CEQA Guidelines, a project is considered to have a significant hazards or hazardous materials impact if it would result in any of the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- 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;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;
- Be located within an area covered by an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would result in a safety hazard for people residing or working in the project area;
- Be located within the vicinity of a private airstrip and would result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or
- 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 following impacts were considered but were found to be absent or not applicable to the project; therefore, no further discussion of these impacts is provided.

- The project is not located within an area covered by an airport land use plan or within two miles of an airport or airstrip. The closest airport is General William J. Fox Airfield, located approximately four miles north of the project site.
- Although construction activities could impede access for emergency response vehicles and therefore interfere with an emergency response plan or emergency evacuation plan, measures to avoid interference with emergency access are addressed in Transportation and Traffic.
- The proposed project is a commercial shopping center. It would not involve the use of hazardous materials within one-quarter mile of an existing school.
- The project is not located in an area classified as a “Wildland Area That May Contain Substantial Forest Fire Risks and Hazards” or a “Very High Fire Hazard Severity Zone” by the California Department of Forestry and Fire Protection. Therefore the risk for wildland fire is low.

Impacts

Impact 3.6-1: Disturbance and release of contaminated soil during excavation and grading for the project, or transportation of excavated material, could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling.

As a part of the Phase I report, prepared by Ninyo & Moore, a computerized, environmental information database search was performed by FirstSearch on April 16, 2007. This database search included federal, state, and local databases to assess whether the project site or properties within the vicinity of the project site have been reported as having experienced significant unauthorized releases of hazardous substances or other events with potentially adverse environmental impacts.

No potential off-site sources of potential contamination were identified. The following were identified as potential Recognized Environmental Conditions (RECs) on the project site:

- An abandoned septic system and open, 12-inch , production water well;
- The likelihood that residual amounts of pesticides and herbicides are present in the soil at the site; and
- An abandoned 100-gallon, liquid propane AST, located in a shed at the site.

Excavation for installation of project-related utilities, building footings, and grading would occur at the project site. Based on historical agricultural usage, residual pesticides and herbicides may be present in soil. Soil disturbance at the project site during construction could further disperse existing contamination into the environment and expose construction workers or the public to contaminants. If significant levels of hazardous materials are present in excavated soils, health and safety risks to workers and the public could occur.

Impact 3.6-2: Disturbance and release of hazardous building components (i.e. asbestos, lead, PCBs) during demolition and construction phases of the project or transport of these materials could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling.

While ACMs and LBP are not recognized RECs, the Phase I noted that suspected ACMs and LBP were present in buildings on the site, including the exteriors of the buildings during a site reconnaissance in April 2007. No known sources of PCBs were identified.

Asbestos

Potential exposure to asbestos, and its related chronic adverse health effects, is possible throughout demolition of existing buildings if materials that contain asbestos are present. Current regulations require that an asbestos survey and appropriate abatement by contractors licensed to conduct asbestos abatement work must be done prior to demolition to reduce potential impacts to a less-than-significant level. The former buildings were demolished in accordance with all existing regulations. Therefore, impacts would be less than significant.

Lead and Lead-Based Paint

Demolition and renovation work could create exposure to LBP present in existing buildings. Dust generating activities (removal of walls, sanding, welding, and material disposal) could produce airborne quantities of lead-laden material. These materials could expose workers and persons in close proximity, including occupants of offsite locations. Current regulations require that a pre-

demolition LBP survey and any appropriate abatement, according to all applicable regulations, shall be performed by a state-certified consultant prior to demolition of any of the structures located on site to reduce potential impacts to a less-than-significant level. These former buildings were demolished in accordance with all existing regulations, and impacts would be less than significant.

PCB-Containing Materials

Although PCB-containing equipment was not identified during the Phase I investigation, it is possible that a small electrical transformer could be located inside one of the structures that were not accessed during the investigation. If discovered, PCB-containing equipment would require appropriate handling and disposal in accordance with applicable regulations. Handling and disposal of PBC-containing materials in accordance with applicable regulations would reduce the potential impact to a less-than-significant level.

Storage Tanks

Although no evidence of USTs was observed, it is also possible that unidentified USTs associated with fuel storage for farm equipment may exist at the site because historical farming operations occurred prior to current UST record keeping requirements. Septic tanks may also be present. Two ASTs were identified at the site: (1) an AST for liquid propane, and (2) an AST for water storage. The liquid propane AST poses a potential flammability hazard. Disposal of the propane AST must conform to applicable regulations to reduce potential impacts to a less-than-significant level. If USTs are encountered during excavation at the site, UST removal, and remediation if necessary, in accordance with state and local regulations would reduce potential impacts to a less than significant level.

Impact 3.6-3: Hazardous materials used on-site during construction activities could be released to the environment through improper handling or storage.

Construction activities would require the use of certain hazardous materials such as fuels, oils, solvents, and glues. Exposure or inadvertent release of large quantities of these materials into the environment could expose construction workers, the public, and the environment to potentially hazardous conditions, and/or adversely impact soil, surface waters, or groundwater quality. Potential impacts associated with the use and potential inadvertent releases of hazardous materials during construction activities would be less than significant with implementation of the mitigation measures that require implementation of BMPs for the use, storage, and disposal of hazardous materials and petroleum products and other fuels and chemicals.

Impact 3.6-4: Project operations would involve the storage and use of hazardous materials in USTs and the handling of small quantities of general commercial/retail hazardous waste, which could result in potential hazards to the public or the environment.

The proposed project would include a gasoline service station, which typically contains at least three USTs for petroleum product storage. As discussed above in Section 3.6-3, there are numerous local, state, and federal laws and regulations governing the storage of hazardous materials in USTs. These regulations are designed to ensure that USTs are properly installed,

permitted, and monitored with leak detection systems to prevent unauthorized releases from impacting the environment. UST systems and operations would be inspected by the LADPW, which has the authority to issue fines for violation of UST storage regulations. Potential exposure to gasoline would be limited to minor spills due to overtopping of vehicle tanks, as gasoline would be delivered by tanker truck directly to the UST (see Section 3.5, Air Quality, of this Draft EIR for a discussion of regulations regarding gas-related vapors). The storage of hazardous materials such as lubricating oil, waste oil, and solvents for vehicle maintenance is also regulated by numerous regulations overseen by LACFD. These regulations require proper storage, disclosure of hazardous materials inventory, spill containment measures, facility inspections and reporting. Compliance with existing UST and hazardous materials regulations would reduce the potential hazard of gasoline service station operations to the public or the environment to a less than significant level.

Operation of the proposed project would likely use hazardous chemicals common in other commercial/retail settings. These chemicals would include familiar materials such as toners, correction fluid, paints, lubricants, kitchen and restroom cleaners, pesticides and other maintenance materials. The proposed home improvement center would be expected to maintain an inventory of pesticides, insecticides, and fertilizers for sale on the premises, along with containerized liquid cleaning solvents, paint-thinners, and similar products. Because general commercial/retail and household hazardous materials are generally handled and transported in small quantities (much smaller than volumes used for manufacturing or industrial uses) and sealed packaging, implementation of the project would not cause a significant adverse effect to the public or the environment with respect to the use, storage, or disposal of general commercial hazardous materials from proposed shopping center use. The impact would be considered less than significant.

Cumulative Impacts

As discussed above, the proposed project would result in potentially significant project-level hazardous material impacts related to construction and remediation activities. Hazardous material impacts typically occur in a local or site-specific context versus a cumulative context combined with other development projects. It is possible, however, for combined effects of transporting and disposal of hazardous materials to be affected by cumulative development.

The proposed project, with implementation of the identified mitigation measures above, would have a less than significant hazardous materials impact to the public or the environment within the vicinity of the project area. Other foreseeable development within the area, although likely increasing the potential to disturb existing contamination and the handling of hazardous materials, would be required to comply with the same regulatory framework as the project. This includes federal and state regulatory requirements for transporting (Cal EPA and Caltrans) hazardous materials or cargo (including fuel and other materials used in all motor vehicles) on public roads or disposing of hazardous materials (Cal EPA, DTSC, LACHD). Therefore, the effect of the project on hazardous materials, in combination with other foreseeable projects, would be less than significant.

3.6.5 Mitigation Measures

The following mitigation measures would reduce potential impacts related to hazardous materials to a less-than-significant level:

Measure HAZ-1: Prior to issuance of grading permits, the developer shall conduct a focused soil investigation to determine the whether pesticides and herbicides are present in the soil on-site. The analytical results of the soil sampling investigation shall be evaluated with regard to California/EPA's California Human Health Screening Levels (CHHSLs) for commercial land use. If soil contaminants exceed these preliminary screening levels, further site characterization, risk assessment, or remediation would be necessary, as described in the Department of Toxic Substances Control (DTSC) Preliminary Endangerment Assessment Guidance Manual.

Measure HAZ-2: Limited soil sampling (or a Phase II) shall be conducted to assess the presence of pesticides or herbicides in soil at the project site, as described in Measure HAZ-1. If the results of this Phase II Soil Investigation identify hazardous materials in soil, the developer shall prepare a Soil Management Plan outlining soil handling procedures to be followed during grading and construction activities. The Soil Management plan shall specify the following:

- Soils generated by construction activities shall be stockpiled onsite in a secure and safe manner, and sampled prior to reuse or disposal at an appropriate facility;
- Specific sampling methodology and laboratory analyses required for reuse and disposal, including criteria for the various Class I, II, and III disposal facilities;
- Methods to ensure compliance with applicable laws and regulations for handling, storage, and transport of these materials; and
- Any special health and safety precautions to mitigate worker exposure to contaminated soils or sediments, dust control measures to prevent the generation of dust that could migrate off-site, stormwater runoff controls to minimize migration of soils to storm drains.

Measure HAZ-3: The developer shall prepare a project-specific Health and Safety Plan (HSP) in accordance with 29 CFR 1910 to protect construction workers and the public during all excavation, grading, and construction services. The HSP shall identify the following, but not be limited to:

- A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals;
- Specified personal protective equipment and decontamination procedures, if needed;
- Safety procedures to be followed in the event suspected hazardous materials are encountered;

- Emergency procedures, including route to the nearest hospital; and
- The identification of a site health and safety officer and responsibilities of the site health and safety officer.

Measure HAZ-4: Prior to the commencement of excavations, the developer shall conduct a well survey to locate, identify, and confirm all existing groundwater wells on the project site. Information regarding well locations shall be obtained, if available, from DWR, LACPHD, and the former property owners. All wells shall be properly destroyed and removed in accordance with the DWR Well Standards and under permit and inspection from the LACPHD. The well destruction shall be designed to create a sanitary seal that would not conduct vertical water flow in the event that the well is truncated or damaged during mining operations.

Measure HAZ-5: Any known septic tank(s) shall be removed by a licensed contractor prior to construction activities in accordance with applicable regulations.

Measure HAZ-6: The liquid propane AST shall be removed prior to construction activities in accordance with applicable regulations.

Measure HAZ-7: If previously unidentified USTs are encountered during construction, construction in the immediate area shall cease until the UST is removed with oversight from the LADPW. Removal of the UST shall include, to the extent deemed necessary by LADPW, over-excavation and disposal of any impacted soil. Excavated soils shall be managed and disposed of in accordance with the Soil Management Plan described above.

Measure HAZ-8: The contractor shall be required to implement construction best management practices (BMPs) for handling hazardous materials onsite. The use of construction BMPs shall minimize potential negative effects, and shall include, without limitation, the following:

- Follow manufacturers' recommendations and regulatory requirements for use, storage, and disposal of hazardous materials and petroleum products used in construction;
- Avoid overtopping construction equipment fuel tanks;
- Properly contain and dispose of grease and oils used for routine maintenance of construction equipment; and
- Properly dispose of discarded containers of fuels and other chemicals.

3.6.6 Level of Significance after Mitigation

Implementation of the mitigation measures above would reduce the potential impacts identified to less-than-significant levels. In addition, these mitigation measures would protect workers from potential hazards associated with contamination and/or hazardous materials.

3.7 Geology and Soils

3.7.1 Introduction

This section discusses seismic, geologic, and soil issues related to implementation of the proposed project. The analysis in the section is based on information in the geotechnical report prepared for the project, entitled *Preliminary Geotechnical Evaluation, Proposed Commercial Shopping Center, Northwest Corner of 60th Street West and Avenue K, APN 3203-018-006, Lancaster, California*. A copy of this report is provided in Appendix F.

3.7.2 Environmental Setting

Regional Geologic Setting

The project site is located in the western corner of the Mojave Desert Geomorphic Province.[1] The Mojave Desert Geomorphic Province is bounded by the San Andreas fault and Transverse Ranges to the west, the Tehachapi Mountains to the north, the Nevada State line to the east, and the San Bernardino/Riverside County boundary to the south. The province is characterized by broad alluvial basins that receive non-marine sediments from small hills, remnants of the ancient mountainous topography that rise above the valleys. Numerous playas, or ephemeral lakebeds within internal drainage basins, also characterize the region.

The bedrock geology of the region consists of older crystalline[2] basement rocks comprised of granite, quartz monzonite, gabbro, schist, gneiss, and other igneous and metamorphic rocks. Younger volcanic and sedimentary formations containing sandstone, siltstone, shale, conglomerate, and other volcanic rocks overlie the basement rocks. In project valleys and alluvial plains, these formations are buried beneath younger alluvial sediments deposited as a result of uplift and erosion of the surrounding mountains.

Site Topography and Geology

The project site is located in a relatively level portion of the Antelope Valley on an alluvial fan/floodplain north of the Sierra Peloma Mountains. The topography of the site is relatively level and slopes gently to the northwest. Site elevations range from approximately 2,388 feet above mean sea level (msl) near the southeast corner of the site to approximately 2,375 feet above msl near the northwest corner of the site.

The surficial geology of the project area is characterized by unconsolidated, coarse- and medium-grained alluvial deposits consisting of sand, silt, and gravel soils. Fill soils related to grading for the previous development, dumped soil, and construction debris are also present on the project site. The surface soils at the site consist of light brown, gravelly sand to silty sand.

1 Geomorphic provinces are geologic regions that display distinct landscapes or landforms and are defined based on geology, faults, topographic relief, and climate.

2 Crystalline rock is composed of closely fitting mineral crystals that have formed in the rock substance (as contrasted with rock) made up of cemented grains of sand or other material.

Groundwater

The project site is located within the Antelope Valley Groundwater Basin. The primary water-bearing materials in the basin are unconsolidated alluvial and lacustrine deposits[3] consisting of gravels, sand, silt, and clay. Coarse alluvial deposits form the two main aquifers of the basin; a lower aquifer and an upper aquifer. The upper aquifer is the primary source of groundwater for the region. Depth to groundwater in the project area is approximately 175 feet or more below the ground surface (bgs).

Seismic Hazards

Potential hazards associated with seismic activity include strong ground shaking, surface fault rupture, seismically induced liquefaction, and settlement.

Ground Shaking

The project site is located in a seismically active area, as is the majority of southern California, and the potential for strong ground shaking at the site is considered significant. Several active faults have the potential to cause widespread damage to the City of Lancaster in the event of an earthquake. As defined by the California State Mining and Geology Board, active faults are faults that have had surface displacement within Holocene time (within last 11,000 years). The principal active faults in the region are the San Andreas, San Gabriel, Garlock, Sierra Madre, Santa Susana, and Northridge. The active fault nearest to the project site is the San Andreas fault, which is approximately 4.9 miles to the southwest and has a maximum moment magnitude of 7.4. A summary of regional active faults is presented in Table 3.7.1.

The level of ground shaking at any given location is dependent upon many factors, including the size and type of earthquake, distance from the epicenter, and subsurface geologic conditions. A site-specific probabilistic seismic hazard analysis using the computer program FRISKSP was performed as part of the preliminary geotechnical evaluation for the proposed project in order to evaluate peak ground accelerations[4] (PGAs) at the project site. FRISKSP calculates the probability of occurrence of various ground accelerations at a site over a period of time and the probability of exceeding expected ground accelerations within the lifetime of the proposed structure from significant earthquakes within a specific radius of search. Per guidelines published by the California Geological Survey (CGS), the PGA with a 10 percent probability of exceedance in 50 years (a probability of 1 in 475) is typically used as the basis for seismic ground shaking design in residential and commercial structures. The results of the probabilistic seismic hazard analysis indicated that there is a 10 percent probability of exceeding a PGA of 0.75g (i.e., 75 percent of the acceleration due to gravity) at the project site in 50 years. Additionally, the project site is located in Seismic Zone 4, as categorized in the latest edition of the Uniform Building Code. Seismic Zone 4 is the most severe earthquake zone in the United States. Therefore, intense ground shaking from regional and local faults should be anticipated on the project site.

3 Lacustrine deposits are stream-transported sediments that accumulate in lakes.
4 Peak ground acceleration is the maximum measurement of ground motion produced by earthquakes, stated as a percent of gravity (1.0 g).

TABLE 3.7.1
REGIONAL ACTIVE FAULTS AND ESTIMATED MAXIMUM PARAMETERS

Fault	Distance and Direction from Project Site (miles)	Maximum Moment Magnitude (M_{max})[a]	Significant Historic Earthquakes
San Andreas	4.9 miles / southwest	7.4	M_{max} 7.9 Fort Tejon, 1/9/1857
San Gabriel	23.3 miles / southwest	7.2	-
Garlock (West)	25.9 miles / northwest	7.3	-
Sierra Madre	27.7 miles / south	7.2	-
Santa Susana	28.3 miles / southwest	6.7	M_{max} 6.6 San Fernando, 2/9/1971
Northridge (East Oak Ridge)	28.7 miles / southwest	7.0	M_{max} 6.7 Northridge, 1/17/1994
Clamshell – Sawpit	36.0 miles / southeast	6.5	M_{max} 5.8 Sierra Madre, 6/28/1991
Puente Hills Blind Thrust	42.5 miles / south-southeast	7.1	-
Newport-Inglewood (Los Angeles Basin)	44.3 miles / south	7.1	M_{max} 6.4 Long Beach, 3/10/1993
White Wolf	45.8 miles / northwest	7.3	M_{max} 7.5 Kern County, 7/21/1952
Whitier (Elsinore Fault Zone)	49.0 miles / southeast	6.8	M_{max} 5.0, 5/15/1910

[a] Moment magnitude is related to the physical size of a fault rupture, the movement across a fault, and the strength of the rock that is faulted.

SOURCE: Ninyo & Moore, 2007.

Surface Fault Rupture

Fault rupture is displacement at the earth's surface resulting from fault movement associated with an earthquake. Surface rupture can damage or collapse buildings, cause severe damage to roads and other paved areas, and cause failure of overhead and underground utilities. Earthquake Fault Zones, established in accordance with the Alquist-Priolo Earthquake Fault Zoning Act (see discussion under Regulatory Framework), are regulatory zones around the surface traces of active faults. There are no Alquist-Priolo zones within the City of Lancaster. According to the preliminary geotechnical evaluation for the proposed project, the project site is not transected by known active or potentially active faults.[5] It should be noted, however, that surface fault rupture is not necessarily restricted to the area within an Earthquake Fault Zone.

[5] An "active" fault is defined by the State of California as a fault that has had surface displacement within Holocene time (approximately the last 10,000 years). A "potentially active" fault is defined as a fault that has shown evidence of surface displacement during the Quaternary (last 1.6 million years), unless direct geologic evidence demonstrates inactivity for all of the Holocene or longer. This definition does not, of course, mean that faults lacking evidence of surface displacement are necessarily inactive. "Sufficiently active" is also used to describe a fault if there is some evidence that Holocene displacement occurred on one or more of its segments or branches (Hart, 1997).

Liquefaction

Liquefaction hazards may be present in loose, saturated soils, such as sands and loamy sands, in which the space between individual particles is completely filled with water. These soils can behave like a dense fluid when exposed to prolonged shaking during an earthquake. Liquefaction is determined by three main factors: depth to groundwater, soil type, and the seismicity of the area. The greatest danger for liquefaction occurs in areas where the groundwater table is within 50 feet of the ground surface and the soil is poorly consolidated or relatively uncompacted. Liquefaction can be responsible for widespread structural failure.

According to Seismic Hazards Zones Maps published by the State of California, the site is not mapped within an area considered susceptible to liquefaction. In addition, because depth to groundwater in the vicinity of the project site is at least 175 feet bgs, soil liquefaction at the project site is considered unlikely.

Earthquake-Induced Settlement

Settlement of the ground surface can be accelerated and accentuated by earthquakes. During an earthquake, settlement can occur as a result of the relatively rapid rearrangement, compaction, and settling of subsurface materials (particularly loose, non-compacted, and variable sandy sediments). Settlement can occur both uniformly and differentially (i.e., where adjoining areas settle at different rates). Differential settlement of soils can cause damage to project improvements, including foundations, structures, pavements, and other hardscape features. Unconsolidated alluvial sediments and undocumented artificial fills at the project site could be susceptible to earthquake-induced settlement.

Geologic Hazards

Potential geologic hazards include soil erosion and soil loss, slope failure, soil expansion, and differential settlement.

Soil Erosion and Soil Loss

Soil erosion is the wearing away of soil by processes such as mechanical or chemical weathering, mass wasting, and the action of waves, wind and underground water. Rates of erosion can vary depending on the soil material and structure, placement, and human activity. Soil containing high amounts of silt can be easily eroded, while sandy soils are less susceptible. Soil erosion rates can be higher during the construction phase. Typically, the potential for soil erosion is reduced once the soil is graded and covered with concrete, structures, or asphalt.

Slope Failure

Slope failure is dependent on topography and underlying geologic materials, as well as factors such as rainfall, excavation, or seismic activities. Steep slopes and downslope creep of surface materials characterize areas most susceptible to slope failure. Landslides are least likely in topographically low areas such as alluvial fans. As the surface topography of the project site and vicinity is relatively level, potential slope instability hazards are minimal.

Expansive Soils

Expansive soils possess a "shrink-swell" behavior. Shrink-swell is the cyclic change in volume (contraction and expansion) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may occur over a long period of time, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils. According to the City of Lancaster's General Plan, the project site is located in an area of low shrink-swell potential.

Differential Settlement

If not properly engineered, loose, soft, soils comprised of sand, silt, and clay have the potential to settle after a building or other load is placed on the surface. Differential settlement of the loose soils generally occurs slowly, but over time can amount to more than most structures can tolerate. Differential settlement can damage buildings and their foundations, paced areas, and result in breakage of underground pipes. Unconsolidated alluvial sediments and undocumented artificial fills at the project site could be susceptible to differential settlement.

3.7.3 Regulatory Framework

Alquist-Priolo Earthquake Fault Zoning Act

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

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides, and its purpose is to protect public safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and other hazards caused by earthquakes. This requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation of the site has to be conducted and appropriate mitigation measures incorporated into the project design. Seismic Hazard maps have been completed for much of the Southern California region. According to the Seismic Hazards Map of the project area, the project site is not located within a designated liquefaction zone.

California Building Standards Code

The California Building Code is another name for the body of regulations found in the California Code of Regulations (CCR), Title 24, Part 2, which is a portion of the California Building Standards Code. Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards.

Published by the International Conference of Building Officials, the Uniform Building Code is a widely adopted model building code in the United States. The California Building Code incorporates by reference the Uniform Building Code (UBC) with necessary California amendments. About one-third of the text within the California Building Code has been tailored for California earthquake conditions.

3.7.4 Impacts

Significance Criteria

Appendix G of the State CEQA Guidelines provides guidance for assessing the significance of potential environmental impacts. Implementation of the proposed project would result in a significant effect on the environment if it were to:

- Expose people or structures to potential substantial adverse seismic 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);
  - Strong seismic ground shaking;
  - Seismic-related ground failure, including liquefaction; or
  - Landslides;
- Result in substantial soil erosion or the loss of topsoil;
- 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;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; and/or
- 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 wastewater from the project site would be collected, treated, and disposed of by District 14 of the Sanitation Districts of Los Angeles County. Thus, as the project would not utilize septic systems or alternative wastewater disposal systems, the last significance criterion is not applicable to this impact analysis.

Impacts

Impact 3.7-1: Implementation of the proposed project could expose people and structures to strong ground shaking as a result of an earthquake on a regional or nearby fault.

The project site is located in a region of significant seismic activity. The primary seismic hazard to the site is strong ground shaking from earthquakes along nearby or distant active faults, including the San Andreas, San Gabriel, Garlock (West), Sierra Madre, Santa Susanna, and Northridge (East Oak Ridge). Of particular significance is the segment of the San Andreas fault that ruptured during the 1857 earthquake. This segment, located approximately 4.9 miles southwest of the project site, is considered capable of producing earthquakes in excess of 7.4 moment magnitude, and the average frequency of earthquakes along this segment is approximately 140 years.

According to the site-specific probabilistic seismic hazard analysis conducted during the preliminary geotechnical evaluation for the proposed project, the proposed project could theoretically experience an earthquake producing ground accelerations in bedrock of 0.75g. Intense ground shaking from an earthquake along regional and local faults are anticipated at the site. Depending on the level of ground movement, an earthquake at a nearby fault could result in damage to proposed buildings, pavement, and underground utilities. Potential impacts related to strong ground shaking are considered potentially significant. However, implementation of Mitigation Measure GEO-1 would reduce impacts related to ground shaking to less-than-significant.

Impact 3.7-2: The proposed project would expose people and structures to seismic hazards such as surface fault rupture, soil liquefaction, and landslides.

Surface Fault Rupture

No active faults have been mapped across the project site and the project site is not located within an Alquist-Priolo Earthquake Fault Zone. Therefore, there is a low potential for surface fault rupture during a seismic event and this impact considered less than significant.

Liquefaction

According to Seismic Hazards Maps produced by CGS for the project area, the project site is not located within an area considered susceptible to liquefaction. Furthermore, because liquefaction occurs only in saturated soils and the depth to groundwater at the site is 175 feet bgs or more, site soils are not subjected to high groundwater and thus, project impacts related to soil liquefaction would be less than significant.

Landslides

The surface topography of the project site and vicinity is relatively level and not subject to landslides. No significant slopes are proposed as part of the proposed project. Thus, no impacts related to slope instability and landslide hazards are anticipated.

Impact 3.7-3: Structures, buildings, or other proposed improvements could be subject to geologic hazards, including expansive soils, differential settlement, and erosion.

Expansive Soils

According to the preliminary geotechnical evaluation for the proposed project, much of the alluvial deposits at the project site consist of coarse, sandy materials. According to the City of Lancaster's General Plan, the project site is located in an area of low shrink-swell potential. Thus, the potential for expansive soils at the project is considered less than significant.

Differential Settlement

According to the geotechnical evaluation for the proposed project, the alluvial deposits underlying the site are generally unconsolidated, reflecting a depositional history without substantial loading. In some portions of the project site, soils associated with the previous development of the golf course, existing structures and utilities, and dumped materials may be poorly compacted. Compressible natural soils and undocumented fills pose the risk of adverse settlement under static loads imposed by new fill or structures. Differential settlement of soils can cause damage to project improvements, including foundations, structures, pavements, and other hardscape features. Without site-specific soil information, project-related impacts to soil settlement would be considered potentially significant. However, with implementation of GEO-1, impacts would be less than significant.

Erosion

Site grading and other construction-related earthwork would result in the disturbance and exposure of ground surface throughout the project site, thereby increasing the potential for soil erosion and soil loss. Following construction, however, the erosion potential of the project site would be relatively minor due to the covering of bare areas with structures, pavement, and associated hardscape and landscape areas.

Erosion hazards would be highest during construction activities. Construction activities would include striping surface vegetation, grading, excavation of soils, and possibly the placement of imported engineered soils. Existing impervious surfaces and established ground cover that serves to stabilize site soils would be removed during construction, exposing soils to the erosional forces of wind, rain, and runoff. In accordance with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit requirements, the project applicant would be required to prepare and implement a site-specific plan called a Storm Water Pollution Prevention Plan (SWPPP) that includes best management practices (BMPs) for sediment and erosion control during construction. The project applicant would also be required to apply for a grading permit from the City of Lancaster Building and Safety Division. As part of the permit requirements, the project applicant would submit a rough grading certification and soil certification by a certified engineer. Adherence to the NPDES General Construction Permit and City of Lancaster grading permit requirements would ensure that impacts related to soil loss and erosion would be less than significant.

Cumulative Impacts

The project, combined with other foreseeable development in the area, would result in increased development in an area that would be subject to seismic risks and hazards. Future projects in the vicinity of Lancaster would be required to adhere to all federal, state, and local programs, requirements and policies pertaining to building safety and construction permitting, NPDES permit requirements, and the City's building and grading permit requirements. Therefore, the project, combined with other foreseeable development in the area, would not result in a cumulatively significant impact by exposing people or structures to risk related to geologic hazards, soils, and/or seismic risks.

3.7.5 Mitigation Measures

The following mitigation measure shall be required:

> **Measure GEO-1:** A site-specific, design-level geotechnical report shall be prepared prior to project approval to address the potential for seismic and geologic impacts, including ground shaking, settlement, soil expansion, and other site-specific geotechnical issues. The investigation, to be conducted by a licensed geotechnical engineer, shall provide design and/or construction recommendations to prevent structural damage to proposed structures and facilities. Geotechnical and seismic design criteria would conform to engineering recommendations consistent with the seismic requirements of California Building Code (Title 24) additions. At a minimum, the report shall evaluate the following:
>
> - Characteristics of the soil materials at the site.
> - The most appropriate techniques to correct inadequacies in site soils.
> - Design criteria for the most appropriate foundations for proposed structures.
> - The estimated ground settlement rate at each foundation.
> - The necessary subgrade preparation for foundations.
> - Lateral pressures for retaining walls.
> - Pre- and post development drainage conditions.
> - Suitability of site soils for use as backfill.

3.7.6 Level of Significance after Mitigation

Project impacts related to strong seismic ground shaking (Impact 3.7-1) and differential settlement (Impact 3.7-3) would be reduced to less than significant with implementation of Measure GEO-1. All other impacts are less than significant.

3.8. Hydrology and Water Quality

3.8.1 Introduction

This section describes existing and proposed hydrological conditions at and around the project site and discusses potential project-related impacts to surface water and groundwater resources, including water quality, flooding, and storm water runoff. Mitigation for potential impacts is identified, as appropriate.

3.8.2 Environmental Setting

Climate and Topography

The project site, once used as a portion of a golf course, has now been cleared and has no remaining features of the golf course.[1] The project site is relatively level and slopes gently toward the northwest. Ground elevations range from approximately 2,375 to 2,388 feet above mean sea level (msl).

The project site is located within Antelope Valley on the western corner of the Mojave Desert. The climate of the Lancaster area is characterized as a high desert climate with extreme temperature variances between seasons and relatively little precipitation. Temperatures generally dip below freezing in December and January, and then reach close to 100ºF on average for July and August. The region's rainy season is generally heaviest in the December to February months. Average annual rainfall at the nearest weather station to the project site in Lancaster, is approximately five inches.

Surface Water Hydrology

Regional Drainage

The project site is located within the Amargosa Creek watershed. Amargosa Creek has its headwaters in the Sierra Pelona Mountains southwest of the project site. Amargosa Creek is a relatively large, isolated creek system that begins as a substantial perennial flow towards the east and the City of Palmdale. As it flows out towards the valley, it bends to the north through Palmdale, and past Lancaster where it eventually terminates at Rosamond Lake. The lower portions of the creek are characterized as ephemeral or intermittent flows.

Local Drainage Patterns

The project area lies in an area that has been undergoing a transformation from undeveloped agricultural land into a residential area. The project site is generally surrounded by walled housing developments to the east, west, and north as well as an additional subdivision located towards the south beyond an undeveloped parcel immediately south of the site. Beyond this

[1] At the time the NOP was issued, the site was occupied with buildings associated with the former golf course, structures, and infrastructure associated with the golf course, and two small former residences.

development, large expanses of undeveloped land extend westward. There is no water body in the immediate vicinity of the site, excluding the man-made pond created as part of the former golf course on the project site. Amargosa Creek is located approximately three miles to the northeast. Because it is undeveloped, storm water runoff from the project site occurs as overland sheet flow.

Groundwater

The project site is located in the Antelope Valley Groundwater Basin, which covers approximately 31 square miles. The basin is characterized as a series of interbedded alluvial fans, channel deposits, and lakebed sediments. Groundwater occurs primarily within the more recent alluvial sediments. Depth to groundwater in the valley ranges from approximately 160 feet below the ground surface in the southeastern portions of the valley to as little as two feet below ground surface (bgs) in the center of the valley. Within the vicinity of the project site, depth to groundwater is estimated to be approximately 100 feet bgs or more. The regional direction of groundwater is thought to be towards the north-northeast, based on topography.

A wide range of water quality types exist within the basin. Areas toward the center of the valley with artesian groundwater systems have shown the presence of boron, fluoride and arsenic. A covered water supply well is located on the project site near one of the existing abandoned residences.

Flooding

Flooding is the inundation of normally dry land as a result of a rise in the level of surface waters or a rapid accumulation of storm water runoff. Flooding can also occur due to tsunamis, seiches, or dam failure, which are discussed below. Regional flooding hazards are evaluated by the Federal Emergency Management Agency (FEMA) and presented in community Flood Insurance Rate Maps (FIRMs) as part of the floodplain mapping program. According to the City's FIRMs, the project site is not located within a 100-year flood hazard zone. The project site has been mapped in Zone B/C/X, a designation given to areas determined to be outside of the one percent-annual-chance (100-year) floodplain.

Surface Water Quality

The Clean Water Act (CWA) is the primary federal law regulating water quality in the U.S. and forms the basis for several state and local laws throughout the country. Surface water quality in the project area is monitored by the Lahontan Regional Water Quality Control Board (RWQCB). The Water Quality Control Plan for the Lahontan Region (Basin Plan), prepared by the Lahontan RWQCB, identifies the beneficial uses of surface waters within its region and specifies water quality objectives to maintain the continued beneficial uses of these waters. Amargosa Creek is not listed among the surface waters of the Basin Plan. The surface waterways in Lancaster are dry most of the time.

3.8.3 Regulatory Framework

Clean Water Act

The federal Clean Water Act, enacted by Congress in 1972 (last undergoing a major revision in 1987 as part of the Water Quality Act), is the primary federal law regulating water quality in the U.S. and forms the basis for several state and local laws throughout the country. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. The Clean Water Act prescribes the basic federal laws for regulating discharges of pollutants into waters of the U.S., which includes setting water quality standards for contaminants in surface waters, establishing wastewater and effluent discharge limits from various industry categories, and imposing requirements for controlling nonpoint-source pollution. At the federal level, the Clean Water Act is administered by the USEPA. At the state and regional levels, the act is administered and enforced by the State Water Resources Control Board (SWRCB) and the RWQCBs.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is the primary statute covering the quality of waters in California. The Act sets out specific water quality provisions and discharge requirements regulating the discharge of waste within any region that could affect the quality of state waters. Under the Act, the SWRCB has the ultimate authority over state water rights and water quality policy. The nine RWQCBs are responsible for the oversight of water quality on a day-to-day basis at the local/regional level. Within each region, the RWQCBs have prepared and periodically updated Basin Plans that identify existing and potential beneficial uses for specific water bodies.

Water Quality Control Plans (Basin Plans)

Each RWQCB is required to develop, adopt, and implement a Basin Plan for its respective region. The Basin Plan is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in each region. Basin Plans identify beneficial uses of surface waters and groundwater within the corresponding region; specify water quality standards, known as water quality objectives, for both surface water and groundwater; and develop the actions necessary to maintain the standards to control nonpoint and point sources of pollutants to the state's waters. All discretionary projects requiring permits from the RWQCB (i.e., waste and pollutant discharge permits) must implement Basin Plan requirements (i.e., water quality standards), taking into consideration the beneficial uses to be protected.

NPDES Program

Since 1972, the CWA has regulated the discharge of pollutants to waters of the U.S. from all point sources. Section 402(d) of the CWA establishes a framework for regulating nonpoint source (NPS) storm water discharges under the National Pollutant Elimination System (NPDES). Established in 1990, Phase I of the NPDES storm water program regulates storm water discharges from major industrial facilities, large and medium-sized municipal separate storm sewer systems

(those serving more than 100,000 persons), and construction sites that disturb five or more acres of land. In 1999, the NPDES storm water program was expanded to include Phase II. Pursuant to the Phase II NPDES Final Rule in December 1999, discharges of storm water associated with construction activities that result in the disturbance of one acre of land or more must also apply for coverage under the statewide NPDES General Construction Activities Permit.

Los Angeles County and 84 incorporated cities, including the City of Lancaster, receive coverage under the NPDES storm water program under NPDES Permit No. CAS004001. The permit, first issued by the Los Angeles RWQCB in 2001, regulates municipal storm water and urban runoff discharges within the jurisdictions covered by the permit and requires that permittees develop and implement programs for storm water management.

NPDES General Construction Permit

To comply with the NPDES General Construction Permit requirements, developers are required to submit a Notice of Intent (NOI) to the State Water Resource Control Board's (SWRCB) Division of Water Quality. The NOI includes general information on the types of construction activities that will occur at construction sites. Developers are required to submit a site-specific plan called the Storm Water Pollution Prevention Plan (SWPPP) to minimize the discharge of pollutants during construction. The SWPPP must include a description of the Best Management Practices (BMPs) that will be employed to reduce storm water pollutants to the Maximum Extent Practicable (MEP[2]) for water quality protection. This includes implementation of BMPs aimed at sediment control, erosion control, and construction materials control (i.e. paint, solvents, concrete, petroleum products) to prevent storm water pollutants from leaving construction sites, as well as a detailed description of (and schedule for) all monitoring. Construction activities that relate to the project include, but are not limited to: clearing, grading, demolition, excavation, and other earthwork activities that result in soil disturbance.

City of Lancaster Storm Water Management Program

The City of Lancaster has been designated as a regulated Small Municipal Storm Sewer System (MS4) by the USEPA. Therefore, the City is required to comply with the Phase I regulations of the NPDES. As a result, the City of Lancaster filed a NOI to comply with State Water Resource Board Small MS4 General Permit. In compliance with the federal regulations, the City prepared a Storm Water Management Program (SWMP). The SWMP is intended to establish ordinances, policies, procedures and practices to manage and control the quality of storm water runoff in the City of Lancaster. The RWQCB provided the City with zone designations that are based on proximity to surface waters or tributaries. The City of Lancaster has been divided into the following zone categories:

- Red Zone – Areas within a quarter mile of surface waters;
- Yellow Zone – Areas within a half mile of surface water or tributary to surface water; and
- Green Zone – Areas not flowing to tributary or surface water.

[2] The MEP standard relies on BMPs that emphasize pollution prevention and source control, with additional structural controls as needed.

However, municipal operations conducted throughout the City are addressed regardless of the zone. The project site is located within the Green Zone, which does not flow to any tributary or surface water. Although the focus of the SWMP is on yellow zones, the SWMP does address new construction throughout the City.

City of Lancaster Master Plan of Drainage

In 1992, the City of Lancaster adopted its Master Plan of Drainage, which addresses a single drainage area within the City, based on the Antelope Valley Comprehensive Plan. The Master Plan of Drainage was updated and adopted in January 2005. For projects that are equal to or greater than 100 lots, the master plan calls for the construction of local retention or detention basins until the regional system can be built. These projects will need to be designed for the Capital Flood Protection which is defined as the runoff produced by a 50-year frequency design storm. For smaller projects less than 100 lots, streets are considered the primary storm water conveyance facility. Existing city standards are to maintain a 25-year storm within the right-of-way and 10-year storm flows within the curbs of the streets.

3.8.4 Impacts

Significance Criteria

Based on Appendix G of the State CEQA Guidelines, implementation of the proposed project would result in a significant impact if it would:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion 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 amount of surface runoff in a manner that would result in flooding in a manner that would result in flooding on- or off-site;
- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;
- 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 that would impede or redirect flood flows;
- 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; and/or

- Expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow.

Review and comparison of the proposed project characteristics to the environmental setting clearly shows that the proposed project would create no impacts related to the following significance criteria:

Place housing within 100-year flood hazard area: The proposed project does not include construction of any housing and as described above, the project site is not located within a 100-year floodplain. There would be no impact.

Place structures within 100-year floodplain that would impede flood flows: The proposed project includes the construction of numerous commercial buildings; however, none of these structures would be located within a 100-year flood hazard area. There would be no impact.

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: The western portion of Lancaster is thought to be an area that could potentially be inundated from catastrophic failure of the California Aqueduct from a section of the aqueduct known as the East Branch Phase I, which was constructed in 2003. The Department of Water Resources (DWR) operates and maintains the aqueduct and also provides dam safety and flood control and inspection services. Therefore, due to the relatively modern construction, the ongoing inspection and maintenance programs administered by DWR, catastrophic failure that would direct flows to the project site is considered to have a very low potential to occur.

Failure of Little Rock Dam, located approximately 15 miles away, could potentially inundate a large area north of the dam. However, Little Rock Dam was seismically improved and its capacity increased in 1994. It is located at a distance where inundation of the project site would be considered unlikely.

Cause inundation due to seiche, tsunami or mudflow: Tsunamis are waves caused by an underwater earthquake, landslide, or volcanic eruption. Since the project site is located inland, it could not experience a tsunami. A seiche is a rhythmic motion of water in a partially or completely landlocked water body caused by landslides, earthquake-induced ground accelerations, or ground offset. There are no bodies of water large enough in the project vicinity to produce seiche waves that could cause any damage to the project site. Furthermore, the project site is in a relatively flat area with no hillsides to speak of and therefore, damage caused by mudflow would be unlikely. There would be no impact.

Impacts

Impact 3.8-1: Development of the project site could alter drainage patterns in the project area, potentially having adverse effects on the volume and/or timing of peak runoff in the municipal storm drain system.

The proposed project would significantly increase impervious surfaces at the project site, which is currently undeveloped. Storm water runoff volumes and rates generated from the project would require sufficient capacity of storm drainage facilities. New infrastructure to support the proposed

development and accommodate future runoff conditions would be required to be designed in accordance with the standards set forth by the City of Lancaster Engineering Division. Drainage and flood control structures and improvements in the City of Lancaster are subject to review and approval by the Engineering Division, which would review and approve project storm drain plans prior to construction. There are currently insufficient storm drainage facilities at the project site to serve the project. The Master Plan of Drainage calls for a proposed new line to be installed along Avenue K. The proposed project would be required to adhere to the requirements of the City of Lancaster Master Plan of Drainage. With implementation of mitigation measure HYDRO-1 and HYDRO- 2, impacts would be reduced to less than significant. Thus, mandatory compliance with these standards would ensure that potential project impacts related to storm water conveyance would be less than significant after mitigation is incorporated.

Impact 3.8-2: Construction activities associated with development of the project could result in construction-related impacts on surface water quality.

Earthwork that would occur as part of construction activities includes stripping of existing surface vegetation, additional site grading, and soil excavation. During construction, established groundcover that currently serves to stabilize site soils would be removed, potentially resulting in increased erosion and increased sediment load to any existing or planned storm drainage facilities. Construction activities can also generate hazardous waste products such as adhesives, solvents, paints, and drilling and petroleum products that, if not managed appropriately, can adhere to soil particles, become mobilized by rain or runoff, and contribute to nonpoint-source pollution. In addition, during excavation and grading, contaminated soils may be exposed and/or disturbed; this could impact surface water quality through contact during storm events. Increased soil erosion and the accidental discharge of construction materials and/or contaminated soils from the project site could adversely affect water quality in downstream water bodies.

Construction-related impacts to water quality during construction activities are considered potentially significant if not mitigated. Compliance with NPDES General Construction Permit requirements would reduce the potential for adverse water quality impacts to receiving waters from construction activities to less than significant. Thus, the proposed project will be required to implement Mitigation Measures HYDRO-1 and HYDRO-2. With incorporation of these mitigation measures impacts would be reduced to less than significant.

Impact 3.8-3: Development of the project site could result in increased nonpoint source pollution in stormwater runoff.

Non-point source (NPS) pollution is the leading cause of degraded water quality in the U.S. and urban areas are an important source of NPS pollution. NPS pollutants fall into four main categories: sediments, nutrients, chemicals or toxic substances, and pathogens. NPS pollutants are washed by rainwater from rooftops, landscape areas, and streets and parking areas into the drainage network. Pollutant concentrations in site runoff are dependent on a number of factors including: 1) land use conditions; 2) site drainage conditions; 3) intensity and duration of rainfall; and 4) implementation of water quality BMPs. Due to the variability of urban runoff

characteristics, it is difficult to estimate pollutant loads for NPS pollutants. However, post-construction pollutants in runoff would be consistent with dense urban areas. Potential increases in the levels of trash, nutrients, bacteria, pesticides and herbicides, and oil and grease could occur from a change in land uses, which could adversely affect the water quality of stormwater runoff.

Post-construction water quality impacts resulting from operation of the proposed project are considered potentially significant if not mitigated. With implementation of Mitigation Measures HYDRO-1 through HYDRO-3, impacts would be reduced to less than significant. However, adherence to the City of Lancaster SWMP requirements, required for compliance with NPDES municipal storm water permit requirements, would effectively preclude substantial adverse impacts to water quality in receiving waterbodies.

Impact 3.8-4: The existing groundwater well could become a conduit for groundwater contamination if left inactive.

The existing groundwater supply well would not be used for water supply purposes associated with the proposed project. Inactive wells are generally considered to present potential risks for groundwater contamination. As facilities deteriorate, surface features that are intended to protect the well can be compromised and provide a conduit for contaminants to enter the well and adversely affect the groundwater quality. In addition, excavation that disturbs and/or truncates the existing water well could also increase the potential for contaminants to enter and pollute the groundwater. However, adherence to City of Lancaster and the RWQCB requirements which are designed and required for abandonment of groundwater wells, would effectively preclude substantial adverse impacts to water quality in the underlying groundwater aquifer. Thus, with implementation of Mitigation Measure HYDRO-4, impacts would be less than significant.

Cumulative Impacts

All future projects including the proposed project, are subject to the federal (Clean Water Act), State (Porter Cologne Water Quality Control Act), and local (City of Lancaster) regulations that protect water resources. These regulations include NPDES permit requirements, implementing stormwater pollution prevention plans, and post-development stormwater quality and quantity requirements. Because of these measures, when considered in combination with other developments similarly bound by the same regulations, the proposed project's incremental contribution to water quality and quantity impacts, with proposed mitigation as detailed below, would not be cumulatively considerable.

3.8.5 Mitigation Measures

The following mitigation measures shall be implemented:

> **Measure HYDRO-1**: The project applicant shall adhere to the requirements of the City of Lancaster Master Plan of Drainage as directed by the City of Lancaster Engineering Division. Drainage facilities of the proposed project shall be capable of handling post-project flows from the site to the extent deemed appropriate by the Engineering Division. All improvements to the drainage infrastructure necessary to accommodate the project shall

be made by the applicant. All drainage improvements shall be reviewed and approved by the Engineering Division and any additional requirements identified by the Engineering Division shall be incorporated into project specifications.

Measure HYDRO-2: Prior to construction of the proposed project, a NOI and SWPPP shall be submitted to the RWQCB in accordance with the NPDES General Construction Permit requirements. Implementation of the SWPPP shall start with the commencement of construction and continue through the completion of the project. At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact storm water during construction; site-specific erosion control and storm water quality BMPs to be employed during construction; and an inspection and monitoring program. At a minimum, the following measures shall be included as part of the SWPPP to prevent adverse impacts to water quality during project construction:

- The amount of exposed soil shall be limited and erosion control procedures implemented for those areas that must be exposed.
- Grading activities shall be phased so that graded areas are revegetated or otherwise covered as soon as possible following disruption.
- Appropriate dust suppression techniques, such as watering and tarping, shall be used in areas that must be exposed.
- The area shall be secured to control off-site migration of pollutants.
- Construction entrances shall be designed to facilitate removal of debris from vehicles exiting the site, by passive means such as paved/graveled roadbeds, and/or by active means such as truck washing facilities.
- Truck loads shall be tarped.
- Roadways and parking lots shall be regularly swept to prevent generation of fugitive dust by local traffic.
- Simple sediment filters shall be constructed at or near all entrances to any storm drainage systems.
- During construction and operation, all construction materials shall be handled and disposed of in accordance with all applicable laws and regulations. Properly labeled recycling bins shall be utilized for recyclable construction materials including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and vegetation. Non-recyclable materials and wastes must be taken to an appropriate landfill. Toxic wastes must be discarded at a licensed, regulated disposal site by a licensed waste hauler.
- The developer shall conduct truck wheel cleaning and truck washing to prevent dirt in storm water.
- The developer shall keep vehicles in good working order.
- Protocols for the investigation and evaluation of any previously unidentified contaminated soils that may be encountered during project construction, including controls that may be required to prevent the migration of contaminated soils into storm water runoff.

Measure HYDRO-3: The applicant shall comply with the requirements of the City of Lancaster SWMP. The applicant shall be required to submit and then implement SWMP design features and BMPs that are appropriate and applicable to the proposed change in land use. In accordance with SWMP requirements, the applicant shall provide for the treatment/filtration of on-site runoff before it enters the public storm water conveyance system in order to minimize the introduction of pollutants of concern, as required.

Measure HYDRO-4: The project applicant shall abandon the existing onsite groundwater supply well in accordance with the requirements of the City of Lancaster and the Lahonton Regional Water Quality Control Board.

3.8.6 Level of Significance after Mitigation

The proposed project would convert a former golf course at the project site into a commercial shopping center. At the conclusion of all planned development, the project would convert a majority of the site from pervious to impervious surfaces. The introduction of the additional impervious surfaces would cause an increased potential for non-point source pollution of stormwater and a potential increase in demand for stormwater drainage. Construction activities could also cause potential water quality impacts of stormwater. However, with implementation of the aforementioned Mitigation Measures (HYDRO -1 through HYDRO-4), which illustrate the regulatory requirements for the protection of water quality and quantity impacts, the proposed project would have a less than significant impact on water quality and drainage.

3.9 Biological Resources

3.9.1 Introduction

This section assesses the potential for the proposed project to result in significant adverse environmental impacts to biological resources. The information in this section is based on ESA's biological reconnaissance survey, conducted on April 11, 2007; and two reports regarding the project: (1) a Bat and Nesting Bird Pre-Construction Survey dated April 23, 2008, and (2) a memorandum documenting the removal of vegetation at the project site dated October 9, 2007. Both the Bat and Nesting Bird Pre-Construction Survey and the memorandum are included as Appendix G of this Draft EIR.

3.9.2 Environmental Setting

Regional Setting

The project site is located in the western Antelope Valley in the Mojave Desert region of the California Floristic Province[1] and within the Pacific Flyaway.[2] Lying north of the San Gabriel Mountains and southeast of the Tehachapi's, this desert ecosystem spans approximately 2,200 square miles.

Local Setting

The project site consists of an approximately 22.34-acre site, located at the northwest corner of Avenue K and 60th Street West in the City of Lancaster, California.

A reconnaissance survey of the site was conducted on April 11, 2007. The site contains none of the original Joshua tree-saltbush scrub vegetation of this area of Lancaster. The now abandoned grounds have been denuded of native flora and ruderal[3] plants that define the existing local vegetative community. At the time the NOP was issued, structures on the site included four small abandoned buildings/structures, and an artificial, excavated pool (approximately 30 feet in diameter) that could have been used as a water feature. This concrete pool was filled with rubbish. There was, and is no surface water and no riparian vegetation on the site.

Land uses in the vicinity of the project area are primarily residential. There appears to be no corridor for wildlife dispersal that would connect this site with open fields to the west. A vacant lot with similar characteristics to the subject property adjoins to the north.

As of August 21, 2007, 118 trees were cut within the nesting bird season and without the City's permission. With the City's permission and a biological monitor present, these already-cut trees

1 Hickman, *The Jepson Manual, Higher Plants of California*, 1993.
2 The Pacific Flyway is an established air route of waterfowl and other birds migrating between wintering grounds in Central and South America and nesting grounds in Pacific Coast and provinces of North America.
3 The term "ruderal" refers to vegetation characterized by some level of disturbance. Ruderal plant communities can be dominated by weedy, non-native species.

were removed from the site, one of which contained a great horned owl nest. Two large stick nests still remain in trees on site. The analysis in this chapter is based upon the biological reconnaissance survey conducted on April 11, 2007, and the existing conditions at that time.

Methodology and Assumptions

Prior to conducting the field surveys, a list of potentially occurring sensitive plant and wildlife taxa, as well as plant communities, was compiled using information on the known distribution and habitat requirements and occurrences contained within the California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS), U.S. Fish and Wildlife Service (USFWS), and professional judgment of the participating biologists. A nine-block USGS quadrangle CNDDB search was conducted centered on the Lancaster West 7.5 Minute Series map. This search also included a five-mile radius around the project area. Other USGS quads were Lancaster East, Palmdale, Del Sur, Little Buttes, Rosamond, Rosamond Lake and Ritter Ridge (CDFG, 2007).

Wildlife biologists from ESA conducted a general biological reconnaissance survey of the project area on April 11, 2007. The entire 17-acre site was surveyed by walking parallel transects spaced 30 meters apart, focusing on (1) existing vegetation and habitat, and (2) detection of plant and wildlife species. Wildlife species were identified by direct observation or sign, such as vocalization, scat, or tracks. Plant identifications were made in the field.

Field surveys were conducted between the hours of 0900 and 1200 hours under sunny skies, with winds reaching gusts of between 40 mph and 60 mph, and an average air temperature range of between 65 and 70 degrees Fahrenheit. The purpose of the field reconnaissance survey was to evaluate habitat quality and the potential to support biological resources in the project area. The biological resources present, or possibly present, in the project area were determined from biological reconnaissance surveys and a review of the following sources:

- Special-status species records from CNDDB;[4]
- Species information from the USFWS;[5]
- Special-status species records from the California Native Plant Society's (CNPS) Electronic Inventory;[6] and
- Previous biological reports[7] for the project area and vicinity (ESA,2005).

Biotic Habitat within the Project Site

Except for a single Joshua tree (*Yucca brevifolia*), essentially no native desert vegetation occurs on site. Instead, there is extensive coverage by the invasive, exotic cheat grass (*Bromus tectorum*), and herbs such as red-stemmed filaree (*Erodium cicutarium*). The general plant

4 California Department of Fish and Game (CDFG), California Natural Diversity Database (CNDDB), species list for U.S. Geological Survey 7.5-minute topographic quadrangles: Lancaster West, Lancaster East, Rosamond Lake, Rosamond, Little Buttes, Del Sur, Sleepy Valley, Ritter Ridge, and Palmdale. April 30, 2007.

5 U.S. Fish and Wildlife Service (USFWS), Unofficial Species List of Federal Endangered and Threatened Species that may be affected by projects in Los Angeles County, May 31, 2007.

6 California Native Plant Society (CNPS), CNPS Electronic Inventory for 7.5-minute topographic quadrangles: Lancaster West, 2007.

7 Yorke, Callyn D., Biological Resources Report for APN 3203-018-006, December 2006.

composition of the project area is ruderal. The canopy layer includes several ornamental trees such as the Chinese elm (*Ulmus spp*.), and Arizona cypress (*Cupressus arizon*), and Alepo pine (*Pinus sp*.). One ornamental black locust tree (*Robinia neomexicana*) was also observed on the property. Small trees/shrubs found on property include junipers (*Juniperus spp.*) and tumbleweeds.

Wildlife within the Project Site

Wildlife observed during the reconnaissance survey indicates that both birds and small mammals utilize the project site. Pocket gopher and antelope ground squirrel burrows were noted throughout project site. Scat also provided evidence of coyotes. The four abandoned buildings/structures on site have the potential to provide habitat for bats. These buildings were not examined during the reconnaissance survey since access was not available. Birds observed during the survey include the house finch (*Carpodacus mexicanus*), sage sparrow (*Amphispiza belli*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), yellow-rumped warbler (*Dendroica coronata*), grackle (*Quiscalus spp.*), common raven (*Corvus corax*) and the great horned owl (*Bubo virginianus*).

A great horned owl nest (*Bubo virginianus*) and two unidentified large stick nests; one possibly used by a red-tailed hawk were observed. The great horned owl, while not a species of concern, is protected at the nest site under Fish and Game Code 3503 (see regulatory section below). Additionally, the project site was surveyed for burrowing owl signs and there was no evidence of any burrowing owls on-site.

Special Status Species

Several species known to occur in the project vicinity have been accorded “special status” because of their recognized rarity or vulnerability to various causes of habitat loss or population decline. Some of these receive specific protection defined in federal or state endangered species legislation. Others have been designated as “sensitive” based on adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. In addition, Section 15380(b) of the CEQA Guidelines provides a definition of rare, endangered or threatened species that is not included in any listing. These species are referred to collectively as “special-status” in this document, following a convention that has developed in practice but has no official sanction. The various categories encompassed by the term, and the legal status of each are discussed later in this chapter. For purposes of this EIR, special-status species include:

- Plant and animal species designated as rare, threatened, or endangered under the federal or state Endangered Species Acts;
- Species that are candidates for listing under either federal or state law;
- Species designated by the US Fish and Wildlife Service (USFWS) as species of concern or by California Department of Fish and Game (CDFG) as species of special concern;
- Species protected by the federal Migratory Bird Treaty Act (16 U.S.C. 703-711);

- Bald and golden eagles protected by the federal Bald Eagle Protection Act (16 U.S.C. 668); and
- Species such as candidate species that may be considered rare or endangered pursuant to Section 15380(b) of the CEQA Guidelines.

A list of special status plant and animal species reported to occur within the vicinity of the project site was derived from scientific literature, consultation with USFWS,[8] the California Natural Diversity Database (CNDDB)[9] from CDFG, and the California Native Plant Society's (CNPS) electronic inventory for the Lancaster West U.S. Geological Survey (USGS) 7.5-minute quadrangle and surrounding quadrangles.[10] The following sections describe the special status species plant and wildlife species known to occur or potentially occur within the project area.

Wildlife

Table 3.9.1 lists twenty-three special-status wildlife species potentially occurring in the project area. A protocol burrowing owl survey was conducted in accordance with the California Burrowing Owl Consortium survey protocols. ESA biologists Michele Budish and Tom Roberts (Certified Wildlife Biologist) walked parallel transects 30 meters apart. The entire proposed project site was surveyed. The survey confirmed that burrowing owls (*Athene cunicularia*) are absent from the property. Three species of special-status bats are the only wildlife species that have the potential to occur in or around the project area. These species of special-status bats are identified in the table below:[11]

TABLE 3.9.1
SPECIAL STATUS WILDLIFE SPECIES POTENTIALLY PRESENT IN THE PROJECT SITE AND ITS VICINITY

Species Name Common Name (*Scientific Name*)	**Potential for Occurrence**	**Status USFWS/CDFG**
Wildlife		
Accipiter cooperii Cooper's hawk	Last sighted in 1921 in Lancaster. Current habitat could possibly support foraging but nesting is highly unlikely. Potential for occurrence is low.	-- / CSC
Anniella pulchra pulchra Silvery legless lizard	Last sighted 2 miles from the proposed project area in 2005. No suitable habitat is present for this species. There is no potential for occurrence.	-- / CSC
Antrozous pallidus Pallid bat	Habitat for this mammal includes open dry habitat, grasslands, shrublands, woodlands and forests. It is possible that this bat may forage or roost in the abandoned structures on site.	-- / CSC
Agelaius tricolor Tricolored blackbird	Last sighted in 1995 in riparian-like habitat near Piute Marsh, EAFB, north of Lancaster. Current habitat in the proposed project area does not support this species. Potential for occurrence is low	-- /CSC

8 U.S. Fish and Wildlife Service (USFWS), Unofficial Species List of Federal Endangered and Threatened Species that may be affected by projects in Los Angeles County, May 31, 2007.

9 California Department of Fish and Game (CDFG), California Natural Diversity Database (CNDDB), species list for U.S. Geological Survey 7.5-minute topographic quadrangles: Lancaster West, Lancaster East, Rosamond Lake, Rosamond, Little Buttes, Del Sur, Sleepy Valley, Ritter Ridge, and Palmdale, April 30, 2007.

10 California Native Plant Society (CNPS), CNPS Electronic Inventory for 7.5-minute topographic quadrangles: Lancaster West, 2007.

11 Environmental Science Associates, *Draft Palmdale Water Reclamation Plant 2025 Plan and EIR*, 2005.

TABLE 3.9.1 (continued)
SPECIAL STATUS WILDLIFE SPECIES POTENTIALLY PRESENT IN THE PROJECT SITE AND ITS VICINITY

Species Name Common Name (*Scientific Name*)	**Potential for Occurrence**	**Status USFWS/DFG**
Asio flammeus Short-eared owl	Last sighted in 1932, nine miles NE of Lancaster. Current habitat in the proposed project area does not support this species. Potential for occurrence is low	-- / CSC
Athene cunicularia Burrowing owl	Known to occur in the project region. Last sighted in 2003 on the NW corner of the intersection of Avenue K and 60th St. West. Current habitat could likely support this species. There is potential for occurrence, however, biological surveys in 2006 and 2007 confirmed this species absent from the property.	-- / CSC
Buteo regalis Ferruginous hawk	Known to occur in the immediate vicinity of the project area. Sighted in 1998 in W. Lancaster midway between 60th St W and 70th St. W on Ave. G. and in 1999 on Ave. I, approximately 0.25 mile east of 70th Street West Current habitat in the proposed project area could allow for foraging for this species. Potential for occurrence is low.	-- / CSC
Buteo swainsoni Swainson's hawk	Species reported in the nearby vicinity in 1999. This species could forage in the area however, current habitat would not likely support nesting. Potential for occurrence is low.	-- / ST
Charadrius alexandrinus nivosus Western snowy plover	Reported in 1978 near EAFB. Current habitat in the proposed project area does not support this species. Potential for occurrence is very low.	FT / --
Charadrius montanus Mountain plover	Last sighting in Lancaster was in 2004. Current habitat in the proposed project area does not support this species. Potential for occurrence is very low.	-- / CSC
Emys marmorata pallida Southwestern pond turtle	This species was last reported in the vicinity in 1999. Habitat required to sustain this species includes a permanent water source. Habitat in the proposed project area would not support this species. There is no potential for occurrence.	-- / CSC
Euderma maculatum Spotted bat	This species has been reported in the vicinity of Lancaster and Palmdale due to its nature of occupying arid desert habitat. It is possible that this bat may forage or roost in the abandoned structures on site.	FSC / CSC
Falco columbarius Merlin	This species was last reported North of Ave. D near 60th Ave. West, in 1996. Current habitat in the proposed project area could not support this species. Potential for occurrence is low.	-- / CSC
Gopherus agassizii Desert tortoise	This species was last recorded in the surrounding cities in 2004. Current habitat in the proposed project area is not suitable for this species. Potential for occurrence is very low.	FT / ST
Myotis yumanensis Yuma myotis	This species is typically associated with a nearby water source. Maternity colonies are found in buildings, under bridges, and in mines and caves. It is possible that this bat may forage or roost in the abandoned structures on site.	FSC / --
Perognathus inornatus inornatus San Joaquin pocket mouse	This species was last reported in the area in 1931. Current habitat could not support this species. Potential for occurrence is very low.	FSC / --
Phrynosoma coronatum ssp. blainviilii Coast (San Diego) horned lizard	This species were last reported in the immediate vicinity in 1964. More recent sightings have been reported outside Lancaster. Habitat could support this species but the potential for occurrence is very low.	-- / CSC

TABLE 3.9.1 (continued)
SPECIAL STATUS WILDLIFE SPECIES POTENTIALLY PRESENT IN THE PROJECT SITE AND ITS VICINITY

Species Name Common Name (*Scientific Name*)	**Potential for Occurrence**	**Status USFWS/DFG**
Phrynosoma coronatum ssp. blainviilii Coast (California) horned lizard	This species was last reported in 1991 near West Ave., 0.15 miles east of junction with 50th St. West in Quartz Hill, Lancaster. Habitat could support this species. Potential for occurrence is low.	-- / CSC
Plegadis chihi White-faced ibis	This species was last reported near EAFB in 1996. The current habitat in the proposed project area would not support this species. There is no potential for occurrence.	-- / CSC
Spermophilus mohavensis Mojave ground squirrel	Last reported in 1984 in the vicinity of the project area. Habitat could support this species; however, based on biological surveys at the proposed project site, the potential for occurrence is very low.	-- / ST
Taxidea taxus American badger	Species recorded in the vicinity but sightings are rare. Current habitat could not support this species. No potential for occurrence.	-- / CSC
Thamnophis hammondii Two-striped garter snake	Species is highly aquatic and current habitat could not support this species. No potential for occurrence.	-- / CSC
Toxostoma lecontei Le Conte's thrasher	Most recent sighting in vicinity of the proposed project site was in 1968. Current habitat does not likely support this species. Potential for occurrence is low.	-- / CSC

Key

USFWS
FE = federally endangered
FT = federally threatened
FC = federal candidate
FSC = federal species of concern

CDFG
SE = state endangered
ST = state threatened
SC = state candidate
SSC = state species of special concern
SE-FP = state fully protected

SOURCE: CDFG, 2007; Skinner and Pavlik, 2004; and USFWS 2006.

Plants

There are nine special-status plant species reported in the vicinity of the project site, which are listed in Table 3.9.2. None of the special-status plant species expected to occur in the general project region are state- or federally-listed. Eight of these plants are designated by CNPS as List 1B or List 2 plants, and would be considered sensitive under the Native Plant Protection Act and California Endangered Species Act (CESA). Based on the field reconnaissance and review of the above information, none of these plant species have a potential to occur on the project site.

Wetlands

Wetlands comprise a diverse group of seasonal and permanent aquatic habitats that support diverse plants and animals. Wetlands are analyzed separately both for their biological importance, and for state or federal policies that distinguish wetlands from other plant communities. The project site is not located within an area that possesses the proper vegetation (i.e., a preponderance of hydrophytes or "water loving" plants), soils, (i.e., hydric or waterlogged soils),

TABLE 3.9.2
SPECIAL STATUS PLANT SPECIES POTENTIALLY PRESENT IN THE PROJECT SITE AND ITS VICINITY

Species Common Name (*Scientific Name*)	**Potential for Occurrence**	**Survey/ Identification Period**	**Status USFWS/DFG/ CNPS**
Lancaster milkvetch *Astragalus preussii* var. *laxiflorus*	Last observed in immediate project area in 1902. The current habitat does not support this species.	April – May	--/--/List 1B.1
Alkali mariposa lily *Calochortus striatus*	Numerous records in project area and surrounding vicinity. Current habitat not likely to support species.	April – June	--/--/List 1B.2
Fox sedge *Carex vulpinoidea*	Last observed in 1902 in Lancaster. Current habitat does not support this species.	May – June	--/--/List 2.2
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Observed in 1896 in general area of Lancaster. Current habitat does is not likely to support this species.	April – June	--/--/List 3.2
Barstow wooly sunflower *Eriophyllum mohavense*	Last observed in 1995 along LA/Kern county border. Habitat not likely to support this species.	April – May	--/--/List 1B.2
Red rock poppy *Eschscholzia minutiflora* ssp. *twisselmannii*	Last observed near Edward Air Force Base (EAFB) in 1977. Current habitat not likely to support this species.	March – May	--/--/ List 1B.2
Pale-yellow layia *Layia heterotricha*	Last observed in 1895 near Lancaster. Current habitat not likely to support this species.	March – April	--/--/List 1B
Sagebrush loeflingia *Loeflingia squarrosa* var. *artemisarium*	Last observed in 2005 in Lancaster and surrounding areas. Current habitat not likely to support this species.	April – May	--/--/List 2.2
Short-joint beavertail *Opuntia basilaris* var. *brachyclada*	Last observed in the surrounding area in 1989. Current habitat could possibly support this species.	April – June	--/--/ List 1B.2
Plant Communities			
Valley Needlegrass Grassland Community	Confirmed not present	[Site Visit]	
Wildflower Field	Confirmed not present	[Site Visit]	

Status Codes:

CNPS

List 1B = plants rare, threatened, and endangered in California and elsewhere

List 1B.1 = Seriously threatened in California

List 1B.2 = fairly threatened in California

List 2 = plants rare, threatened, or endangered in California but more common elsewhere

List 2.2 rare, threatened or endangered in California, not elsewhere; fairly threatened in California

List 3 = plants about which more information is needed

or hydrologic conditions (i.e., inundated either permanently or periodically or saturated during the growing season of the prevalent vegetation) to be defined a wetland according to the U.S. Army Corps of Engineers' (USACE) Wetlands Delineation Manual.

The biological reconnaissance survey identified an artificial concrete pond located on site. This feature does not contain any vegetation, soils, or pooled water. A wetland delineation of the project site is not necessary; there are no wetlands on the project site.

3.9.3 Regulatory Framework

CEQA Guidelines Section 15380

Although threatened and endangered species are protected by specific federal and state statutes, *CEQA Guidelines* Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in Federal Endangered Species Act (FESA) and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in *CEQA* primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a candidate species that has not been listed by either USFWS or CDFG. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agencies have an opportunity to designate the species as protected, if warranted. CEQA also calls for the protection of other locally or regionally significant resources, including natural communities. Although natural communities do not at present have legal protection of any kind, CEQA calls for an assessment of whether any such resources would be affected, and requires findings of significance if there will be substantial losses. Natural communities listed by CNDDB as sensitive are considered by CDFG to be significant resources and fall under the CEQA Guidelines for addressing impacts. Local planning documents such as general plans often identify these resources as well.

Federal Endangered Species Act

Under FESA, the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as Threatened or Endangered (16 U.S.C. 1533(c)). All cities are subject to FESA as a part of the CEQA process.

The USFWS (jurisdiction over plants, wildlife, and resident fish) and the National Marine Fisheries Service (NMFS) (jurisdiction over anadromous fish and marine fish and mammals) oversee FESA. Section 7 of FESA mandates that all federal agencies consult with USFWS and NMFS to ensure that federal agencies' actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species. The federal agency is required to consult with USFWS and NMFS if it determines a "may affect" situation would occur in association with the proposed project. FESA prohibits the "take" of any fish or wildlife species listed as Threatened or Endangered, including the destruction of habitat that could hinder species recovery.

Under Section 9 of FESA, the take prohibition applies only to wildlife and fish species. However, Section 9 does prohibit the removal, possession, damage or destruction of any Endangered plant from federal land. Section 9 also prohibits acts to remove, cut, dig up, damage, or destroy an

Endangered plant species in nonfederal areas in knowing violation of any state law or in the course of criminal trespass. Candidate species and species proposed for, or are under petition for listing, receive no protection under Section 9 of FESA.

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

Regulation of Special Status Species

Pursuant to the requirements of FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether any federally-listed or proposed species may be present in the project region and determine whether the proposed project would have a potentially significant impact on such species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under the FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 U.S.C. 1536(3),(4)). Project-related impacts to these species or their habitats would be considered a "take"[12] under FESA and must be duly authorized by the USFWS under the incidental take authorization provisions of Section 7 or Section 10 of FESA.

Although Threatened and Endangered species are protected by specific federal and state statutes, *CEQA Guidelines* Section 15380(b) provides that a species not listed *de jure* as Threatened or Endangered by the state or federal government may be considered *de facto* rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals, and draw from other sources as well, including the federal Migratory Bird Treaty Act (16 U.S.C., Sec. 703, Supp. I 1989) and other provisions of the Fish and Game Codes. This section was included in the *CEQA Guidelines* primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a "candidate species" that has not yet been listed by either USFWS or CDFG. By implication, a potential impact to any Special Status species found or presumed present on a project site will be significant under CEQA and should be mitigated.

California Endangered Species Act

California implemented its own Endangered Species Act in 1984. The state act prohibits the take of Endangered and Threatened species. However, habitat destruction is not included in the state's definition of take. Section 2090 of California Endangered Species Act (CESA) requires state agencies to comply with endangered species protection and recovery to promote conservation of

12 "Take" as defined in Section 9 of FESA, is broadly defined to include intentional or accidental "harassment" or "harm" to wildlife.

these species. CDFG administers the act and authorizes take through Section 2081 agreements (except for designated "fully protected species").

Regarding rare plant species, CESA defers to the California Native Plant Protection Act of 1977, which prohibits importing of rare and endangered plants into California, taking of rare and Endangered plants, and selling of rare and Endangered plants. State-listed plants are protected mainly in cases where state agencies are involved in projects under CEQA. In this case, plants listed as rare under the California Native Plant Protection Act are not protected under CESA but can be protected under CEQA.

California Fish and Game Code

Section 3503.5 of the California Fish and Game Code prohibits the removal of raptor nests.

Other Statutes, Codes and Policies Affording Limited Species Protection

The federal Migratory Bird Treaty Act[13] (MBTA) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs, and nearly all bird species are included, although some individual birds within some species are excluded. Birds of prey are protected in California under the State Fish and Game Code, Section 3503.52. Section 3503.5 states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered a "taking" by CDFG. Any loss of fertile eggs, nesting raptors or any activities resulting in nest abandonment would constitute a significant impact. This approach would apply to red-tailed hawks, Great Horned Owls, and other birds of prey. Project impacts to these species would not be considered significant in this EIR unless they are known to have a high potential to nest on the site or rely on it for primary foraging.

The federal Bald-Eagle Protection Act prohibits persons within the U.S. (or other places subject to U.S. jurisdiction) from "possessing, selling, purchasing, offering to sell, transporting, exporting, or importing any bald eagle or golden eagle, alive or dead, or any part, nest, or egg thereof."

City of Lancaster General Plan

Adopted in 1997 (last amended September 2008), the General Plan contains policies that address biological resources in Chapter II, *Plan for the Natural Environment*. In general, however, these

13 *16 United States Code, Sec. 703, Supp. I,* 1989.

policies address Joshua Tree-California Juniper Woodlands areas, Significant Ecological Areas (SEAs), Prime Desert Woodlands, the Prime Desert Woodland Drainage Study Area; and open space in and around Poppy Preserve. The project site is not located in or near any of these areas.

3.9.4 Impacts

Significance Criteria

According to Appendix G of the CEQA Guidelines provides guidance for assessing the significance of potential environmental impacts. Relative to biological resources, a project would normally have a significant effect on the environment if it would:

- Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, polices, or regulations by the CDFG or USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means;
- 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or
- 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 City of Lancaster does not have any relevant local policies or ordinances for the protection of biological resources nor does the City have any adopted Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan and this issue is not further addressed in this EIR.

Field reconnaissance and background research conducted as part of this EIR have established that the proposed project would not have a substantial adverse effect on riparian habitat, any sensitive natural community as identified in local or regional plans, polices, or regulations by the CDFG or USFWS. Additionally, the proposed project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act. The biological reconnaissance survey identified an artificial concrete pond located on site. This feature does not contain any vegetation, soils, or pooled water. A wetland delineation of the project area is not necessary; there are no wetlands on the project site. The property does not contain any sensitive

natural communities, wetlands, or waterways and no impact pertaining to this issue would occur from implementation of the proposed project and this issue is not further addressed in this EIR.

CEQA Section 15380 further provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists if, for example, it is likely to become Endangered in the foreseeable future.

Based on guidelines established by the USFWS and the CDFG, a project could be considered to have a significant adverse impact on biological resources if it would result in substantial disruption to, or destruction of, any special status species, their habitat, or breeding grounds. A project would also be considered to have a significant impact if it would result in a substantial loss of important plant of animal species; would cause a change in species composition, abundance or diversity beyond that of normal variability; would result in the direct or indirect measurable degradation of sensitive habitats (e.g., wetlands, riparian corridors, vernal pools, oak woodlands); or would result in loss of a significant plant community.

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status or protection under federal or state endangered species legislation, are defined as follows:

List 1A: Plants believed extinct

List 1B: Plants Rare, Threatened or Endangered in California and Elsewhere.

List 2: Plants Rare, Threatened or Endangered in California, but More Numerous Elsewhere.

List 3: Plants about which we need more information – a review list.

List 4: Plants of limited distribution – a watch list.

In general, plants appearing on CNPS[14] List 1 or 2 are considered to meet CEQA's Section 15380 criteria and effects to these species are considered "significant."

Impacts

Impact 3.9-1: Implementation of the proposed project, through habitat modification and construction activities, would affect Nesting/Migratory Birds and Raptors protected by the MBTA.[15]

As noted previously, there are raptor nests that have been identified on the property. Implementation of the proposed project could disturb raptors that are known to forage and roost. The proposed project would result in the displacement of a great horned owl and its nest, and an unidentified raptor nest (possibly red-tailed hawk) as identified during ESA's biological reconnaissance survey. Although not special-status birds, these raptors are afforded protection

[14] *Skinner and Pavlik,* 1994.
[15] *16 United States Code, Sec. 703, Supp. I,* 1989.

under MBTA. With incorporation of Mitigation Measure BIO-1, impacts to nesting or migratory birds and raptors would be less than significant. As a part of a survey conducted on April 23, 2008, approximately three bird nests were found in the trees remaining on the project site. These nests belong to native bird species. During demolition of the on-site structures, the developer was required to maintain a construction-free radius around the trees so that they would not be affected.

Impact 3.9-2: Activities associated with the construction of the proposed project could result in adverse impacts to special-status bat species including pallid bat and spotted bat.

There were four abandoned structures on the property that had the potential to harbor bats, some of which may have been special-status species. The results of the general biological reconnaissance survey conducted on April 11, 2007 did not confirm the absence of bats, and as a result, a bat survey was conducted in April, 2008, prior to demolition of the buildings. The survey confirmed the absence of any bat species (special status or otherwise) within the abandoned buildings on the project site. Because the structures associated with the project site have been removed, and because most trees have been removed, the project would no impact on special-status bat species. No additional mitigation is required.

Cumulative Impacts

The proposed project would be developed on a site that does not contain native habitat types and affords very limited opportunities for biological resources, mainly nesting opportunities for birds within the trees at the site. The proposed project is located in an immediate area that has limited sensitive biological resources. Therefore, construction and operation of the proposed project would not appreciably affect sensitive biological species and associated resources to the point where a significant cumulative impact to biological resources would occur. As a result, there would be a less than significant impact to cumulative biological resources.

The proposed project would not have individually significant biological impacts after mitigation. In accordance with CEQA, all other related projects would be required to evaluate and mitigate biological impacts on an individual project basis. Therefore, the proposed project in conjunction with the projects listed in Table 4.1, City of Lancaster – Area Projects, would not be cumulatively considerable.

3.9.5 Mitigation Measures

Measure BIO-1: Nesting and Migratory Birds and Raptors. The following measures would apply on and adjacent to the project site to reduce the potential for impacts to a less than significant level and avoid incidental take or impact to nesting and migratory birds and raptors.

- To the extent feasible, all vegetation removal must be completed during the non-nesting season (September 1 – March 1).
- Within 15 days of any project actions (e.g., grading, vegetation removal, etc.) the developer shall have a qualified biologist conduct a pre-construction, migratory bird

and raptor nesting survey. The biologist must be qualified to determine the status and stage of nesting efforts by migratory birds and all locally breeding raptor species without causing intrusive disturbance. This survey should conduct focused preconstruction breeding-bird surveys to include the great horned owl and red-tailed hawk, as well as other species protected under MBTA, in all areas that may provide suitable nesting. It shall also cover all reasonably potential nesting locations for the relevant species on or closely adjacent to the project site.

- If an active nesting effort is confirmed or considered very likely by the biologist, no construction activities should occur within at least 500 feet of the nesting site. Measures available as options to address this constraint are dependent on the species and any other protections afforded it, details of the nest site, the nest stage, types and levels of ongoing disturbances, the relevant project actions, and distances involved. Potentially appropriate measures may include one or more of the following as authorized by the USFWS and CDFG : (1) delaying work at the nest site location until either the nest has failed (for non-project-related reasons) or seven days after the last young leaves the nest, or (2) taking the young nestlings to a qualified wildlife rehabilitation center.

3.9.6 Significance after Mitigation

The proposed project would not have individually significant biological impacts after mitigation.

3.10 Cultural Resources

3.10.1 Introduction

The assessment of project impacts on cultural resources under CEQA (CEQA Guidelines, Section 15064.5) is a two-step process: (1) determine whether the project site contains cultural resources (defined as prehistoric archaeological, historic archaeological, or historic architectural resources). If the site is found to contain a cultural resource, then (2) determine whether the proposed project would cause a substantial adverse change to the resource. The setting discussion describes the project site and the existing properties identified within the project site. The impact discussion reviews the criteria for significant impacts on cultural resources and assesses the impact of implementation of the proposed project on cultural resources. The primary source of information for this section was obtained from a cultural resources investigation (McKenna Report) prepared for development of the project site in 2007, a copy of which is located in Appendix H.

3.10.2 Environmental Setting

Prehistoric Setting

The project site lies within the extreme western part of the Mojave Desert. The earliest evidence of human occupation of the Mojave Desert dates from around 12,000 Before Present (B.P.) to 7,000 B.P. (the Lake Mojave Period). Sites dating to this period are often found in association with Late Pleistocene/Early Holocene lakes and outwash drainages, and suggest a focus on subsistence patterns. Artifacts typical of the period include leaf-shaped points and long-stemmed, narrow-shouldered points of the Lake Mojave series and the short-bladed, shouldered points of the Silver Lake series, as well as a variety of large scrapers and flaked stone crescents. The next identifiable period in the Mojave Desert (7,000 B.P. to 4,000 B.P.) is associated with Pinto points, which signaled the beginning of cultural adaptation to the desert's arid climate, and a focus on hunting large mammals. Like sites of the preceding period, Pinto sites are typically found in open settings in relatively well-watered locales. The Gypsum Period (4,000 B.P. to 1,500 B.P.) corresponds to more favorable environmental conditions in the prehistory of the Mojave Desert, which allowed an increase in population. Sites from this period indicate a continued emphasis on hunting, but with an increase in the importance of processing plant foods, as indicated by the existence of groundstone implements. Sites from this period have also yielded basketry, split-twig figures, and atlatles. Open sites are in evidence, along with rock shelters and caves. The Saratoga Springs period (1,500 B.P. to 750 B.P.) is characterized by the existence of Eastgate and Rose Spring points, and was marked by an increase in regional differences. The Protohistoric period (750 B.P. to present) was marked by the presence of Desert Side-notched projectile points. Sites from this period include habitation sites with developed middens located near reliable water sources, temporary camps, and a variety of procurement and processing stations.

Paleontological Setting

Paleontological resources are the fossilized evidence of past life found in the geologic record. Despite the tremendous volume of sedimentary rock deposits preserved worldwide and the enormous number of organisms that have lived through time, preservation of plant or animal remains as fossils is an extremely rare occurrence. Because of the infrequency of fossil preservation, fossils, particularly vertebrate fossils, are considered to be nonrenewable resources. Due to their rarity and the scientific information they can provide, fossils are highly significant records of ancient life.

The project site is underlain by younger Quaternary Alluvium soils that typically do not contain significant vertebrates fossils. Older and deeper Quaternary sediments in the area may, however, contain significant remains of fossil vertebrates. While there are no recorded vertebrate fossils directly on the project site, there are recorded fossils southeast of the project site located within the same types of sedimentary deposits that occur at the project site, and were identified at depths as shallow as ten feet below the surface.

Historic Setting

Francisco Garces' exploration of the Fort Irwin area in the late 1770s marked the first Spanish contact with the native peoples of that region, including the Chemeheuvi and the Kawaiisu peoples. Other exploratory expeditions in the 1850s that crossed the Mojave Desert reported Indian settlements. John C. Fremont's expedition in 1844 was one of the most important early surveys of the Mojave that established knowledge of the major features of the region. In the early 1850s, the federal government allocated funds for railroad and land surveys to investigate a route for a transcontinental railway. Lieutenant Robert Williamson's survey of 1853 identified the Tehachapi Pass and the source waters for the Mojave River, and provides one of the earliest impressions of any dry lake bed. Several other railroad surveys were conducted prior to construction of the Southern Pacific line from Los Angeles to San Francisco, each adding to the growing body of information about the Mojave area. The opening of the railroad in 1867 paved the way for the founding of the communities of Mojave and Rosamond in that same year, with the development of Lancaster about eight years later.

In 1884, Scottish real estate developer M.L. Wicks purchased six sections of land from the Southern Pacific Railroad, and named the area "Lancaster" presumably after his former home in Lancaster, Pennsylvania (although others credit the railroad with the naming of the new town). Following the completion of the railroad and the establishment of a water stop, the Western Hotel was built, and by 1890, Lancaster's population was growing. In 1898, gold was discovered in the hills north of Lancaster which attracted scores of prospectors. In the 1930s, the Air Force began conducting test flights at Muroc Air Base, greatly increasing Lancaster's population. The City incorporated in 1977 as an attempt to break away from the political influence of Los Angeles.

History of the Project Site

The project area is a 22.34-acre parcel located in the southeastern quarter of Section 22, a section which was originally homesteaded by Henry C. McBurney as early as 1887. The estimated 160-acre homestead would have required improvements, but not necessarily within the project site. A review of historic USGS maps indicates that the project site was vacant in 1933, but that structures were present on land to the north. By 1958, USGS maps indicate that the Meadowlark Golf Course and a series of structures along 60th Street West had been constructed. The current USGS map (1974), which also illustrates these previous structures, indicates one had been removed and others added. Based on map data, it appears that the McBurney homesteading improvements were not located within the current boundaries of the project site, and no significant improvements were associated with this area until 1946. At the time of the cultural resources survey, several structures and features were located on the property. These structures were consistent with the area's post-1946 development and occupation, and included two residential structures, the golf course pro shop, a restroom structure, well heads for irrigation, a pump house, storage sheds, corrugated metal water tanks, a large propane tank, and evidence of former reservoirs and a filled-in concrete pool.

One residence, identified as the "east residence," exhibits construction from the 1920s-1930s with numerous later additions, and was likely relocated to the project site sometime after the reported 1946 occupation of the property. The second "west residence" is likely a 1956 addition to the property, and the secondary structures such as the pump house and shed are dated from sometime between 1946 and 1958. It appears that the property was occupied only after World War II (WWII) and as an agricultural enterprise with single residences, wells, pump houses, reservoirs and tilled fields. In the mid-1950s, the golf course was established on the project site and surrounding area, providing recreational uses into the 1990s. In the 1970s, the buildings associated with the golf course were constructed. Since the time of the survey, all structures on the property have been demolished.

Methodology

A cultural resources investigation of the project site was conducted and included an archival records search, Native American consultation, field survey, and contact with the Natural History Museum of Los Angeles County and peer reviewed by ESA (see Appendix H). Each of these is described below.

The archival records search was conducted at the South Central Coastal Information Center (SCCIC), at California State University, Fullerton. This search included a review of all recorded historic and prehistoric archaeological sites within a one-half mile radius of the project site, as well as a review of all known cultural resource reports. In addition, the Directory of Properties in the Historic Property Data File for Los Angeles County for information on sites of recognized historical significance listed in the National Register of Historic Places, the California Register of Historical Resources, the California Inventory of Historic Resources, California Historical Landmarks, and the California Points of Historical Interest were reviewed.

The Native American Heritage Commission (NAHC) in Sacramento was consulted in order to inquire about the existence of significant archaeological sites in the general area. This consultation also involved writing letters to various Native Americans within Los Angeles County requesting information regarding the area, which constitutes a consultation.

On December 15, 2006, an intensive archaeological field survey of the project site was completed by surveyor Abe McKenna, who recorded and evaluated all structures and features identified on the property.

Finally, the Natural History Museum of Los Angeles was contacted to identify the potential existence of recorded paleontological resources on or near the project site.

Results

Prehistoric and Historic Archaeological Resources

The archival research and intensive-level field survey revealed that there are no recorded prehistoric or historic archaeological sites on the project site or in the immediate area. One recorded prehistoric archaeological site (19-002099) was identified within a one-mile radius of the project site, and was described as a temporary campsite dominated by flaked stone tools and a ground stone. Four historic-era archaeological sites were identified within one mile of the project site, described as historic refuse concentrations from the mid-twentieth century, and an habitation/agricultural site dating to the 1880s and 1890s. The archaeological field survey of the site revealed no evidence of prehistoric resources or occupation on the project site. Several historic-period structures were identified (described above under the history of the project site); however, these were demolished in April, 2008. Written communications with the NAHC and other Native American groups resulted in no specific concerns with respect to archaeological resources on or near the project site.

Paleontological Resources

No recorded paleontological resources were identified on the project site, and no such resources are likely to be identified within the project area unless the excavations for development exceed the depths of the recent alluvium and could impact fossil bearing deposits (generally greater than nine feet).

3.10.3 Regulatory Framework

Regulations that govern cultural resources are discussed below.

Federal

National Register of Historic Places

First authorized by the Historic Sites Act of 1935, the National Register of Historic Places (National Register) was established by the NHPA of 1966, as “an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation’s

historic resources and to indicate what properties should be considered for protection from destruction or impairment." The National Register recognizes both historical-period and prehistoric archaeological properties that are significant at the national, state, and local levels. The National Register criteria and associated definitions are outlined in *National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation*. Resources (i.e., structures, sites, buildings, districts, and objects) over 50 years of age can be listed in the National Register provided that they meet the evaluative criteria described below.

Properties under 50 years of age that are of exceptional importance or are contributors to a district, and that also meet the evaluative criteria, can also be included in the National Register. Resources can be listed individually in the National Register or as contributors to a historic district.

The National Register includes four criteria under which a structure, site, building, district or object can be considered significant for listing in the register. These include:

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

A resource may be considered eligible for listing in the National Register if it meets one or more of the above-listed criteria for significance and possesses integrity. Historic properties must retain their integrity to convey their significance. Although the evaluation of integrity is sometimes a subjective judgment, it must be grounded in an understanding of the resource's physical features and how they relate to its significance. The National Register recognizes seven aspects or qualities that define integrity; location, design, setting, materials, workmanship, feeling, and association.

State

California Register of Historical Resources

The California Register of Historical Resources is a listing of resources that are significant within the context of California's history. The California Register is a statewide program of similar scope to the National Register. All resources listed in or formally determined eligible for the National Register are also eligible for listing in the California Register. In addition, properties designated under municipal or county ordinances are also eligible for the California Register. A historic resource must be significant at the local, state, or national level under one or more of the following criteria defined in the California Code of Regulations (CCR), Title 14, Chapter 11.5, Section 4850:

- It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- It is associated with the lives of persons important to local, California, or national history;
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The California Register criteria are similar to National Register criteria, and any resource that meets the above criteria is considered a historical resource under CEQA.

California Environmental Quality Act Statute and Guidelines

The CEQA Statute and Guidelines include procedures for identifying, analyzing, and disclosing potential adverse impacts on cultural resources, which include all resources listed in or formally determined eligible for the National Register, the California Register, or local registers.

CEQA requires the lead agency to consider the effects of a project on archaeological resources and to determine whether any identified archaeological resource is a historical resource (i.e., if the archaeological resource meets the criteria for listing in the California Register) (CEQA Guidelines Sections 15064.5[a][1] and [3] and [c][1] and [2]). An archaeological resource that qualifies as a historical resource under CEQA generally qualifies for listing under Criterion D of the California Register (CEQA Guidelines Section 15064.5[a][3][D]). An archaeological resource may qualify for listing under Criterion D when it can be demonstrated that the resource has the potential to significantly contribute to questions of scientific or historical importance. Archaeological resources that are not historical resources according to the above definitions may be "unique archaeological resources," as defined in Public Resources Code Section 21083.2, which generally provides that "non-unique archaeological resources" do not receive any protection under CEQA. If an archaeological resource is neither a unique archaeological resource nor a historical resource, the effects of a project on those resources are not considered significant.

CEQA defines a historical resource as a resource that meets any of the following criteria:

- A resource listed in, or determined to be eligible for listing in, the National Register or California Register;
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, unless evidence demonstrates that it is not historically or culturally significant;
- A resource identified as significant (e.g., rated 1 through 5) in a historical resource survey meeting the requirements of Public Resources Code Section 5024.1(g) (Department of Parks and Recreation Form 523), unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals

of California, provided the determination is supported by substantial evidence in light of the whole record. Generally, a resource is considered "historically significant" if it meets the criteria for listing in the California Register (CEQA Guidelines Section 15064.5); or

- A resource that is determined by a local agency to be historically or culturally significant even though it does not meet the other four criteria listed here (e.g., Article 10 and Article 11 of the San Francisco Planning Code).

According to the CEQA Guidelines (Section 15064.5[a][3]), a resource is generally considered historically significant if the resource meets the criteria for listing in the California Register (Public Resources Code Section 5024.1, CCR, Title 14, Section 4852). A historical resource is defined as any site that:

- Is listed in, or determined to be eligible by the State Historical Resources Commission for listing in the California Register, or is determined to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California; and
- Meets any of the following criteria:
  - Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
  - Is associated with the lives of persons important in our past;
  - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
  - Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, a resource included in a local register of historical resources, as defined by Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of Section 5024.l(g) of the Public Resources Code, is presumed to be historically or culturally significant. Archaeological resources may be historical resources under CEQA.

CEQA Guidelines Section 15064.5 provides that, in general, a resource not listed in state or local registers of historical resources shall be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the California Register. This section also provides standards for determining what constitutes a "substantial adverse change" on archaeological or historical resources, including physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired (CEQA Guidelines Section 15064.5[b][1]). The significance of a historical resource is considered to be materially impaired when a project demolishes or materially alters in an adverse manner those characteristics that convey its historical significance and that justify its inclusion on a historical resource list (CEQA Guidelines 15064.5[b][2]).

CEQA Guidelines Section 15064.5(b)(3) indicates that projects that are consistent with the *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating*

Historic Buildings generally "shall be considered as mitigated to a level of less than a significant impact on the historic resource."

Senate Bill (SB) 18

Effective January 2005 and in conformance with Senate Bill 18, which was signed into law by the Governor of California in September 2004, on or after March 1, 2005, local governments are required to consult with tribes before making certain planning decisions and to provide notice to tribes at certain key points in the planning process. The intent is to "provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places" (Governor's Office of Planning and Research 2005).

According to the *Tribal Consultation Guidelines: Supplement to General Plan Guidelines* (2005), the following identifies the contact and notification responsibilities of local governments:

- Prior to the adoption or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the Native American Heritage Commission [NAHC]) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts to, cultural places located on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code §65352.3).

- Prior to the adoption or substantial amendment of a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the city or county's jurisdiction. The referral must allow a 45-day comment period (Government Code §65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.

- Local government must send a notice of a public hearing, at least 10 days prior to the hearing, to tribes who have filed a written request for such notice (Government Code §65092).

3.10.4 Impacts

Significance Criteria

According to Appendix G of the State CEQA Guidelines, the proposed project could have a significant impact on cultural resources if it would result in any of the following:

- A substantial adverse change in the significance of a historical resource that is either listed or eligible for listing on the National Register of Historic Places, the California Register of Historical Resources, or a local register of historic resources;
- A substantial adverse change in the significance of a unique archaeological resource;
- Disturbance or destruction of a unique paleontological resource or site or a unique geologic feature; and/or

- Disturbance of any human remains, including those interred outside of formal cemeteries.

CEQA provides that a project may result in a significant environmental effect if it would cause a substantial adverse change in the significance of a historical resource (Public Resources Code, Section 21084.1). CEQA Guidelines Section 15064.5, subdivision (b)(1), defines a "substantial adverse change" in the significance of a historical resource to mean "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired."

CEQA Guidelines, Section 15064.5, subdivision (b)(2), defines "materially impaired" for purposes of the definition of "substantial adverse change…" as follows:

The significance of an historical resource is materially impaired when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources;
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Impacts

Prehistoric Archeological Resources

Impact 3.10-1: Project construction could adversely affect unknown cultural resources, including unique archaeological resources.

The potential for encountering significant buried prehistoric and historic archaeological resources is low, but not nonexistent. No archaeological resources were identified within the project area; however, there is still a possibility that previously unknown archaeological sites may occur anywhere within the project area, including those areas considered to have low sensitivity for the existence of prehistoric cultural resources. Inadvertent damage to significant buried archaeological deposits during project construction would be a significant impact.

Paleontological Resources

Impact 3.10-2: The proposed project could adversely affect unidentified paleontological resources.

While paleontological resources are not expected to be discovered during project construction, significant fossils could be discovered during excavation activities in the older layers of alluvium

soil, which occur approximately ten feet below the surface. Fossils encountered during excavation in these soil depths could be inadvertently damaged. If a paleontological resource is discovered, the impact to the resource could be significant.

Human Remains

Impact 3.10-3: Project construction could result in damage to previously unidentified human remains.

There is no indication that the project site has been used for human burial purposes in the recent or distant past. Therefore, it is unlikely that human remains would be encountered during construction of the proposed project. However, in the unlikely event that previously unidentified human remains were discovered during project construction, including those interred outside of formal cemeteries, the human remains could be inadvertently damaged, which would be a significant impact.

Historic Architectural Resources

Impact 3.10-4: The proposed project would not have an impact on historic architectural resources.

Several structures were identified on the project site, including two residential structures, a golf course pro shop, a restroom structure, well heads for irrigation, a pump house, storage sheds, corrugated metal water tanks, a large propane tank, and evidence of a filled-in concrete pool, all of which date to post-1946 occupation of the property. However, all structures have since been demolished. Construction of the proposed commercial shopping center would have no impact to any potentially historic setting, as no historic architectural resources have been identified on the project site or in the project vicinity.

Cumulative Impacts

There is the potential for future development projects in the vicinity to disturb landscapes that may contain known or unknown cultural resources. However, future projects with potentially significant impacts to cultural resources would be required to comply with federal, state, and local regulations and ordinances protecting cultural resources through implementation of similar mitigation measures during construction. Therefore, the potential construction impacts of the proposed project, in combination with other projects in the area, would not contribute to a cumulatively significant impact on cultural or paleontological resources.

3.10.5 Mitigation Measures

The following section contains several mitigation measures to reduce potential impacts to cultural resources during construction of the proposed project (i.e., accidental damage or destruction of previously unknown archaeological sites) to a less than significant level.

Measure CUL-1: If any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, all work within 50 feet of the resources shall be halted and the project proponent shall consult with a qualified archaeologist to assess the significance of the find according to CEQA Guidelines Section 15064.5. Any finds shall be documented in a report to the City. If any find is determined to be significant, the project proponent and the archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be, as necessary and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards.

Measure CUL-2: In the event that paleontological resources are discovered during project construction, the project proponent shall notify a qualified paleontologist and the City of Lancaster. The paleontologist shall document the discovery, evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. If fossil or fossil bearing deposits are discovered during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the project proponent determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important. The plan shall be submitted to the City staff for review and approval prior to implementation.

Mitigation Measure CUL-3: If human skeletal remains are uncovered during project construction, the project proponent shall immediately halt work, contact the Los Angeles County coroner to evaluate the remains, contact the City of Lancaster, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County coroner determines that the remains are Native American, the project proponent shall contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641), and the City of Lancaster. Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendents regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. All reports filed with the County shall also be provided to the City.

3.10.6 Level of Significance after Mitigation

With the implementation of the mitigation measures above, all potential impacts to historic archaeological and paleontological resources would be reduced to a less-than-significant level.

3.11 Public Services and Utility Service Systems

3.11.1 Introduction

The purpose of this section is to analyze potential impacts to the City of Lancaster's utilities and public services that could occur with project implementation. For each of the public services and utilities included in this section, existing infrastructure and levels of service are described, as well as improvements required to accommodate the project demand for additional services. This section therefore describes current levels of service and or capacity, as appropriate, for construction and operation of the project. Services for the proposed project are assessed in terms of location of the services, existing and projected service ratios, response times, and other service objectives as applicable. Cumulative impacts are determined with consideration of projected development in the study area. Where impacts on services are determined to be potentially significant, mitigation measures are recommended to ensure adequate delivery of public services and utilities to the project.

3.11.2 Environmental Setting

Public Services

Police Protection

Police protection is provided in Lancaster by the Los Angeles County Sheriff's Department (Sheriff's Department). Lancaster is located in Field Operations Region I, which includes Altadena, Crescenta Valley, East Los Angeles, Malibu/Lost Hills, Santa Clarita Valley, Palmdale, Lancaster, and portions of unincorporated Los Angeles County. The Sheriff's Department is located at 501 West Lancaster Boulevard, approximately six miles from the project site. The area serviced by the Sheriff's Department is approximately 600 square miles, including the surrounding unincorporated areas of Los Angeles County, and serves a population of approximately 180,000.

The Lancaster Sheriff's Department is staffed by a total of 229 sworn personnel, 62 assigned civilian personnel, 82 black-and-white patrol vehicles, and six police motorcycles.[1] Officers are comprised of the Station Captain, seven Lieutenants, 24 Sergeants, 148 Deputies, and 25 investigators. The civilian employees consist of law enforcement technicians, community service assistants, and administrative staff. Additional support is provided by 266 Public Safety employees, 50 Sheriff Reserve Deputies, and 136 Sheriff Volunteers.

Personnel are deployed in three main shifts: an early morning shift that extends from 10 PM to 6 AM; a day shift that extends from 6 AM to 2 PM; and an evening shift from 2 PM to 10 PM The current ratio is one officer per 931 residents, with a target ratio of one officer per 1,000 residents.[2] In 2006, deputies from the Lancaster Station responded to 55,030 calls for service

[1] Carn, Gordon E., Acting Captain, County of Los Angeles Sheriff's Department, Letter to ESA, July 17, 2007.
[2] *Ibid.*

within the City. Of these calls, 3,328 were emergency calls, 10,605 were priority calls, and 41,097 were routine calls.[3] Table 3.11.1 displays the 2006 and 2007 Part I crimes[4] reported within the City of Lancaster.

TABLE 3.11.1
LANCASTER SHERIFF'S STATION 2006 AND 2007 PART I CRIME STATISTICS

Part I Crimes	2006	2007
Criminal Homicide	21	18
Forcible Rape	64	68
Robbery	464	472
Aggravated Assault	871	931
Burglary	1,790	1,835
Larceny Theft	2,684	2,847
Grand Theft Auto	1,215	984
Arson	76	128
Total	**7,185**	**7,283**

SOURCE: Los Angeles County Sheriff's Department, 2007.

Response times to a call are measured from the time a call is received, until the deputy arrives on location. Response times vary, as calls are handled by the nearest available patrol car located within the patrol area. Response times for the City and the project area average approximately 5.5 minutes for emergency calls (immediate and/or life threatening), 14.4 minutes for priority calls (immediate but not life threatening), and 79.9 minutes for routine calls.[5] While response times are deemed adequate, the Department is continually implementing programs to reduce response times.

The Sheriff's Department has two special patrol units: the Lancaster Community Appreciation Project and the Target Oriented Policing Patrol. The Lancaster Community Appreciation Project addresses crime and code violations on residential rental properties and consists of eight Deputies and one Sergeant. The Target Oriented Policing Patrol handles quality of life issues, transients, and serial crimes. The Lancaster Station is also assigned a helicopter with advances equipment that includes satellite Global Positioning System (GPS) and a Forward Looking Infrared (FLIR) device.

Fire Protection

The Los Angeles County Fire Department (Fire Department) provides fire protection and emergency medical services to the City of Lancaster. All fire stations include, at a minimum, a

3 *Ibid.*
4 Under the Federal Bureau of Investigation's Uniform Crime Reporting Program, Part I crimes consist of murder and violent crimes.
5 Carn, Gordon E., Acting Captain, County of Los Angeles Sheriff's Department, Letter to ESA, July 17, 2007.

fire captain, fire engineer (driver) and a firefighter. There are seven fire stations within the City of Lancaster. Table 3.11.2, below, displays the location and staffing at each station. Fire Station No. 129 is where the Fire Department maintains an air squad for use in the Antelope Valley. The helicopter is used for medical transports, and fighting brush and large grass fires. The proposed project would receive fire protection services from Fire Station No. 84, located at 5070 West Avenue L-14 in unincorporated Quartz Hill, approximately three miles south east of the project site.[6]

TABLE 3.11.2
FIRE STATION LOCATIONS AND STAFFING

Station Number and Address	Unit Staffing	Unit Equipment
Station No. 33 Battalion Headquarters 44947 Date Avenue	3-Person Engine with Paramedic 2-Person Paramedic squad; and 4-Person Quint[a]	1 Battalion Chief 1 Engine 1 Quint 1 Paramedic Squad
Station No. 112 CFF[b] 8812 West Avenue E-8	Temporary Firefighters, which varies as needed.	"Paid Call" Fire Company 1 Engine
Station No. 129 Division Headquarters 42110 6th Street West	3-Person Engine Company 2-Person Paramedic Squad 2-Person Emergency Support Team 3-Person Air Squad 1-Person water tender 1-Person Helitender	-Engine 1-Paramedic Squad 1-EST
Station No. 130 44558 40th Street West	3-Person Engine company 5-Person Hazardous Materials Task Force; and 1 Hazardous Materials Unit	1 Engine
Station No. 134 43225 North 25th Street West	3-Person Engine Company 3-Person USAR[c]	1 Engine 1 USAR[c] Unit
Station No. 135 1846 East Avenue K-4	3-Person Engine Company 2-Person Paramedic Squad	1 Engine 1 Paramedic squad
Station No. 84 5030 West Avenue L-14 (Quartz Hill)	3-Person Engine Company; and 2-Person Paramedic Squad	1 Engine 1 Paramedic Squad

[a] A quint is a combination of engine/ladder truck apparatus.
[b] CFF is an abbreviation for Call Fire Fighter Station.
[c] USAR is an abbreviation for Urban Search and Rescue.

SOURCE: City of Lancaster, 2007.

Currently, the Fire Department maintains both automatic aid and mutual aid agreements with Kern County. Mutual aid is requested on an incident-by-incident basis.[7] Both aid agreements can be subject to cost reimbursement and are contingent on the availability of resources. The intent of mutual aid is that it only be invoked under exceptional circumstances. Automatic aid provides for the routine exchange of services across jurisdictional boundaries under pre-defined conditions. It

[6] Todd, John R., Los Angeles County Fire Department, Chief Forestry Division Prevention Services Bureau, January 2, 2008.
[7] *Ibid*.

is reciprocal and balanced in nature, but limited in scope. The automatic aid agreement between the Fire Department and Kern County currently does not provide for a Kern County response to the project site, except in the case of brush fire.

Emergency Medical Services

The Los Angeles County Fire Department currently provides paramedic services in the Lancaster area. Four paramedic squads are staffed by two paramedic and two firefighters. The air squad maintains two paramedic squads, and two Engines are staffed by one paramedic. In addition to the City-designated paramedics, ten regional paramedics are available to Lancaster when necessary from the surrounding stations. Ambulance service is currently provided by American Medical Response Ambulance Service (AMR) and is contracted through the Los Angeles County Fire Department. AMR provides all of the medical transport service used in the City of Lancaster. Under the County contract, AMR responds to all medical emergencies and transports the injured to local hospitals.

As noted above, the Sheriff's Department maintains a local helicopter for aerial surveillance stationed at Fire Station No. 129, which can also be used for transport in a medical emergency. Emergency transport is also available by helicopters stationed at hospitals in the Los Angeles area. Response times vary from 20 to 40 minutes, except during inclement weather. In addition, Los Angeles County Fire Department has an air ambulance service that is staffed with two paramedics.

Schools

The Lancaster area is served by four school districts; the two districts that would serve the project site are Westside Union School District, and Antelope Valley Union High School District. In combination, these districts provide educational services for students in kindergarten through 12th grade.

Westside Union School District

Westside Union School District (Westside) serves western Lancaster, west Palmdale, and unincorporated parts of Los Angeles County, including Antelope Acres, Del Sur, and Quartz Hill. Westside operates, six traditional elementary schools that accommodate grades K through 6, three additional schools that accommodate grades K through 8, and two middle schools that accommodate grades 7 and 8. All schools located within the Westside School District are on a single track/year round schedule.[8] Currently, there are 375 teachers and 390 support staff in the District.[9] The elementary school that would service the proposed project is Sundown Elementary School, located at 6151 West Avenue J-8, in Lancaster. In 2007, Sundown Elementary School enrolled 1,096 students, and in 2008, the enrollment was 1,121 students.[10] Based on the student/teacher ratio (1:29), the school is presently operating at capacity.[11] Del Sur School,

8 School starts mid-August with a four-week holiday break half-way through the school year.
9 Westside Union School District website accessed at www.westside.k12.ca.us/ on August 26, 2008.
10 Sundown Elementary School, personal communication with the principal's office, August 28, 2008.
11 Rodney, Principal, Sundown Elementary School, personal communication with ESA, August 28, 2008.

located at 9023 West Avenue H in Lancaster, is the middle school that would serve students at the project site. In 2007, the Del Sur School enrolled 944 students; the 2008 enrollment was 900 students.[12] Based on the student/teacher ratio (1:25 to 1:32), the school is presently operating at capacity. However, the school has experienced a decline in growth which the District attributes to the current state of the economy.[13]

Antelope Valley Union High School District

The Antelope Valley Union High School District (AVUHSD) provides education for students in grades 9 through 12. There are seven comprehensive high schools in the AVUHSD and four that serve the Lancaster study area: Antelope Valley High School, Eastside High School, Quartz Hill High School, and Lancaster High School. AVUHSD also operates three alternative programs, which consist of a continuation and alternative high school and one Adult/Independent Study program. These programs are held at the Desert Winds Continuation High School, Phoenix Community High School and the Antelope Valley Adult/Independent Study Program which is held at three sites throughout Lancaster. The high school that would service the proposed project is Quartz Hill High School located at 6040 West Avenue L. In 2007 Quartz Hill High School enrolled 3428 students; the 2008 enrollment was 3,228 students.[14] The average student/ teacher ration is (1:30). Capacity levels at each school within the district are determined by the utilization and availability of permanent class rooms. While all schools within the district are beyond capacity based on permanent structures, the schools have accommodated students through the use of modular structures.[15] For example, Quartz Hill High School was built during the 1960s and designed to accommodate 1,700 students at capacity. The school has been able to accommodate the 3,228 students enrolled this year through the use of an additional 50 modular classrooms.[16] Therefore, all the students are accommodated.

Parks and Recreation

City Parks

The City of Lancaster Parks, Recreation, and Arts Department is in charge of maintaining and supervising all parks. The City currently maintains 13 City parks and recreational facilities that include 448 acres of developed and undeveloped park and recreation land. Existing parks include five neighborhood parks, four community parks; one linear park, one open space park, and a variety of special recreation facilities. The City has an established park standard of five acres of parkland per 1,000 residents.[17]

The City parks nearest to the project site include the Rawley Duntley Park, Forest E. Hull Park, and Lancaster City Park. The Rawley Duntley Park is located approximately 2.5 miles east of the project site. Forest E. Hull Park is located approximately 4.0 miles southeast of the site, and the

12 Hines-Rutkowski, Deborah, Principal, Del Sur Schools, Personal communication with ESA, August 25, 2008.
13 *Ibid.*
14 Attendance Director, Antelope Valley Unified High School District, Personal communication with ESA, August 26, 2008.
15 *Ibid.*
16 *Ibid.*
17 Norton, Lyle Director of Parks, Recreation, and Arts, Letter to ESA, July 16, 2007.

Lancaster City Park is located approximately 4.25 miles east of the project site. Table 3.11.3, below, summarizes the locations, size, and amenities of City parks that would serve the project site. The George Lane County Park could also provide recreational facilities to serve the proposed project, given its location is approximately 1.6 miles from the project site.

TABLE 3.11.3
PARKS AND RECREATION FACILITIES WITHIN PROJECT SERVICE AREA

Name and Location	Acreage	Amenities
Neighborhood Parks		
Lancaster City Park/Big 8 Softball Complex 43011 North 10th Street West	65.6 acres	Includes all amenities except, horseshoe courts, soccer fields, and swimming pool.
Forrest E. Hull Park 30th Street West and L-12	8.7 acres	Restrooms, open play areas, and walking trails.
Rawley Duntley Park 3334 West Ave. K	19.0 acres	Restrooms, picnic tables, picnic shelter, barbecue facilities, open play areas, playground, walking trails, basketball courts, softball fields, and volleyball courts.

SOURCE: City of Lancaster, http://www.cityoflancasterca.org/Index.aspx?page=24, accessed July 31, 2007.

The City plans to construct two additional parks and to acquire all the remaining undeveloped park acreage (a total of 118.5 acres), the acquisition and completion of the parks is anticipated to be completed in or around 2010.[18]

Utilities and Service Systems

Water

Water supply for the City of Lancaster comes from two primary sources: the State Water Project (SWP) via the California Aqueduct, and groundwater extracted from the Antelope Valley groundwater basin.[19] Water is distributed by a number of retail water agencies, yet all water is provided from groundwater or imported water from the Antelope Valley-East Kern Water Agency (AVEK), and or a combination of both. AVEK is a wholesale water distributor that sells and distributes water to local public and private water agencies. In 1972, imported water was first delivered to the Antelope Valley through SWP. Presently, SWP water purchased from AVEK is the primary source of imported water to the City of Lancaster.[20]

The Los Angeles County Waterworks Districts (LACWD) is broken into five County retail waterworks districts that provide retail water; the proposed project would be serviced by County Waterworks District No. 40 (District No. 40).[21] LACWD provides water from two main sources

18 City of Lancaster, http://www.cityoflancasterca.org/Index.aspx?page=53, accessed on August 3, 2007.
19 City of Lancaster 2020 General Plan, December 11, 2001.
20 *Ibid*.
21 County of Los Angeles Department of Public Works, accessed on September 19, 2007 at http://ladpw.org/wwd/web/aboutus.cfm

of supply; local ground water and imported water. Imported water typically consists of water obtained from the Sacramento River/ San Joaquin Delta via the SWP.[22] The Districts purchase imported water from local SWP contractors and or regional wholesalers. The largest purveyor serving Lancaster is the Los Angeles County District No. 40.

Water Distribution

The City of Lancaster is served by the following district or mutual water companies:

- Averydale Mutual Water Company;
- California Water Service Company;
- Evergreen Mutual Water Company;
- Green Grove Mutual Water Company;
- Lawndale Mutual Water Company;
- Los Angeles County Waterworks District No. 40;
- Quartz Hill Water District;
- Sunnyside Farms Mutual Water Company; and
- White Fence Farms Mutual Water Company.

The largest water purveyors within the study area consist of the Los Angeles County District No. 40 and the Quartz Hill Water District (QHWD). District No. 40, Region 4, serves the majority of Lancaster. QHWD serves several large portions of southwest Lancaster, while some portions of Lancaster are served by individual wells. QHWD is a special district that primarily serves a 4.5-mile area comprising large portions of southwest Lancaster, Palmdale, and areas of unincorporated Los Angeles County between Lancaster and Palmdale. QHWD obtains water from District No. 40, its own wells, and AVEK.

Water was previously supplied to the site when it was a functional golf course. There is an existing groundwater supply well that would not be used for water supply purposes associated with the proposed project. Inactive wells are generally considered to be a potential risk for groundwater contamination. As facilities deteriorate, surface features that are intended to protect the well can be compromised and provide a conduit for contaminants to enter the well and adversely affect the groundwater quality.

2005 Integrated Urban Water Management Plan

The 2005 Integrated Urban Water Management Plan (UWMP) for the Antelope Valley was prepared to provide a summary of agency water supply and demands for the study area. The UWMP is also to be used as a tool to ensure future water reliability. The project site and general area is serviced by District No. 40. In 2004, District No. 40 serviced a population of approximately 156,889. It is projected that District No. 40 would service a population of 284,958 in 2020 and 360,731 by 2030.[23] District No. 40 has 36 active wells and seven new wells planned. Presently, District No. 40 maintains an average pumping rate of 20,000 AFY.[24] The current wells have a pumping capacity of 27,947 gallons per minute (gpm) and the proposed wells have a

[22] County of Los Angeles Department of Public Works, accessed on September 19, 2007 at http://ladpw.org/wwd/web/watersources.cfm
[23] 2005 Integrated Urban Water Management Plan for the Antelope Valley, December 16, 2005.
[24] *Ibid*.

project pumping capacity of 3,955 gpm (or 6,395 AFY). Thus, the District is using less then current or potential pumping capacity. In 2004, District No. 40 imported 26,231 AF from AVEK. Projected demand for the district is 70,000 AF by year 2020 and 64,500 AF by year 2030.[25]

Until 2001 District No. 40 did not keep records or water use or meters by customer class.[26] Table 3.11.4 below illustrates the water consumption usage by commercial and residential classifications for District No. 40.

TABLE 3.11.4
DISTRICT NO. 40 WATER DISTRIBUTION

Customer Category	2001		2002		2003		2004	
Land Use	Water Use (AF)	Meters	Water Use (AF)	Meters	Water Use (AF)	Meters	Water Use (AF)	Meters
Commercial	3,413	1,333	3,711	1,346	3,867	1,376	3,965	1,408
Single Family Residential	34,083	39,435	36,102	40,500	35,044	41,878	37,328	43,356

SOURCE: 2005 Integrated Urban Water Management Plan for the Antelope Valley

Residential water consumption far exceeds the usage of commercial water consumption in every documented year. In the last 15 years, District No. 40 experienced an average of approximately 1,300 new service connections per year.[27] However, with recent growth in the past few years, the District anticipates approximately 1,500 new connections per year. Table 3.11.5 displays the service connections based on projection demand.

TABLE 3.11.5
PROJECTED SERVICE CONNECTION DEMAND (AF)

Land Use	2010	2015	2020s	2025	2030
Commercial	4,600	5,200	5,800	6,500	7,100
Single-Family	44,800	50,800	56,800	62,800	68,800

SOURCE: 2005 Integrated Urban Water Management Plan for the Antelope Valley

Future demand estimates are often based on a variety of projections. In the UWMP three methods are used to determine projected water consumption: per capita use; number of service connections; and land use. Table 3.11.6 displays the land use service projections for District No. 40.

25 *Ibid.*
26 *Ibid.*
27 *Ibid.*

TABLE 3.11.6
LAND USE PROJECTIONS (AF)

District No. 40	2010	2015	2020	2025	2030
Commercial	4,600	5,200	5,800	6,500	7,100
Single-Family Residential	44,800	50,800	56,800	62,800	68,800

SOURCE: 2005 Integrated Urban Water Management Plan for the Antelope Valley.

Sewer

The proposed project is within the Sanitation Districts of Los Angeles County (SDLAC) service area. SDLAC is a collection of 24 independent special districts that serve the wastewater needs of approximately 5.2 million people in Los Angeles County, including 78 cities.[28] The collection, treatment, and disposal of wastewater within the City of Lancaster is handled by the Lancaster Wastewater Reclamation Plant (LWRP) under the jurisdiction of SDLAC District 14. The LWRP conveys and treats wastewater generated by residential, commercial and industrial areas from the City of Lancaster, as well as portions of the City of Palmdale and unincorporated County. The LWRP is located at 1865 West Avenue D in Lancaster on approximately 553 acres, and has been in operation since September of 1959. The plant has the capacity to serve a population of approximately 160,000 people and provides primary and secondary treatment for wastewater with a capacity to process up to 16 million gallons of wastewater per day (mgd).[29] The LWRP presently processes an average of 15 mgd. District No. 14 plans to upgrade the existing LWRP for a total capacity of 21 mgd by 2008 with a proposed future upgrade to 26 mgd by 2014.[30] Approximately 64 miles of trunk sewers convey wastewater generated within Lancaster to the LWRP. The closest sewer lines to the project site are located in Avenue J at 60th Street West. No pumping plants are necessary since all trunk sewers convey wastewater by gravity flow.[31]

Solid Waste

Waste Management of Antelope Valley (Waste Management) is located at 1200 City Ranch Road in Palmdale and provides all solid waste collection and disposal services to the City of Lancaster. All solid waste generated by the cities of Lancaster and Palmdale, and the adjacent unincorporated areas of Los Angeles County is currently hauled to the Antelope Valley Landfill or Lancaster Landfill. Landfills in Los Angeles County are categorized in three classes: Class I landfills are hazardous waste only landfills; Class II landfills are considered waste management units and accept specified hazardous waste and non-hazardous wastes; Class III landfills dispose

28 Sanitation Districts of Los Angeles County accessed on September 19, 2007 at http://www.lacsd.org/about/wastewater_facilities/wastewater_collection_system.asp.
29 *Ibid*.
30 2005 Integrated Urban Water Management Plan.
31 Sanitation Districts of Los Angeles County accessed on September 19, 2007 at http://lacsd.org/about/wastewater_facilities/wastewater_collection_system.asp

of non-hazardous waste. According to Waste Management, collection averages approximately 2,800 tons of waste per day.

Lancaster Landfill and Recycling Center

The Lancaster Landfill and Recycling Center is privately owned and operated by Waste Management of the Antelope Valley. Designated as a Class III landfill facility, this landfill is located on 276 acres (209-acre active disposal area) at 600 East Avenue F, near 10th Street East, approximately one mile north of the Lancaster city limits, in unincorporated Los Angeles County. This facility provides waste disposal and recycling services, and accepts agricultural, non-friable asbestos, construction/demolition, certain contaminated soil, green materials, industrial, inert, mixed municipal, sludge, and tire waste. This facility also operates a green-waste recycling program. In 1998, the facility was expanded by 185 acres, which included a 125-acre expansion in the eastern portion of the landfill and a 60-acre expansion in the west. The landfill's permitted daily capacity is 1,700 tons per day and is anticipated to serve the existing and future population for the next 16 to 18 years, assuming the ongoing expansion will increase the daily permitted disposal limit to 3,000 tons by late 2008.

Antelope Valley Recycling and Disposal Facility

Waste Management owns and operates the Antelope Valley Recycling and Disposal Facility located at 1200 West City Ranch Road in Palmdale. This is a Class III landfill and consists of two fully permitted landfills: Landfill (LF I) and Landfill II (LF II). LF I is 72 acres in size, with a 57-acre active disposal area, and LF II is a 108-acre facility with a 57-acre disposal area. Materials collected by the landfill include municipal solid wastes, appliances, tires, clean dirt, concrete, wood waste, and green waste. Hazardous materials are not accepted. The maximum permitted capacity for LF I is approximately 7,400,000 cubic yards with a permitted daily capacity of 1,400 tons per day. As of February 2006, the estimated capacity is 1.1 million cubic yards. LF II has a total capacity of 9.2 million cubic yards, with a daily permitted capacity of approximately 1,800 tons per day.

Electricity/Gas

Electricity

Southern California Edison (SCE) is the primary provider for electricity in the City of Lancaster. A number of sources provide electricity to SCE, including coal, nuclear, and hydroelectric plants throughout the western states. SCE currently maintains one regional electrical transmission line in the western portion of the Lancaster study area, and operates a regional substation in Lancaster. The main distribution office for SCE is located at 42060 10th Street West in Lancaster. There are approximately 30 sub-stations in the general project area. The sub-station facility closest to the project site is the Quartz Hill Substation located on the corner of 55th Street West and Avenue L in Lancaster.[32] This substation is approximately six blocks from the project site.

[32] SCE Service representative, Personal communication with ESA, August 26, 2008

Gas

Southern California Gas Company (SCG) is the nation's largest gas distribution utility[33] and serves a population of approximately 20.1 million consumers in over 500 communities. In 1930, the SCG inaugurated butane gas services in the Lancaster community.[34] Natural gas service to the City of Lancaster is provided by the SCG whose total service territory encompasses approximately 20,000 square miles throughout central and southern California. SCG provides natural gas for domestic and commercial use throughout the City of Lancaster, including the project site. SCG is located at 44416 N. Division Street within Lancaster. SCG has indicated that it is able to meet the growing needs of the City of Lancaster.[35]

3.11.3 Regulatory Framework

Public Services

Senate Bill 50

SB 50 or the Leroy F. Greene School Facilities Act, provides funding for higher education facilities, K-12 facilities, modernization of older schools, additional funding for districts in hardship situations, and funding for class size reduction. This Act provides that no land use proposal can be denied because of insufficient school capacity. It also provides the mandated CEQA mitigation fee for schools that would be affected by a development project. This measure consists of an impact fee levied on a square footage basis for residential and commercial development.

Senate Bill 610 and Senate Bill 221 (Kuehl)

SB 610 amended the California Water Code, requiring that public water service providers prepare a water supply assessment for a residential development of more than 500 dwelling units, and for commercial development that exceeds 500,000 square feet. SB 221, the companion bill to SB 610, sets forth similar requirements pertaining to new projects requiring a tentative tract map.

Assembly Bill 939

Assembly Bill (AB) 939, adopted in 1989, emphasizes conservation of natural resources through reduction, recycling, and reuse of solid waste. AB 939 requires that all cities and counties divert 25 percent of solid waste stream from landfills by 1995 and 50 percent by 2000. It also requires that all cities and counties conduct a Solid Waste Generation Study and prepare a Source Reduction and Recycling Element (SRRE). In accordance with AB 939, each local agency must submit an annual report to the California Integrated Waste Management Board (CIWMB) summarizing its progress in diverting solid waste disposal.

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[33] Southern California Gas Company website accessed at http://www.socalgas.com/about/profile/ on September 20, 2007.

[34] City of Lancaster, http://cityoflancasterca.org/Index.aspx?page=221, September 20, 2007.

[35] City of Lancaster, City of Lancaster 2020 General Plan, updated December 11, 2001.

SB 1374, passed in 2002, requires that the annual report submitted to CIWMB also include a summary of the progress made in the diversion of construction and demolition waste materials. In addition, SB 1374 requires CIWMB to adopt a model ordinance suitable for adoption by a local agency to require 50 to 75 percent diversion of construction and demolition waste materials to landfills. Local agencies are required to adopt construction and demolition diversion ordinances with diversion rates in accordance with SB 1374.

3.11.4 Impacts

Significance Criteria: Public Services

Based on Appendix G of the State CEQA Guidelines, a project may be deemed to have a significant effect on the environment with respect to public services if it would:

- 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 any of the public services:
  - Fire protection;
  - Police protection;
  - Schools; and
  - Other public facilities.

Significance Criteria: Utilities

Based on Appendix G of the State CEQA Guidelines, a project may be deemed to have a significant effect on the environment with respect to utility service systems if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Board;
- 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;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the projects projected demand in addition to the provider's existing commitments;
- Be served by a landfill with insufficient permitted capacity to accommodate the project solid waste disposal needs; and/or
- Comply with federal, state, and local statutes and regulations related to solid waste.

Impacts

Public Services

Impact 3.11-1: The proposed project would not affect the provision of police protection services in the City of Lancaster.

The Los Angeles County Sheriff's Department Lancaster Station's response times are deemed sufficient by the Sheriff's Department. The Sheriff's Department is continually implementing programs to reduce response times and has been able to steadily reduce them over the past three years.[36] The Department has indicated that no new or expanded facilities would be necessary as a result of the project, nor does the City have any immediate plans to construct any new law enforcement facility. The project by itself would not have a significant impact on current law enforcement services; however, any additional developed land would place an increased demand for service beyond what is currently being expended on the project site. The types of impacts on the Department anticipated from the proposed project would be crimes of opportunity and additional responses to calls for police protection services. To compensate for annual growth and development, law enforcement service needs for the City of Lancaster are determined annually and are based on several factors, including but not limited to, population increases, the number of calls for service, response times, and the number of traffic accidents, arrests, bookings, and patrol miles.[37] The Sheriff's Department does not have any required or recommended fees or mitigation measures for this project.[38] Therefore, the proposed project would have less than a significant impact on law enforcement services.

Impact 3.11-2: The proposed project could affect the provision of fire protection or emergency medical services in the City of Lancaster.

The proposed project would receive fire protection and paramedic services from the County of Los Angeles Fire Department's Fire Station 84, which is nearest to the project site and is located at 5070 West Avenue L-14 in unincorporated Quartz Hill, approximately three miles southeast of the project site.[39] In the event of a fire emergency, the closest available unit would respond to the incident.[40] The Fire Department's current facilities plan includes an additional future Fire Station to be provided in the vicinity of Avenue K and 70th Street West.[41] This station, once operational, would be approximately 1.5 miles (or approximately five minutes) away from the project site.[42] In urban areas, the response time goals for first-arriving units are five minutes or less; in suburban areas, it is eight minutes or less).[43] In 2006, there were 15,130 incidents in the City of Lancaster,

36 Carn, Gordon E., Acting Captain, County of Los Angeles Sheriff's Department, Letter to ESA, July 17, 2007.
37 *Ibid.*
38 *Ibid*
39 Todd, John R., Los Angeles County Fire Department, Chief Forestry Division Prevention Services Bureau, January 2, 2008.
40 *Ibid.*
41 *Ibid.*
42 *Ibid,*
43 *Ibid.*

the majority of which were calls for emergency medical services. Fire response times to the proposed project would be eight minutes, which is acceptable in suburban areas.[44]

Implementation of the proposed project would increase the service demand on existing fire services. General Fire Department Facility plans have been developed and include upgrading fire protection in this area. The proposed project could potentially require additional manpower and or equipment, to provide fire protection services to this development. As a standard condition of approval for all development within the City of Lancaster, a proposed project must meet the City of Lancaster Fire Warden approval. The proposed project would be required to install any and all fire protection devises and or improvements as deemed necessary by the Fire Warden. Thus, mitigation for the proposed project will be required to meet the Department standards and be consistent with General Plan Policy 4.7.3. With incorporation of Mitigation Measure UTILITIES-1, and the Fire Department's standard requirements for commercial developments, project impacts would be less than significant.

Impact 3.11-3: As a commercial project, the proposed project would not be expected to substantially affect school services in the City of Lancaster.

The proposed project is a commercial development and does not contain a residential component. Thus, the proposed project would not directly generate any new residents which could in turn affect school services. However, there is the potential that the project could generate indirect population growth because of employment opportunities in turn generated by the commercial development. To demine the amount of student the proposed project could indirectly generate, an employment density factor must be used. It is estimated that the proposed project would generate 345 new jobs locally; please see Section 3.2, Population and Housing, of this Draft EIR for further details.

Under a conservative assumption, the expected 345 new jobs could potentially attract as many as 929 new residents to the City of Lancaster. However, the project's projected employment would mostly likely be generated from existing local residents that currently reside in the area. Thus, the proposed project would not be anticipated to generate new residents or students within the City of Lancaster. As discussed above, each school district as a whole (all schools within the respective district) are operating at enrollment capacity.

Sundown Elementary School is the largest school in the Westside district based on population. Most schools in the district have 28 classes, whereas Sundown has 40.[45] While the school states that they are at capacity (1,211 students), their maximum capacity level with the use of modular structures (half of their classrooms are modular) is 1,182.[46]

The middle school that would service the proposed project is operating at an enrollment capacity that is lower this year (2008) than last year (2007). Over the last year, the middle school experienced a decline in attendance and in teacher staffing. Although the school is operating at a

44 *Ibid*.
45 Rodney, Principal, Sundown Elementary School, Personal communication with ESA, August 28, 2008.
46 *Ibid.*

reduced capacity from last year, the school still reports to be operating at capacity.[47] Therefore, while their enrollment dropped, their current student to teacher ratio has changed, which puts the school at teaching capacity.

As stated earlier, capacity levels at each school within the district are determined by the utilization and availability of permanent class rooms. While almost all schools within the district are beyond capacity based on permanent structures, the schools have accommodated students through the use of modular structures. Quartz Hill High School was built during the 1960s and designed to service 1,700 students at capacity. The school has been able to accommodate the 3,228 students enrolled this year with the use of an additional 50 modular classrooms. Therefore, all students have been accommodated with the use of modular classrooms.

Regardless of school capacity, and in order to obtain building permits, commercial developments are required by SB 50 (and the City of Lancaster Standard Conditions of Approval) to pay an impact fee based on square footage of the development to the affected school districts for use at potentially affected schools. The proposed project would be required to pay these impact fees given the present enrollment capacity at each of the above referenced schools. No additional mitigation is required.

Impact 3.11-4: The proposed project would not affect park services in the City of Lancaster.

The City has an established park standard of five acres of parkland per 1,000 residents.[48] The City's current overall level of service meets the established threshold. In addition, the City of Lancaster has joint-use agreements with school facilities to share the use of recreational facilities for evening recreational use. Furthermore, within the vicinity of the project there is a proposed 28-acre park site at Avenue K-8 and 65th Street West. The City does not require commercial developments to pay an impact mitigation fee for recreation.[49] Additionally it is not anticipated that employees of the proposed project would be using park and recreation facilities within the area, but would instead use facilities closer to where they reside. Therefore, the proposed project would have less than a significant impact on park and recreational services in Lancaster.

47 Rutkowski-Hines, Deborah, Principal, Del Sur School, Personal communication with ESA, August 25, 2008.
48 Norton, Lyle Director of Parks, Recreation, and Arts, Letter to ESA, July 16, 2007.
49 Smith, Janice, Parks, Recreation and Arts, Personal Communication with ESA, October 1, 2007.

Utilities and Service Systems

Impact 3.11-5: Implementation of the proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Board or require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities.

Water

The commercial sector has been increasing within the City of Lancaster as a result of ongoing population increases. The average water usage for the commercial sector is approximately 2,500 gallons per connection per day.[50]

District No. 40 would need to implement a new water supply or additional water demand management measure by 2020 in order to meet demand.[51] District No. 40 implemented in water conservation measures and it is anticipated that water demand could be reduced by up to 10 percent by 2030 from conservation measures. The 2005 Integrated Urban Water Management Plan for the Antelope Valley states:

> AVEK's current treatment capacity to District No 40 is 65 mgd (73,000 AFY). However, in order for District No. 40 to utilize all of AVEK's additional water for water banking or ASR they would need to receive around 98,000 AFY. Thus there is a significant need for expansion of the Quartz Hill Water Treatment Plan to meet District No. 40's needs. It is anticipated that an expansion to 97 mgd should be sufficient to meet District No. 40's future demand.

As stated above, residential land uses require significantly more water consumption than commercial uses (see Table 3.11.5). The average consumption rate for the commercial sector is estimated to be 2,500 gallons per connection per day.[52] It is estimated that the proposed project would require approximately seven connections (a connection for each business). Thus, the proposed commercial shopping center would require approximately 17,500 gallons per day of water. Thus, the rezoning of the project site from residential to commercial would result in less of a demand on water services then the present zoning would allow. District No. 40 currently has plans for improvements and expansion. These facility improvements include new wells, reservoirs and pipelines throughout to meet projected water supply requirements.[53] With incorporation of these facility improvements, District No. 40 would be able to service the proposed project and projected growth and development. Therefore, the proposed project will have less than a significant impact.

Sewer

The proposed project is outside the jurisdictional boundaries of SDLAC and would require annexation into District No. 14 for sewer service. The project has received a "will serve" letter,

50 2005 Integrated Urban Water Management Plan for the Antelope Valley, December 16, 2005.
51 *Ibid.*
52 *Ibid.*
53 *Ibid.*

which commits SDLAC to service at the project site. Due to the project's location, the wastewater flow originating from the project would have to be transported to SDLAC's trunk sewer by local sewer(s) that are not maintained by SDLAC.[54] If no local sewer lines exist, it is the responsibility of the developer to convey any wastewater generated by the proposed project to the nearest local sewer or SDLAC's trunk sewer. The closest local sewer lines convey wastewater to the SDLAC's Avenue J West Trunk Sewer, located within the Avenue J right-of-way at 60th Street West. In this location, there is a 36-inch diameter trunk sewer that has a design capacity of 15.0 mgd. The last measurement on this trunk sewer was taken in 2006; it conveyed a peak flow of one mgd.[55]

The expected average flow of wastewater from the project site is approximately 38,629 gallons per day. The wastewater generated by the proposed project would be treated at the LWRP. This plant has a design capacity of 16 mgd and currently processes an average flow of 15 mgd. As stated in the 2005 Integrated Urban Water Management Plan for the Antelope Valley, District No. 14 plans to upgrade the existing LWRP for a total capacity of 21 mgd by 2008 with a proposed future upgrade to 26 mgd by 2014.

SDLAC charges a fee for connecting (directly or indirectly) to their sewage system. This connection fee (mitigation fee) is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the sewerage system to accommodate the proposed project. The proposed project would be able to connect to the proposed[56] local sewer lines adjacent to the project site and or convey any wastewater generated by the project to the nearest local sewer or District's trunk sewer. Therefore, the proposed project would have less than a significant impact on sewer services.

Impact 3.11-6: The proposed project could potentially cause local landfills to exceed their permitted capacity to accommodate the project's solid waste disposal needs.

The proposed project involves the construction of a commercial shopping center. Waste generated by the construction of the proposed project would mainly consist of non-toxic material such as wood, debris, vegetation, and soil. Solid waste generation during construction was estimated based on proposed land use for the project. No demolition of structures is required given that the project site is vacant. Daily solid waste estimates were calculated based on the number of employees.[57] Based on the expected 345 new jobs generated by the proposed project, approximately 3,632 pounds per day of solid waste would be generated by the proposed project.[58]

Both the Lancaster and the Antelope Valley Recycling and Disposal Facility landfills have sufficient capacity to service the proposed project.[59] Thus, the project is not anticipated to have

[54] Frazen, Ruth, County Sanitation Districts of Los Angeles County, July 20, 2007.

[55] *Ibid*.

[56] There are proposed local sewer lines to be located adjacent to the proposed project site to help service the existing residential development. Ms. Frazen has no if and when these local lines and manhole will be complete.

[57] City of Los Angeles, *LA CEQA Threshold Guide: The California Integrated Waste Management Board, Estimated Solid Waste Generation Rates for Commercial Establishments*, 2006.

[58] *Ibid.* (for commercial development the generation factor is 10.53 pounds per day per employee for commercial uses).

[59] Stetson, Nicole, Waste Management, Personal Communication to ESA, September 27, 2007.

any adverse impact on solid waste disposal. Therefore, the proposed project would have less than a significant impact on the Lancaster and Antelope Valley landfills.

Impact 3.11-7: The proposed project would not affect electrical services in the City of Lancaster that would require new facilities.

The proposed project is within the jurisdiction and service territory of SCE. SCE's total electrical demand is expected to increase annually. Its plans for distribution resources indicate that they have the ability to serve all customer loads in accordance with the applicable rules and tariffs during this decade.[60] SCE has provided a "will serve letter" indicating the electrical loads of the project are within the parameters of projected load growth which SCE is planning to meet in the Lancaster area.[61] The proposed project in itself would not require new SCE facilities; therefore, the proposed project would have less than a significant impact.

Impact 3.11-8: The proposed project would not affect additional gas services in the City of Lancaster and would not require new facilities.

The proposed project would be serviced by SCG. The availability of natural gas service is based upon conditions of gas supply and by regulatory agencies. As a public utility, SCG is under the jurisdiction of the California Public Utilities Commission. SCG has provided a "will serve letter" stating that it has adequate natural gas supply and facilities to supply the proposed project.[62] The proposed project in itself would not require new SCG facilities (other than pipelines); therefore, the proposed project would have less than a significant impact.

Impact 3.11-9: The proposed project could potentially require or result in the construction of new storm water drainage facilities, or expansion of existing facilities.

This issue is discussed in Section 3.8, Hydrology and Water Quality, of this Draft EIR. With incorporation of the identified mitigation measures, the proposed project would have less than a significant impact on storm drainage facilities. Please see Section 3.8, Hydrology and Water Quality, of this Draft EIR for more information.

Cumulative Impacts

This analysis is based on the Cumulative Projects List provided in Chapter 4. The listed projects include various commercial and residential projects located in the City of Lancaster that are currently under construction, approved but not built, or proposed for development.

Fire

The proposed project would be required to pay commercial impact development fees for fire services. Each proposed related project would also be required to obtain the necessary agreements

60 Conkin, Katie, SCE Customer Service Planner, July 13, 2007.
61 *Ibid*.
62 Brigges, Henry, Planning Associate, Southern California Gas Company, September 20, 2007.

with the Fire Department (approval of design, widths of entrances, etc). In the event of a project impact, each project from the Cumulative Project List would implement mitigation measure to reduce its potential impacts to less than significant where feasible. The proposed project would not result in a significant impact on fire services, and would therefore not have a cumulatively considerable impact.

Police

The proposed project does not have an individually significant impact on law enforcement services. In the event of a related project impact, each project from the Cumulative Project List would implement mitigation measures to reduce its potential impacts to less than significant where feasible. Therefore, the proposed project, in conjunction with the listed projects, would have less than a significant cumulative impact related to police protection services.

Schools

The proposed project is required to pay commercial impact development fees for educational services, per SB 50. In the event of a related project, it would implement the appropriate mitigation measures necessary to reduce their potential impacts to less than significant where feasible. Therefore, the proposed project would not significantly impact schools services and would not have a cumulative impact.

Parks

The proposed project does not have an individually significant impact on parks and recreation. In the event of a related project impact, each project from the Cumulative Project List would implement the appropriate mitigation measures necessary to reduce their potential impacts to less than significant where feasible. Therefore, the proposed project, in conjunction with the listed projects, would have less than a significant cumulative impact related parks and recreational services.

Water

Services are deemed adequate by the service provider for water. Presently, District No. 40 maintains an average pumping rate of 20,000 AFY.[63] The current wells have a pumping capacity of 27,947 gpm and the proposed wells have a project pumping capacity of 3,955 gpm (or 6,395 AFY). Thus, the District is using less than current or potential pumping capacity. District No. 40 currently has plans for improvements and expansion. These facility improvements include new wells, reservoirs, and pipelines throughout to meet projected water supply requirements.[64] Each proposed project on the Cumulative Project List would be required to obtain the necessary agreements with the District No. 40. for service. Therefore, the proposed project, in conjunction with the listed projects, would have less than a significant cumulative impact related to water supply and service.

63 2005 Integrated Urban Water Management Plan for the Antelope Valley, December 16, 2005.
64 *Ibid.*

Sewer

Services are deemed adequate by the service provider for wastewater (sewer). Each related proposed project is required to obtain the necessary agreements with utility company for service. The proposed project does not have an individually significant impact on wastewater and would therefore not have a cumulatively considerable impact to this service.

Solid Waste

Services are deemed adequate by the service provider for the proposed project. Each of the related projects on the Cumulative Project List would be required to obtain the necessary agreements with the provider for service. Therefore, the proposed project, in conjunction with the listed projects, would have less than a significant cumulative impact related waste management services.

Electrical

Services are deemed adequate by the service provider for electrical services (the proposed project has obtained "will service" letters from the provider). Each project on the Cumulative Project List would be required to obtain the necessary agreements with SCE for service. Therefore, the proposed project, in conjunction with the listed projects, would have less than a significant cumulative impact related electrical services.

Gas

Services are deemed adequate by the service provider for natural gas services (the proposed project has obtained "will service" letters from the service provider). Each project on the Cumulative Project List would be required to obtain the necessary agreements with the service provider. Therefore, the proposed project, in conjunction with the listed projects, would have less than a significant cumulative impact related gas services.

3.11.5 Mitigation Measures

> **Measure UTILITIES-1:** The proposed project shall participate in an appropriate financing mechanism, such as a developer fee or an in-kind consideration in lieu of developer fees, to provide funds for fire protection facilities that are required by new commercial, industrial and residential developments in an amount proportionate to the demand created by this project. Currently, this finance mechanism is a developer fee per square foot of building space, adjusted annually, and is due and payable at the time a building permit is issued.

3.11.6 Level of Significance

The proposed project would convert the former golf course at the project site into a commercial shopping center. At the conclusion of all planned development, the project would convert a vacant land to a developed site which would increase demand for public services and utilities. However, with implementation of the aforementioned Mitigation Measure UTILITIES-1, the proposed project would have a less than significant impact.

3.12 Visual Quality

3.12.1 Introduction

This section addresses the visual conditions of the project site and its vicinity and the potential for the project to adversely affect those conditions. This section focuses on the visual character of the project site and views from the surrounding areas. The physical characteristics of the site and surrounding areas are discussed briefly. This analysis focuses on public views – views from public rights-of-way or other public areas.

Beginning in September 2007, without the permission of the City, the developer conducted unauthorized large-scale removal of approximately 118 trees, leaving approximately ten trees standing, and requiring cleanup of the downed trees; the cleanup extended over a period of several weeks. Later, in late April, 2008, the City required removal of the structures on the site, which had become hazards. Both the tree removal and removal of the structures have changed the appearance of the site, which now differs vastly from the appearance of the site when the NOP was issued on July 12, 2007. However, this analysis focuses on the conditions at the site when the NOP was issued.

3.12.2 Environmental Setting

Visual Character

Vicinity of the Site

Western Lancaster extends discontinuously from 50th Street West to approximately 110th Street West, and between Avenue E to Avenue M, with large unincorporated areas (outside of the boundaries of the City of Lancaster) located within those boundaries. As part of the Mojave Desert Basin, this area is relatively flat and open, with large expanses of undeveloped land, and closely clustered residential development. All development, including residential, commercial, and institutional (such as schools and governmental buildings) land uses, are compact and appears small in scale when compared to the vast openness of the desert sky, the large scale of nearby mountain ranges, and the wide expanse of undeveloped land.

Views in western Lancaster include long-range views of the Tehachapi Mountains northwest of Lancaster, as well as the San Gabriel Mountains to the south and the Sierra Pelonas to the southwest. Views in western Lancaster also include long-range views of open and undeveloped land, particularly along existing rights-of-way. As noted above, the large swaths of undeveloped land tend to dwarf existing development.

The northeast corner of the intersection of 60th Street West and Avenue K is occupied by existing residential development that extends eastward behind a gray block wall that extends on a north-south axis, parallel to 60th Street West for approximately 0.35 miles and east along Avenue K for approximately 0.25 miles. The rear and side elevations of homes along the perimeter of this development are visible over the fence; the top portion of the first floors and all of the second

floor elevations (including some decks) can be seen from 60th Street West (see Figure 3.12-1) and from Avenue K. These wood-framed stucco homes are tightly clustered, with one entrance into the development located along 60th Street West and one entrance along Avenue K. All of the homes are pitch-roofed, painted in soft earth tones. The fence is set back from the roadway with landscaping between the roadway and the fence.

Currently there is no development at the southeast or southwest corners of the intersection of 60th Street West and Avenue K. Both corners appear, however, to have been graded, are gravely, and provide little or no vegetation. Brown exposed earthen tracks made by motor vehicles criss-cross both corners.

Near the northeast corner of 60th Street West and Avenue K is additional residential development. Along the north side of Avenue K, west of 60th Street West, are one- and two-story residences, with a stucco/block wall along its eastern side. Similar to development at the northeastern corner of 60th Street West and Avenue K, these homes are oriented away from Avenue K, toward interior streets. Most of the first stories of these homes are hidden by the wall. A temporary wall, much shorter in height, blocks an eastern entrance to this development. Again, the homes are wood-framed stucco, painted in earth tones that complement the desert environment. The pitched roofs extend into the distance and are dwarfed by the mountains (see Figure 3.12-1). Utility poles also extend along Avenue K into the distance. This development (see Figure 3.12-1) is connected to a similar to a residential development just north of the northwest corner of 60th Street West and Avenue K. Access to this similar development is provided by Avenue J-12. Although this development is also fenced, homes along Avenue J-12 appear to face the street.

Project Site

The project site is located on the northwest corner of 60th Street West and Avenue K. Once used as a golf course, the remnant features of the course remain barely discernible. Four small and worn wood-framed structures – two small residences and two golf-related structures – remain on the site (see Figure 3.12-2), clustered together. Fencing has been damaged and, although the buildings have been boarded up, in some cases, the boarding has been removed and the buildings vandalized. Although trees and shrubs dot the site, all other vegetation has died or is barely surviving, giving some portions of the site the appearance of an unmaintained "thicket," while other portions blend in with other undeveloped land in the vicinity. Remaining structures include an old water tank, utility boxes that have been vandalized, a concrete oval shaped "pool" (part of a former water feature), and the remnants of a well. Building debris litters the site and includes concrete rubble, miscellaneous pieces of piping, and pieces of wood. Trash has also been dumped at the site (see Figure 3.12-3). Vehicle tracks are evident at the site, along with graffiti inside at least one of the buildings.

Views of the Site

The project site is visible from three public rights-of-way, including the roadway and sidewalks, which include 60th Street West, Avenue K, and Avenue J-12. Although the site is visible from the second floors of surrounding development, these are not public views.

View 1 - View from intersection of 60th Street West and Avenue K, looking northeast..

View 2 - View from intersection of 60th Street West and Avenue K looking west.

SOURCE: ESA, 2007.

Figure 3.12-1
Project Site Photos

View 3 - Former golf course structure, looking west.

View 4 - Former residence

60th Street West and Avenue K Commercial Shopping Center . 206453

SOURCE: ESA, 2007.

Figure 3.12-2
Project Site Photos

View 5 - View of project site, March 2007.

View 6 - Close up of rubble and vegetation.

SOURCE: ESA, 2007.

Figure 3.12-3
Project Site Photos

For the purposes of analysis in this document, views of the site are in one of two categories: short-range (less than one-quarter of a mile from the site) and medium-range (one-quarter to three-quarters of a mile from the site). The project site is not distinctly visible from further than three-quarters of a mile away because of intervening development.

The following describes the views of the project site from a variety of perspectives within these two ranges. Because the City has an extensive design review process, details of the proposed project are likely to change during the design review process. As a result, the elevations are a conceptual view of what the project would look like once fully constructed. This analysis provides a general assessment of the project and potential impacts to the visual quality of the project site and its vicinity.

Medium-Range Views

Medium-range views of the site would begin approximately three-quarters of a mile from the project site and end at approximately one-quarter of a mile from the site. Medium-range views from the north would begin at the intersection of Avenue J and 60th Street West and extend southward along 60th Street West for 0.75 miles to a point near existing residential development. Medium-range views from south would begin approximately 0.25 miles north of the intersection of Avenue L and 60th Street West, and extend northward along 60th Street West for 0.75 miles. Medium-range views of the site from the west would extend eastward along Avenue K from undeveloped land to a point 0.25 miles west of the site. Medium-range views of the site would also extend westward along Avenue K from a point near the intersection of 51st Street West and Avenue K to a point near the entrance of existing residential development across from the project site.

Medium-range views of the site from Avenue J-12 would be mostly obscured by existing residential development and would extend from undeveloped areas, in which Avenue J-12 exists only as a potential easement, into developed areas.

Short-Range Views

Short-range views of the project site would, at a maximum, be within 0 to 0.25 miles from the project site. These views would therefore be visible from 60th Street West (north and south) and Avenue K (east and west), as the intersection is approached. Short-range views would also be visible from Avenue J-12 (east and west), which extends along the northern perimeter of the project site and through existing residential development.

3.12.3 Regulatory Framework

City of Lancaster

Lancaster Municipal Code

The Lancaster Municipal Code contains several references to potential scenic resources and/or visual quality in Lancaster. These references include the following:

Section 17.04.240

Section 17.04.240 of the City's Zoning Code defines a scenic highway as a highway within the state scenic highway system of the State of California.

Section 17.12.040

Section 17.12.040 of the Zoning Code states that:

> The permitted uses of the C zone are grouped into categories of similar uses rather than an exhaustive list of single uses. Extensive examples are given for purposes of clarifying the types of uses allowed by each category. In addition, specific exceptions and development requirements have been applied to certain categories of uses where concerns may arise as to their impact on neighboring properties and the *visual attractiveness* of the city as a whole…[Italics added]

Section 17.12.230 – Commercial Design Requirements

Municipal Code Section 17.12.230 establishes general design requirements for development in commercial zones that would affect visual quality. These include requirements for clearly marked pedestrian walkways to each abutting street, and that shopping centers are designed with a common architectural theme for all buildings in the shopping center. In addition, building placement must complement the design of adjoining sites. Where more than one building is to be developed, the buildings must be clustered to create outdoor patios, courts, and walkways within a landscaped setting. Screening is required for rooftop equipment, loading docks, and parking lots, and must complement the architectural theme. The City must review and approve the color scheme and elevations. Landscaping must be consistent, and must be native or able to adapt to the high desert. The Code includes requirements for trees in the parking lots, the minimum area to be landscaped, and the need to use landscaping to strengthen a sense of entry and minimize obstructing doors, windows, and other building entries to prevent crime. Trees must also be used to improve the interface between commercial and residential uses, as appropriate, and masonry walls shall be used when commercial uses abut residentially zoned property (trees must screen the areas visible above the wall); and the design is considered part of the site review . Lighting is also addressed, and must also be placed to prevent crime and enhance safety.

State of California

California Department of Transportation (Caltrans)

Established by the State Legislature in 1963, California's Scenic Highway Program is administered by Caltrans to protect scenic highway corridors from change that would diminish views of natural landscape. Caltrans defines a scenic corridor as "land generally adjacent to and visible from the highway. A scenic corridor is identified using a motorist's line of vision. A reasonable boundary is selected when the view extends to the distant horizon.".

Los Angeles has only one officially designated scenic highway – the northern segment of SR-2, which extends through the San Gabriel Mountains (as the Angeles Crest Highway). Officially

eligible scenic highways in Los Angeles County include of I-210, US-101, SR-1, SR-23, SR-27, SR-39, SR-118, and SR-126. None of these scenic highways pass through Lancaster.

3.12.4 Impacts

Significance Criteria

According to Appendix G of the CEQA Guidelines, a project could have a significant impact on the environment 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;
- Substantially degrade the existing visual character or quality of the site and its surroundings; and/or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The proposed project would have no impact and no further discussion will be provided for the following environmental issue:

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

The proposed project is not located within or near an officially designed or eligible scenic highway designated by the Caltrans Scenic Highway Program. The nearest officially designated scenic highway is a segment of SR-2, which is located over 30 miles from Lancaster's southern border. Several eligible scenic highways pass within 50 miles or more of Lancaster. However, the proposed project would not be located within or near an officially designated or eligible scenic highway. In addition, the project site would not be located within the view corridor of an officially designated or eligible scenic highway. The proposed project would therefore have no impact on scenic resources within a scenic highway.

Impacts

Impact 3.12-1: The proposed project could have an effect on a scenic vista.

Although not officially designated by the City, mountains are often considered a scenic resource. The project site includes long-range views of mountain ranges to the northwest, south, southwest, and west. Although the project site would block views of nearby mountains, the proposed project would not intrude into public rights-of-way, and views of the mountains would still be available along public rights-of-way, including 60th Street West and Avenue K. The scale of the proposed development, which would be close to the height of a two-story home, would be dwarfed by the scale of the nearby mountains (see Figure 3.12-1 as an example).

Some private views would, however, be affected by the development. In particular, homes along the northern perimeter of the project site, as well as homes across 60th Street West from the project site, would likely lose part or all views of the mountains from second-story windows. However, this would be the case even if the proposed project was not built, and other development occupied the site. However, no views of the mountains would be lost from public rights-of-way. The proposed project would have a less than significant impact on views of scenic vistas (such as views of nearby mountains).

Impact 3.12-2: The proposed project would affect the visual quality of the proposed project site and its vicinity.

The proposed project would alter the existing visual quality of the site and its vicinity. By constructing commercial buildings that would be nearly as tall as two-story residences, the proposed project would bring new visual elements to the project site that would include commercial signage; people; motor vehicles, including delivery trucks; large areas of pavement; and much larger buildings than currently occupy the site or are located near the project site. The project site would be cleared of all remaining vegetation, construction-related rubble, trash, and any remaining structures associated with the former golf course. Although these uses would be oriented toward Avenue K and 60th Street West, these uses would be located in close visual proximity to existing adjacent residential buildings and public rights-of-way.

Currently, as pedestrians and drivers move southbound and northbound along 60th Street West, medium-range views (between 0.75 miles to 0.25 miles from the project site) of the site are difficult to discern because both the southwest and southeast corners of the intersection are also undeveloped. Any remaining structures associated with the former golf course are set back from the street and located in a cluster, and are not immediately discernible as structures. As the viewer moves within 0.25 miles of the site, these structures appear to be shacks that could have, for example, been associated with an agricultural use, such as worker housing and a roadside stand. Along 60th Street West, southbound, a pedestrian or driver currently, when attempting to view the site from 0.75 miles north, is only able to view intervening residential development. As the driver moves to within 0.25 miles north of the site, the site blends in with other undeveloped sites at the intersection. Views from 0.75 miles south of the site also blend in with other undeveloped sites at the intersection. Because the area between Avenue K and Avenue L is relatively undeveloped, views from south of the site are not interrupted by intervening development, affording more direct views of the intersection, although the site itself is not immediately discernible. Housing is visible in the background. Because of the open sky and scale of the surrounding mountains, at medium-range views, views of the site and its vicinity appear to be small in scale.

After construction of the proposed project, medium-range views of the project site would change. The site would be discernible because of motor vehicles turning right from southbound 60th Street West. The activity would draw attention to the wall and associated landscaping, and finally to the buildings at the eastern edge of the site. Views from northbound 60th Street West would also change. From northbound viewpoints, the “side” facades of buildings would be discernible across the undeveloped southwest corner of 60th Street West and Avenue K, along with required

landscaping and fencing. Housing on the north side of Avenue J-12 would no longer be visible. At short-range view points, the top of the first floors and all of the second floors of the walled residential development at the northeast corner of 60th Street West and Avenue K would remain visible in both directions, as would the associated landscaping. The project would create a more visual urban presence. Buildings heights would be nearly the same as nearby residential buildings; however, visual elements such as the possible use of "towers," (see Figure 2.4), would draw attention from a distance (particularly northbound views along 60th Street West) and could be slightly taller than nearby homes. In addition, building masses would, in general, be greater than surrounding homes and, unlike most nearby homes, oriented toward adjacent streets. Although the parking would be screened with landscaping as required by the City (Lancaster Municipal code 17.12.230), and would not be visible from medium-range views, it would be visible through the entrances from short-range views and visible from the rear windows or side windows of adjacent residences and proposed new sidewalks.

Current views along Avenue K tend to be rural, with no visible development beyond the homes immediately west of the project site. These views focus on the mountains, and open, undeveloped land, which blends into one large expanse. Views along Avenue K, east of 60th Street West, also include large expanses of undeveloped land, although development is visible in the distance. Eastbound and westbound medium-range views of the project site from Avenue K provide indiscernible views of the project site, which is bracketed by residential development. Short-range views of the site from either direction along Avenue K provide almost no discernible view of the site until the viewer physically reaches the site.

Views from Avenue K would be altered by the proposed project. The proposed project would be discernible from some medium-range distances from both the east and west because of the design elements of the project, including the wall at the perimeter, landscaping, and the "tower" element. Because there are no other commercial developments in the immediate vicinity, the design elements of the shopping center could be visible from 0.75 miles away in either direction. Short-range views view along Avenue K would consist of "side" elevations of buildings, as well as other buildings and landscaping closest to Avenue K.

Views from Avenue J-12, west of 60th Street West, would be the most affected by the proposed project. The rural quality of the site would be removed and replaced with a commercial use that would interrupt current distant views across the project site. Views would subsequently consist of the building facades, landscaping, and parking, as well as smaller buildings oriented toward 60th Street West, closer to the curb and more visually prominent. Because Avenue J-12 is a narrow street, the northern facades of buildings would appear to be located near the northern perimeter of the site despite setbacks. Without façade articulation, the northern walls of the home improvement center, for example, could be a "blank" wall that would provide no windows and therefore, views from the building to Avenue J-12. Although the shopping center would be required to use complementary exterior color, setbacks, landscaping, and screening for all rooftop equipment, waste disposal areas, etc., the altering of this view could be considered significant when compared to current views from Avenue J-12.

The proposed project is visually oriented mostly toward 60th Street West and partially toward Avenue K. Rear facades would be visible from residential development west of the project site, but not from 60th Street West or from Avenue J-12.

The proposed project would be regulated by applicable City ordinances and regulations, which include Section 17.12.040 of the Zoning Code. The Zoning Code acknowledges that commercial buildings can be located in close proximity to residential buildings and includes specific design regulations to regulate the visual appearance of such development. These regulations include extensive requirements for screening, (Lancaster Municipal Code 17.12.230) setbacks, landscaping, and design approval.

Most surrounding homes near the project site are oriented away from the proposed site. Existing City design regulations closely regulate the visual appearance of commercial development in order to reduce potential impacts on adjacent land uses. In addition, commercial and residential development are not necessarily visually incompatible. However, the views of the site from public rights-of-way along Avenue J-12 would be considered significant. Implementation of Mitigation Measures VIS-1 and VIS-2 would further reduce perceived impacts to visual quality at the project site and vicinity, particularly short-range views from Avenue J-12.

Impact 3.12-3: The proposed project would result in new lighting at the project site.

Although there is evidence that there was lighting at the project site in the past, the proposed project would create lighting at a site where there is currently no lighting. The City has and enforces strict guidelines on commercial lighting, which include Section 17.12.230 – Commercial Design Requirements of the Zoning Code. Lights would be provided for security, and general illumination during evening and nighttime hours until 10:00 PM in the parking lot, along the exterior of the store, and possibly as part of signage and security after store hours. Light spill is unlikely, because of the proposed setback from adjacent residences west of the project site. This lighting would, however, be visible, if only as a "glow" over a wall and through required landscaping. Despite the proposed setback from Avenue J-12 of 20 feet, residents would likely see lighting directly from rear second-story windows over and through landscaping. Residents with rear second-story windows along 60th Street West would also see lighting, in addition to existing street lighting. These rear windows are likely bedroom windows that could disturb sleep.

Nighttime views in the vicinity of the project site would also be altered by adding more concentrated lighting in one location.

Existing City codes would require that lighting result in no adverse impact on neighboring property (Municipal Code Section 17.12.230.A.11), and that lighting other than security lighting "go dark" after hours. Municipal Code Section 17.12.230.A.15(d) requires that when adjacent to residential property, lighting must be directed away from adjacent residentially zoned property and no signs would be allowed to visually intrude into residential property. Despite implementation of existing city codes regarding lighting at the project site would reduce light and glare during nighttime hours, but light would remain. Because this light

cannot be completely eliminated and because, when compared to existing conditions, this light (despite the Municipal Code requirements) would be substantial, this impact would be considered significant.

Cumulative Impacts

Scenic Vistas and Scenic Resources

As discussed above, there are not any officially designated scenic vistas per the Lancaster 2020 General Plan. Therefore, the cumulative development would not result in significant impacts on scenic vistas and the proposed project would not contribute to cumulative impacts to scenic vistas and scenic resources.

Visual Character

Development of the cumulative projects identified in Table 4.1 would gradually change the character of the City of Lancaster and the Antelope Valley. These projects are being designed to include high-quality architectural and landscape design features and, individually, would not degrade the visual character of the area. Overall, the visual character in the area would change from being predominantly rural to a more urban environment; however, these changes would not necessarily result in the degradation of the surrounding area due to the development review requirements of the City. In addition, the cumulative projects would ultimately blend together visually. Therefore, the proposed project would result in a less than significant contribution to significant impacts related to cumulative visual character.

Light and Glare

Development of the project in conjunction with other cumulative projects would gradually result in an increase in light in the City of Lancaster and in the Antelope Valley. The City has lighting regulations that preclude the use of excessive or unshielded lighting, or lighting that would spill into neighboring properties, as provided in Municipal Code Section 17.12.230. However, the cumulative long-term effect on nighttime views in this area of Lancaster would remain significant.

3.12.5 Mitigation Measures

Measure VIS-1: The developer shall modify the site design to provide a fully articulated northern elevation for the proposed home improvement center, as reasonable, including either windows or means to open the northern elevation of the home improvement center to the residential neighborhood north of the project site.

Measure VIS-2: The developer shall set any big box store in the shopping center back from Avenue J-12, as feasible, to include a minimum setback of 10 feet of landscaping and then a wall that would not extend more than five feet in height between proposed surface parking and landscaping. Landscaping will contain, to the extent feasible, both drought-resistant plants, as well as plants that will provide visual color throughout the year.

3.12.6 Level of Significance

The proposed project would result in less than significant impacts to the visual character of the site and its vicinity, but would result in significant and unavoidable impacts to project-related effects related to lighting and cumulative effects related to lighting.

CHAPTER 4
Other CEQA Considerations/Impact Overview

This section discusses potential growth-inducing impacts; the basis for the discussion of cumulative impacts throughout Chapter 3; significant, unavoidable environmental impacts; and significant irreversible environmental changes that could result from the proposed project. This section also includes discussions of mineral and agricultural resources.

4.1 Impacts Found to Be Less Than Significant

4.1.1 Agricultural Resources

The project site is designated by the Farmland Mapping and Monitoring Program as Urban/Built-Up and is therefore not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. In addition, the site is not subject to a Williamson Act contract (which would obligate the owner to maintain an agricultural use at the site for a rolling term of ten years). The project site is not currently used for agricultural purposes, and has not been used for agricultural purposes in recent history. Its last use was as part of a golf course. Adjacent uses are residential. The proposed project would therefore have no impact on agricultural resources at the project site or in the vicinity.

4.1.2 Mineral Resources

The California Geological Survey (CGS) and State Mining and Geology Board (SMGB) classify the regional significance of mineral resources in accordance with the California Surface Mining Reclamation Act of 1975 (SMARA). The SMGB uses a classification system that divides land into four Mineral Resource Zones (MRZ) that have been designated based on quality and significance of mineral resources. The project site is located in an area classified as MRZ-3, which is considered to be an area of known or inferred mineral occurrence.

Although located in an area known to have or believed to have minerals, no mining or quarrying operations are located on the project site. In addition, no mining or quarrying operations are located in the site vicinity. The project site is not zoned or designated by the General Plan for mining operations. The proposed project would therefore have no impact on the availability of a known mineral resource that would be of value to the region and the residents of the state; nor would have an impact on the availability of an important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

4.2 Growth-Inducing Impacts

Pursuant to Section 15126.2(d) of the *CEQA Guidelines*, an EIR must address whether a project will directly or indirectly foster growth. Section 15126.2(d) reads as follows:

> [An EIR shall] discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant, might, for example, allow for more construction in service areas). Increases in population may further tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project's potential to induce growth does not automatically mean that it would result in growth. The potential growth-inducing effect is regulated by local governments in California through the development, adoption, and implementation of land use plans and policies intended to avoid, minimize, or otherwise manage the potential for growth inducement or manage the pressure to induce growth created by projects both individually or cumulatively. Growth occurs through capital investment in new economic opportunities from both public and private entities. The nature of the resulting growth (i.e., the location, size, and type of the development) is also typically the result of numerous factors including local government planning, availability of public services, natural resources, and economic conditions, as well as local political and environmental concerns. Consequently, these factors can have an important role in determining the extent of a project's potential growth-inducing impacts.

Typically, the growth-inducing potential of a project would be considered significant if it stimulates human population growth or a population concentration above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

As discussed below, this analysis evaluates whether the proposed project will directly or indirectly induce economic, population, or housing growth in the surrounding environment.

Direct Growth Inducing Impacts on the Surrounding Environment

A project would directly induce growth if it would remove barriers to population growth such as a change to a jurisdiction's general plan and zoning ordinance, which allows new residential development to occur. No residential development is proposed by the project and therefore no direct residential population growth would be created by the proposed development. The proposed project would not be growth inducing, but instead would accommodate the population growth anticipated in the City of Lancaster 2020 General Plan Land Use Element.

The proposed re-zoning of the project site from its previously planned residential use for retail development would reduce the amount of housing growth currently zoned for the area. Furthermore, the proposed neighborhood serving retail would provide needed retail opportunities for the relatively under-served areas of West Lancaster. Future local retail demand can be expected to grow significantly as a result of the overall population growth projected for Lancaster (see Section 3.2.3, *Population and Housing*) and the cumulative project list provided in Table 4.1.

The project is located in an urbanized area, no extension of infrastructure beyond that already under consideration would be required to accommodate the project. The site's location and existing roadway connections are well suited for retail development to satisfy the existing and future local unmet retail demand. Consequently, the project would decrease the likelihood of future retail development occurring elsewhere at less appropriate locations in the area. As discussed in the Section 3.2.3, *Population and Housing*, of this Draft EIR, the proposed project is consistent with the City's General Plan future growth objectives in its contribution towards a more balanced mix of land uses and the provision of job opportunities within Lancaster.

The project would generally provide employment opportunities to construction workers, and retail and restaurant workers that are already living in the region. As discussed in the Section 3.2.3, *Population and Housing*, of this Draft EIR, Lancaster's relatively high current unemployment rates, the commuting patterns of current residents, and expected future population growth suggest that project-related jobs would be readily absorbed by the local residents and so the project would not be expected to attract any significant new residents to the area.

The cumulative project list provided by the City of Lancaster is provided below as Table 4-1. and Figure 4.1.

Indirect Growth-Inducing Impacts on the Surrounding Environment

A project would indirectly induce growth if it would increase the capacity of infrastructure in an area in which the public service currently meets demand. Examples would be increasing the capacity of local utilities or roadway improvements beyond that needed to meet existing demand.

The proposed project would not require any increase in utility service in the immediate project vicinity and so would not create additional capacity available to the region that might foster new growth. Similarly, the project's location at the intersection of two of the area's principal roadways is well suited for retail development and makes more efficient use of the area's existing roadway infrastructure (and also avoids the creation of any major roadway infrastructure improvements that might be needed if the retail development was located elsewhere within the local area).

TABLE 4.1
CITY OF LANCASTER – RELATED PROJECTS

Map No.	Related Cases	Locations	Land Use	Intensity	Units
City of Lancaster					
1	CUP 98-05	NW corner of Avenue J-8 & 60th St. West	Church	8,350	s.f.
2	TTM 52719	NE corner of 50th St. West & Avenue K	Single Family Residential	80	d.u.
3	TTM 61489	NW corner of 50th St. West & Avenue J-8	Single Family Residential	152	d.u.
4	TTM 60034	SE corner of 60th St. West & Avenue J	Single Family Residential	106	d.u.
5	TTM 60034	SE corner of 60th St West & Avenue J-8	Single Family Residential	105	d.u.
6	TTM 53229	70th St. West & Avenue K	Single Family Residential	1,594	d.u.
			School		
			Park		
7	TTM 53642	NE corner of 60th St. West & Avenue K-8	Single Family Residential	156	d.u.
8	TTM 60450	West of 60th St. West & ±660 ft. South of Avenue K	Single Family Residential	50	d.u.
				87	d.u.
				78	d.u.
				50	d.u.
9	TTM 61680	SW corner of 60th St. West & Avenue K	Single Family Residential	77	d.u.
10	TTM 54369	SW corner of 70th St. West & Avenue L	Single Family Residential	31	d.u.
11	TTM 54370	NW corner of 70th St. West & Avenue L-8	Single Family Residential	207	d.u.
12	TTM 60003	SW corner of 60th St. West & Avenue J-8	Single Family Residential	36	d.u.
13	TTM 60126	Between 46th St. to 47th St. West & North of Avenue J-8	Single Family Residential	20	d.u.
14	TTM 60294	NE corner of 65th St. West & Avenue J	Single Family Residential	99	d.u.
15	TTM 60434	NE corner of 50th St. West & Avenue K	Single Family Residential	39	d.u.
16	TTM 60435	NW corner of 45th St. West & Avenue K	Single Family Residential	38	d.u.
17	TTM 60524	60th St. West & ±300 ft. south of Future Avenue K-8	Single Family Residential	43	d.u.
18	TTM 60811	NE corner of 60th St. West & Future Avenue K-12	Single Family Residential	41	d.u.
19	TTM 60889	NE corner of 60th St. West & Avenue L	Single Family Residential	85	d.u.
20	TTM 60987	SW corner of 52nd St. West & Avenue J	Single Family Residential	42	d.u.
21	TTM 61038	West of 60th St. West & ±660 ft. North of Avenue J	Single Family Residential	41	d.u.
22	TTM 61040	NE corner of 55th St. West & Avenue K-14	Single Family Residential	58	d.u.
23	TTM 61041	NE corner of 55th St. West & Avenue L	Single Family Residential	40	d.u.
24	TTM 61042	NE corner of 60th St. West & Avenue K-4	Single Family Residential	86	d.u.
25	TTM 61118	NW corner of 62nd St. West & Avenue J	Single Family Residential	33	d.u.
26	TTM 61490	NE corner of 55th St. West & Avenue J-8	Single Family Residential	73	d.u.
27	TTM 61535	SE corner of 45th St. West & Avenue J	Single Family Residential	240	d.u.
28	TTM 61542	SW corner of 56th St. West & Avenue J-12	Single Family Residential	22	d.u.
29	TTM 61554	NE corner of 55th St. West & Avenue J-4	Single Family Residential	20	d.u.
30	TTM 61600	±640 ft. East of 60th St. West & South of Avenue K-12	Single Family Residential	33	d.u.
31	TTM 61677	SW corner of 57th St. West & Avenue K	Single Family Residential	58	d.u.
32	TTM 61679	SE corner of 55th St. West & Avenue K	Single Family Residential	60	d.u.
33	TTM 61734	±658 ft. West of 60th St. West & ±663 ft. North of Avenue J-12	Single Family Residential	19	d.u.
34	TTM61920	NE corner of 55th St. West & Avenue K	Single Family Residential	108	d.u.
35	TTM 61989	SW corner of 67th St. & Avenue L	Single Family Residential	56	d.u.
36	TTM 61992	SW corner of 60th St. & Avenue J-12	Single Family Residential	21	d.u.
37	TTM 62409	NE corner of 65th St. West & Avenue K	Single Family Residential	36	d.u.
38	TTM 45474	NW corner of 65th St. West & Avenue L-8	Single Family Residential	180	d.u.
39	CUP 06-08	SE corner of 60th St. West & Avenue L	Shopping Center[a]	407,000	s.f.
40	CUP 06-09	NW corner of 60th St. West & Avenue L	Shopping Center[a]	395,000	s.f.
	TPM 61850				
41	TTM 62332	NW corner of 80th St. West & Avenue L	Single Family Residential	600	d.u.
	TTM 62604				
42	TTM 62757	SW corner of 65th St. West & Avenue J	Single Family Residential	650	d.u.

TABLE 4.1 (continued)
CITY OF LANCASTER – RELATED PROJECTS

Map No.	Related Cases	Locations	Land Use	Intensity	Units
43	TTM 60885	West of 60th St. West & North of Avenue J-12	Single Family Residential	51	d.u.
44	TTM 67582	NE corner of 52nd St. West & Avenue J-8	Single Family Residential	8	d.u.
45	TTM 61678	SE corner of 57th St. West & Avenue K	Single Family Residential	58	d.u.
46	TTM 69132	NE corner of 55th St. West & Avenue K-8	Single Family Residential	52	d.u.
47	TTM 64922	NW corner of 60th St. West & Avenue K-12	Single Family Residential	88	d.u.
48	TTM 66802	NE corner of 70th St. West & Avenue L-8	Single Family Residential	118	d.u.
49	TTM 65509	SE corner of 75th St. West & Avenue L	Single Family Residential	245	d.u.
50	TTM 65510	NW corner of 80th St. West & Avenue K	Senior Housing	600	d.u.
Subtotal (City of Lancaster)					
Los Angeles County					
51	RCUP 200500153	4609 W Avenue L	Shopping Center	14,112	s.f.
52	RCUP 5200500221	6705 W Avenue M	Senior Housing	75	d.u.
Subtotal (Los Angeles County)					
Total					

[a] Per City of Lancaster Planning staff, 15% trip reduction was applied to shopping center uses.

SOURCE: Katz Okitsu and Associates, 2008.

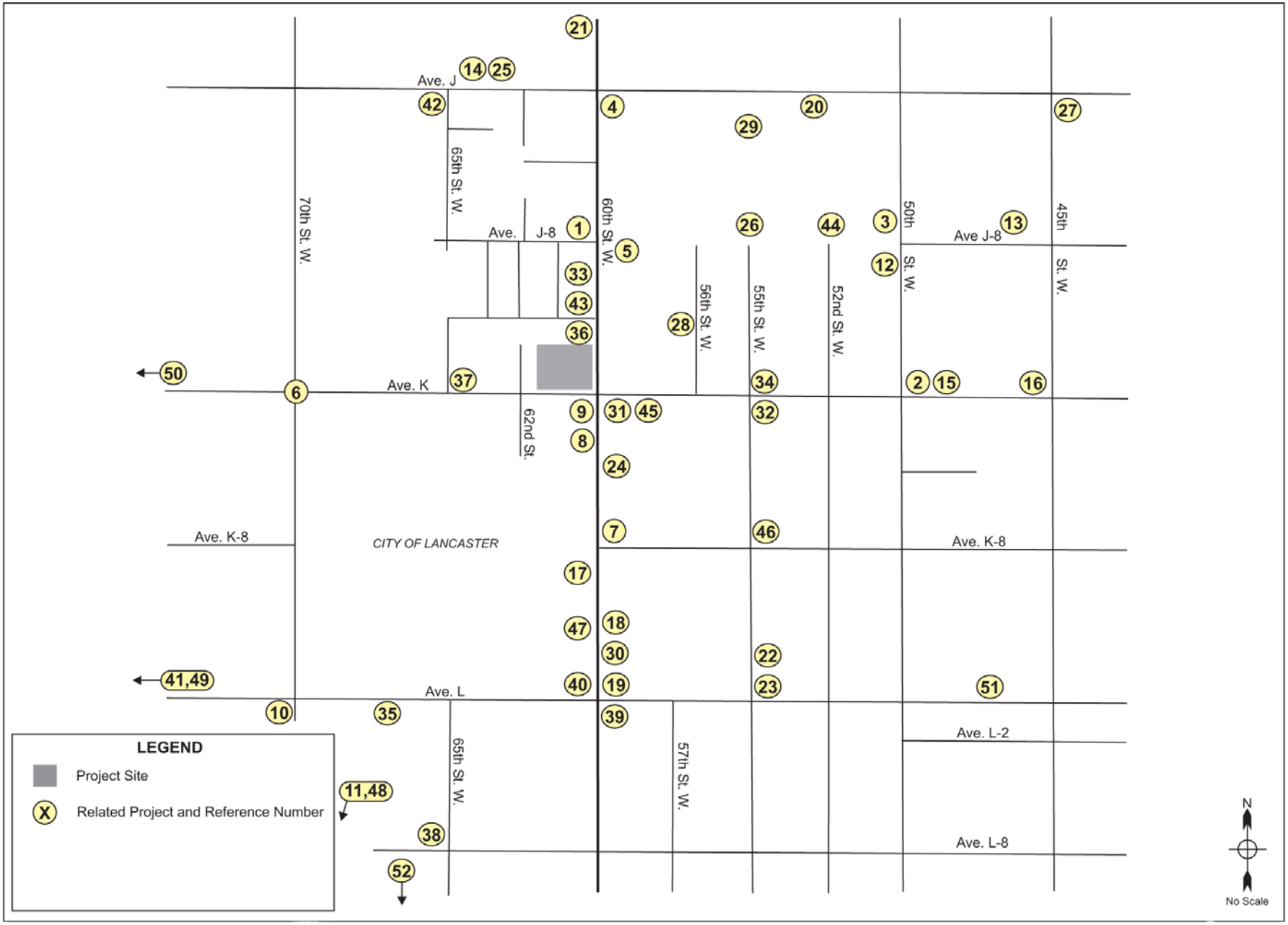
Therefore, the proposed project would not increase the City's infrastructure beyond that which is necessary to serve the proposed project. As a result, the proposed project would not indirectly induce any significant new growth.

4.3 Cumulative Impacts

This EIR provides a summary of potential cumulative impacts at the end of each section of Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*. These cumulative discussions are based on requirements under CEQA and a list of probable projects provided by the City of Lancaster that have either been approved or for which an application has been submitted to the City. A discussion of potential cumulative impacts is required by *CEQA Guidelines*, Section 15130(a) states:

An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in section 15065(a)(3). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

- As defined in Section 15355, 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. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.



SOURCE: KOA Corporation, 2008.

60th Street West and Avenue K Commercial Shopping Center . 206453

Figure 4.1
Related Project Locations

- When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting the lead agency's conclusion that the cumulative impact is less than significant.

- An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable.

4.4 Significant and Unavoidable Environmental Impacts

The proposed project would result in significant adverse environmental impacts. Mitigation proposed as part of the project, as well as measures identified in this EIR, would avoid or reduce most of the impacts to a less-than-significant level. The following significant adverse impacts would be unavoidable, even with the implementation of the identified mitigation measures:

Traffic, Circulation and Parking

Impact 3.3-1: The project would result in an unacceptable LOS at the intersection of 50th Street West and Avenue K. Mitigation would require acquisition of additional right-of-way on 50th Street West, which does not appear to be feasible.

Noise

Impact 3.4-1: Construction noise would be substantially greater than existing noise levels at nearby sensitive receptor locations. Mitigation would not reduce impacts to a less than significant level.

Impact 3.4-2: The project could generate operational (non-transportation) noise that would exceed existing standards.

Air Quality

Impact 3.5-1: The project could conflict with or obstruct implementation of the applicable air quality plan.

Impact 3.5-2: Project construction would generate short-term emissions of criteria air pollutants, including particulate matter and equipment exhaust emissions.

Impact 3.5-3: Project operations would result in an increase in criteria air pollutant emissions due to project-related traffic, stationary sources, and on-site area sources.

Impact 3.5-7: Air pollutant emissions associated with the project would result in an adverse impact to cumulative air quality.

Visual Quality

Impact 3.12-3: New lighting associated with the project would result in an adverse impact to nighttime views and to nearby residents from new small amounts of spill light.

CHAPTER 5
Alternatives

This chapter addresses alternatives to the proposed project, describes the rationale for including them in the EIR, discusses the environmental impacts associated with each alternative, compares the relative impacts of each alternative to those of the project and each of the other alternatives, and discusses the relationship of each alternative to the project objectives.

5.1 Criteria for Selecting Alternatives

The California Environmental Quality Act (CEQA) requires that an EIR compare the effects of a "reasonable range of alternatives" to the effects of the project. The alternatives selected for comparison should be those that would attain most of the basic objectives of the project and avoid or substantially lessen one or more significant effects of the project (CEQA Guidelines Section 15126.6). The "range of alternatives" is governed by the "rule of reason," which requires the EIR to set forth only those alternatives necessary to permit an informed and reasoned choice by the decision-making body and informed public participation (CEQA Guidelines Section 15126.6[f]). CEQA generally defines "feasible" to mean an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, while also taking into account economic, environmental, social, technological, and legal factors.

5.2 Factors in Selection of Alternatives

The alternatives addressed in this EIR were selected in consideration of one or more of the following factors:

- The extent to which the alternative would accomplish most of the basic objectives of the project;
- The extent to which the alternative would avoid or lessen any of the identified significant environmental effects of the project;
- The feasibility of the alternative, taking into account site suitability, economic viability, availability of infrastructure, general plan consistency, and consistency with other applicable plans and regulatory limitations;
- The appropriateness of the alternative in contributing to a "reasonable range" of alternatives necessary to permit a reasoned choice; and
- The requirement of the *CEQA Guidelines* to consider a "no project" alternative; and to identify an "environmentally superior" alternative in addition to the no-project alternative (*CEQA Guidelines* Section 15126.6(e)).

Alternatives are ultimately compared to the goals of the project. The objectives for the proposed project, listed in Chapter 2, *Project Description*, are as follows:

- Provide a commercial shopping center that serves the local community;
- Build an economically sustainable and financially feasible shopping center that provides goods and services to the community in the future, as needed;
- Reduce trips to comparable shopping opportunities elsewhere in the City of Lancaster and/or the Antelope Valley;
- Provide a shopping center that is convenient to both vehicles and pedestrians;
- Provide a use that will generate revenue for the City of Lancaster;
- Create an opportunity for local employment; and
- Create a commercial shopping opportunity that minimizes impacts to the environment and that is compatible with the adjacent residential land uses.

5.3 Alternatives Eliminated from Further Consideration

An EIR must briefly describe the rationale for selection and rejection of alternatives. The Lead Agency may make an initial determination as to which alternatives are potentially feasible and, therefore, merit in-depth consideration, and which are clearly infeasible. Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered (*CEQA Guidelines*, Section 15126.6(f)(3)). This section identifies alternatives considered by the Lead Agency, but rejected as infeasible, and provides a brief explanation of the reasons for their exclusion. As noted above, alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid any significant environmental effects (*CEQA Guidelines*, Section 15126.6(c)).

Alternative Site

CEQA Guidelines Section 15126.6(f)(2) requires examination of an alternative location for the project if such locations would result in the avoidance of or lessening of significant impacts. The proposed project is intended to redevelop the project site. Although the choice of location is to some extent discretionary, the City is unaware of any other locations that the project applicant has investigated. The proposed project is a speculative project for which a developer searches for suitable property throughout a city or region. However, in this case, the choice of location is not discretionary and has been purchased or optioned by the applicant for the purpose of redevelopment. As such, further analysis of this alternative is not required.

Use as a Golf Course or Recreational Facility

Use of the project site as a golf course or driving range is permitted under the existing zoning (R-7,000) as a conditional use. The project site was last used in the early 1990s as a nine-hole golf course and is still identified on several maps as the Meadowlark Golf Course. However, none of the defining topographical features of that golf course are extant. All buildings, course-related

structures, and most of the trees have been removed from the site. This site now retains no discernible features of a golf course, and is surrounded by residential uses. Use of the site as a golf course would now require netting on all sides, parking for users, new structures, and possibly lighting. Even if all of the site were devoted to a nine-hole golf course (and parking and buildings were not located on the site), at approximately 1,027 feet in length, the site lacks sufficient depth for a nine-hole golf course, which generally requires an approximate minimum driving yardage of 3600 yards or 10,800 feet.

Views of aerials of the site suggest that the golf course may have included land from north of Avenue J-12, as well as land that has now been developed for residential use. However, land north of the project site is now separated from the project site by Avenue J-12.

The project site could be sufficient as a miniature golf course. However, this use would require a General Plan amendment and rezoning. The miniature golf course would require netting, and possibly on-site lighting, and would be constrained by setbacks along both 60th Street West and Avenue K; Avenue J-12, which would now runs along its northern perimeter; requirements for parking; features associated with a miniature golf course; and a concession stand. Noise associated with miniature golf courses would include the sounds of people, and possibly features such as loud speakers or other similar design features. This use would not be compatible with surrounding residential uses.

5.4 Alternatives Selected for Consideration

As stated above (see Section 5.2), an EIR is required to evaluate the impacts of a No Project Alternative. The purpose of evaluating the No Project Alternative is to allow decision-makers to compare the impacts of approving the project with the impacts of not approving the project. In this case, the No Project discussion includes two No Project alternatives – The No Project/No Build Alternative and the No Project/Existing Zoning-Residential Alternative.

In addition, a less dense project development alternative was selected. The Reduced Density Alternative does not include a big box retail store, such as the proposed home improvement center. This alternative also includes greater setbacks along the perimeter from adjacent properties, and less building square footage.

A comparison of the potential impacts of the alternatives, when compared to the impacts of the project, is provided in Table 5.1, at the end of this chapter.

Alternative 1: No Project/No Build Alternative

Under this alternative, nothing would be built at the project site. The site would remain undeveloped, cleared and vacant. The site would have to be maintained at a minimal level, as required by the City of Lancaster, but would continue to be vulnerable to dumping.

Aesthetics/Visual Quality: Under the No Project/No Build Alternative, the site would remain unimproved and underutilized. The site has been cleared. Natural vegetation could grow and

would be minimally maintained. No changes would be made to the existing aesthetic character of the site. No significant impact would therefore occur to the project site.

Air Quality: Under the No Project/No Build Alternative, the project site would remain undeveloped. As a result, there would be no construction-related traffic and/or equipment, and no traffic associated with the operation of the site. With no traffic volumes, air emissions in the vicinity would remain unchanged. No impact to air quality would occur as a result of this alternative.

Biological Resources: The No Project/No Build Alternative would result in no change to potential biological resources at the project site (the site has been cleared and is presently vacant). Under this alternative, the project site landscape would remain unchanged. No impact to biological resources would occur.

Cultural Resources: The site has been cleared and contains no structures. This alternative would not involve any excavation and grading activities that could potentially disturb the subsurface. Therefore, because no archaeological or paleontological resources have been recorded at the site or in its immediate vicinity (which is developed), no impact to historic resources would occur.

Geology and Soils: Under the No Project/No Build Alternative, no excavation and/or grading would occur at the project site. The site would continue to be exposed to existing seismic risks, but, because the site would remain unoccupied under this alternative, no people or property would be exposed to potential substantial risk. Although there is some potential for soil erosion at the site, this would not be a new impact. The No Project/No Build Alternative would result in a less than significant impact related to the exposure of people and structures to geologic hazards.

Hazards and Hazardous Materials: The No Project/No Build Alternative would result in no exposure to hazards associated with the routine transport, use, or disposal of hazardous materials. As a result, the No Project/No Build Alternative would not result in impacts associated with the exposure of people to hazardous materials in the soil or hazards associated with the underground septic system which has not been maintained, storage tanks (UST and ASTs), or at least one uncapped well.

Hydrology and Water Quality: Under the No Project/No Build Alternative, existing storm water runoff drainage patterns and volumes would remain unchanged. No potential impacts to water quality, such as new point and non-point source discharges, resulting from construction activities, or subsequent business operations would occur. With no pavement, the site would remain permeable. The site would retain an open well, which could be subject to dumping from unknown sources and could serve as a conduit for groundwater contamination, which in turn could negatively affect the quality of groundwater in the area. As a result, the project would have slightly more impacts to hydrology and water quality.

Land Use and Planning: The No Project/No Build Alternative would not result in a change to the existing land use, and would not require an amendment to the General Plan or the Zoning

Ordinance. Because no change to the existing land use, land use plans or policies related to the project site would occur, this alternative would have no impact on land use at the site or in the vicinity.

Noise: The No Project/No Build Alternative would not result in any change to existing ambient noise levels and would introduce no new source of noise. Because no construction or business operations would take place, and because traffic related to the project site would be insubstantial or non-existent, traffic-related noise attributable to the project site would also be insubstantial or non-existent. This alternative would result in no impact related to noise at or in the vicinity of the project site.

Population and Housing: Because the project site is not occupied, the No Project/No Build Alternative would not result in the displacement of residents. The project site has been cleared and is vacant. The project site would remain unoccupied and would therefore not induce population growth. This alternative would therefore result in no impact related to population growth, the need for new housing, or growth inducement.

Public Services: The No Project/No Build Alternative would not have an impact on the provision of public services in the City of Lancaster. Because the site is unoccupied, none of the public services providers, such as the Los Angeles County Sheriff or the Los Angeles County Fire Department would be required to build new facilities, which in turn could have environmental effects, as a result of this alternative.

Recreation: The No Project/No Build Alternative would not result in a substantial change to the project site, and as a result, this alternative would not result in an increase in the use of existing parks or other recreational facilities. In addition, the No Project/No Build Alternative would not result in the need for new recreational facilities that might, in turn, have an adverse impact on the environment. This alternative would have no impact on recreational facilities in or near the City of Lancaster.

Transportation/Traffic: The No Project/No Build Alternative would not result in changes to traffic, congestion on roadways, air traffic patterns, traffic hazards, inadequate emergency access, or inadequate parking. In addition, the No Project/No Build Alternative would not conflict with policies, plans, or programs supporting alternative transportation. As a result, the No Project/No Build Alternative would have no impact on transportation or traffic.

Utilities and Service Systems: The No Project/No Build Alternative would not result in any new use of utilities at the project site. Although most utilities (including an existing underground septic system) are available at the project site, they are currently not in use. In addition, the project site is not currently served by a solid waste pickup service. As a result, the No Project/No Build Alternative would have no impact on water supplies, water or wastewater treatment facilities, new or existing storm water drainage facilities, or a substantial impact on solid waste facilities.

Conclusion

In general, the No Project/No Build Alternative would result in virtually no impacts on the environment, although the alternative would result in some potential hazards and hazardous materials remaining at the site (soil, an abandoned well onsite). This alternative would not, however, meet the goals and objectives of the project applicant to build a commercial shopping center that serves the local community that is economically sustainable and provides employment and shopping opportunities for local residents.

Alternative 2: No Project/Existing Zoning-Residential Alternative

Under this alternative, development of the project site for residential use would be a foreseeable consequence of the current General Plan land use designation and zoning. This alternative therefore envisions residential development at the site consistent with the existing General Plan land use classification and the existing zoning.

The General Plan currently designates the project site as UR (Urban Residential 2.1-6.5 dwelling units per net acre). As a result, under the existing General Plan, approximately 138 homes could be built at the project site. The zoning for the site is R-7000, which is a low-density urban residential zone "intended to provide for single-family dwellings in an urban environment with full urban services." This zoning would permit one dwelling unit per minimum net area of 7,000 sf or an approximate maximum of 138 single-family residences on the 22.34-acre project site.

Aesthetics/Visual Quality: The project site is not located along a route designated as scenic by Caltrans or by the City of Lancaster. Under this alternative, the proposed residential uses would likely reflect the architecture of development surrounding the site, which consists of two-story, wood-frame structures with stucco exteriors and pitched roofs, oriented around a local street network. Exterior lighting would be similar to surrounding exterior residential lighting. Development of residential housing similar to housing surrounding the site would result in a less than significant impact to visual quality at the site and in the vicinity.

Air Quality: In general, development under this alternative would result in the same impacts to air quality as the proposed project, although under a lesser degree than the proposed project. This alternative would result in significant and unavoidable impacts to air quality (criteria air pollutants), but to a lesser degree than the proposed project. Because this alternative would generate less traffic than the proposed project, the operational traffic impacts to air quality would be reduced. As with the proposed project, this alternative would result in less than significant impacts on state goals for reducing greenhouse gas emissions, as well as less than significant impacts on localized carbon monoxide concentrations at sensitive receptors.

Biological Resources: The project site is cleared and currently undeveloped. This alternative would result in the replacement of a currently undeveloped site with lawn, trees, and landscaping typical of residential neighborhoods. This alternative would have the same impact as the proposed

project. This alternative would therefore result in the same potential impacts and would require the same mitigation measures as the proposed project.

Cultural Resources: This alternative would result in additional grading for residential pads. Although no cultural resources have been identified at the project site, as with the proposed project, this alternative would require mitigation measures that address the accidental discovery of archaeological resources and/or previously unidentified human remains. This alternative would therefore have the same potential impacts as the proposed project and would require the same mitigation measures.

Geology and Soils: This alternative would result in exposing new residents to the same geologic hazards and soils as identified for the proposed project. These potential hazards include exposure to strong ground shaking during a seismic event, and expansive soils. As a result, this alternative would result in the need for a site-specific, design-level geotechnical report and would therefore have the same potential impacts as the proposed project and would require the same mitigation measures.

Hazards and Hazardous Materials: This alternative would result in new construction at the project site that would result in additional soil disturbance, excavation, and trenching. Soil disturbance could result in exposing construction workers and new residents to the same potential hazards and hazardous materials identified for the proposed project. These potential hazardous materials include pesticides and herbicides in the soil and the contents of USTs and ASTs. Unlike the proposed project, this alternative would result in the use and disposal of small amounts of household hazardous waste. This usage would result in a less than significant impact. However, the proposed project would include a gas station that would result in new USTs and hazardous materials on site that this alternative would not include. The same mitigation measures required for the project would be required for this alternative; although this alternative would result in less commercial hazardous waste and no need for measures to reduce potential hazards associated with a gas station.

Hydrology and Water Quality: This alternative would affect runoff at the project site, although less than the proposed project, because under this alternative, substantial pervious surface area would remain in the form of yards and landscaping. The same mitigation measures required for the project would also be required for this alternative to reduce nonpoint source pollution in stormwater runoff and remediation of the potential for the groundwater well to serve as a conduit for groundwater contamination is left inactive.

Land Use and Planning: This alternative would be consistent with the General Plan land use classification and the current zoning for the project site. This alternative would therefore result in no conflict in land uses, and as a discrete housing development, would not physically divide an established community. Because there are no habitat conservation plans or natural community conservation plans applicable to the project, this alternative would not conflict with either.

Noise: This alternative would result in construction noise near sensitive receptors (residents), and would expose persons to and/or generate noise levels in excess of standards established in the

local general plan or noise ordinance. As a result, the impacts of construction noise would be similar to those of the proposed project and would require the same mitigation measures. Traffic associated with this alternative would be less and would therefore result in less operational noise. The contribution of this alternative to ambient noise levels and to cumulative noise increases would be less than the proposed project because under this alternative, all noise would be residential in nature with few delivery trucks or other similar noise sources.

Population and Housing: Because the project site is not occupied, this alternative would not result in the displacement of residents. The project site is surrounded by existing residences to the north, east, and west (across 60th Street West). Housing is the designated land use for the project site and any new housing at the project site would be served by existing infrastructure connections in the vicinity of the project site. This alternative would therefore not, by itself, induce population growth in a manner unanticipated by the City General Plan, either directly or indirectly.

Public Services: This alternative would result in more demand for schools than the proposed project, and would also likely result in higher use of other public services. However, although demand for schools would be higher, demand for emergency services, fire protection services, and police protection services would be slightly lower than the proposed project. Crimes associated with shoplifting or other crimes associated with theft in commercial venues would not occur. Because this alternative would result in large yard space, demand for parks and recreation facilities would increase only slightly.

Transportation/Traffic: This alternative would result in fewer peak hour trips than the proposed project, and would therefore result in impacts to fewer intersections than the proposed project. Under this alternative, the following intersections would *not* be affected[1]:

- 50th Street West / Avenue L (AM peak hour and PM peak hour);
- 60th Street West / Avenue L (AM peak hour only);
- 60th Street West / Avenue L-8 (AM peak hour and PM peak hour); and
- 70th Street West / Avenue L (AM peak hour and PM peak hour).

Parking would be provided at each individual residence in garages, thereby eliminating the need for surface parking lots.

Utilities and Service Systems: This alternative would result in the use of utilities and service systems. In general, residential land uses result in higher demand for water and generate more demand for wastewater treatment than commercial uses with similar square footage (see Table 3.11.5 in Section 3.11, Public Services and Utilities). Single-family residential customers are estimated to average about 3.06 persons per connection, with an average consumption rate of approximately 785 gallons per connection per day or a total demand of 108,330 gallons per day for maximum development of residential uses at the site (UWMP, 2005). The average consumption rate for the commercial sector is estimated to be 2,500 gallons per connection per day (UWMP, 2005). However, given that the proposed project includes a car wash, water demand

1 KOA, e-mail to ESA, November 12, 2008.

is expected to be similar. As a result, this alternative would result in a similar demand for wastewater treatment. Solid waste would be similar or higher than commercial use, although demand for gas and electricity could be similar.

Conclusion

In general, this alternative would result in fewer impacts on the environment than the proposed project, particularly for traffic.[2] However, this alternative would not meet the goals and objectives of the project applicant to build a commercial shopping center that serves the local community that is economically sustainable and provides employment and shopping opportunities for local residents.

Alternative 3: Reduced Density Alternative

The Reduced Density Alternative would result in less developed space at the shopping center. Under the Reduced Density Alternative, the shopping center would not include a big-box retail use nor a gas station/car wash, and would include 30-foot landscaped setbacks that could include a plaza along the northern and eastern perimeters. Maximum total development would not exceed 50 percent of the development proposed as part of the project or a maximum of 117,394 sf.[3] Although a reduced development is proposed, the entire site would still be developed with either paved surfaces or landscape.

Aesthetics/Visual Quality: The project site is not located along a route designated as scenic by Caltrans or by the City of Lancaster. This alternative would be constructed with similar architecture as the proposed project. However, with greater setbacks, more landscaping, and more walkways/plazas, the project would be better screened, and would require less of the surface area to be dedicated solely to surface parking. The Reduced Density Alternative would, as would the proposed project, be subject to the same design review process and the same regulations concerning light and glare, which would ensure less than significant impacts on visual quality. Some of the mitigation measures required for the proposed project would be required for this alternative.

Air Quality: The Reduced Density Alternative would result in significant and unavoidable impacts to air quality (criteria air pollutants), but to a far lesser degree than the proposed project. Because this alternative would generate less traffic than the proposed project, the impacts to air quality would be reduced. As with the proposed project, this alternative would result in less than significant impacts on state goals for reducing greenhouse gas emissions, as well as less than significant impacts on localized carbon monoxide concentrations at sensitive receptors.

Biological Resources: The project site has been cleared and is vacant. The Reduced Density Alternative would develop site and would include trees and landscaping typical of a commercial

2 *Ibid*.

3 This square footage was selected because none of the traffic impacts of the proposed project would be reduced until the project reaches approximately 50 percent of its proposed size.

development. This alternative would therefore result in the same potential impacts would require the same mitigation measures as the proposed project.

Cultural Resources: The project site is cleared and is vacant. No cultural resources have been identified at the project site. As with the proposed project, this alternative would require mitigation measures that address the accidental discovery of archaeological resources and/or previously unidentified human remains. The Reduced Density Alternative would therefore have the same potential impacts as the proposed project and would require the same mitigation measures.

Geology and Soils: The Reduced Density Alternative would result in exposing employees and customers to the same geologic hazards and soils as identified for the proposed project. These potential hazards include exposure to strong ground shaking during a seismic event, and expansive soils. As a result, the Reduced Density Alternative would result in the need for a site-specific, design-level geotechnical report. This alternative would therefore have the same potential impacts as the proposed project and would require the same mitigation measures.

Hazards and Hazardous Materials: The Reduced Density Alternative would result in new construction at the project site that would result in additional soil disturbance, excavation, and trenching. Soil disturbance could result in exposing construction workers and new residents to the same potential hazards and hazardous materials identified for the proposed project. These potential hazardous materials include pesticides and herbicides in the soil, and the contents of USTs and ASTs. Similar to the proposed project, this alternative would result in the use and disposal of small amounts of commercial hazardous products (cleaners, solvents) but to a lesser degree. This usage would result in a less than significant impact. The same mitigation measures required for the project would be required for the Reduced Density Alternative. The proposed Reduced Density Alternative could, however, result in less commercial hazardous waste.

Hydrology and Water Quality: As with the proposed project, the Reduced Density Alternative would result in more impervious surface area at the project site. The same mitigation measures required for the project would also be required for this alternative to reduce nonpoint source pollution in stormwater runoff and remediation of the potential for the groundwater well to serve as a conduit for groundwater contamination is left inactive.

Land Use and Planning: The Reduced Density Alternative would, like the proposed project, require an amendment to the General Plan and rezoning in order to change the land use at the project site from residential use to commercial use. This alternative would also require a Conditional Use Permit. As a discrete commercial development located near residences that are mostly oriented away from the project site, the Reduced Density Alternative would not physically divide an established community. Because there are no habitat conservation plans or natural community conservation plans applicable to the project, the project would not conflict with either.

Noise: The Reduced Density Alternative would result in construction noise near sensitive receptors (residents), and would expose persons or generate noise levels in excess of standards

established in the local general plan or noise ordinance. As a result, the impacts of construction noise would be similar to those of the proposed project and would require the same mitigation measures. Traffic associated with this alternative would be less and would therefore result in less operational noise. The contribution of the Reduced Density Alternative to ambient noise levels and to cumulative noise increases would be less than the proposed project because the amount of the development would result in fewer delivery trucks or other similar noise sources.

Population and Housing: Because the project site is not occupied, the Reduced Density Alternative would not result in the displacement of residents. The project site is surrounded by existing residences to the north, east, and west (across 60th Street West). This alternative, as with the proposed project, would introduce new commercial uses at the site that could potentially indirectly increase the population within the general area. As discussed in Section 3.2, Population and Housing, of this Draft EIR, SCAG's employment density factors[4] of one employee for each 857 square feet of "regional retail" and one employee for each 344 square feet of "other retail/services" would be applied to this alternative. With less square footage of development, this alternative would provide fewer jobs then the proposed project and therefore, have a reduced potential impact on population growth. SCAG's projected future population growth rate for Lancaster is over 4,000 residents per year. The addition of potential new residents over the course of the next two years (the expected completion date of the Reduced Density Alternative) would be well within Lancaster's currently anticipated population growth. Any development at the site would be served by existing infrastructure connections in the vicinity of the project site. Although not a significant impact with the proposed project, this alternative would therefore have a reduced potential indirect impact on population and housing.

Public Services: The Reduced Density Alternative would result in little or no demand for schools and less demand for public services than the proposed project. This alternative would result in a slight increase in demand for police and fire protection services, as well as emergency medical response, but less of a demand than the proposed project. Most employees are likely to already live in Lancaster or nearby and would likely use parks and schools near their residences.

Transportation/Traffic: The Reduced Density Alternative would result in less traffic but would result in reduced traffic volumes at only one intersection:

- 60th Street West and Avenue L-8 (AM peak hour and PM peak hour).

Because there would be no gas station/car wash associated with this alternative and because this alternative would result in less square footage than the proposed project, this alternative would generate less traffic than the proposed project.

Utilities and Service Systems: As with the proposed project, the Reduced Density Alternative would result in the use of utilities and service systems, but demand would be approximately 50 percent of the proposed project's demand for utilities.

[4] Average employment density factors for the SCAG region are taken from Table II-B of The Natelson Company, Inc., *Employment Density Study Summary Report*, prepared for the Southern California Association of Governments, October 2001.

Conclusion

In general, the Reduced Density Alternative would result in slightly fewer impacts on the environment than the proposed project. However, this alternative would not meet the goals and objectives of the project applicant. Although the Reduced Density Alternative would build a commercial shopping center that serves the local community and provides employment and shopping opportunities for local residents, it is not economically sustainable.

Environmentally Superior Alternative

CEQA requires that another alternative, aside from the No Project Alternative, be identified as an Environmentally Superior Alternative. As a result, the Environmentally Superior Alternative would be the Reduced Density Alternative, which would result in fewer impacts or would result in less intense impacts on the environment than the proposed project. The Environmentally Superior Alternative would eliminate impacts to one or more intersection that would be affected by the project. In addition, impacts to air quality and noise would be reduced by the reduced traffic, although impacts would remain significant and unavoidable for criteria air pollutants.

This alternative would not meet all of the goals and objectives of the developer. The development of a commercial shopping center would serve the local community and would provide employment and shopping opportunities for local residents. However, the Reduced Density Alternative would not be economically sustainable.

Table 5.1 provides a comparison of all of the alternatives and the proposed project.

TABLE 5.1
SUMMARY OF RELATIVE IMPACTS: PROJECT AND ALTERNATIVES

NOTE: Significance levels shown in the table reflect levels of significance after mitigation or standard conditions of approval and indicate maximum impact during buildout and operation, unless otherwise specified.	**Proposed Project**	**Alternative 1: No Project / No Build Alternative**	**Alternative 2: No Project / Existing Zoning Residential Alternative**	**Alternative 3: Reduced Density Alternative**
3.1. Land Use, Plans, and Policies				
Impact 3.1-1: The proposed project could potentially physically divide an established community.	LS	N	LS	LS
Impact 3.1-2: The proposed project would not conflict with the 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.	LS	N	LS⇩	LS
Impact 3.1-3: The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan.	LS	N	LS	LS
3.2 Population and Housing				
Impact 3.2-1: Implementation of the project could induce population growth in Lancaster.	LS	N	LS	LS⇩
3.3 Traffic, Circulation and Parking				
Impact 3.3-1: Development of the proposed project would increase traffic volumes at area intersections.	SU	N	LSM⇩	LSM⇩
Impact 3.3-2: Development of the proposed project would increase traffic volumes on area roadways.	SU	N	LSM⇩	LSM⇩
Impact 3.3-3: Development of the proposed project would generate demand for parking.	LS	N	LS⇩	LS⇩
3.4 Noise				
Impact 3.4-1: Project construction could expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	SU	N	SU	SU

Legend
LS Less than significant or negligible impact; no mitigation required
LSM Less than significant impact, after mitigation
LSC Less than significant impact, after standard conditions (LSCM – after standard conditions and mitigation)
SU Significant and unavoidable adverse impact, after mitigation
N No impact
B Beneficial
⇧⇩ Impact is more severe or less severe than project impact, after mitigation

TABLE 5.1 (continued)
SUMMARY OF RELATIVE IMPACTS: PROJECT AND ALTERNATIVES

NOTE: Significance levels shown in the table reflect levels of significance after mitigation or standard conditions of approval and indicate maximum impact during buildout and operation, unless otherwise specified.	**Proposed Project**	**Alternative 1: No Project / No Build Alternative**	**Alternative 2: No Project / Existing Zoning Residential Alternative**	**Alternative 3: Reduced Density Alternative**
Impact 3.4-2: Operation of the project could expose persons to or generate noise levels in excess of standards established in the local general plans or noise ordinances, or applicable standards of other agencies.	SU	N	LSM	SU
Impact 3.4-3: Traffic associated with operation of the project would result in an increase in ambient noise levels on nearby roadways used to access the shopping center.	LS	N	LS⇩	LS⇩
3.5 Air Quality				
Impact 3.5-1: The project could conflict with or obstruct implementation of the applicable air quality plan.	SU	N	SU⇩	SU⇩
Impact 3.5-2: Project construction would generate short-term emissions of criteria air pollutants, including particulate matter and equipment exhaust emissions.	SU	N	SU⇩	SU⇩
Impact 3.5-3: Project operations would result in an increase in criteria air pollutant emissions due to project-related traffic, stationary sources, and on-site area sources.	SU	N	SU⇩	SU⇩
Impact 3.5-4: The project would not create objectionable odors affecting a substantial amount of people.	LS	N	N	LS⇩
Impact 3.5-5: Project traffic would increase localized carbon monoxide concentrations at sensitive receptors in the project vicinity.	LS	N	LS⇩	LS⇩
Impact 3.5-6: The project could conflict with implementation of state goals for reducing greenhouse gas emissions and thereby have a negative effect on Global Climate Change.	LS	N	LS	LS
3.6 Hazards and Hazardous Materials				
Impact 3.6-1: Disturbance and release of contaminated soil during excavation and grading for the project, or transportation of excavated material, could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling.	LSM	N	LSM	LSM

Legend
LS Less than significant or negligible impact; no mitigation required
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TABLE 5.1 (continued)
SUMMARY OF RELATIVE IMPACTS: PROJECT AND ALTERNATIVES

NOTE: Significance levels shown in the table reflect levels of significance after mitigation or standard conditions of approval and indicate maximum impact during buildout and operation, unless otherwise specified.	**Proposed Project**	**Alternative 1: No Project / No Build Alternative**	**Alternative 2: No Project / Existing Zoning Residential Alternative**	**Alternative 3: Reduced Density Alternative**
Impact 3.6-2: Disturbance and release of hazardous building components (i.e. asbestos, lead, PCBs) during demolition and construction phases of the project or transport of these materials could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling.	LSM	N	LSM	LSM
Impact 3.6-3: Hazardous materials used on-site during construction activities could be released to the environment through improper handling or storage.	LSM	N	LSM	LSM
Impact 3.6-4: Project operations would involve the storage and use of hazardous materials in USTs and the handling of small quantities of general commercial/retail hazardous waste, which could result in potential hazards to the public or environment.	LS	N	N	LS
3.7 Geology and Soils				
Impact 3.7-1: Implementation of the proposed project would expose people and structures to strong ground shaking as a result of an earthquake on a regional or nearby fault.	LSM	N	LSM	LSM
Impact 3.7-2: The proposed project would expose people and structures to seismic hazards such as surface fault rupture, soil liquefaction, and landslides.	LSM	LS	LSM	LSM
Impact 3.7-3: Structures, buildings, or other proposed improvements could be subject to geologic hazards, including expansive soils, differential settlement, and erosion.	LS	N	LS	LS
3.8 Hydrology and Water Quality				
Impact 3.8-1: Development of the project site could alter drainage patterns in the project area, potentially having adverse effects on the volume and/or timing of peak runoff in the municipal storm drain system.	LSM	N	LS	LS
Impact 3.8-2: Construction activities associated with development of the project could result in construction-related impacts on surface water quality.	LSM	N	LSM	LSM

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TABLE 5.1 (continued)
SUMMARY OF RELATIVE IMPACTS: PROJECT AND ALTERNATIVES

NOTE: Significance levels shown in the table reflect levels of significance after mitigation or standard conditions of approval and indicate maximum impact during buildout and operation, unless otherwise specified.	**Proposed Project**	**Alternative 1: No Project / No Build Alternative**	**Alternative 2: No Project / Existing Zoning Residential Alternative**	**Alternative 3: Reduced Density Alternative**
Impact 3.8-3: Development of the project site could result in increased nonpoint source pollution in stormwater runoff.	LSM	N	LSM	LSM
Impact 3.8-4: The existing groundwater well could become a conduit for groundwater contamination if left inactive.	LSM	LSM	LSM	LSM
3.9 Biological Resources				
Impact 3.9-1: Implementation of the proposed project, through habitat modification and construction activities, would affect Nesting/Migratory Birds and Raptors protected by the MBTA.	LSM	N	LSM	LSM
Impact 3.9-2: Activities associated with the construction of the proposed project could result in adverse impacts to special-status bat species including pallid bat and spotted bat.	LSM	LS	LSM	LSM
3.10 Cultural Resources				
Impact 3.10-1: Project construction could adversely affect unknown cultural resources, including unique archaeological resources.	LSM	N	LSM	LSM
Impact 3.10-2: The proposed project could adversely affect unidentified paleontological resources.	LSM	N	LSM	LSM
Impact 3.10-3: Project construction could result in damage to previously unidentified human remains.	LSM	N	LSM	LSM
Impact 3.10-4: The proposed project would not have an impact on historic architectural resources.	N	N	N	N
3.11 Public Services and Utilities				
Impact 3.11-1: The proposed project would not affect the provision of police protection services in the City of Lancaster.	LS	LS	LS⇩	LS⇩
Impact 3.11-2: The proposed project could affect the provision of fire protection or emergency medical services in the City of Lancaster.	LSM	N	LSM	LSM

Legend
LS Less than significant or negligible impact; no mitigation required
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TABLE 5.1 (continued)
SUMMARY OF RELATIVE IMPACTS: PROJECT AND ALTERNATIVES

NOTE: Significance levels shown in the table reflect levels of significance after mitigation or standard conditions of approval and indicate maximum impact during buildout and operation, unless otherwise specified.	**Proposed Project**	**Alternative 1: No Project / No Build Alternative**	**Alternative 2: No Project / Existing Zoning Residential Alternative**	**Alternative 3: Reduced Density Alternative**
Impact 3.11-3: As a commercial project, the proposed project would not be expected to substantially affect school services in the City of Lancaster.	LS	N	LS⇧	LS
Impact 3.11-4: The proposed project would not affect park services in the City of Lancaster.	LS	N	LS⇧	LS
Impact 3.11-5: Implementation of the proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Board or require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities.	LS	LS	LS	LS
Impact 3.11-6: The proposed project could potentially cause local landfills to exceed their permitted capacity to accommodate the project's solid waste disposal needs.	LS	N	LS⇩	LS⇩
Impact 3.11-7: The proposed project would not affect electrical services in the City of Lancaster that would require new facilities.	LS	N	LS⇩	LS⇩
Impact 3.11-8: The proposed project would not affect additional gas services in the City of Lancaster and would not require new facilities.	LS	N	LS⇩	LS⇩
Impact 3.11-9: The proposed project could potentially require or result in the construction of new storm water drainage facilities, or expansion of existing facilities.	LS	N	LS	LS
3.12 Visual Quality				
Impact 3.12-1: The proposed project could have an effect on a scenic vista.	LS	N	LS	LS
Impact 3.12-2: The proposed project would affect the visual quality of the proposed project site and its vicinity.	LSM	LS	LS	LSM⇩
Impact 3.12-3: The proposed project would result in new lighting at the project site.	SU	N	LSM	SU⇩

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LS Less than significant or negligible impact; no mitigation required
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CHAPTER 6
Report Preparation, Persons and Organizations Consulted

6.1 Report Preparation

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Attendance Director, Antelope Valley Unified High School District, Personal communication with ESA, August 26, 2008.

Brigges, Henry, Planning Associate, Southern California Gas Company, Personal communication, September 20, 2007.

Carn, Gordon, Acting Captain, County of Los Angeles Sheriff's Department, Letter to ESA, July 17, 2007.

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CHAPTER 7
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