4201 EAST WILLOW STREET
MIXED USE PROJECT

MITIGATED NEGATIVE DECLARATION

Lead Agency:
City of Long Beach
Development Services • Planning Bureau
333 West Ocean Blvd., 5th Floor
Long Beach, California 90802
T: (562) 570-5237
F: (562) 570-6068
www.longbeach.gov

Prepared by:
LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, California 92614-4731
(949) 553 0666

April 2011

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1.0 INTRODUCTION

In accordance with the California Environmental Quality Act (CEQA) and its Guidelines, this Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared for the proposed mixed-use development (project) at 4201 East Willow Street in the City of Long Beach (City). This IS/MND includes a description of the project, an evaluation of the potential environmental impacts, findings from the environmental review, and proposed mitigation measures to lessen or avoid impacts on the environment.

This IS/MND evaluated the potential environmental impacts that may result from development of the proposed project. The City is the Lead Agency under CEQA, and its governing board is responsible for approval of the environmental documentation and approval of the project.

1.1 Contact Person

Angie Zetterquist, Planner
City of Long Beach
Development Services Department - Planning Bureau
333 West Ocean Boulevard
Long Beach, CA 90802
T: 562.570.6553
F: 562.570.6068

2.0 PROJECT DESCRIPTION

2.1 Project Location/Site Context

The 1.67-acre (ac) project site is located at 4201 East Willow Street (Figure 1). The project site is located in an urban area and is currently developed with a 17,231 square foot (sf) car dealership, including the showroom and repair/parts departments, and asphalt parking. The 1963 Ray Vines Chrysler Plymouth Dealership buildings located on the project site are eligible for the California Register of Historic Places and for Local Landmark Designation.

The project site is located on the northwestern corner of the intersection of East Willow Street and Lakewood Boulevard and is in a mixed commercial and residential area of Long Beach. Bounding the project site to the north are freeway on- and off-ramps leading to and from Interstate 405 (I-405). Lakewood Boulevard bounds the project site to the east, with a Chevron gasoline service station (2610 Lakewood Boulevard) and a Holiday Inn (2640 Lakewood Boulevard) across Lakewood Boulevard to the east. To the southeast, across the East Willow Street/Lakewood Boulevard intersection, is Spires Restaurant (2590 Lakewood Boulevard), which is located on property formerly occupied by a gasoline service station (Phillips 66). East Willow Street bounds the project site to the south, and across Willow Street to the south are a Shell gasoline service station (2589 Lakewood Boulevard) and Worthington Auto Body (4170 East Willow Street). A Residence Inn by Marriott (4111 East Willow Street) occupies property immediately west of the project site. Figure 2 illustrates surrounding land uses.

2.2 Project Characteristics

The proposed project is a mixed-use development that would include a 9,121 sf retail building and a 4,296 sf automated car wash. There will be 67 parking spaces on site after project implementation, including 14 spaces for the car wash and 53 spaces for the retail uses.

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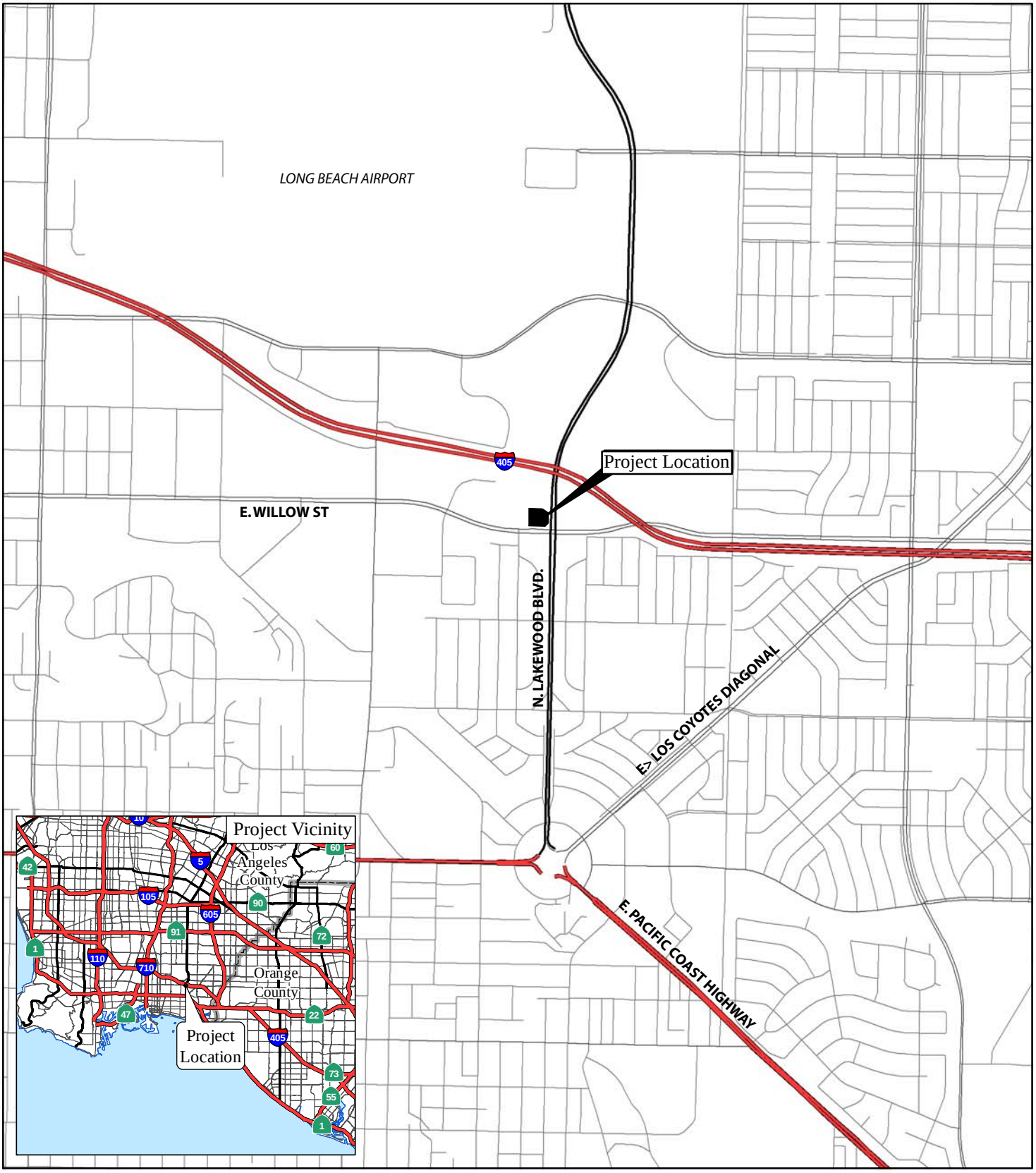

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LEGEND

Project Location

FIGURE 1

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0 1000 2000
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SOURCE: Thomas Brothers, 2010

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4201 E. Willow Street Mixed Use Project

Project Location

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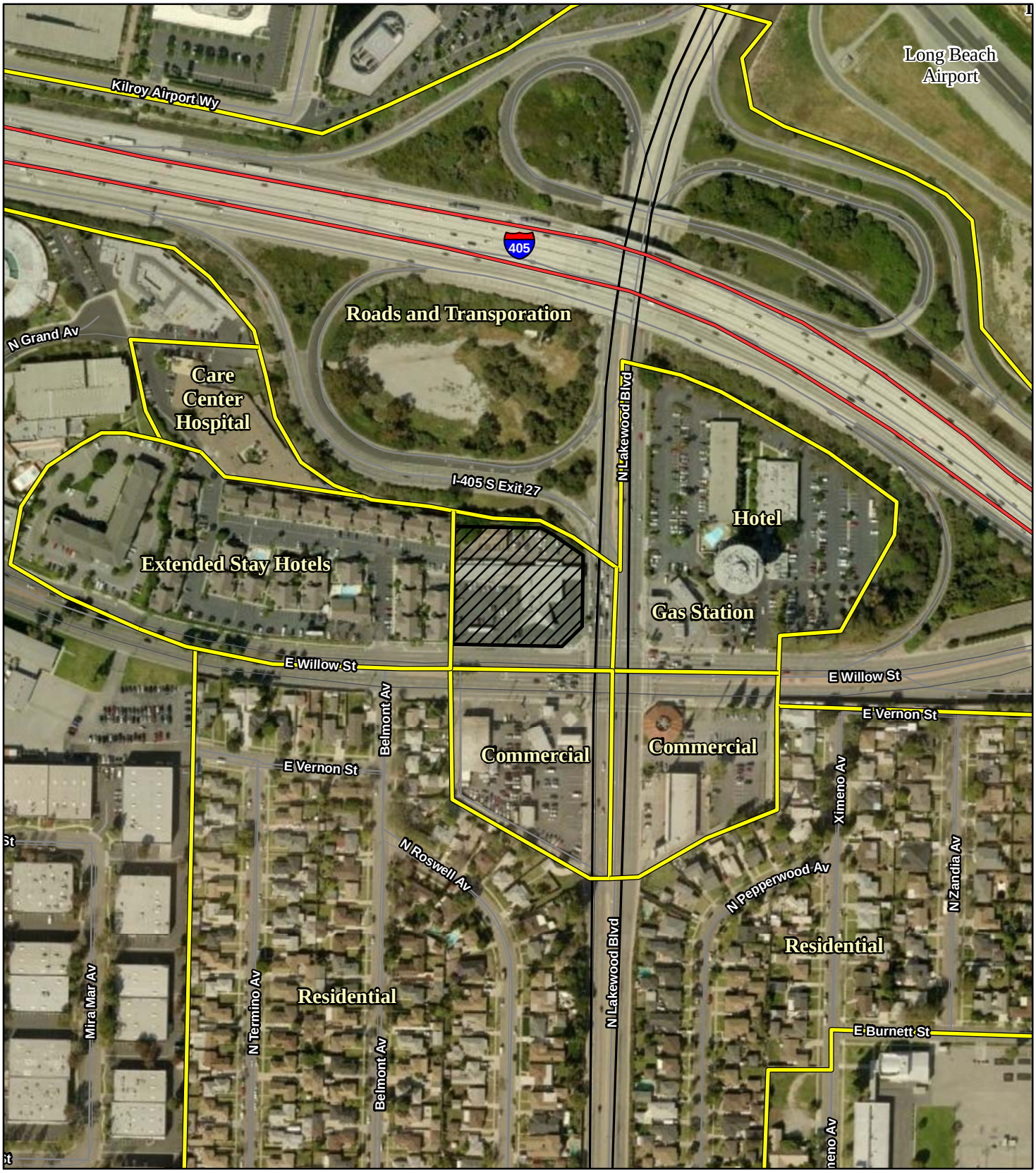

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Project Location

FIGURE 2

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0 150 300
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SOURCE: Bing Maps (2009)

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4201 E. Willow Street Mixed Use Project

Surrounding Land Uses

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The proposed project includes the demolition of portions of the existing dealership, including the service and parts department. In total, approximately 9,753 sf would be demolished. Due to the unique architecture and potential historic significance of the existing buildings and features, the project would reuse the entire Ray Vines Chrysler Plymouth Dealership showroom building and the original pole sign. The sign pole would be relocated to the west of the vehicular entrance off of East Willow Street. In total, approximately 7,478 sf of the existing dealership would be retained and reused on site and 1,643 sf would be added to the showroom building. The adaptive reuse of the showroom would retain all the Googie elements of the design that make the property eligible for the California Register, including the entire west wall with decorative concrete block. Figure 3 provides an illustration of where site demolition and construction would occur on the project site.

The car wash would be located along the westerly side of the site, with a 30-foot (ft), 6-inch setback from the common property line to the west. The retail component would be located in the existing Ray Vines Chrysler Plymouth Dealership showroom building. Figure 4 provides a site plan of the proposed project site.

The hours of operation for the car wash would be from approximately 7:00 a.m. to 9:00 p.m., with some cleaning and maintenance occurring outside of those times. The hours of operation for the retail facility would be determined by future tenants but may include some tenants with 24-hour operations (e.g., 7-11 or Subway Sandwich).

2.3 Building and Site Design

Lighting. Lighting would be provided consistent with City standards. The project site would be illuminated from sunset to sunrise (generally 6:00 p.m. to 6:00 a.m., depending on the time of year). Security lighting (i.e., reduced lighting) is proposed after 10:00 p.m. around the car wash. The proposed project would reuse the majority of the existing parking lot light poles, which are evenly spaced throughout the parking area. Three light poles would be relocated to accommodate the redesign of the site. Because the proposed project would be constructed in place of an existing lighted parking area, it would not introduce new light sources. In addition, project lighting would be designed to be contained within the project site, and spill light and glare would be reduced by design features (e.g., light shielding) to be implemented with the project. Building exterior lights would be surface-mounted and directed away from adjacent hotel uses.

Landscaping. Figure 5 depicts the conceptual landscape plan for the project. In compliance with the City Zoning Ordinance, the conceptual landscape plan includes landscaping in parking areas and around the perimeter of the proposed project site. The proposed project would provide 11 street trees, 36 trees along the street frontage, 15 parking lot trees, and 38 trees in yards areas for a total of 100 trees on site. The project would also provide 207 shrubs on site. In compliance with the City's Green Building Standards, after 5 years of growth, canopy trees would provide shade coverage for 40 percent of the total on-site parking area and associated vehicular circulation area. For additional discussion of landscaping requirements found in the City Zoning Ordinance, please refer to Section 4.10 of this IS/MND.

The irrigation system for the landscaping would be connected to the car wash water meter with a separate backflow prevention device. Water for irrigation would come directly from the car wash reclamation system after it is treated via reverse osmosis in the reclamation tank; no extra water would be needed for irrigation.

Vehicular and Pedestrian Access. Two-way vehicular access to the site is provided from East Willow Street, as shown in Figure 4. To assist with internal traffic circulation, four stop signs would be located in the parking area as well as signs to direct patrons to the car wash entrance and retail areas.

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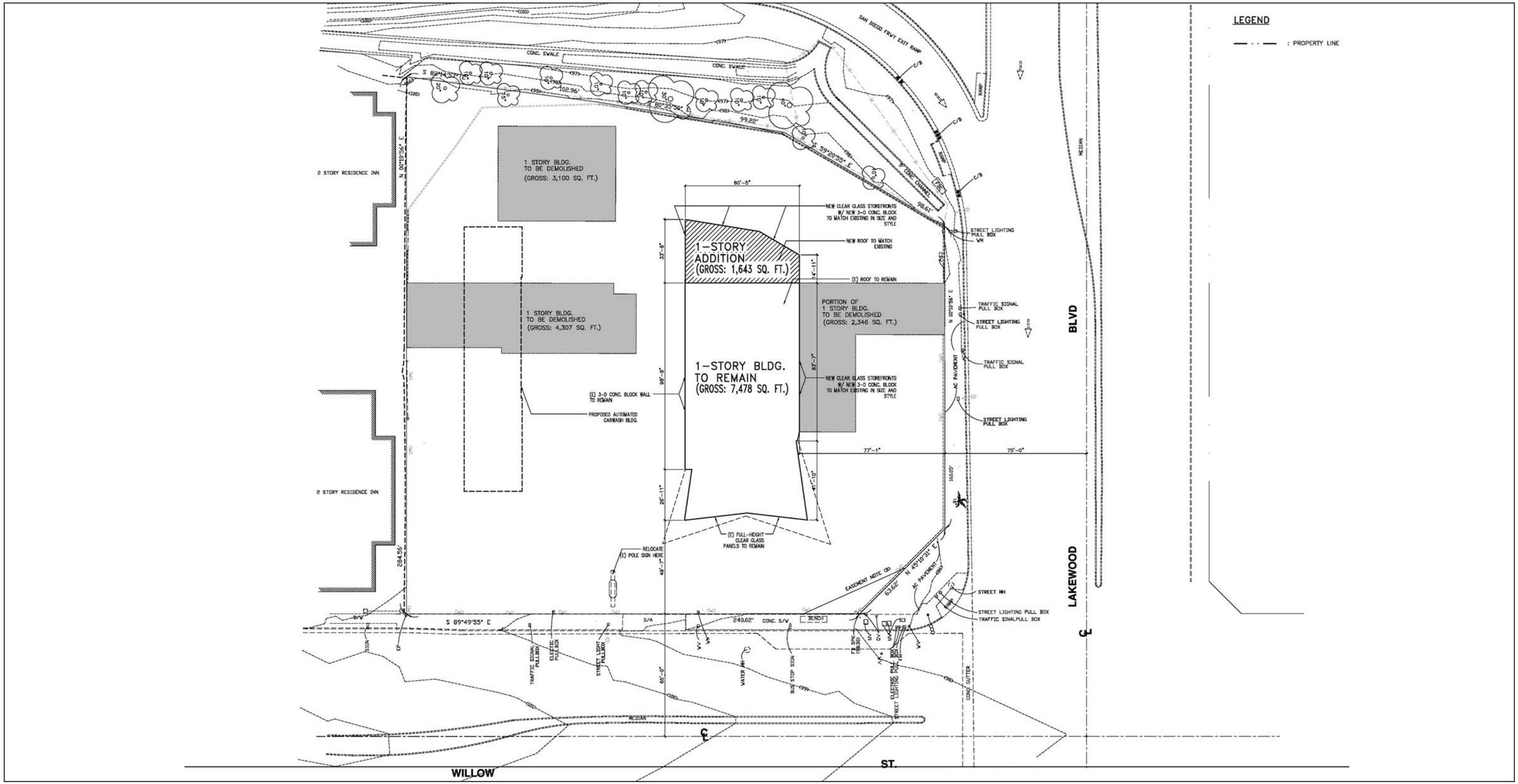

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FIGURE 3

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SOURCE: Space Masters

420 E. Willow Street Mixed Use Project

Demolition and Construction

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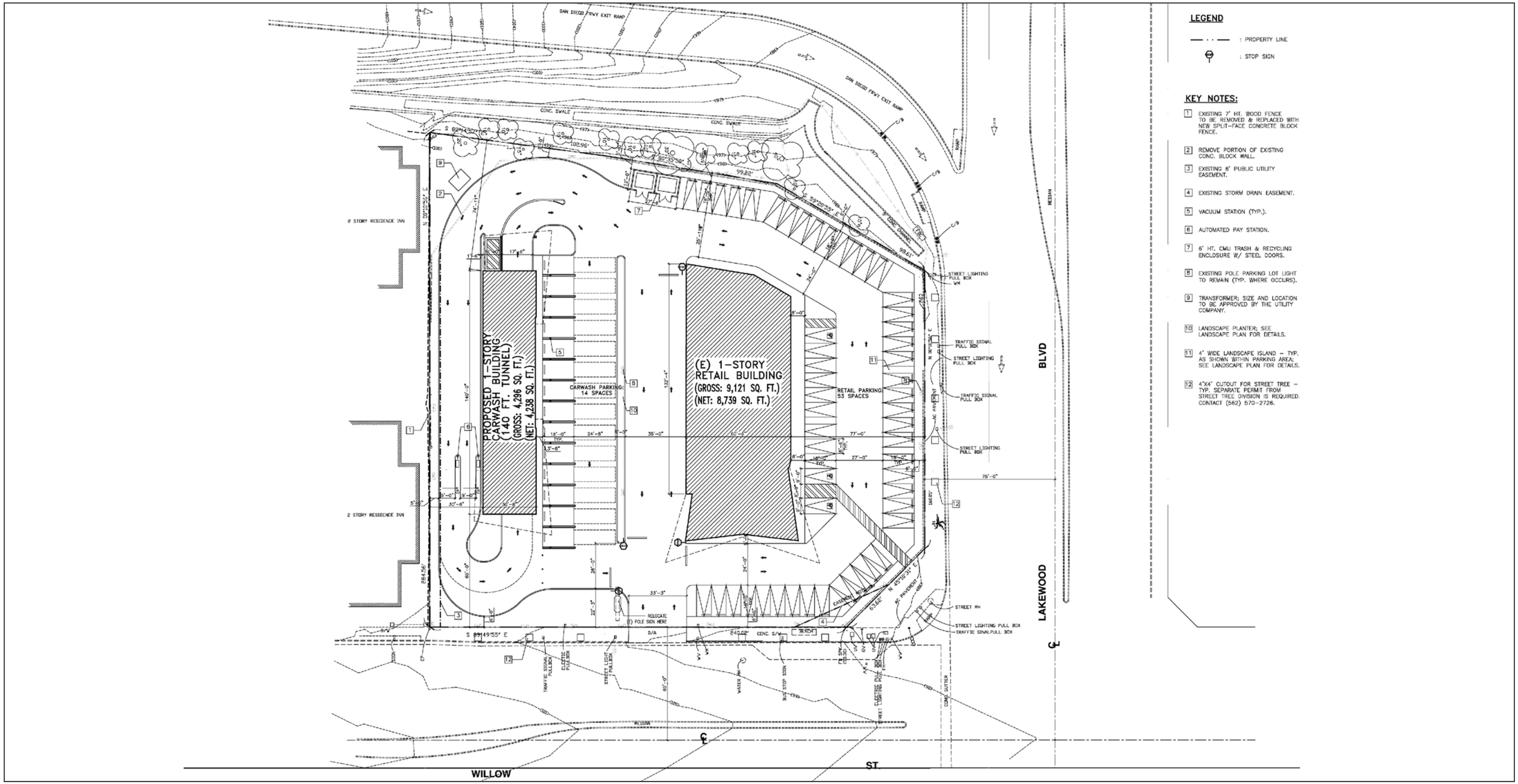

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FIGURE 4

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SOURCE: Space Masters

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420 E. Willow Street Mixed Use Project

Site Plan

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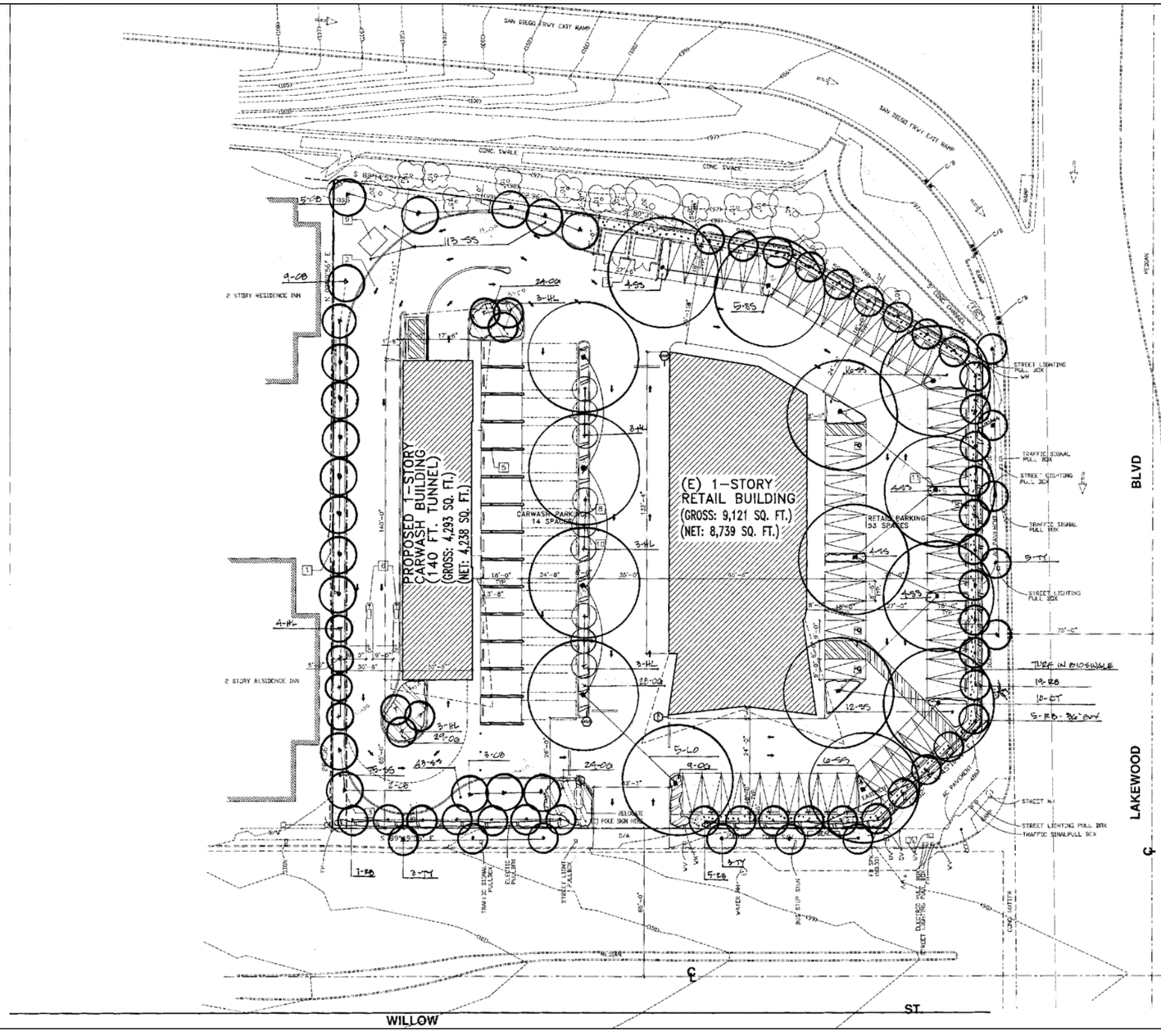

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— · · — : PROPERTY LINE

: STOP SIGN

KEY NOTES:

1. EXISTING 7' HT. WOOD FENCE TO BE REMOVED & REPLACED WITH NEW SPLIT-FACE CONCRETE BLOCK FENCE
2. REMOVE PORTION OF EXISTING CONC. BLOCK WALL.
3. EXISTING 6' PUBLIC UTILITY EASEMENT.
4. EXISTING STORM DRAIN EASEMENT.
5. VACUUM STATION (TYP.).
6. AUTOMATED PAY STATION.
7. 6' HT. CMU TRASH & RECYCLING ENCLOSURE W/ STEEL DOORS.
8. EXISTING POLE PARKING LOT LIGHT TO REMAIN (TYP. WHERE OCCURS).
9. TRANSFORMER; SIZE AND LOCATION TO BE APPROVED BY THE UTILITY COMPANY.
10. LANDSCAPE PLANTER; SEE LANDSCAPE PLAN FOR DETAILS.
11. 4' WIDE LANDSCAPE ISLAND – TYP. AS SHOWN WITHIN PARKING AREA; SEE LANDSCAPE PLAN FOR DETAILS.

Symbol/Quantity	name	size/spacing
TREES		
TY / 11	Chitalpa / Chitalpa tashkeatensis	24" box-30' on center
HL / 19	Hollyleaf Cherry /Prunus illicifolia	24"box- as shown
LO / 5	Coast Live Oak / Quercus agrifolia	24" box-standard
CB / 19	California Bay / Umbellularia californica	24"box -20' on center
RB / 31	Western redbud / Cercis occidentalis	24'box-15' on center
RB / 5	Western redbud / Cercis occidentalis	36'box-15' on center
CT / 10	Coral Tree / Erythrina caffra(non-native)	24"box-7' ht min
PG / 3-d	*Pineapple Guava / Feijoa sellowiana*	*24" box-15' on center*
SHRUBS		
RR / 93	Rock Rose / Cistus species	5 gallon-4' on center
OG / 114	Compact Oregon Grape/Mahonia aquifolium 'Compacta'1 gallon-4'on center	
Turf	California Fescue / Festuca californica	seed
SP / 286	Silver Spreader / Artemisia caucasica	1 gallon – 4' on center

All plants are low water use per WUCOLS

Street trees

11 required 11 provided

Parking lot trees – 1 per 4 spaces; 53 spaces = 14 trees

14 required 15 provided

Street frontage – 1 tree per 15 lf = 36 trees

36 required 36 provided; 5 trees at 36" box

Yard areas – 1 tree per 125sf; 4700 sf = 38 trees

38 required 38 provided

Street frontage shrubs

93 required 93 provided

Yard area – 3 shrubs per 125sf; 4700 sf = 114 shrubs

114 required 114 provided

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FIGURE 5

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0 30 60
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SOURCE: Space Masters & Bruce Malinowski, Landscape Architect

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420 E. Willow Street Mixed Use Project

Landscape Plan

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Pedestrian access to the site is along East Willow Street and Lakewood Boulevard; there is an existing sidewalk that would not be altered during construction.

Parking. After project implementation, there would be a total of 67 spaces on site. The proposed project would provide 53 spaces for the retail uses, of which 3 would be handicap-accessible spaces, and 14 spaces would be provided for the car wash. The proposed project would also provide a minimum of 2 bicycle parking spaces located near the retail building.

Building Design.

Car Wash. The car wash tunnel is a prefabricated module that is approximately 140 ft long. The car wash building would be constructed of concrete block, with no openings along the entire west elevation that is adjacent to the existing residential hotel. The tunnel and 19 accessory vacuum parking spaces will be facing the interior of the site and/or rear of the property (adjacent to I-405). The car wash building would also feature a sound-insulated wall and ceiling around the blower equipment and a 20 ft long extension beyond the point where the blower is located (northern side of the car wash building) to contain noise. The extension would be made of solid concrete block and have a roof. The maximum height of the building would be 22 ft.

The design of the car wash is intended to be sensitive to the Googie-style architecture of the Ray Vines Chrysler Plymouth Dealership showroom, which will be retained on site. The project applicant has committed to salvaging the concrete blocks on the existing eastern elevation that would be demolished for use in the storefronts and car wash. If enough blocks cannot be salvaged, contemporary shadow blocks will be used in place of the salvaged blocks. In addition, the car wash building would feature an angled roof on the southern elevation to be consistent with the existing showroom. Figure 6 provides the architectural elevations for the proposed car wash building.

In addition, in compliance with the City's Green Building Standards, the roof of the car wash building would be designed to be solar ready by allowing for an additional 8 pounds per square foot (lbs/sf) of dead load and providing a conduit from the electrical panel to the roof.

Retail Building. The retail component of the project would be located in the existing 7,478 sf Ray Vines Chrysler Plymouth Dealership showroom. The project includes a 1,643 sf addition on the northern side of the building (adjacent to I-405) for a total of 9,121 sf. The building addition would reuse concrete blocks from the building to be demolished on site. If enough blocks cannot be salvaged, contemporary shadow blocks will be used in place of the salvaged blocks. The roof line of the extension would match the roof line of the existing building. The maximum height of the building would be 24 ft. Figure 7 provides the architectural elevations for the retail building.

In addition, in compliance with the City's Green Building Standards, the roof of the retail building would be retrofitted. The roof of the retail building would be made solar ready by allowing for an additional 8 lbs/sf of dead load and providing a conduit from the electrical panel to the roof.

2.4 Infrastructure Improvements

On-Site and Off-Site Infrastructure. The project infrastructure components to be implemented would require improvements to, and connection with, existing infrastructure systems. These systems, which consist of water, electricity, natural gas, sanitary sewer, and storm water drains, would be constructed on site and would be fully

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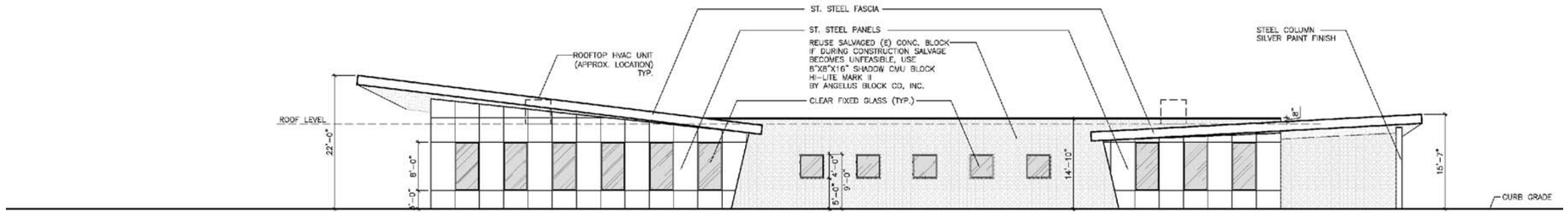
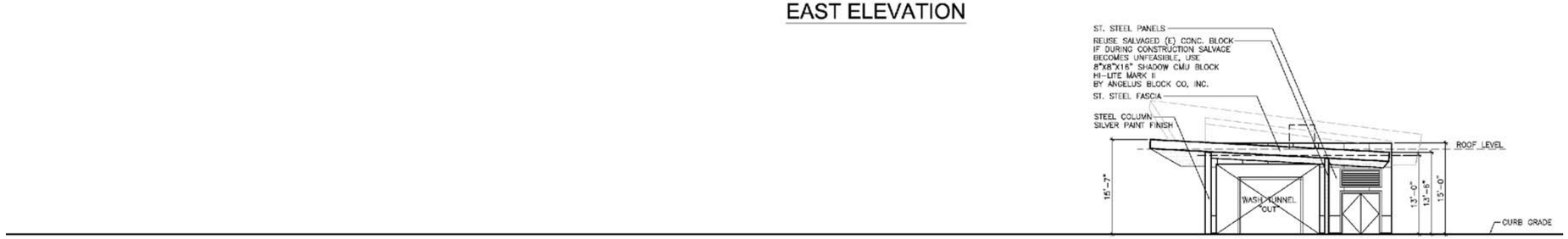
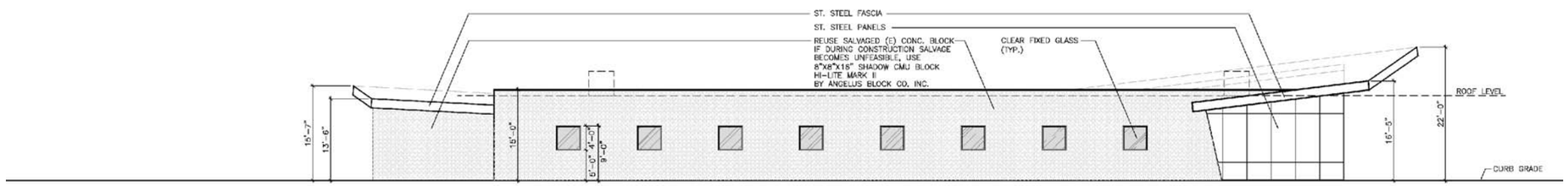


EAST ELEVATION



NORTH ELEVATION



WEST ELEVATION

SOUTH ELEVATION

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FIGURE 6

0 15 30
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SOURCE: Space Masters

420 E. Willow Street Mixed Use Project

Car Wash Architectural Elevations

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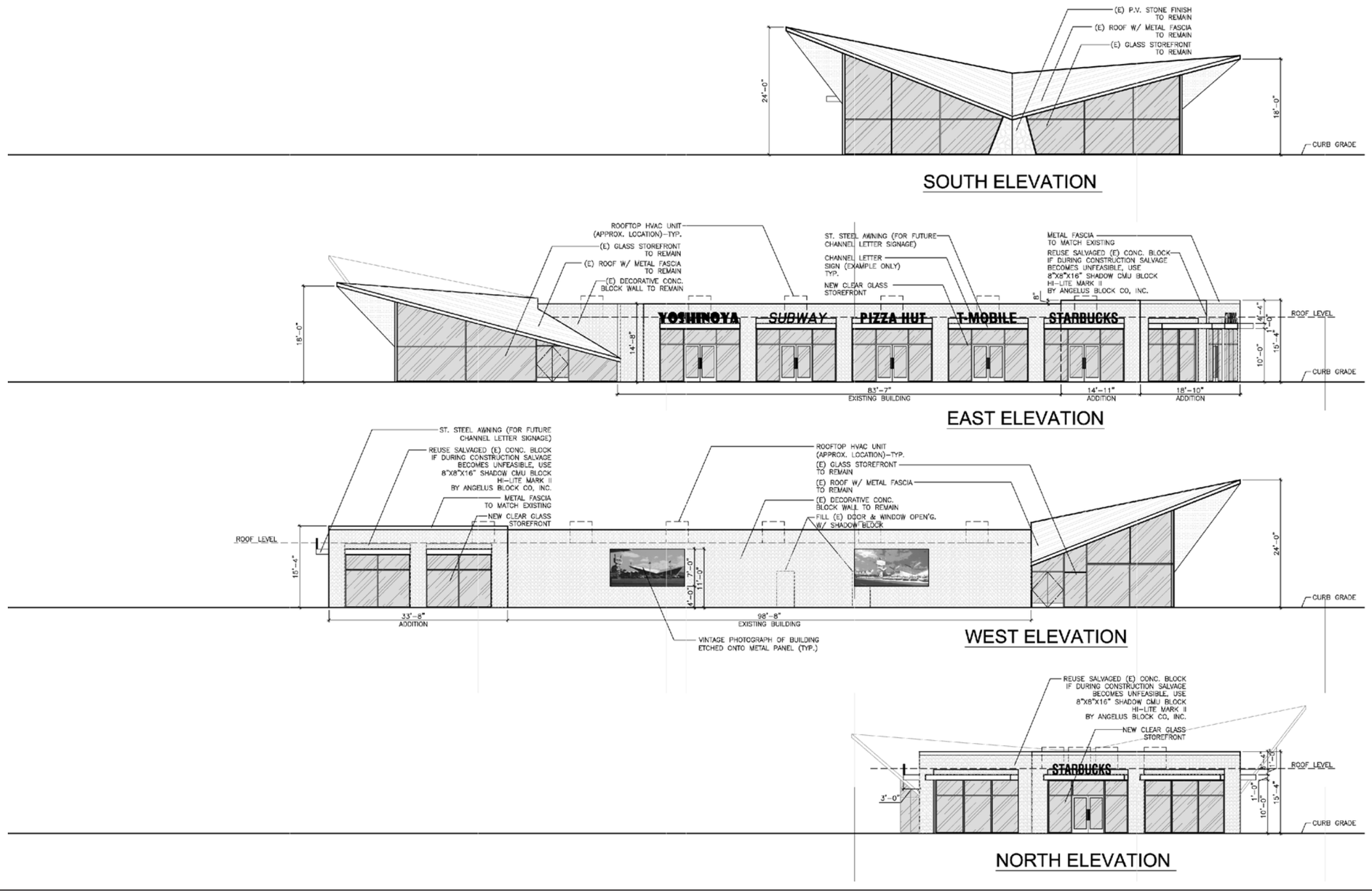

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FIGURE 7

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SOURCE: Space Masters

420 E. Willow Street Mixed Use Project

Retail Building Architectural Elevations

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provided and maintained by the property owner. All on-site systems would connect to existing infrastructure in East Willow Street and Lakewood Boulevard.

Specifically, infrastructure improvements would include:

- Installation of a new electrical transformer. All internal power distribution would be underground.
- Replacement of an existing 2-inch on-site potable water line with a 2.5-inch potable water line to serve the car wash.
- Installation of four 2-inch water lines and water meters to serve the retail tenants.
- A 6-inch reclaimed water line would be installed to connect the on-site reclaimed water tank (serving the car wash) to the reclaimed water line in East Willow Street.
- Installation of gas meters to serve the retail tenants. The onsite gas lines will connect to an existing gas line in East Willow Street.

Water Quality. For storm water quality purposes, drain inserts with filters would be installed in catch basins to target pollutants of concern. The site design includes the addition of grass swales, particularly along the site perimeter. Storm water runoff would be diverted to the swales, where it would infiltrate through the soil prior to being discharged into the existing storm drain system. Best Management Practices (BMPs), including the drain inserts with filters, are shown on Figure 8.

To manage the car wash operational water, a clarifier with a capacity of 2,500–3,000 gallons would be installed. The clarifier's filtering system would treat the used car wash water and recycle it for reuse on site for irrigation of landscape areas. Overflow from the clarifier would discharge to the sewer system and would not reach the storm water system.

Because the proposed project disturbs greater than 1 ac of soil, the project is subject to the requirements of the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) (Construction General Permit). The project would be required to obtain coverage under the Construction General Permit. A Storm Water Pollution Prevention Plan (SWPPP) would be prepared for the project in compliance with the requirements of the Construction General Permit. The SWPPP would identify construction BMPs to be implemented to ensure that the potential for soil erosion and sedimentation is minimized and to control the discharge of pollutants in storm water runoff as a result of construction activities.

2.5 Implementation/Phasing

The proposed project is planned for a single phase, and construction is estimate to take approximately 8 months. The proposed project is expected to be operational by May 2012.

Grading will be balanced on site during construction; no import or export of soil is anticipated.

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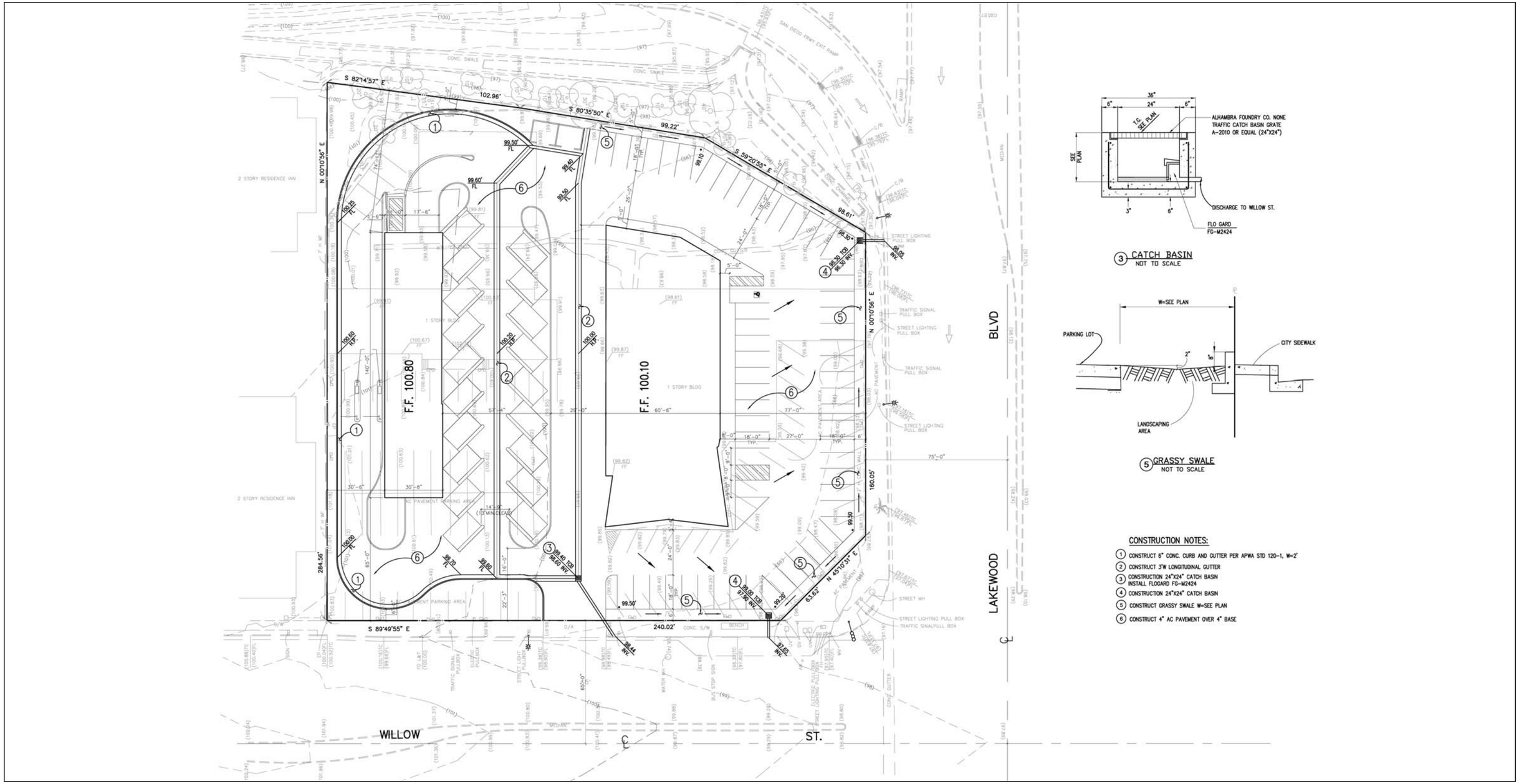

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FIGURE 8

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SOURCE: TKIM ASSO.

420 E. Willow Street Mixed Use Project

Conceptual Grading and Water Quality BMPs

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2.6 Discretionary Actions

Development of the proposed project would require discretionary approvals by the City as the Lead Agency. The City's discretionary actions include the following:

- Site Plan Review
- Administrative Use Permit

Other Ministerial City Actions. Ministerial permits/approvals (e.g., demolition and grading permits, building permits) would be issued by the City to allow demolition of the existing on-site parking areas, site preparation, construction of the proposed project, and connections to the utility infrastructure.

Probable Future Actions by Responsible Agencies. Because the project also involves approvals, permits, or authorization from other agencies, these agencies are "Responsible Agencies" under CEQA. Section 15381 of the CEQA Guidelines defines Responsible Agencies as public agencies other than the Lead Agency that will have discretionary approval power over the project or some component of the project, including mitigation. These agencies include, but are not limited to, the agencies identified in Table 2.A.

Table 2.A: Probable Future Actions by Responsible Agencies

Responsible Agency	Action
State Water Resources Control Board (SWRCB)	Applicant must submit Permit Registration Documents, including a Notice of Intent (NOI), to comply with the National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities.

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3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture & Forest Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology/Soils
☐ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☒ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☒ Utilities/Service Systems	☐ Mandatory Findings of Significance

DETERMINATION:
On the basis of this initial evaluation:

1. I find that the project **could not** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared. ☐

2. I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared. ☒

3. I find the proposed project **may have a significant effect** on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required. ☐

4. I find that the proposed project **may have a "potentially significant impact" or "potentially significant unless mitigated impact"** on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed. ☐

5. I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

Project Planner — Date: 4-18-2011

Planning Director — Date: 4/18/11

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced, as discussed below).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identity the following:
   a. Earlier Analysis Used. Identify and state where they are available for review.
   b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c. Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead Agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and Lead Agencies are free to use different formats; however, Lead Agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a. The significance criteria or threshold, if any, used to evaluate each question; and
   b. The mitigation measure identified, if any, to reduce the impact to less than significance.

4.0 CHECKLIST OF ENVIRONMENTAL IMPACT ISSUES:

4.1 Aesthetics

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
(b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
(c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
(d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Impact Analysis:

a) No Impact. Scenic vistas are defined to be greater than 1 mile (mi) from a receptor and consist of horizon line views. Aesthetic components of a scenic vista include (1) scenic quality, (2) sensitivity level, and (3) view access. There are no aesthetic or visual resources located on the project site or in the surrounding vicinity that have been designated in any City or other agency policy or plan. Therefore, there are no scenic vistas in the project area, and no impacts would occur.

b) Less Than Significant Impact. Interstate 405 (I-405), located north of the project site, is not identified as an eligible or State-designated Scenic Highway.[1] As discussed in further detail under Section 4.5 of this IS/MND, Cultural Resources, while the Ray Vines Chrysler Plymouth building on site has been identified as a historic resource under CEQA, implementation of the proposed project would retain the character-defining features of the building. Specifically, the proposed project would reuse the entire existing showroom and the original pole sign at the southeast portion of the site that provide historical significance; therefore, the project would not result in a significant adverse aesthetic effect to the resource. Additionally, there are no scenic rock outcroppings located within the project limits, and the proposed project would increase the number of trees on site. Therefore, project impacts to scenic resources in the vicinity of the project site are considered less than significant, and no mitigation is required.

c) Less Than Significant Impact. Implementation of the proposed project would demolish portions of an existing car dealership consisting of a showroom, parts departments, service department, and a utility building on site and construct a mixed-use development consisting of a commercial lease building and an automated car wash (see Figure 4). As noted above, the Ray Vines Chrysler Plymouth buildings on site have been identified as a historic resource under CEQA, but implementation of the proposed project would retain the character-defining features of the showroom building. The project would also result in an overall decrease in impervious surfaces on site. Figure 5 illustrates the landscape plan for the proposed project; as shown, the project would not result in any changes to the existing landscaping within the California Department of Transportation (Caltrans) right-of-way located north of the project site boundary. Along the property frontage, trees and shrubs would be placed every 15 ft for a total of 51 trees (15 existing and 36 new trees). The project would also include trees in the parking lot, approximately one tree for every four parking spaces, for a total of 21 new trees.

It is expected that the proposed project site would remain visible to passing motorists on Willow Street and Lakewood Boulevard. The proposed project may also be visible to off-site viewers across Willow Street (to the south) and Lakewood Boulevard (to the west); however, all areas surrounding the project site are of a land use character similar to the project area (i.e., urban, built up), so the proposed project would not

[1] California Department of Transportation website: http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm.

substantially alter the character of views currently experienced by off-site viewers. Also, the nearest residential uses (located southwest of the project site) are separated from the project site by Willow Street, a six-lane roadway. Therefore, visual impacts associated with project implementation would be less than significant, and no mitigation is required.

d) Less Than Significant Impact. Existing light sources at the project site consist of light poles in the parking lot spaced at even intervals along the property frontage. The proposed project would utilize the majority of these existing light poles in their current location; three poles would be relocated to new locations along the property frontage to accommodate the parking lot layout. The project would also include exterior surface-mounted lights on the buildings that would be faced downward away from adjacent uses. The hours of operation for the car wash would be from approximately 7:00 a.m. to 9:00 p.m., with some cleaning and maintenance occurring outside of those times. The hours of operation for the retail facility would be determined by future tenants. The project may include some tenants with 24-hour operations (e.g., 7-11 or Subway Sandwich). The project site would be illuminated from sunset to sunrise (generally 6:00 p.m. to 6:00 a.m., depending on the time of year). Security lighting (i.e., reduced lighting) is proposed after 10:00 p.m. around the car wash**,** which would reduce spill lighting to sensitive uses, including the hotel located west of the project site. The nearest residential uses (located southwest of the project site) are separated from the project site by Willow Street, a six-lane roadway. Therefore, because the project would be constructed in a place of an existing lighted area, the exterior mounted lighting would be faced downward to minimize impacts to sensitive receptors, and residential uses are separated by a major roadway, the proposed project would result in less than significant impacts related to the creation of new source of light or glare, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

4.2 Agricultural Resources

(In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.)

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
(b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
(c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
(d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
(e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Impact Analysis:

a) No Impact. The project site is not used for agricultural production and is not designated Prime Farmland, Unique Farmland, or Farmland of Statewide Significance. The project site is developed as a car dealership, and the surrounding area is characterized by commercial and residential uses. The proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Significance to a nonagricultural use. Likewise, the proposed project would not conflict with zoning for agricultural uses or a Williamson Act contract or contribute to environmental changes that could result in conversion of farmland to a nonagricultural use. No impacts would occur, and no mitigation is required.

b) No Impact. The project site is not used for agricultural production, not zoned for agricultural use, and is not protected by or eligible for a Williamson Act contract. No impacts would occur, and no mitigation is required.

c) No Impact. The project site is located in an urban area and is currently developed as a 17,231 sf car dealership, including the showroom and repair/parts departments and asphalt parking. The project site is zoned Regional Highway Commercial (CHW) and does not contain forest land as defined in Public Resources Code (PRC) Section 4526, timberland, or timberland zoned Timberland Production. No impacts would occur related to forest land or timberland zoning, and no mitigation is required.

d) No Impact. The project site is located in an urban area and is currently developed as a 17,231 sf car dealership, including the showroom and repair/parts departments and asphalt parking. Existing vegetation on the project site is limited to grasses growing in the cracks of the pavement. The project site is not forest land, not used for timberland production, and is not located near existing forest land or timberland. The proposed project would not result in the loss or conversion of forest land, and no mitigation is required.

e) No Impact. The project site is presently developed for commercial uses and is not used for agricultural production or designated or zoned for agricultural uses. The proposed project would not convert farmland to a nonagricultural use. Likewise, the proposed project would not contribute to environmental changes that

would result in the conversion of farmland to a nonagricultural uses. No impacts would occur, and no mitigation is required.

Similarly, the project site is not used for timberland production or designated or zoned forest or timberland. The proposed project would not convert forest land to nonforest land, nor would the project contribute to environmental changes that would result in the conversion of forest land or timberland to nonforest/ nontimberland uses. No impacts would occur, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

4.3 Air Quality

(Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.)

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
(b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
(c)	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)?	☐	☐	☒	☐
(d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
(e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Impact Analysis:

a) No Impact. An Air Quality Management Plan (AQMP) describes air pollution control strategies to be taken by a city, county, or region classified as a nonattainment area. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. CEQA requires that certain proposed projects be analyzed for consistency with the AQMP. For a project to be consistent with the AQMP adopted by the South Coast Air Quality Management District (SCAQMD), the pollutants emitted from the project should not exceed the SCAQMD daily threshold or cause a significant impact on air quality, or the project must already have been included in the AQMP projections. However, if feasible mitigation measures are implemented and shown to reduce the impact level from significant to less than significant, a project may be deemed consistent with the AQMP. The proposed project emissions would be below the emissions thresholds established in SCAQMD's CEQA Air Quality Handbook, April 1993 (CEQA Handbook), as shown in Response 4.3.b. Furthermore, the proposed project is consistent with the General Plan designation and zoning of the project site. Adopted General Plans are the basis of the land use projections for the AQMP. The analysis provided in Response 4.3.c also discusses the project's compliance with the AQMP. Therefore, the proposed project would not conflict with the AQMP, and no significant impact will result with respect to implementation of the AQMP. No mitigation additional is required.

b) Less Than Significant Impact.

Short-Term (Construction) Emissions. Air quality impacts would occur during construction of the proposed project from soil disturbance and equipment exhaust. Major sources of emissions during demolition, grading, and site preparation include: (1) exhaust emissions from construction vehicles; (2) equipment and fugitive dust generated by construction vehicles and equipment traveling over exposed surfaces; (3) demolition activities; and (4) soil disturbances from grading and backfilling.

To evaluate potential impacts related to construction activities, specific criteria are used. The criteria include daily emissions thresholds, compliance with State and national air quality standards, and conformity with the existing State Implementation Plan (SIP) or existing air quality plans. Specific criteria for determining whether the potential air quality impacts of a project are significant are set forth in the SCAQMD CEQA Air Quality Handbook. The following thresholds for construction emissions have been established by the SCAQMD and are used in the analysis of air quality impacts for the proposed project.

The following significance thresholds for construction emissions have been established by the SCAQMD:

- 75 pounds per day (lbs/day) of reactive organic compounds (ROC)
- 100 lbs/day of nitrogen oxide (NO_X)
- 550 lbs/day of carbon monoxide (CO)
- 150 lbs/day of particulate matter less than 10 microns in size (PM_{10})
- 55 lbs/day of particulate matter less than 2.5 microns in size ($PM_{2.5}$)
- 150 lbs/day of sulfur oxide (SO_X)

Projects in the South Coast Air Basin (Basin) with construction-related emissions that exceed any of the emission thresholds above are considered significant by the SCAQMD.

In addition to the significance thresholds listed above, SCAQMD also requires analysis of localized air quality impacts. For this project, the appropriate Source Receptor Area (SRA) for Localized Significance Thresholds (LST) is South Coastal Los Angeles County (SRA No. 4), according to the SRA/City of Long Beach Table on the SCAQMD LST website.[1] The project site is located directly adjacent to a hotel development. Therefore, the thresholds for a 2 ac site located within 25 meters (m) (82 ft) of the nearest sensitive receptor were applied to the project. The following construction thresholds apply for this project:

- 82 lbs/day of NO_X at 25 m
- 842 lbs/day of CO at 25 m
- 7 lbs/day of PM_{10} at 25 m
- 5 lbs/day of $PM_{2.5}$ at 25 m

The criteria used in this analysis as a threshold for impact significance are based on the Environmental Checklist questions, as listed above. The following summarizes construction emissions and associated impacts for the project site.

Equipment Exhaust and Related Construction Activities. Construction of each of the project phases will include the following tasks: demolition (existing building), site preparation, grading, building, and paving. While both the demolition and grading phases involve heavy-duty diesel-powered equipment and both activities generate large amounts of fugitive dust, the grading phase typically generates greater overall emissions due to the larger equipment needed for earthmoving. Peak daily emissions associated with construction equipment exhaust for the proposed project during each of the construction tasks are summarized in Table 4.A and detailed in Appendix A. It is assumed that grading will not start until demolition is finished and that, similarly, building construction will not start until grading is finished. Table 4.A shows that, by complying with the SCAQMD's standard control measures, construction equipment/vehicle emissions during construction periods would not exceed any of the SCAQMD established daily emissions thresholds.

Fugitive Dust. Blowing dust, combined with engine emissions, produce airborne matter referred to in air quality studies as PM_{10}, $PM_{2.5}$, or fugitive dust. Fugitive dust emissions are generally associated with land clearing, exposure, and cut-and-fill operations. Once construction activities are complete, no further fugitive dust emissions occur. Dust generated daily during construction would vary substantially, depending on the level of activity, the specific operations, and weather conditions. Nearby sensitive receptors and on-site workers may be exposed to blowing dust, depending upon prevailing wind

[1] www.aqmd.gov/ceqa/handbook/LST/LST.html.

conditions. Fugitive dust would also be generated as construction equipment or trucks travel on unpaved areas of the construction site. The PM_{10} and $PM_{2.5}$ fugitive dust emissions are included in Table 4.A.

Table 4.A: Peak-Day Construction Emissions (lbs/day) by Task

Construction Phase[1]	CO	VOC	NO_X	SO_2	PM_{10}[2]	$PM_{2.5}$
Demolition	5.56	1.08	7.28	0.00	0.56	0.51
Mass Grading	12.93	2.86	23.49	0.00	6.18	2.13
Fine Grading	12.93	2.86	23.49	0.00	6.18	2.13
Trenching	9.05	1.98	16.48	0.00	0.83	0.76
Paving	8.81	2.05	11.86	0.00	1.02	0.93
Building Construction	5.32	1.14	8.63	0.00	0.55	0.51
Architectural Coating	0.22	19.54	0.01	0.00	0.00	0.00
SCAQMD Emissions Threshold	**550**	**75**	**100**	**150**	**150**	**55**
Exceed Significance?	**No**	**No**	**No**	**No**	**No**	**No**

Source: LSA Associates, Inc., October 2010.
1 It is assumed that there is no overlap of these construction tasks.
2 Total PM_{10} daily emission rate with fugitive dust mitigation measures implemented.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxide
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District
SO_2 = sulfur dioxide
VOC = volatile organic compounds

Because the construction operations on the project site must comply with dust control and other measures prescribed by SCAQMD Rules 402 and 403 to ensure that short-term construction impacts are minimized, compliance with these rules is assumed in Table 4.A. Compliance with SCAQMD Rules 402 and 403 is also required by Mitigation Measure AQ-1. Incorporation of these standard conditions would ensure that fugitive dust (PM_{10} and $PM_{2.5}$) generation would be less than significant.

Localized Significance. The following analysis was undertaken consistent with SCAQMD *Final Localized Significance Threshold Methodology* (July 2008). The closest sensitive receptors to the various construction phases are located at a distance of approximately 25 m (82 ft). Thus, LST values for 25 m were used. Table 4.B shows the construction-related emissions of CO, NO_X, PM_{10}, and $PM_{2.5}$ compared to the LSTs for South Coastal Los Angeles County at a distance of 25 m.

Table 4.B shows that the calculated emissions rates for the proposed construction activities are below the localized significance thresholds for CO, NO_X, PM_{10}, and $PM_{2.5}$. Therefore, the proposed project would not cause any short-term, localized, significant air quality impacts, and no mitigation is required.

Table 4.B: Summary of Construction Emissions, Localized Significance by Task

Construction Activity	Emission Rates (lbs/day)			
	CO	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Demolition	5.56	7.28	0.56	0.51
Mass Grading	12.93	23.49	6.18	2.13
Fine Grading	12.93	23.49	6.18	2.13
Trenching	9.05	16.48	0.83	0.76
Paving	8.81	11.86	1.02	0.93
Building Construction	5.32	8.63	0.55	0.51
Architectural Coating	0.22	0.01	0.00	0.00
Localized Significance Threshold (at 25 m)	**842**	**82**	**7**	**5**
Exceed Significance?	**No**	**No**	**No**	**No**

Source: LSA Associates, Inc., October 2010.
CO = carbon monoxide
lbs/day = pounds per day
m = meters
NO_X = nitrogen oxide
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size

Long-Term (Operational) Emissions. Long-term air emission impacts are associated with any change in permanent use of the project site by on-site stationary and off-site mobile sources that substantially increase emissions. Stationary source emissions include emissions associated with electricity consumption and natural gas usage. Mobile source emissions would result from vehicle trips associated with the proposed project. The daily operational emissions "significance" thresholds for criterial pollutants with regional effects are as follows:

- 55 lbs/day of ROC
- 55 lbs/day of NO_X
- 550 lbs/day of CO
- 150 lbs/day of PM_{10}
- 55 lbs/day of $PM_{2.5}$
- 150 lbs/day of SO_X

Projects in the Basin with operations-related emissions that exceed any of the emission thresholds are considered significant by the SCAQMD.

In addition to the significance criteria listed above, analysis of localized air quality impacts is also required. For this project, the appropriate SRA for LSTs is South Coastal Los Angeles County (SRA No. 4), according to the SRA/City of Long Beach Table on the SCAQMD LST website.[1] The project site is located directly adjacent to an existing hotel. Therefore, the thresholds for a 2 ac site located within 25 m (82 ft) of the nearest sensitive receptor were applied to the project. The following operational thresholds apply for this project.

- 82 lbs/day of NO_X at 25 m
- 842 lbs/day of CO at 25 m

[1] www.aqmd.gov/ceqa/handbook/LST/LST.html.

- 2 lbs/day of PM_{10} at 25 m
- 1 lbs/day of $PM_{2.5}$ at 25 m

Criteria Pollutants with Regional Effects. Based on the traffic analysis prepared for this project, the proposed project would generate 1,388 daily trips. Using the default emission factors included in URBEMIS2007 (Version 9.2.4), emissions associated with project-related vehicular trips were calculated and are included in Table 4.C.

Table 4.C: Operational Emissions

Source	Pollutants, lbs/day					
	CO	**ROCs**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2012 Summer Emissions						
Area source emissions	1.62	0.18	0.11	0.00	0.01	0.01
Operational (vehicle) emissions	107.38	7.97	12.10	0.13	21.51	4.18
Total Summer Emissions	**109.00**	**8.15**	**12.21**	**0.13**	**21.52**	**4.19**
2012 Winter Emissions						
Area source emissions	0.07	0.06	0.09	0.00	0.00	0.00
Operational (vehicle) emissions	103.17	9.12	14.56	0.11	21.51	4.18
Total Winter Emissions	**103.24**	**9.18**	**14.65**	**0.11**	**21.51**	**4.18**
SCAQMD Threshold	**550**	**55**	**55**	**150**	**150**	**55**
Exceed SCAQMD Threshold?[1]	**No/No**	**No/No**	**No/No**	**No/No**	**No/No**	**No/No**

Source: LSA Associates, Inc., October 2010.
[1] Reporting status for summer/winter scenarios
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxide
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ROCs = reactive organic compounds
SCAQMD = South Coast Air Quality Management District
SO_2 = sulfur dioxide

As shown in Table 4.C, project emissions (both stationary sources and vehicular sources) would not exceed the SCAQMD daily emissions thresholds. Therefore, the long-term air quality impacts of the proposed project are less than significant, and no mitigation measures are required.

Localized Significance. The following analysis was performed per SCAQMD *Final Localized Significance Threshold Methodology* (July 2008). The closest sensitive receptors to the various construction phases are located at a distance of approximately 25 m (82 ft). Thus, LST values for 25 m were used.

Table 4.D shows the calculated emissions for the proposed operational activities (fully described above) compared to the LSTs for South Coastal Los Angeles County at a distance of 25 m. The localized significance analysis only includes on-site sources; therefore, the emissions shown include all stationary and 5 percent of the proposed project's mobile sources.

Table 4.D shows that the calculated emissions rates for the proposed operation activities are below the localized significance thresholds for CO, NO_X, PM_{10}, and $PM_{2.5}$. Therefore, the proposed project would not cause any long-term, localized, significant air quality impacts, and no mitigation is required.

Table 4.D: Summary of Operation Emissions, Localized Significance

	Emission Rates (lbs/day)			
	CO	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Proposed Project	7.0	0.8	1.1	0.2
Localized Significance Threshold (at 25 m)	**842**	**82**	**2**	**1**
Exceed Significance?	**No**	**No**	**No**	**No**

Source: LSA Associates, Inc., October 2010.
CO = carbon monoxide
lbs/day = pounds per day
m = meters
NO_X = nitrogen oxide
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size

CO Hot-Spot Analysis. Local ambient air quality is most affected by CO emissions from motor vehicles. CO is typically the contaminant of greatest concern because it is the pollutant created in greatest abundance by motor vehicles and does not readily disperse into the air. Because CO does not readily disperse into the atmosphere, areas of vehicle congestion create pockets of high CO concentrations called "hot spots." These pockets have the potential to exceed the State 1-hour standard of 20 parts per million (ppm) of CO and/or the 8-hour standard of 9.0 ppm.

Under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels, adversely affecting the health of local sensitive receptors (e.g., residents, schoolchildren, the elderly, hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service (LOS) or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

The significance of localized project impacts depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more.

The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time caused by traffic conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. Under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthy levels affecting local sensitive receptors (residents, schoolchildren, the elderly, hospital patients, etc.). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable LOS or with extremely high traffic volumes. In areas with high ambient CO concentrations, modeling of CO concentrations is recommended in determining a project's effect on local CO levels. Because the proposed project would add 69 trips to the a.m. and 158 trips to the p.m. peak-hour volumes, would not result in any intersections in the project area operating at a deficient LOS, and would be located within an area with low ambient CO concentrations, no significant CO contributions would occur in the project vicinity. No CO "hot spots" are expected, and modeling of CO emissions is not necessary. Therefore, implementation of the proposed project would not result in substantial adverse air quality impacts associated with CO hot spots, and no mitigation is required.

c) **Less Than Significant Impact.** As discussed in Response 4.3.b, no exceedance of SCAQMD criteria pollutant emission thresholds would be anticipated for the proposed project with the incorporation of

SCAQMD dust control regulations as required by Mitigation Measure AQ-1. The projected emissions of criteria pollutants as a result of the proposed project are expected to be below the emissions thresholds established for the region. Cumulative emissions are part of the emission inventory included in the AQMP for the project area. Therefore, there would be no cumulatively considerable net increase of the criteria pollutants that are in nonattainment status in the South Coast Air Basin.

d) Less Than Significant Impact. As described in Response 4.3.b, the proposed project would not significantly increase the long-term emissions within the project area. Construction of the proposed project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, construction contractors would be required to implement measures to reduce or eliminate emissions by following SCAQMD standard construction practices. Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during construction, and potential short-term impacts are considered less than significant.

e) Less Than Significant Impact. Some objectionable odors may emanate from operation of diesel-powered construction equipment during construction of the project. These odors, however, would be limited to the site only during the construction period and therefore would not be considered a significant impact.

Mitigation Measures

AQ-1 **SCAQMD Rules 402 and 403.** The City of Long Beach shall ensure that the project complies with South Coast Air Quality Management District (SCAQMD) Rules 402 and 403 to assist in reducing short-term air pollutant emissions. Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Some of the applicable dust suppression techniques from Rule 403 are summarized below. Prior to issuance of a grading permit for the project, the City of Long Beach Director of Development Services or designee shall ensure that notes are included on grading and construction plans and referenced in the construction contractor's agreement that the construction contractor shall be responsible for compliance with Rules 402 and 403.

Applicable Rule 403 measures include, but are not limited to, the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least twice daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet (ft) of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).
- Traffic speeds on all unpaved roads shall be reduced to 15 miles per hour (mph) or less.

4.4 Biological Resources

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
(b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
(c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
(d)	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?	☐	☒	☐	☐
(e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
(f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a) No Impact. The project site is currently developed as a 17,231 sf car dealership, including the showroom and repair/parts departments and asphalt parking. Existing vegetation on site is limited; there are approximately 15 trees located on site that will not be removed as part of project implementation. There is no native habitat on the project site that would support sensitive species, and no known candidate, sensitive, or special-status species inhabiting the site. Existing vegetation in Caltrans right-of-way located adjacent to the site to the north would not be removed or modified as part of project implementation. No significant impacts to sensitive species or special-status species would result from project implementation, and no mitigation is required.

b) No Impact. The project site is currently developed as a 17,231 sf car dealership, including the showroom and repair/parts departments and asphalt parking. Existing vegetation on site is limited; there are approximately 15 trees located on site that will not be removed as part of project implementation. The project site does not contain any riparian habitat or sensitive natural communities identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game (CDFG) or the United States Fish and Wildlife Service (USFWS). No significant impacts to riparian habitat or other sensitive natural communities identified in local or regional plans will result from project implementation, and no mitigation is required.

c) No Impact. The project site is a developed urban use with no native habitat and no known wetlands; therefore, no impacts would result from project implementation, and no mitigation is required.

d) Less Than Significant With Mitigation Incorporated. The project site is a developed urban use with no native habitat. This site has not been identified as a crucial portion of the migratory path of any animal species. The site is developed and located in a fully urbanized area. The project site does not contain any native resident or migratory fish, wildlife species, or wildlife corridors. As a result, no significant impacts are anticipated.

Existing landscaping may, however, provide suitable habitat for nesting birds. Disturbing or destroying active nests is a violation of the Migratory Bird Treaty Act (MBTA). In addition, nests and eggs are

protected under Fish and Game Code Section 3503. Project implementation must be accomplished in a manner that avoids impacts to active nests during the breeding season. While removal of existing trees is not proposed, the disturbance of active nest is also prohibited. As documented in Mitigation Measure B-1 (compliance with the MBTA), avoiding impacts can be accomplished through a variety of means, including of nesting bird surveys prior to construction or the use of construction buffers around active nests, as necessary. With implementation of Mitigation Measure B-1, potentially significant impacts to nesting birds would be reduced to a level considered less than significant.

e) **No Impact.** The City has a tree ordinance that applies to City-owned trees. A ministerial permit would be required if the project would require removal of trees from City-owned property. However, no City-owned trees will be removed as part of the project, and no mitigation is required.

f) **No Impact.** There is no adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other habitat conservation plan in the City; therefore, the project will not conflict with any such plans. No mitigation is required.

Mitigation Measure

B-1 **Migratory Bird Treaty Act.** In the event that project construction or grading activities should occur within the active breeding season for birds (i.e., February 15–August 15), a nesting bird survey shall be conducted by the designated project biologist prior to commencement of construction activities. If active nesting of birds is observed within 100 feet (ft) of the designated construction area prior to construction, the construction crew shall establish an appropriate buffer around the active nest. The designated project biologist shall determine the buffer distance based on the specific nesting bird species and circumstances involved. Once the designated project biologist verifies that the birds have fledged from the nest, the buffer may be removed. Prior to commencement of grading activities and issuance of any building permits, the City of Long Beach Director of Planning, or designee, shall verify that all project grading and construction plans include specific documentation regarding the requirements of the Migratory Bird Treaty Act (MBTA), that preconstruction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field with orange snow fencing.

4.5 Cultural Resources

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
(b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
(c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
(d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Impact Analysis:

a) **Less Than Significant Impact with Mitigation Incorporated.** On August 31, 2010, the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS), located at California State University, Fullerton, completed a Cultural Resources Records Search for the 4201 East Willow Street Car Wash Project in Long Beach, California (Appendix F of this IS/MND). The records search included a review of all recorded archaeological sites within a 0.5 mi radius of the project area, as well as a review of cultural resource reports on file for that same area. Additionally, the following were reviewed: the California Points of Historical Interest, the California Historical Landmarks (CHL), the California Register of Historical Resources (California Register), the National Register of Historic Places (National Register), and the California State Historic Resources Inventory.

No historic resources are recorded within the project area. One historic resource, Schroeder Hall at the United States Army Reserve Center (19-187956), was identified approximately 0.25 mi to the west of the project area. While this resource has been recommended as eligible for listing in the National Register, it is well outside of the project area, and the project area is not within the viewshed of this building. Therefore, this building need not be considered during project planning.

The existing 1963 Ray Vines Chrysler Plymouth dealership buildings on site have been identified as a historic resource under CEQA. More specifically, the dealership buildings are eligible for the California Register under Criterion 3 as a distinctive example of the Googie style of architecture. The dealership buildings are also eligible for designation as a City of Long Beach Historic Landmark under Criteria D, E, I, and K for their portrayal of the Googie style of architecture associated with the mid-20th Century (Criteria D and E); their value as a physically prominent establishment, and familiar visual feature of the environment (Criterion I); and as one of the last remaining example of the Googie style in the City. The Googie style of architecture is considered to be emblematic of the immediate post-World War II era, particularly in the emerging "car culture" that now defines much of Southern California. The dealership (particularly the showroom) exhibits several character-defining features of the Googie style, including sharp angles, an exaggerated roofline, plate glass walls, geometric shapes, influences of Tiki/Polynesian and space age modern design, compatibility-designed signage oriented to the roadway, and exposed metal elements.

The main floor of the showroom building is in good condition, and has a flat roof and a decorative masonry shadow block wall siding. The focal point of the design, the main showroom, is defined by a roof composed of two high-pitched projecting gables that intersect at their lowest points and rise to the east and west. A fascia, angled to conform to the rake of the gable, marks the roof edge. In addition, a metal Googie-style street sign is located in the parking area southwest of the showroom. Two steel beams create a V shape and hold a hexagonal sign, once announcing the Ray Vines dealership. The property retains a high degree of integrity.

As such, the proposed project would retain the character-defining features[1] of the showroom building in compliance with Mitigation Measure C-1 and the *Secretary of the Interior's Standard for the Rehabilitation of Historic Buildings*. Specifically, the proposed project would retain and reuse the entire existing showroom and the original pole sign at the southeast portion of the site that provide historical significance. In addition, the project applicant has committed to salvaging the concrete shadow blocks on the existing eastern elevation for use in the storefronts and car wash. If enough blocks cannot be salvaged, then contemporary concrete shadow blocks will be used in place of the salvaged blocks. As such, the proposed project retains all the Googie elements of design that make the property eligible for inclusion in the California Register. The reuse and retention of the design elements makes the proposed project consistent with the *Secretary of the Interior's Standard for the Rehabilitation of Historic Buildings*.

In addition, the City has recently completed documentation of the building using the recommendations of the Historic American Building Survey (HABS). The HABS is the nation's first federal preservation program, begun in 1933 to document America's architectural heritage. The HABS-level documentation was submitted to the City Planning Department archives, the Long Beach Public Library, and the Los Angeles Public Library.

Therefore, because the proposed project would retain the majority of the character-defining features of the showroom building and the original sign pole, would reuse the original concrete shadow blocks, would be consistent with the *Secretary of the Interior's Standard for the Rehabilitation of Historic Buildings*, and the City completed HABS-level documentation of the site, the proposed project would have a less than significant impact on historical resources under CEQA. No mitigation is required.

b) Less Than Significant. As stated above, an archival records search was undertaken at SCCIC on August 31, 2010. The records search included a review of all recorded archaeological sites within a 0.5 mi radius of the project area, as well as a review of cultural resource reports on file for that same area.

While no archaeological sites or isolates have been recorded within the project area, the project area has never been archaeologically surveyed. Two previous studies included Willow Street and Lakewood Boulevard and may have included the very south and/or east edges of the project area, respectively. No resources were recorded within the project area as a result of either of those studies. No archaeological sites or isolates have been recorded within the 0.5 mi radius. Historic maps indicate that as recently as 1943 there was no development within the project area. The site is currently developed with structures, at-grade asphalt parking, and landscaping; therefore, a physical survey was not conducted.

Although the results of the cultural resources records search are inconclusive as to the potential for buried cultural resources within the project area, based on the results of the paleontological records search, which identifies the project area as within either younger Quaternary Alluvium or older Quaternary deposits, there is little likelihood that buried cultural deposits will be encountered during project-related ground-disturbing construction activities. Therefore, no cultural resources monitoring is recommended. In the unlikely event that archaeological resources are encountered during construction, a qualified archaeologist should be contacted to assess the find and advise as to the proper treatment of the find in compliance with State law.

c) Less Than Significant with Mitigation Incorporated. On September 30, 2010, the Natural History Museum of Los Angeles County (LACM) completed a paleontological records search for the 4201 East Willow Street Car Wash Project in Long Beach, California (Appendix F of this IS/MND). The records search included a review of all paleontological sites within a 1 mi radius of the project area. While no vertebrate fossil localities lie within the project area, there are fossil localities nearby within the same units that occur within the project area. The project area is underlain by young alluvial deposits and older alluvial deposits, including the Palos Verdes Sand (also known as old Paralic Deposits). The younger alluvial deposits are typically too young to contain fossils, but the older alluvial deposits and Palos Verdes Sand

[1] Character-defining features are the tangible, visual elements of a building.

have produced fossils in the vicinity of the project area. The paleontological records search identified six vertebrate fossil localities in the vicinity of the project area. The closest, LACM 7393, is located to the south and west of the project area and produced a prehistoric camel at a depth of 8.5 ft. To the west-northwest of the project area, LACM 1021 produced bird and mammoth at an unknown depth. At 37 ft below the surface, LACM 3245 produced numerous fish and invertebrate fossils through the screen washing of sediments. LACM 1022 produced a bird fossil. Northwest of the project area, LACM 3660 produced a mammoth at 19 ft below the surface, and LACM 6802 produced undetermined vertebrate fossils at 16 ft below the surface.

The results of the paleontological records search indicate that the potential exists for significant fossil remains to be impacted during excavations 2 ft below ground surface (bgs). Mitigation Measure C-2 requires a certified Paleontologist to be retained and that a Paleontological Mitigation Program (PMP) be developed in order to mitigate adverse impacts to paleontological resources that may exist on site. The PMP should follow guidelines developed by the Society for Vertebrate Paleontology (SVP) and include but not be limited to monitoring of earthmoving activities during the remainder of project excavation in sediments that are likely to contain paleontological resources, specimen recovery, and screen washing; preparation of any collected specimens to the point of identification; identification and curation of any collected specimens into a museum repository with permanent, retrievable storage; and preparation of a final compliance report that will provide details of monitoring, fossil identification, cataloging, and repository arrangements. Implementation of Mitigation Measure C-2 will ensure that impacts to paleontological resources are reduced below to a less than significant level.

d) Less Than Significant with Mitigation Incorporated. No known human remains are present on site, and there are no facts or evidence to support the idea that Native Americans or people of European descent are buried on the project site. In the unlikely event that human remains are encountered during project grading, the proper authorities would be notified, and standard procedures for the respectful handling of human remains during earthmoving activities would be adhered to as described in Mitigation Measure C-3. Implementation of Mitigation Measure C-3 reduces potential project impacts related to the discovery of human remains on site to a less than significant level.

Mitigation Measures

C-1 **Secretary of the Interior's Standard for the Rehabilitation of Historic Buildings.** Prior to issuance of building permits, the City of Long Beach Director of Development Services, or designee, shall verify that building plans would retain the character-defining features of the showroom building in compliance with the *Secretary of the Interior's Standard for the Rehabilitation of Historic Buildings*. Specifically, the proposed project shall retain and reuse the entire existing showroom and the original pole sign at the southeast portion of the site that provide historical significance. The project applicant shall also salvage the concrete shadow blocks on the existing eastern elevation for use in the storefronts and car wash. If enough blocks cannot be salvaged, then contemporary concrete shadow blocks shall be used in place of the salvaged blocks.

C-2 **Paleontological Mitigation Program.** Prior to the issuance of the first preliminary or precise grading permit, and for any subsequent permit involving excavation that extends deeper than the 2 to 3 feet (ft) of artificial fill that caps the project area the applicant shall provide a letter from a qualified paleontologist. The letter shall state that the applicant has retained this individual, and that the consultant will monitor ground-disturbing activities at or more than 2 ft below ground surface (bgs) and shall provide on-call services in the event that resources are discovered at shallower depths. The paleontologist shall meet with the City of Long Beach Director of Development Services, or designee, and shall develop a Paleontological Mitigation Program (PMP) in order to mitigate adverse impacts to paleontological resources that may exist

on site in sediments beginning as shallow as 2 ft bgs. The PMP should follow guidelines developed by the Society for Vertebrate Paleontology (SVP 1995) and include but not be limited to monitoring of earthmoving activities during project excavation in sediments that are likely to contain paleontological resources, specimen recovery, and screen washing; preparation of any collected specimens to the point of identification; identification and curation of any collected specimens into a museum repository with permanent, retrievable storage; and preparation of a final compliance report that will provide details of monitoring, fossil identification, cataloging, and repository arrangements.

C-3 **Human Remains.** Consistent with the requirements of California Code of Regulations (CCR) Section 15064.5(e), if human remains are encountered, work within 25 feet (ft) of the discovery shall be redirected and the County Coroner notified immediately. State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). With the permission of the City, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Consistent with CCR Section 15064.5(d), if the remains are determined to be Native American and an MLD is notified, the City shall consult with the MLD as identified by the NAHC to develop an agreement for the treatment and disposition of the remains.

Upon completion of the assessment, the consulting archaeologist shall prepare a report documenting the methods and results and provide recommendations regarding the treatment of the human remains and any associated cultural materials, as appropriate, and in coordination with the recommendations of the MLD. The report should be submitted to the City of Long Beach Director of Planning and the South Central Coastal Information Center. The City of Long Beach Director of Planning, or designee, shall be responsible for reviewing any reports produced by the archaeologist to determine the appropriateness and adequacy of findings and recommendations.

4.6 Geology and Soils *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) 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.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☒	☐	☐
(b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
(c) 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?	☐	☒	☐	☐
(d) 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?	☐	☒	☐	☐
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Impact Analysis:

a)

i) No Impact. As with all of Southern California, the project site is subject to strong ground motion resulting from earthquakes on nearby faults. There are, however, no known active or potentially active faults of fault traces crossing the site. Therefore, the project site is not located within a currently delineated Alquist-Priolo Earthquake Fault Zone. The potential for surface fault rupture on site is low, and no mitigation is required.

ii) Less Than Significant with Mitigation Incorporated. The proposed project site, and all of Southern California, is located in an active seismic region. Ground shaking resulting from earthquakes associated with both nearby and more distant faults is likely to occur. During the life of the project, seismic activity associated with active faults in the area may generate moderate to strong shaking at the site. The closest fault is the Newport-Inglewood Fault, which is mapped approximately 2 mi southwest of the proposed project site. The Newport-Inglewood Fault is capable of generating an earthquake with a maximum probable magnitude of 7.2. Other faults in the vicinity of the project site include the Palos Verdes Fault, located approximately 8 mi west of the project site, which is capable of generating an earthquake with a maximum probable magnitude of 7.3; and the Whittier Fault, which is 14.6 mi northeast of the project site, which is capable of generating an earthquake with a maximum probable magnitude of 6.8.

Maximum credible earthquakes associated with active faults can be estimated using various assumptions regarding the transmission of ground motion from each fault to the project site. The average peak ground acceleration (PGA) for the project site is 0.55g (acceleration due to gravity).[1] Therefore, ground shaking generated by fault movement is considered a potentially significant impact that may potentially affect the proposed project. All applicable guidelines, including compliance with the California Building Code (CBC), accepted industry standards and other regional and local regulations that address seismic hazards are incorporated into project building plans. Compliance with standard State and local building

[1] Western Laboratories. Geotechnical Engineering Report Proposed Car Wash and Retail Buildings 4201 E. Willow Street, Long Beach, California. February 2010.

code requirements and Mitigation Measures G-1 and G-2 would result in potential project impacts related to seismic ground shaking being reduced to levels considered to be less than significant.

iii) Less Than Significant with Mitigation Incorporated. Liquefaction commonly occurs when three conditions are present simultaneously: (1) high groundwater; (2) relatively loose, cohesionless (sandy) soil; and (3) earthquake-generated seismic waves. The presence of these conditions may cause a loss of shear strength and, in many cases, ground settlement. According to the Seismic Hazard Zones Map of the Long Beach Quadrangle, the proposed project site is located within an area of study for earthquake-induced liquefaction. In addition, the historic high groundwater levels in the vicinity of the site have been as shallow as 12 ft.

A liquefaction potential and earthquake-induced settlement evaluation was conducted on site. The results of the analysis show a 6 ft thick potentially liquefiable layer beginning at 20 ft bgs and a total cumulative earthquake-induced settlement above and below the historic high groundwater level of 0.95 inch. A maximum earthquake-induced differential settlement would be approximately 0.5 inch at a distance of 30 ft. Because the liquefiable layer begins at 20 ft, surface manifestation of liquefaction is not anticipated; however, the Geotechnical Engineering Report recommends the removal and recompaction of soil to a depth of 5 ft or the removal and recompaction of soil to a depth 3 ft below the bottom of proposed building foundations, whichever is deeper, to provide a uniformly strong cap at the site for bearing capacity and mitigation of any static settlement. Therefore, with implementation of Mitigation Measure G-2, potential impacts related to liquefaction would be reduced below a level of significance.

iv) Less Than Significant with Mitigation Incorporated. The project site is currently developed as a 17,231 sf car dealership, including the showroom and repair/parts departments and asphalt parking. The site has been previously graded and is relatively flat. According to the Seismic Hazard Zones Map of the Long Beach Quadrangle, the proposed project site is not located within an area of study for seismically induced landsliding, and there is no evidence of landslide activity on the site. The potential for seismically induced landsliding to occur at the site is not considered significant, and no mitigation is required.

Therefore, the potential for future slope instability will be limited to proposed cut-and-fill slopes that will be manufactured as part of the proposed grading. All grading operations and construction will be conducted in conformance with applicable City grading regulations and the most recent version of the CBC. Compliance with applicable local and State regulations, as required in Mitigation Measures G-1 and G-2**,** will reduce potential project impacts to a less than significant level.

b) Less Than Significant Impact. As discussed in Section 4.9, Hydrology and Water Quality, during construction activities, existing structures and pavement would be removed. This decrease of impervious surface area would reduce the volume and velocity of runoff leaving the site. Because runoff from the site would be reduced, the proposed project would not contribute to downstream off-site erosion or siltation. During construction activities, soil would be exposed and disturbed and drainage patterns would be temporarily altered during grading, demolition, and other construction activities, and there would be an increased potential for on-site soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate. As discussed in Response 8.a, the Construction General Permit requires preparation of a SWPPP to identify construction BMPs to be implemented during project construction to reduce impacts to water quality, including those impacts associated with soil erosion and siltation. With implementation of construction BMPs, impacts related to on- or off-site erosion or siltation would not be significant, and no mitigation is required. Alternatively, if it could be demonstrated that erosivity potential for the site is low (less than 5), the project could obtain a Rainfall Erosivity Waiver.

The proposed project would result in a slight alteration of the existing on-site drainage patterns due to demolition of two existing buildings and construction of the car wash. However, in the proposed condition, 86 percent of the site would be impervious surface areas and not prone to erosion or siltation. The remaining 14 percent of the site would be landscaping, which would collect any infiltration runoff and would minimize erosion and siltation. The proposed project would reduce the impervious surface area from 70,018 sf in the existing condition to 62,405 sf in the proposed condition. As a result of the decrease in impervious surface area, the volume and velocity of runoff from the site would be reduced. The peak volume of runoff from the site would be reduced from 9.1 gallons per minute (gal/min) to 9.1 gal/min during 5 minutes of a 0.75-inch rainfall event. Because the volume and velocity of runoff from the site would be reduced, the proposed project would not contribute to downstream erosion or siltation. For these reasons, operation of the proposed project would result in substantial erosion or siltation on or off site, and no mitigation is required.

c) Less Than Significant with Mitigation Incorporated. As previously stated, the proposed project site is relatively flat. There are no existing landslides on or adjacent to the project site, and the potential for seismically induced landsliding to occur at the site is not considered significant.

Seismically induced lateral spreading involves lateral movement of earth materials due to ground shaking. Lateral spreading is generally caused by liquefaction of soils with gentle slopes. Since the property is relatively flat and there is no close free face toward which lateral spreading could occur, the risk of lateral spreading is considered less than significant, and no mitigation is required.

Similarly, the proposed project site is not located within an area of known subsidence, and the potential for hydrocollapse on site is low based on the soil type and consolidation tests. No mitigation is required.

Earthquake-induced settlement is the compression of the underlying loose soils due to liquefaction or densification that occurs during strong ground shaking and cases uneven settlement of the ground surface. As discussion in Response 6.a.iii, a maximum earthquake induced differential settlement would be approximately 0.5 inch in a distance of 30 ft. The Geotechnical Engineering Report (Appendix B of this IS/MND) recommends the removal and recompaction of soil to a depth of 5 ft or the removal and recompaction of soil to a depth 3 ft below the bottom of proposed building foundations, whichever is deeper, to provide a uniformly strong cap at the site for bearing capacity and mitigation of any static settlement. Therefore, with implementation of Mitigation Measure G-2, potential impacts related to settlement would be reduced below a level of significance.

d) Less Than Significant with Mitigation Incorporated. Expansive soils contain types of clay minerals that occupy considerably more volume when they are wet or hydrated than when they are dry or dehydrated. Volume changes associated with changes in the moisture content of near-surface expansive soils can cause uplift or heave of the ground when they become wet or, less commonly, cause settlement when they dry out. During soil borings, artificial fill soils were encountered ranging in depth from approximately 2–3 ft bgs. Alluvium was encountered to the depths drilled below the fill (approximately 52 ft bgs). Soils found on site are anticipated to have medium expansion potential. The potential for expansive soils in areas proposed for construction would be considered a potentially significant impact. Construction techniques that are employed to address potential adverse effects of expansive soils may include, but are not limited to, deepened foundations, post-tension foundations, and moisture conditioning. The Geotechnical Engineering Report (Appendix B of this IS/MND) contains specific construction recommendations to reduce project impacts associated with expansive soils to a less than significant level. Mitigation Measure G-2 incorporates the recommendations in the Geotechnical Engineering Report related to expansive soils. Therefore, adherence to Mitigation Measure G-2 would reduce project impacts related to expansive soils to a less than significant level.

e) No Impact. The project does not include the use of septic tanks or alternative methods for disposal of wastewater into the subsurface soils. The proposed project would connect to existing public wastewater

infrastructure. No on-site sewage disposal systems (e.g., septic tanks) are planned. There would be no impact with regard to on-site sewage disposal systems.

Mitigation Measures

G-1 **Seismic Design Standards.** Appropriate seismic design provisions shall be implemented with project design and construction in accordance with governing building codes. Unless superseded by other regulatory provisions or standards, seismic design criteria shall be developed on the basis of the requirements of the current California Building Code (CBC) and reviewed and approved by the City of Long Beach Building Official prior to issuance of building permits. Prior to issuance of building permits, the City of Long Beach Building Official (or designee) is required to review and approve final design plans to ensure that all structures are designed to resist earthquake forces as defined by the CBC for a Seismic Zone 4.

G-2 **Geotechnical Requirements.** All grading operations and construction will be conducted in conformance with the recommendations included in the geotechnical report on the proposed project site titled *Geotechnical Engineering Report Proposed Car Wash and Retail Buildings 4201 E. Willow Street Long Beach California* (February 2010) (included in Appendix B of this IS/MND). Design, grading, and construction shall be performed in accordance with the requirements of the California Building Code (CBC) applicable at the time of grading, appropriate local grading regulations, and the recommendations of the project geotechnical consultant as summarized in a final written report, subject to review by the City of Long Beach Building official prior to issuance of demolition permits.

4.7 Greenhouse Gas Emissions *Would the project:*		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
(b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

The following response applies to Questions 4.7.a and 4.7.b.

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

The prevailing scientific opinion on climate change is that "most of the warming observed over the last 50 years is attributable to human activities."[1] Increased amounts of carbon dioxide (CO_2) and other greenhouse gases (GHGs) are the primary causes of the human-induced component of warming. The observed warming effect associated with the presence of GHGs in the atmosphere (from either natural or human sources) is often referred to as the greenhouse effect.[2]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced GCC are:[3]

- CO_2
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order (EO) S-3-05. The EO established the following goals for the State of California: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

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1 Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: Working Group I: The Physical Science Basis*. http://www.ipcc.ch/publications_and_data/ar4/wg1/en/contents.html. Accessed March 9, 2011

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

3 The greenhouse gases listed are consistent with the definition in Assembly Bill 32 (Government Code 38505), as discussed later in this section.

California's major initiative for reducing GHG emissions is outlined in Assembly Bill (AB) 32, the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. AB 32 requires the California Air Resources Board (ARB) to:

- Establish a statewide GHG emissions cap for 2020, based on 1990 emissions, by January 1, 2008;
- Adopt mandatory reporting rules for significant sources of GHG emissions by January 1, 2008;
- Adopt an emissions reduction plan by January 1, 2009, indicating how emissions reductions will be achieved via regulations, market mechanisms, and other actions; and
- Adopt regulations to achieve the maximum technologically feasible and cost-effective reduction of GHGs by January 1, 2011.

To assist public agencies in the mitigation of GHG emissions or analyzing the effects of GHGs under CEQA, including the effects associated with transportation and energy consumption, Senate Bill (SB) 97 (Chapter 185, 2007) required the Governor's Office of Planning and Research (OPR) to develop CEQA guidelines on how to minimize and mitigate a project's GHG emissions. OPR was required to prepare, develop, and transmit these guidelines on or before July 1, 2009, and the Resources Agency was required to certify and adopt them by January 1, 2010. On January 8, 2009, OPR released preliminary draft CEQA guideline amendments. The Natural Resources Agency adopted the CEQA Guidelines Amendments and transmitted them to the Office of Administrative Law (OAL) on December 31, 2009. On February 16, 2010, the OAL approved the Amendments and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010. The Amendments encourage Lead Agencies to consider many factors in conducting a CEQA analysis, but preserve the discretion granted by CEQA to Lead Agencies in making their determinations.

State CEQA Guidelines Section 15064.4 states:

> (a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:
>
> > (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; or
> >
> > (2) Rely on a qualitative analysis or performance based standards.
>
> (b) A lead agency may consider the following when assessing the significance of impacts from greenhouse gas emissions on the environment:
>
> > (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
> >
> > (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
> >
> > (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse

> gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

State CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

As such, currently neither the CEQA statutes, OPR guidelines, nor the State CEQA Guidelines prescribe specific quantitative thresholds of significance or a particular methodology for performing an impact analysis. As with most environmental topics, significance criteria are left to the judgment and discretion of the Lead Agency.

The recommended approach for GHG analysis included in the Governor's OPR June 2008 Technical Advisory (TA) is to: (1) identify and quantify GHG emissions, (2) assess the significance of the impact on climate change, and (3) if significant, identify alternatives and/or mitigation measures to reduce the impact below significance.[1] The June 2008 OPR guidance provides some additional direction regarding planning documents as follows: "CEQA can be a more effective tool for GHG emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that will reduce GHG emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation. For local government Lead Agencies, adoption of general plan policies and certification of general plan EIRs that analyze broad jurisdiction-wide impacts of GHG emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews."

As part of the process of developing the State CEQA Guidelines pertaining to GHG emissions analysis, OPR asked ARB technical staff to recommend statewide interim thresholds of significance for GHGs. The ARB released a preliminary draft staff proposal in October 2008 that included initial suggestions for significance criteria related to industrial, commercial, and residential projects. Although the ARB anticipated adopting the significance criteria in 2009 to allow coordination with OPR's efforts on GCC, no formal announcement of adoption has been made.[2] While in draft form, the ARB's *Recommended Approaches for Setting Interim Thresholds for Greenhouse Gases Under the California Environmental Quality Act* does provide some assistance to the City in evaluating whether this project would impede the State's mandatory requirements under AB 32 to reduce statewide GHG emissions to 1990 levels by 2020.

The Guidance does not specifically identify retail projects, but does generally describe three classes of common projects: industrial, commercial, and residential projects. For each type of project, the Guidance recommends that a two-pronged threshold be employed, one performance based and one numerical. For performance standards, the draft guidance suggests that operations and construction of the project be evaluated for their consistency with applicable performance standards contained in plans designed to reduce GHG emissions and/or help meet the State's emission reduction objectives in AB 32. The Guidance contains two numerical standards that will guide the City's analysis of the impacts of this project to a degree. First, the Guidance states that some small residential and commercial projects, emitting 1,600 metric tons of carbon dioxide equivalent (CO_2e) per year or less, would clearly not interfere with achieving the State's emission reduction objectives in AB 32 (and

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1 State of California, 2008. Governor's Office of Planning and Research. *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review*. June 19.

2 California, State of, 2008. California Air Resources Board (ARB). *Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Thresholds for Greenhouse Gases Under the California Environmental Quality Act*. October 24.

EO S-03-05) and thus may be deemed categorically exempt from CEQA. The Guidance does not state or imply that projects emitting more than 1,600 metric tons of CO_2e per year will necessarily result in a significant impact, although at this point the Guidance has no precise numerical threshold for commercial and residential projects. For industrial projects, the Guidance proposes that projects that emit less than 7,000 metric tons of CO_2e per year may be considered less than significant, recognizing that AB 32 will continue to reduce or mitigate emissions from these sorts of projects over time.

While some policy makers and regulators suggest that a zero emissions threshold would be appropriate when evaluating GHGs and their potential effect on climate change, such a rule appears inconsistent with the State's approach to mitigation of climate change impacts. AB 32 does not prohibit all new GHG emissions; rather, it requires a reduction in statewide emissions to a given level. Thus, AB 32 recognizes that GHG emissions will continue to occur and that increases will result from certain activities, but that emissions reductions must be achieved overall. Moreover, if all economic development were to cease, the State would very likely be unable to fund the very measures that are needed to combat climate change.

This analyzes whether the project's emissions should be considered significant. The proposed project may result in a significant GCC impact if it would impede achievement of the State's mandatory requirement under AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. To determine whether the project would impede achievement of the State's mandatory requirement under AB 32 to reduce statewide GHG emissions to 1990 levels by 2020, the analysis relies on the draft significance criteria proposed by the ARB.

Until appropriate regulatory entities develop CEQA thresholds for GHGs for projects emitting more than 1,600 metric tons of CO_2e per year, interim standards based on the existing draft significance criteria proposed by ARB should be applied. For residential and commercial projects, the project's consistency with performance standards set out in City policies that promote sustainability and reduce emissions, as well as State policies and strategies designed to meet the State's emission reduction objectives in AB 32,[1] will be evaluated, and the project emissions will also be evaluated numerically. Until further guidance is provided by the State or other appropriate expert agencies, a conservative standard that falls somewhat below the State's proposed threshold for industrial projects, which is 7,000 metric tons of CO_2e per year, will be applied.

Until more guidance is provided from the expert agencies, the City considers projects emitting 1,600 metric tons of CO_2e per year or less will be considered to be less than significant, and no further analysis is required. For projects exceeding the screening threshold of 1,600 metric tons of CO_2e per year, projects will be considered to have significant impacts if they either (1) are not substantially consistent with policies and standards set out in federal, State, and local plans designed to reduce GHG emissions, or (2) would emit more than 6,000 metric tons of CO_2e per year. Projects that are not substantially consistent with policies and standards set out in federal, State, and local plans designed to reduce GHG emissions or would emit more than 6,000 metric tons of CO_2e per year would be considered to have significant impacts under this threshold, and thus could be expected to impede the State's mandatory requirement under AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. It is recognized that this standard is interim and will likely change over time as further guidance is provided by the expert regulatory agencies.

For the purpose of this technical analysis, the concept of CO_2e is used to describe how much global warming a given type and amount of GHG may cause, using the functionally equivalent amount or concentration of CO_2 as the reference. Individual GHGs have varying global warming potentials and atmospheric lifetimes. The CO_2e is a consistent methodology for comparing GHG emissions since it normalizes various GHG to the same metric. The reference gas is CO_2, which has a global warming potential equal to 1.

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[1] These interim standards are consistent with the general guidance on cumulative impacts analysis. For instance, Section 15064(h)(3) of the proposed amendment to the CEQA Guidelines states that a Lead Agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a plan or regulation that apply to the project that is specified in law or adopted by the public agency and has specific requirements to reduce the emissions of GHG.

The equation below provides the basic calculation required to determine CO_2e from the total mass of a given GHG using the global warming potentials published by the Intergovernmental Panel on Climate Change (IPCC).

Tonnes (Metric Tons) of CO_2e = Tonnes (Metric Tons) of GHG x GWP

Where: CO_2e = carbon dioxide equivalent
GHG = greenhouse gas
GWP = global warming potential

This method was used to evaluate GHG emissions during construction and operation of the proposed project. For this analysis only, CO_2, CH_4, and N_2O are considered. This is due to the relatively large contribution of these gases in comparison to other GHGs produced during the project construction and operation phases.

The GHG emission estimates were calculated using URBEMIS 2007. URBEMIS stands for "Urban Emissions," and URBEMIS 2007 is an air quality modeling program that estimates air pollution emissions in lbs/day or tons per year for various land uses, area sources, construction projects, and project operations. Mitigation measures can also be specified to analyze the effects of mitigation on project emissions. The URBEMIS 2007 model uses the ARB EMFAC2007 model for on-road vehicle emissions and the OFFROAD2007 model for off-road vehicle emissions. URBEMIS 2007 includes CO_2 emissions factors, the principal GHG constituent. The GHG emissions resulting from increased electricity demand are modeled using GHG emissions factors from the United States Energy Information Administration. The GHG emissions resulting from the energy used for water delivery, treatment, and use are modeled using GHG emissions factors from the California Energy Commission (CEC). The GHG emissions resulting from solid waste disposal are modeled using GHG emissions factors from the California Integrated Waste Management Board (CIWMB).

An individual project cannot generate enough GHG emissions to significantly influence climate change, but individual projects can incrementally contribute toward the potential for the cumulative emissions driving GCC. This analysis analyzes whether the project's contributions combined with emissions from all other past, present, and probable future projects contribute toward the potential for GCC on a cumulative basis and whether the project's contribution to the impact is "cumulatively considerable."

Construction and operation of project development would generate GHG emissions, with the majority of energy consumption (and associated generation of GHG emissions) occurring during the project's operation (as opposed to its construction). Typically, more than 80 percent of the total energy consumption takes place during the use of buildings, and less than 20 percent is consumed during construction.[1]

Overall, the following activities associated with the proposed project could directly or indirectly contribute to the generation of GHG emissions:

- **Removal of Vegetation:** The removal of vegetation for construction results in a loss of the carbon sequestration in plants. However, planting of additional vegetation would result in additional carbon sequestration and would reduce the GHG emissions of the project.
- **Construction Activities:** During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O.
- **Gas, Electricity, and Water Use:** Natural gas use results in the emissions of two GHGs: CH_4 (the major component of natural gas) and CO_2 (from the combustion of natural gas). Electricity use can result in GHG

[1] United Nations Environment Programme (UNEP), 2007. *Buildings and Climate Change: Status, Challenges and Opportunities*, Paris, France.

production if the electricity is generated by combusting fossil fuel. California's water conveyance system is energy-intensive. Approximately one-fifth of the electricity and one-third of the nonpower plant natural gas consumed in California are associated with water delivery, treatment, and use.[1]

- **Solid Waste Disposal:** Solid waste generated by the project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH_4 from the anaerobic decomposition of organic materials. CH_4 is 25 times more potent a GHG than CO_2. However, landfill CH_4 can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.
- **Motor Vehicle Use:** Transportation associated with the proposed project would result in GHG emissions from fuel combustion in daily automobile and truck trips. CO_2 is the most significant GHG emitted by vehicles, but lesser amounts of CH_4 and N_2O are also emitted in vehicle exhaust.

Construction GHG Emissions. GHG emissions associated with the project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with project-related vehicular trips and stationary source emissions such as natural gas used for heating. The calculation presented below includes construction emissions in terms of CO_2 and annual CO_2e GHG emissions from increased energy consumption, water usage, solid waste disposal, as well as estimated GHG emissions from vehicular traffic that would result from implementation of the project.

GHG emissions generated by the proposed project would predominantly consist of CO_2. In comparison to criteria air pollutants such as ozone (O_3) and PM_{10}, CO_2 emissions persist in the atmosphere for a substantially longer period of time. While emissions of other GHGs such as CH_4 are important with respect to GCC, emission levels of other GHGs are less dependent on the land use and circulation patterns associated with the proposed land use development project than are levels of CO_2.

Construction activities produce combustion emissions from various sources such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. The URBEMIS modeling performed for the construction analysis (see Appendix A) shows that emissions of CO_2e would be as high as 120 metric tons per year during project construction.

The project would be required to implement the construction exhaust control measures as required by SCAQMD Rules 402 and 403, listed in Section 4.3.b (Air Quality Section), including minimization of construction equipment idling and implementation of proper engine tuning and exhaust controls. Compliance with Regulations would reduce GHG emissions during the construction period.

Architectural coatings used in construction of the project may contain volatile organic compounds (VOCs) that are similar to reactive organic gases (ROGs) and are part of O_3 precursors. However, there are no significant emissions of GHGs from architectural coatings.

Therefore, construction emissions would be below the screening threshold of 1,600 metric tons of CO_2e per year, and project construction would be considered to have a less than significant impact related to GHG emissions and would not impede or interfere with achieving the State's emission reduction objectives in AB 32 (and EO S-03-05). No mitigation is required.

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[1] California Air Resources Board (ARB), 2010. *Economic Sectors Portal*. Website: www.arb.ca.gov/cc/ghgsectors/ghgsectors.htm. Accessed January 5, 2010.

Operational GHG Emissions. Long-term operation of the proposed project would generate GHG emissions from area and mobile sources and indirect emissions from stationary sources associated with energy consumption. Mobile-source emissions of GHGs would include project-generated vehicle trips associated with on-site facilities and customers/employees/deliveries to the project site. Area-source emissions would be associated with activities such as landscaping and maintenance of proposed land uses, natural gas for heating, and other sources. Increases in stationary source emissions would also occur at off-site utility providers as a result of demand for electricity, natural gas, and water by the proposed uses.

The GHG emission estimates presented in Table 4.E show the emissions associated with the level of development envisioned by the proposed project at build out. Appendix A includes worksheets for the GHG emissions. Table 4.E shows that the project operations would result in average annual emissions of 1,816 metric tons of CO_2e per year.

Table 4.E: Project Greenhouse Gas Emissions

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	CO_2e
Vehicles[1]	1,678	0.1	0.18	1,734
Electricity Production	36	0.0004	0.00022	36
Natural Gas Combustion[1]	18	0.0001	0.0001	18
Solid Waste	24	--	--	24
Other Area Sources[2]	0.47	--	--	0.47
Total Annual Emissions	1,756	0.1	0.18	1,816

Source: LSA Associates, Inc., October 2010.
Note: Numbers in Table may not appear to add up correctly due to rounding of all numbers to two significant digits.
[1] CO_2 emissions for vehicles and natural gas from URBEMIS 2007 output.
[2] Includes CO_2 emissions for hearth combustion and landscaping equipment from URBEMIS 2007 outputs.
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
N_2O = nitrous oxide

Due to the global nature of this phenomenon and the scale of emissions, total emissions are expressed in units of teragrams (a trillion [10^{12}] grams or 1 MMT) per year (Tg/year). This is the standard metric unit used worldwide. Forecast emissions calculated for the project indicate that the project, during operations, would exceed the screening threshold of 1,600 metric tons of CO_2e per year, but would not exceed the interim numerical standard of 7,000 metric tons of CO_2e per year. The following text describes the GHG emissions sources listed in Table 4.E.

Vehicles. Mobile sources (vehicle trips and associated miles traveled) are one of the largest sources of GHG emissions in California and represent approximately 38 percent of annual CO_2 emissions generated in the State. Like most land use development projects, vehicle miles traveled (VMT) is the most direct indicator of CO_2 emissions from the proposed project, and associated CO_2 emissions function as the best indicator of total GHG emissions.

Electricity Production and Natural Gas Combustion. Buildings represent 39 percent of the United States primary energy usage and 70 percent of electricity consumption.[1] The proposed project would increase the

[1] United States Department of Energy. 2003. *Buildings Energy Data Book.*

demand for electricity and natural gas due to the increased building area and number of employees. The project would indirectly result in increased GHG emissions from off-site electricity generation at power plants (a portion of 36 metric tons of CO_2e/year). In addition, water-related energy use consumes 19 percent of the State's electricity every year.[1] Energy use and related GHG emissions are based on electricity used for water supply and conveyance, water treatment, water distribution, and wastewater treatment. The project would indirectly result in increased GHG emissions from the off-site electricity generation at power plants (the remainder of the 36 metric tons of CO_2e/year).

Solid Waste Disposal. The proposed project would also generate solid waste during the operation phase of the project. Average waste generation rates from a variety of sources are available from the California Integrated Waste Management Board.[2] The project would indirectly result in increased GHG emissions from solid waste treatment at treatment plants (approximately 24 metric tons of CO_2e/year).

Summary. The proposed project would generate up to 1,816 metric tons of CO_2e per year of new emissions, as shown in Table 4.E. The emissions from solid waste disposal and natural gas/electricity consumption would comprise approximately 5 percent of the project's total CO_2e emissions. The emissions from vehicle exhaust would comprise approximately 95 percent of the project's total CO_2e emissions. Tailpipe emission controls are within the jurisdiction of the State and federal governments and are outside the control of the City.

The remaining CO_2e emissions are primarily associated with building heating systems and increased regional power plant electricity generation due to the project's electrical demands. Specific development projects proposed under the project would comply with existing State and federal regulations regarding the energy efficiency of buildings, appliances, and lighting, which would reduce the project's electricity demand. The new buildings constructed in accordance with current energy efficiency standards would be more energy efficient than older buildings.

At present, there is a federal ban on chlorofluorocarbons (CFCs); therefore, it is assumed the project would not generate emissions of CFCs. The project may emit a small amount of HFC emissions from leakage and service of refrigeration and air conditioning equipment and from disposal at the end of the life of the equipment. However, the details regarding refrigerants to be used in the project site are unknown at this time. PFCs and SF_6 are typically used in industrial applications, none of which would be used on the project site. Therefore, it is not anticipated that the project would contribute significant emissions of these additional GHGs.

As stated above, forecast emissions calculated for the project indicate that the project, during operation, would exceed the screening threshold of 1,600 metric tons of CO_2e per year, but would not exceed the interim numerical standard of 7,000 metric tons of CO_2e per year. Because the proposed project would exceed the screening threshold, it is also necessary to analyze whether the proposed project would be substantially consistent with policies and standards set out in federal, State, and local plans designed to reduce GHG emissions.

The California Environmental Protection Agency (CalEPA) Climate Action Team (CAT) and ARB have developed several reports to achieve the Governor's GHG targets that rely on voluntary actions of California businesses, local government and community groups, and State incentive and regulatory programs. These include the CAT 2006 "*Report to Governor Schwarzenegger and the Legislature*," ARB's 2007 "*Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California,*" and ARB's "*Climate Change Proposed Scoping Plan: a Framework for Change.*"

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1 California, State of, 2005. California Energy Commission. California's Water-Energy Relationship. November.

2 California Integrated Waste Management Board. Estimated Solid Waste Generation Rates for Commercial Developments. http://www.calrecycle.ca.gov/wastechar/wastegenrates/Commercial.htm. Accessed October 2010.

The reports identify strategies to reduce California's emissions to the levels proposed in EO S-3-05 and AB 32 that are applicable to proposed project. The Proposed Scoping Plan is the most recent document, and the strategies included in the Scoping Plan that apply to the project can be found in Table 4.F. Table 4.F also summarizes the extent to which the project would comply with the strategies to help California reach the emission reduction targets.

The strategies listed in Table 4.F are addressed as either part of the project, required mitigation measures, or requirements under local or State ordinances. Implementation of these strategies/measures would ensure that the proposed project would not conflict with or impede the implementation of reduction goals identified in AB 32, the Governor's EO S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor. Many of the individual elements of this measure are already included as part of the proposed project or are required as part of project-specific mitigation measures. Therefore, the project's contribution to cumulative GHG emissions would be less than significant.

GHG emissions are not confined to a particular air basin but are dispersed worldwide. Consequently, it is speculative to determine how project-related GHG emissions would contribute to GCC and how GCC may impact the State. Therefore, project-related GHG emissions are not project-specific impacts to global warming but are instead the project's contribution to this cumulative impact. Project-related GHG emissions and their contribution to GCC impacts in the State are less than significant and less than cumulatively considerable because the project (1) would be substantially consistent with policies and standards set out in federal, State, and local plans designed to reduce GHG emissions, and (2) would emit less than 7,000 metric tons of CO_2e per year.

Additionally, the net increase in air pollutant emissions would not exceed the SCAQMD thresholds for any of the criteria pollutants; thus, the emissions of GHGs are also unlikely to result in significant impacts.

Mitigation Measures

No mitigation measures are required.

Table 4.F: Project Compliance with Greenhouse Gas Emission Reduction Strategies

Strategy	Project Compliance
Energy Efficiency Measures	
Energy Efficiency. Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities). **Renewables Portfolio Standard.** Achieve a 33 percent renewable energy mix statewide. **Green Building Strategy.** Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Compliant.** The proposed project would be required to comply with the updated Title 24 standards for building construction. The project would also comply with the City's Green Building Standards (City Municipal Code Section 21.45.400).
Water Conservation and Efficiency Measures	
Water Use Efficiency. Continue efficiency programs and use cleaner energy sources to move and treat water. Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.	**Compliant.** The total water demand for the proposed project would be 29,000 gallons per day. Of that amount, approximately 27,000 gallons would be reclaimed water and 8,750 gallons would be potable water. The on-site irrigation system will be connected to the car wash water meter with a separate backflow prevention device. Water for irrigation will come directly from car wash reclamation system after it is processed via reverse osmosis in the reclamation tank; no additional water would be required for irrigation. Therefore, the proposed project would substantially reduce the amount of potable water used during project operation and for irrigation.
Solid Waste Reduction Measures	
Increase Waste Diversion, Composting, and Commercial Recycling, and Move Toward Zero-Waste. Increase waste diversion from landfills beyond the 50 percent mandate to provide for additional recovery of recyclable materials. Composting and commercial recycling could have substantial GHG reduction benefits. In the long term, zero-waste policies that would require manufacturers to design products to be fully recyclable may be necessary.	**Compliant.** The Integrated Waste Management Act of 1989 required that every city and county in California implement programs to recycle, reduce refuse at the source, and compost waste to achieve a 50 percent reduction in solid waste being taken to landfills. In order to assist in maintaining this goal, the proposed development will be required to incorporate storage and collection of recyclable materials into the project design and to include provisions for the collection of recyclables in refuse collection contracts. Mitigation Measure U-1 assists the City in its effort to meet its waste reduction goals by facilitating recycling.
Transportation and Motor Vehicle Measures	
Vehicle Climate Change Standards. AB 1493 (Pavley) required the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles and light duty trucks. Regulations were adopted by ARB in September 2004. **Light-Duty Vehicle Efficiency Measures.** Implement additional measures that could reduce light-duty GHG emissions. For example, measures to ensure that tires are properly inflated can both reduce GHG emissions and improve fuel efficiency. **Adopt Heavy- and Medium-Duty Fuel and Engine Efficiency Measures.** Regulations to require retrofits to improve the fuel efficiency of heavy-duty trucks that could include devices that reduce aerodynamic drag and rolling	**Compliant.** The project does not involve the manufacture, sale, or purchase of vehicles. However, vehicles that operate within and access the project site are subject to any vehicle and fuel standards that ARB adopts.

Table 4.F: Project Compliance with Greenhouse Gas Emission Reduction Strategies

Strategy	Project Compliance
resistance. This measure could also include hybridization of and increased engine efficiency of vehicles. **Low Carbon Fuel Standard.** ARB identified this measure as a Discrete Early Action Measure. This measure would reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.	
Regional Transportation-Related Greenhouse Gas Targets. Develop regional GHG emissions reduction targets for passenger vehicles. Local governments will play a significant role in the regional planning process to reach passenger vehicle GHG emissions reduction targets. Local governments have the ability to directly influence both the siting and design of new residential and commercial developments in a way that reduces GHGs associated with vehicle travel.	**Compliant.** Specific regional emission targets for transportation emissions do not directly apply to this project; regional GHG reduction target development is outside the scope of this project. The project is compliant with the applicable General Plan Land Use and Zoning designation for the site and redevelops an existing site in an urban area.
Measures to Reduce High Global Warming Potential Gases. ARB has identified Discrete Early Action measures to reduce GHG emissions from the refrigerants used in car air conditioners, semiconductor manufacturing, and consumer products. ARB has also identified potential reduction opportunities for future commercial and industrial refrigeration, changing the refrigerants used in auto air conditioning systems, and ensuring that existing car air conditioning systems do not leak.	**Compliant.** New products used or serviced on site (after implementation of the reduction of GHG gases) are subject to future ARB rules and regulations.

Source: LSA Associates, Inc., August 2010.
AB = Assembly Bill
ARB = California Air Resources Board
GHG = greenhouse gas

4.8 Hazards and Hazardous Materials

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	☒	☐	☐
(b)	Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
(c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
(d)	Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
(e)	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, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
(f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
(g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
(h)	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?	☐	☐	☐	☒

Impact Analysis:

a) Less Than Significant Impact with Mitigation Incorporated. Operation of the car wash and retail uses on site would involve the use of potentially hazardous materials (e.g., cleaning agents, paints, solvents) typical of car washes and retail uses. However, all use and storage of these potentially hazardous materials would be conducted in accordance with applicable City, State, and federal regulations. Additionally, given the limited quantities of hazardous materials, the use of these materials would not result in a significant hazard to residents in the project vicinity, workers, or patrons of on-site uses. Therefore, hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials as a result of the proposed project during operational activities are considered less than significant, and no mitigation is required.

Construction of the proposed project would involve the use of chemical agents, solvents, paints, and other hazardous materials that are associated with construction activities. The amount of hazardous chemicals is limited and would be in compliance with existing government regulations. However, based on findings of the Phase I Environmental Site Assessment (Phase I ESA) (September 2006) and a subsequent Environmental Review Memorandum (February 2007), three recognized environmental conditions (RECs) were determined to pose a potential environmental concern during construction activities. These three RECs include:

- Due to the age of the two buildings located on site, there is a potential for asbestos-containing materials (ACMs) to be present in the existing building materials. The disturbance of ACMs during construction may pose a potential environmental concern.
- Due to the age of the two buildings located on site, there is a potential for lead-based paints (LBPs) to be present on the surface of the existing building materials. The disturbance of LBPs during construction may pose a potential environmental concern.
- The presence of an existing clarifier (oil/water separator) on site. The size, present integrity, and condition of the clarifier are unknown. It is estimated that the existing clarifier may have been in use

since the 1960s, and releases of oily liquids may have taken place during the 40 years of site operation. The clarifier poses a potential environmental concern due to its approximate age and length of operation.

Therefore, based on these findings, sampling and proper disposal for ACM- and LBP-containing building materials are required prior to the disturbance of these structures. In addition, further investigation and documentation is required to identify the condition and integrity of the underground clarifier and adjacent portion of the sanitary sewer discharge line. This investigation will also identify whether existing soils and/ or groundwater may have been contaminated from the operation and use of the clarifier. Specific requirements for ACM and LBP testing and the additional investigation required for the underground clarifier are provided in Mitigation Measures HAZ-1, HAZ-2, and HAZ-3. With the implementation of Mitigation Measures HAZ-1 through HAZ-3, hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials as a result of the proposed project during operational activities are considered less than significant.

b) Less Than Significant Impact with Mitigation Incorporated. As stated previously, operation of the car wash and retail uses on site would involve the use of potentially hazardous materials (e.g., cleaning agents, paints, solvents) typical of car washes and retail uses. However, all use and storage of these potentially hazardous materials would be conducted in accordance with applicable City, State, and federal regulations. Additionally, given the limited quantities of hazardous materials, the use of these materials would not result in a significant hazard to residents in the project vicinity, workers, or patrons of on-site uses. Therefore, hazards to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment as a result of the proposed project during operational activities are considered less than significant, and no mitigation is required.

As previously stated, construction of the proposed project would involve the use of chemical agents, solvents, paints, and other hazardous materials that are associated with construction activities. The amount of hazardous chemicals presents is limited and would be in compliance with existing government regulations. However, based on findings of the Phase I ESA (September 2006) and a subsequent Environmental Review Memorandum (February 2007), three RECs were determined to pose a potential environmental concern during construction activities. These RECs include ACMs, LBPs, and an underground clarifier. However, with implementation of Mitigation Measures HAZ-1 through HAZ-3, hazards to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment as a result of the proposed project during construction activities are considered less than significant.

c) No Impact. There are no existing or proposed schools located within 0.25 mi of the project site. The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mi of an existing or proposed school. Therefore, no impacts are anticipated, and no mitigation is required.

d) No Impact. The project is not located on a site that is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5, and as a result, the proposed project would not create a significant hazard to the public or the environment. Therefore, no impacts are anticipated, and no mitigation is required.

e) No Impact. Although the project is located less than 1 mi south of Long Beach Airport, the proposed project is not located within an airport influence area. As a result, the proposed project would not cause a safety hazard for people residing or working in the project area. Therefore, no impacts are anticipated, and no mitigation is required.

f) **No Impact.** The proposed project is not located within the vicinity of a private airstrip, and as a result, the proposed project would not result in a safety hazard for people residing or working in the project area. Therefore, no impacts are anticipated, and no mitigation is required.

g) **No Impact.** Roads that are used as response corridors/evacuation routes usually follow the most direct path to or from various parts of a community. For the project area, the main corridors would be Willow Street or Lakewood Boulevard. Access to, from, and on the site for emergency vehicles would be reviewed and approved by the City of Long Beach Fire Department prior to project construction. All proposed structures would be required to comply with all applicable codes and ordinances for emergency vehicle access, which would ensure adequate access to, from, and on the site for emergency vehicles. The proposed project would not result in a significant traffic impact to any study area intersections. Therefore, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. No impacts are anticipated, and no mitigation is required.

h) **No Impact.** The area surrounding the project site is considered urban and built out. The project site is located within a mixed commercial and residential area within the City of Long Beach and is bounded by I-405 to the north, a gasoline service station and hotel to the east, a gasoline station and auto body shop to the south, and two hotels to the west. As a result, the proposed project would not 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. Therefore, no impacts are anticipated, and no mitigation measures are required.

Mitigation Measures

HAZ-1 **Asbestos-Containing Materials.** Prior to issuance of demolition permits, predemolition surveys for asbestos-containing materials (ACMs) shall be conducted in accordance with applicable requirements of the Occupational Safety and Health Administration (OSHA) and the United States Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP). All identified ACMs shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable regulations during demolition of structures. Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., South Coast Air Quality Management District [SCAQMD]) and to provide safety to workers and the adjacent community. The project applicant shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the City of Long Beach Health Department showing that abatement of any ACMs identified in these structures has been completed in full compliance with all applicable regulations. An Operating & Maintenance Plan (O&M) shall be prepared for any ACMs to remain in place, and the O&M shall be reviewed and approved by the Director of the City of Long Beach Health Department, or designee, prior to issuance of any demolition permits.

HAZ-2 **Lead-Based Paint.** Prior to issuance of demolition permits, predemolition surveys for lead-based paints (LBPs) shall be performed in accordance with 29 Code of Federal Regulations (CFR) 1926.62. Building surfaces that are determined to contain concentrations of lead at or above regulatory limits shall be removed in accordance with applicable regulations properly disposed at a state permitted landfill facility. Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., South Coast Air Quality Management District [SCAQMD]) and to provide safety to workers and the adjacent community. The project applicant shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the Director of the City of Long Beach Health Department, or

designee, showing that abatement of any LBPs identified in these structures has been completed in full compliance with all applicable regulations. An Operating & Maintenance Plan (O&M) shall be prepared for any LBP to remain in place, and the O&M shall be reviewed and approved by the Director of the City of Long Beach Health Department, or designee, prior to issuance of any demolition permits.

HAZ-3 **Underground Clarifier.** Prior to the issuance of demolition permits, the project applicant shall submit a report to the City of Long Beach Director of Planning, or designee, documenting the condition and integrity of the existing underground clarifier and adjacent portion of the sanitary sewer discharge line. The report shall further document that the existing clarifier has been removed and indicate whether soil and/or groundwater impacts have occurred. If soil and/or groundwater impacts have occurred, the project applicant shall submit a soil and groundwater remediation plan to the City of Long Beach Director of Planning, or designee, for approval and implementation. The project applicant shall also be responsible for any remediation or repairs to the sanitary sewer line that become necessary as part of the removal of the clarifier.

4.9 Hydrology and Water Quality

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
(b)	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)?	☐	☐	☒	☐
(c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.	☐	☐	☒	☐
(d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
(e)	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?	☐	☐	☒	☐
(f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐
(g)	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?	☐	☐	☐	☒
(h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
(i)	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?	☐	☐	☐	☒
(j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Impact Analysis:

a) Less Than Significant Impact. Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals, liquid products, petroleum products (such as paints, solvents, and fuels), and concrete-related waste may be spilled or leaked and have the potential to be transported via storm runoff into receiving waters.

During construction, the total disturbed soil area would be 1.64 ac. Because the proposed project disturbs greater than 1 ac of soil, the project is subject to the requirements of the SWRCB NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) (Construction General Permit).

The project would be required to obtain coverage under the Construction General Permit. A SWPPP would be prepared for the project in compliance with the requirements of the Construction General Permit. The SWPPP would identify construction BMPs to be implemented to ensure that the potential for soil erosion and sedimentation is minimized and to control the discharge of pollutants in storm water runoff as a result of construction activities.

The City has its own municipal NPDES Permit, *Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the City of Long Beach*, Order No. 99-060 (NPDES No. CAS004003).

This permit specifies that all new development and redevelopment projects that fall under specific priority project categories must comply with the *Los Angeles County Standard Urban Storm Water Mitigation Plan* (SUSMP) (March 2000). The following projects are subject to SUSMP requirements: hillside projects; home subdivisions of 10 units or more; commercial developments of 100,000 sf or more; and projects located adjacent to or discharging into environmentally sensitive areas. These categories of development are considered "priority" because it has been determined by the Regional Water Quality Control Board (RWQCB) that they have the greatest potential to degrade water quality. The proposed project, a 72,651 sf commercial site, is not subject to SUSMP requirements because it does not meet the above definition of a priority project.

Runoff from the existing site is currently untreated. Although the proposed project is not subject to SUSMP requirement, treatment BMPs would be implemented to target pollutants of concern from the site. The potential pollutants in storm water associated with the proposed project (car wash, commercial, and parking lot) include heavy metals, oil and grease, trash and debris, nutrients, pesticides, sediments, organic compounds, bacteria and viruses, and oxygen-demanding substances. Drain inserts with filters would be installed in catch basins to target and treat pollutants of concern. In addition, the site design includes the addition of grass swales, particularly along the site perimeter. Storm water runoff would be diverted to the swales, where it would infiltrate through the soil prior to being discharged into the existing storm drain system.

To manage the car wash operational water, a clarifier with a capacity between 2,500–3,000 gallons would be installed. The clarifier's filtering system would treat the used car wash water and recycle it for reuse on site for irrigation of landscaped areas. Overflow from the clarifier would be discharge to the sewer system and would not reach the storm water system.

With incorporation of construction and postconstruction BMPs that would target pollutants of concern, the proposed project would not violate any water quality standards or waste discharge requirements. Therefore, impacts related to waste discharge requirements and water quality standards would be less than significant. No mitigation is required.

b) Less Than Significant Impact. The project site is not in a designated recharge area. During borings undertaken as part of the Geotechnical Engineering Report (February 26, 2010), groundwater seepage was encountered at 36 ft bgs. The historically highest groundwater depth at the site was estimated to be approximately 12 ft bgs. It is not anticipated that groundwater would be encountered during construction; therefore, groundwater dewatering is not anticipated to be required. In addition, operation of the project would not require groundwater extraction. Impervious surface area would decrease by 10.9 percent compared with the existing condition; therefore, groundwater recharge on site would not be substantially altered. Development of the site would not substantially deplete groundwater supplies or substantially interfere with groundwater recharge, and no mitigation is required.

c) Less Than Significant Impact. During construction activities, existing structures and pavement would be removed. This decrease of impervious surface area would reduce the volume and velocity of runoff leaving the site. Because runoff from the site would be reduced, the proposed project would not contribute to downstream off-site erosion or siltation. During construction activities, soil would be exposed and disturbed, drainage patterns would be temporarily altered during grading, demolition, and other construction activities, and there would be an increased potential for on-site soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate. As discussed in Response 8.a, the Construction General Permit requires preparation of a SWPPP to identify construction BMPs to be implemented during project construction to reduce impacts to water quality, including those impacts associated with soil erosion and siltation. With implementation of construction BMPs, impacts related to on- or off-site erosion or siltation would not be significant, and no mitigation is required. Alternatively, if it could be demonstrated that erosivity potential for the site is low (less than 5), the project could obtain a Rainfall Erosivity Waiver.

The proposed project would result in a slight alteration of the existing on-site drainage patterns due to demolition of two existing buildings and construction of the car wash. However, in the proposed condition, 86 percent of the site would be impervious surface areas and not prone to erosion or siltation. The remaining 14 percent of the site would be landscaping, which would collect any infiltration runoff and minimize erosion and siltation. The proposed project would reduce the impervious surface area from 70,018 sf in the existing condition to 62,405 sf in the proposed condition. As a result of the decrease in impervious surface area, the volume and velocity of runoff from the site would be reduced. The peak volume of runoff from the site would be reduced from 9.1 gal/min to 9.1 gal/min during 5 minutes of a 0.75-inch rainfall event. Because the volume and velocity of runoff from the site would be reduced, the proposed project would not contribute to downstream erosion or siltation. Finally, the proposed project would not alter the course of a stream or river. For these reasons, operation of the proposed project would not substantially alter the existing drainage pattern of the site in a manner that would result in substantial erosion or siltation on or off site, and no mitigation is required.

d) **Less Than Significant Impact.** During construction activities, existing structures and pavement would be removed, which would decrease the impervious surface area and temporarily alter on-site drainage patterns. As discussed above, the proposed project would permanently reduce the impervious surface area compared to existing conditions. The decrease in impervious surface area would increase infiltration and reduce the rate and amount of surface runoff. Since the volume of runoff from the project site would not increase during construction or operation of the proposed project, the existing storm drain system would not be impacted; therefore, the proposed project would not result in on-site or off-site flooding. Therefore, alterations to the existing drainage patterns would not substantially increase the rate or amount of surface runoff or result in flooding on or off site. No mitigation is required.

e) **Less Than Significant Impact.** As discussed above in Responses 8.c and 8.d, the proposed project would reduce the impervious surface area compared to existing conditions. The decrease in impervious surface area would increase infiltration and reduce the rate and amount of surface runoff. Because the proposed project would decrease the flow to the downstream storm drain system, the project would not contribute runoff water that would exceed the capacity of an existing or planned storm water drainage system.

As discussed in Response 8.a, construction of the proposed project has the potential to introduce pollutants to the storm water drainage system from erosion, siltation, and accidental spills. However, the Construction General Permit requires preparation of a SWPPP to identify construction BMPs to be implemented during project construction to reduce impacts to water quality, including those impacts associated with soil erosion, siltation, and spills. As also discussed above in Response 8.a, operation of the car wash would be a more intensive use compared to the existing retail use. Patrons of the car wash would enter and exit more frequently compared to the existing retail use, which could increase the amount of transportation-related pollutants introduced to the site. However, as discussed in Response 8.a, treatment BMPs would be implemented to target pollutants of concern. Therefore, the proposed project would not provide substantial additional sources of polluted runoff. No mitigation is required.

f) **Less Than Significant Impact.** Refer to Response 8.a.

g) **No Impact.** According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the project site is not located within a 100-year floodplain. The project site is mapped as Zone X, which is defined as the area determined to be outside the 0.2 percent annual change floodplain (500-year floodplain) (Map No. 06037C1970F; September 26, 2008). Therefore, the project would not place housing within a 100-year flood hazard area, and no impacts would occur. No mitigation is required.

h) **No Impact.** As discussed in Response 8.g, the project site is not located within a 100-year flood hazard area. Therefore, the project would not place a structure within a 100-year flood hazard area, and no impacts would occur. No mitigation is required.

i) **No Impact.** As discussed in Response 8.g, the project is not located within a 100-year flood hazard area. According to the Public Safety Element of the City of Long Beach General Plan (May 1975), the project site is not located in an area of potential flooding. In addition, the project site is not within the flood zone of a levee or dam. Therefore, the project would not 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. No mitigation is required.

j) **No Impact.** Seiching is a phenomenon that occurs when seismic groundshaking induces standing waves (seiches) inside water retention facilities such as reservoirs and water tanks. Such waves can cause retention structures to fail and flood downstream properties. There are no water retention facilities located in close proximity to the proposed project site. The risk associated with possible seiche waves is therefore not considered a potential constraint or a potentially significant impact of the project, and no mitigation is necessary.

Tsunamis are generated wave trains generally caused by tectonic displacement of the seafloor associated with shallow earthquakes, seafloor landslides, rockfalls, and exploding volcanic islands. The proposed project is located approximately 3 mi from the ocean shoreline. According to the Tsunami Inundation Map for Emergency Planning, State of California–County of Los Angeles, *Long Beach, California* Quadrangle (California Emergency Management Agency [Cal EMA], California Geological Survey (CGS), and University of Southern California [USC], March 1, 2009), the project site is not within the tsunami inundation area. The risk associated with tsunamis is therefore not considered a potential hazard or a potentially significant impact, and no mitigation is required.

Mudslides and slumps are described as a shallower type of slope failure, usually affecting the upper soil mantle or weathered bedrock underlying natural slopes and triggered by surface or shallow subsurface saturation. The project site is located within relatively flat areas, and no existing landslides are present on the property. The risk associated with possible mudflows and mudslides is therefore not considered a potential constraint or a potentially significant impact of the project, and no mitigation is necessary.

Mitigation Measures

No mitigation measures are required.

4.10 Land Use/Planning

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Physically divide an established community?	☐	☐	☐	☒
(b)	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?	☐	☐	☒	☐
(c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Impact Analysis:

a) No Impact. Implementation of the proposed project will not divide an established community since the proposed project will be constructed in place of an existing commercial use (car dealership) and asphalt parking area. The proposed project will not disrupt or modify the existing roadway network or affect or disrupt residential neighborhoods or other commercial uses in the project vicinity. Therefore, implementation of the proposed project would not result in the physical division of any established community, and no mitigation is required.

b) Less Than Significant Impact. The main documents regulating land use within and around the project site are the City of Long Beach General Plan, the Citywide Strategic Plan (Long Beach 2010), and the City of Long Beach Zoning Code. As shown in Figure 9, the project site is designed Major Commercial Corridor (LUD No. 8) in the City's General Plan. As shown in Figure 10, the project site is zoned Regional Highway Commercial (CHW). The project does not require a General Plan Amendment or Zone Change. The project does require site plan review and an Administrative Use Permit (AUP).

General Plan. The City of Long Beach General Plan provides the goals, objectives, and policies that guide City decision-makers in directing growth and development. The General Plan must contain at least seven elements: Land Use, Transportation, Housing, Conservation, Noise, Open Space, and Safety. The City's Seismic Safety and Air Quality Elements are optional components of the General Plan. Each element discusses in detail official policies and programs the City has adopted regarding each topic. At the heart of the General Plan is the Land Use Element, adopted in 1989 and revised in April 1997. The Land Use Element of the General Plan specifies the various districts that comprise the land use portion of the General Plan and provides a long-term land use vision for the City.

The Land Use Element incorporates the goals developed as part of an earlier citywide strategic planning process and implements them through a series of policies and General Plan land use designations. The goals dealing with population growth, economic development, housing, infrastructure, and transportation relate most specifically to the Land Use Element of the General Plan.

The General Plan designation of the project site, LUD No. 8, is designed specifically for use along several major business corridors in the City; uses in LUD No. 8 function as linear conglomerations of larger-scale office and retail uses. Retail uses are intended to be community or region serving and should provide on-site parking rather than relying on curbside parking. The proposed project will provide community-serving retail uses, including a car wash. The project will also include 77 parking spaces on site consistent with the requirement that LUD No. 8 land uses provide on-site parking. Therefore, the proposed project is consistent with the existing General Plan designation for the site, and no mitigation is required.

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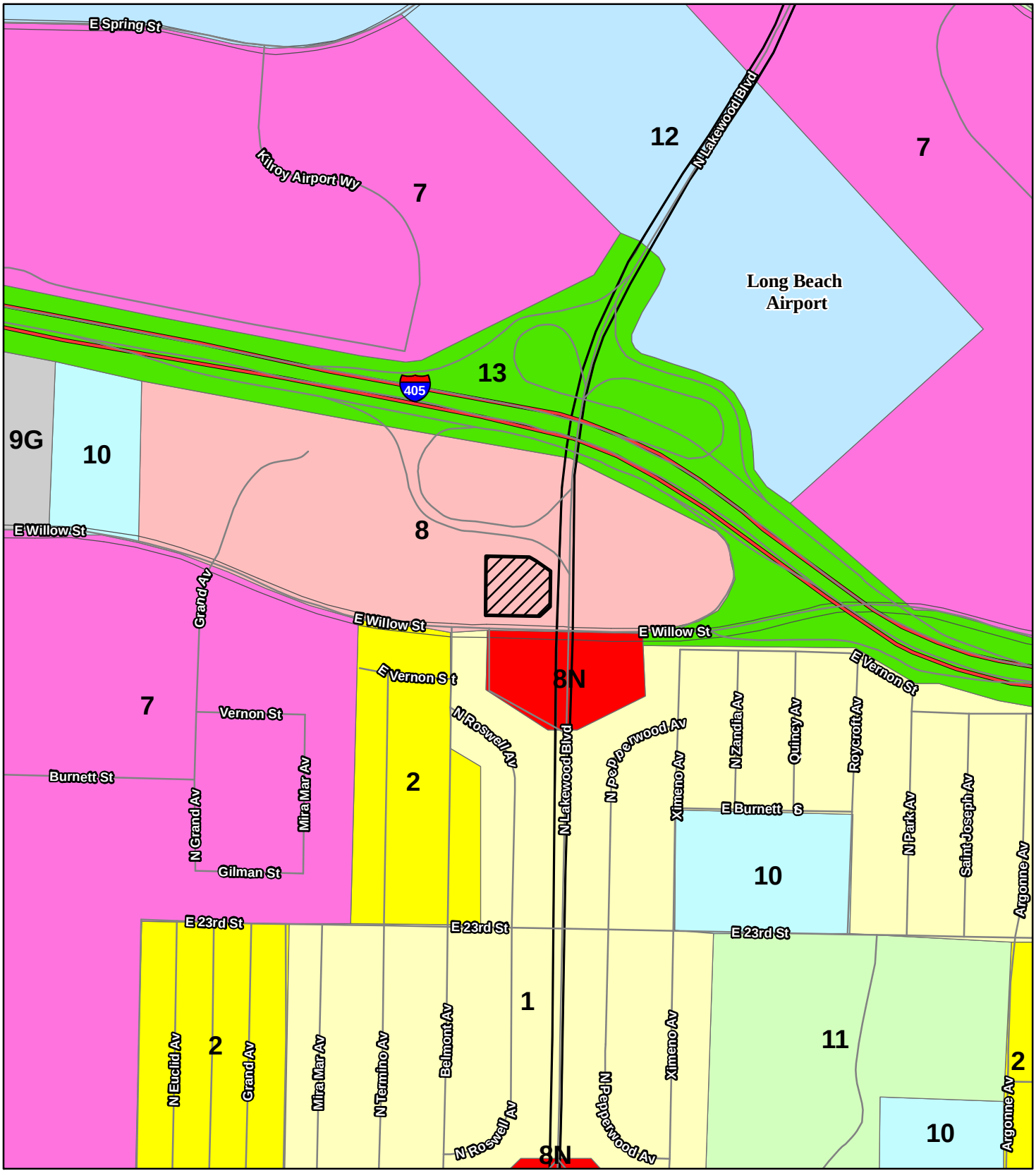

LSA

FIGURE 9

LEGEND

Project Location

General Plan Land Use

- General Industry (9G)
- Harbor/Airport (12)
- Institutions/Schools (10)
- Major Commercial Corridor (8)
- Mixed Style Homes (2)
- Mixed Uses (7)
- Open Space and Park (11)
- Right-of-Way (13)
- Shopping Nodes (8N)
- Single Family (1)

N

0 300 600
FEET

SOURCE: City of Long Beach (2005)

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4201 E. Willow Street Mixed Use Project

General Plan Designations

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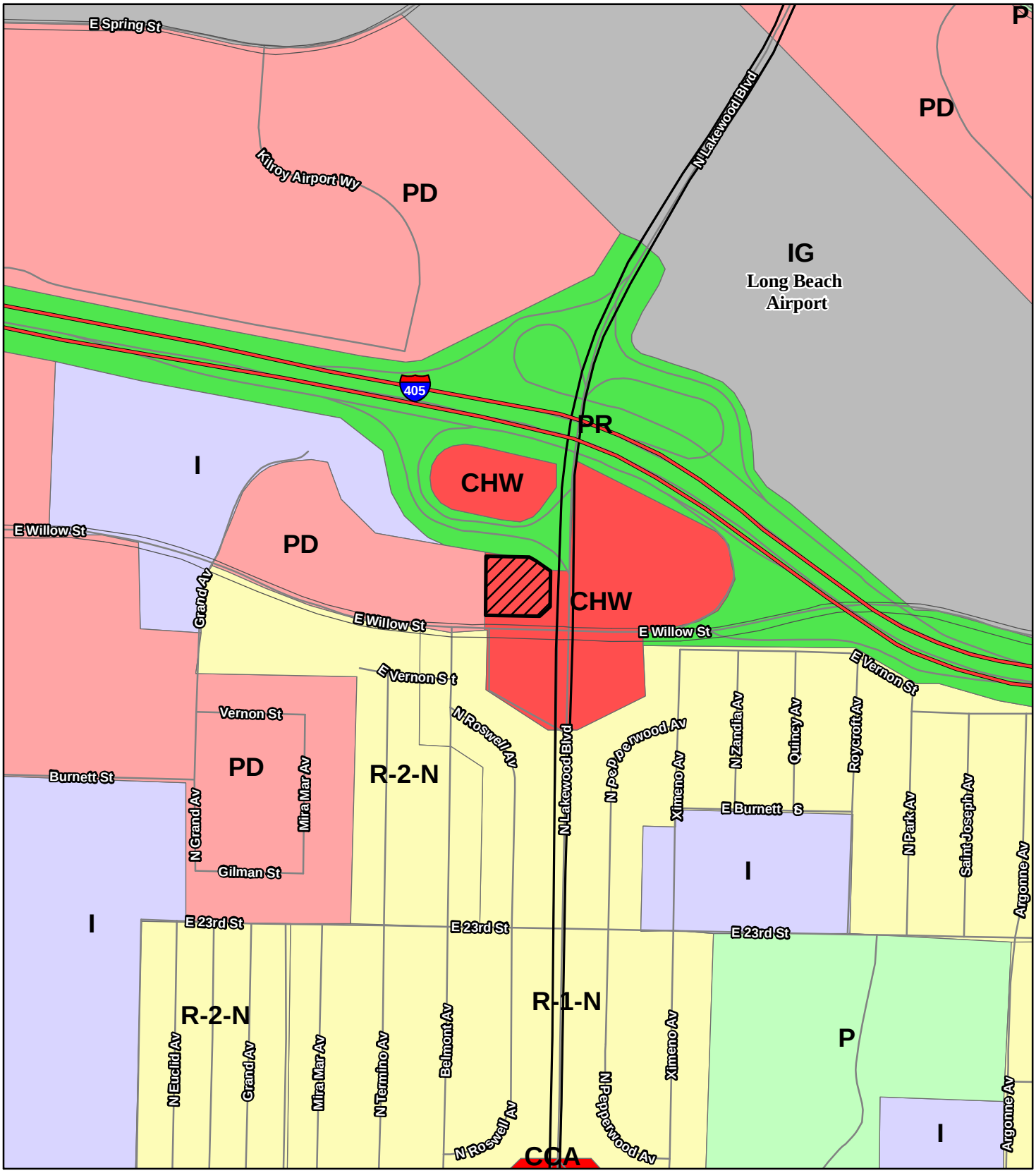

LSA

FIGURE 10

LEGEND

Project Location

Zoning Designations

Community Commercial Automobile-Oriented (CCA)

General Industrial (IG)

Institutional (I)

Park (P)

Planned Development (PD)

Public Right-of-Way (PR)

Regional Highway Commercial (CHW)

Single-family Residential (R-1-N)

Two-family Residential (R-2-N)

N

0 300 600

FEET

4201 E. Willow Street Mixed Use Project

Zoning Designations

SOURCE: City of Long Beach (2005)

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Zoning Code. Zoning is the division of a City into districts and the application of development regulations specific to each district. The City Zoning Ordinance includes regulations concerning where and under what conditions a business may operate in the City. It also establishes zone-specific height limits, setback requirements, parking ratios, and other development standards.

It is the intent of the City that the General Plan Land Use Element and the Zoning Ordinance be consistent in order to ensure that long-term goals and objectives are implemented through land use regulations and other tools. In some cases, zoning may allow a short-term or interim use of a site prior to long-term development of the site in accordance with the General Plan. The zoning ordinance and zoning designations of the land are primary tools implementing the City's General Plan. As stated above, the proposed project site is CHW zoning district. The CHW is a commercial use district for mixed-scale commercial uses located along major arterial streets and regional traffic corridors. Residential uses are not permitted. Car washes are permitted in the CHW zone, with an AUP.

The proposed project requires site plan review and approval as part of overall project approvals. The site plan review process helps guide the design of new projects to ensure compatibility between new development and existing neighborhoods in terms of scale, style, and construction materials. For some uses, an AUP or Conditional Use Permit is also required to operate in a specific zone. The proposed project includes an AUP application to allow the applicant to operate a commercial car wash on the project site. In order to streamline the project review process, the AUP procedure is established to allow a simplified review process for projects that have less than significant effects on surrounding properties. Each AUP application is individually reviewed, and the following findings must be analyzed, made, and adopted before any action is taken to approve or deny the permit application:

A. The approval is consistent with and carries out the General Plan, any applicable specific plans such as the local coastal program and all Zoning Regulations of the applicable district;

B. The approval will not be detrimental to the surrounding community including public health, safety, general welfare, environmental quality or quality of life;

C. The approval is in compliance with the special conditions for the use enumerated in Chapter 21.52; and

D. The related development approval, if applicable, is consistent with the green building standards for public and private development, as listed in Section 21.45.400.

As stated above, the proposed project is consistent with the General Plan designation for the site, would not result in any significant unavoidable adverse environmental impacts that would be detrimental to the surrounding community, is in compliance with the special conditions listed in Chapter 21.52 of the City's Zoning Code (refer to Table 4.G), and would comply with applicable portions of the City's green building standards as listed in Section 21.45.400 of the City Zoning Ordinance (refer to Table 4.G). With incorporation and approval of an AUP for operation of a car wash in the CHW zone, impacts related to Zoning Ordinance requirements are less than significant, and no mitigation is required.

c) No Impact. The project site is located in an urban area and is currently developed as a 17,231 sf car dealership, including the showroom and repair/parts departments and asphalt parking. There is no adopted HCP, NCCP, or other habitat conservation plan in the City; therefore, the project will not conflict with any such plans. No mitigation is required.

Mitigation Measures

No mitigation measures are required.

Table 4.G: Zoning Ordinance Development Standards Consistency Analysis

City of Long Beach Zoning Code Development Standards	Project Consistency Analysis
Height. Maximum building height is 28 ft or two stories.	**Consistent.** The proposed structures would be 24 ft, which is consistent with the height requirements for the CHW zone.
Building Setbacks. ▪ Front: 10 ft ▪ Side Street: 10 ft ▪ Adjacent to non residential district: 5 ft	**Consistent.** The proposed project would be consistent with all setback requirements for the CHW zone.
Yard Setbacks. ▪ Front: 6 ft ▪ Side Street: 6 ft ▪ Adjacent to non residential district: 5 ft	**Consistent.** The proposed project would be consistent with all setback requirements for the CHW zone.
Landscaping. ▪ **Street Frontage.** Within the required setback area except at driveways, a minimum 5 ft wide landscaping strop shall be provided. This area shall be landscaped with one tree for each 15 linear feet of frontage and three shrubs for each tree. ▪ **Parking Lots.** One tree shall be provided for every 4 open parking spaces. These trees may be clustered, but a minimum of one cluster for each 100 ft or a row or double row of parking spaces shall be provided in or bordering the parking area and shall be of a species that provides a broad canopy. ▪ **Planters.** All landscaped areas adjoining the public right of way shall be located in planters not less than six inches high. The planters shall be designed to drain back onto the private property and not directly onto the public right-of-way. ▪ **Tree Size.** For required trees, at 24-inch box (but not less than 7 ft in height), provided that any site with more than 100 ft of street frontage shall also provide one tree of not less than 36-inch box size for each 100 ft of street frontage. ▪ **Shrub Size.** Required shrubs shall be at least 5 gallons.	**Consistent.** Consistent with Zoning Ordinance requirements, the proposed project includes a landscape plan for surface parking areas and street frontage areas. The proposed project would provide 11 street trees, 36 trees along the street frontage, 15 parking lot trees, and 38 trees in yard areas for a total of 100 trees on site. The project would also provide 207 shrubs on site. The project would comply with the minimum tree and shrub sizes.
Parking. **Car wash.** 1 space per wash bay (conveyor length divided by 18); retail and office space calculated separately at 1 space per 250 sf **Retail Uses**. 1 space per 200 sf	**Consistent.** After project implementation, there would be a total of 67 spaces on site, which is 14 spaces more than required by the Zoning Ordinance. A total of 44 spaces are required for the proposed retail uses, and 9 spaces are required for the car wash. The project would provide 53 spaces for the retail uses, of which 3 would be handicap-accessible spaces, and 14 spaces would be provided for the car wash.
Green Building Standards Section 21.45.400	
Canopy trees shall provide shade coverage, after five (5) years of growth, of forty percent (40%) of the total area dedicated to parking stalls and associated vehicular circulation, or paving materials with a solar reflectance index of at least twenty-nine (29) shall be used on a minimum of fifty percent (50%) of paving surfaces dedicated to parking stalls and associated vehicular circulation;	**Consistent.** The proposed project would provide 11 street trees, 36 trees along the street frontage, 15 parking lot trees, and 38 trees in yard areas for a total of 100 trees on site. The project would also provide 207 shrubs on site. In compliance with the City's Green Building Standards, after 5 years of growth, canopy trees would provide shade coverage for 40 percent of the total on-site parking area and associated vehicular circulation area..

Table 4.G: Zoning Ordinance Development Standards Consistency Analysis

City of Long Beach Zoning Code Development Standards	Project Consistency Analysis
Bicycle parking shall be provided at a minimum of one (1) space for each seven thousand five hundred (7,500) sf of retail building area. Fractions shall be rounded up to whole numbers;	**Consistent.** The proposed project would provide 2 bicycle parking spaces.
Roofs shall be designed to be solar-ready by allowing for an additional eight (8) pounds per square foot of dead load and providing a conduit from the electrical panel to the roof	**Consistent.** In compliance with the City's Green Building Standards, the roof of the car wash building and the retail building would be designed to be solar ready by allowing for an additional 8 pounds per square foot of dead load and providing a conduit from the electrical panel to the roof.
A designated area for the collection of recyclables shall be provided adjacent to the area for the collection of waste.	**Consistent.** The project includes a trash and recycling enclosure in the northern portion of the project.

CHW = Regional Highway Commercial zone
ft = feet/foot
sf = square feet/square foot

4.11 Mineral Resources *Would the project:*		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
(b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Impact Analysis:

The following response applies to Questions 4.11.a and 4.11.b.

No Impact. In 1975, the California Legislature enacted the Surface Mining and Reclamation Act (SMARA), which, among other things, provided guidelines for the classification and designation of mineral lands. Areas are classified on the basis of geologic factors without regard to existing land use and land ownership.

The areas are categorized into four Mineral Resource Zones (MRZs):

- **MRZ-1:** an area where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence
- **MRZ-2:** an area where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence
- **MRZ-3:** an area containing mineral deposits, the significance of which cannot be evaluated
- **MRZ-4:** an area where available information is inadequate for assignment to any other MRZ zone

Of the four categories, lands classified as MRZ-2 are of the greatest importance. Such areas are underlain by demonstrated mineral resources or are located where geologic data indicate that significant measured or indicated resources are present. MRZ-2 areas are designated by the Mining and Geology Board as being "regionally significant." Such designations require that a Lead Agency's land use decisions involving designated areas be made in accordance with its mineral resource management policies and that it consider the importance of the mineral resource to the region or the State as a whole, not just to the Lead Agency's jurisdiction.

The project site is classified by the California Department of Mines and Geology (CDMG) as being located in MRZ-3, indicating that the project site is located in an area containing mineral deposits, the significance of which cannot be evaluated. Significant mineral resource deposits in the City are primarily limited to oil resources. According to the City General Plan Conservation Element, the major concentration of oil is contained in a large subterranean pool known as Wilmington Field. The field runs roughly southeast to northwest through the Los Angeles Basin, stretching from the middle of San Pedro Bay through Long Beach and east of the Palos Verdes Peninsula. Oil resources benefit the region as a whole and are therefore regionally significant.

As previously stated, the project site is currently developed with an existing car dealership, including surface asphalt parking. There are no oil or other mineral extraction activities occurring on site. In addition, the project site is designated for Major Commercial Corridor land uses on the City Land Use Map. The proposed project would not result in the loss of a valuable commercial or locally important mineral resource. No significant impacts related to mineral resources would result from project implementation, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

4.12 Noise

Would the project result in:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	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?	☐	☒	☐	☐
(b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
(c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
(d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
(e)	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, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
(f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Impact Analysis:

a) Less Than Significant with Mitigation Incorporated. A project would normally have a significant effect on the environment related to noise if it would substantially increase the ambient noise levels for adjoining areas or conflict with the adopted environmental plans and goals of the community in which it is located. The applicable noise standards governing the project site are the criteria in the City's Noise Element of the General Plan and its Noise Ordinance.

Noise Element of the General Plan. The Noise Element of the General Plan contains noise standards for mobile noise sources. These standards address the impacts of noise from adjacent roadways and airports. The City specifies outdoor and indoor noise limits for residential uses, places of worship, educational facilities, hospitals, hotels/motels, and commercial and other land uses. The noise standard for exterior living areas in terms of the Community Noise Equivalent Level (CNEL) is 65 A-weighted decibel (dBA) CNEL for residential uses. The indoor residential noise standard is 45 dBA CNEL, which is consistent with the standard in the California Noise Insulation Standard.

Municipal Code. The City has adopted a quantitative Noise Control Ordinance, No. C-5371, Long Beach 1978 (Municipal Code, Chapter 8.80). The ordinance establishes maximum permissible hourly noise levels (L_{50}) for different districts throughout the City. Tables 4.H and 4.I list exterior noise and interior noise limits for various land uses. For the purposes of the proposed project, the exterior noise standard of 70 dBA maximum instantaneous noise level (L_{max}) has been applied to the sensitive land uses located within the vicinity of the project construction areas.

The City's Noise Control Ordinance also governs the time of day that construction work can be conducted. The Noise Ordinance prohibits construction, drilling, repair, alteration, or demolition work between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, between the hours of 7:00 p.m. on Friday and 9:00 a.m. on Saturday and after 6:00 p.m. on Saturday, or at any time on Sundays or federal holidays if the noise would create a disturbance across a residential or commercial property line or violate the quantitative provisions of the ordinance.

Table 4.H: Exterior Noise Limits, L_N (dBA)

Receiving Land Use	Time Period	L_{50}	L_{25}	L_8	L_2	L_{max}
Residential (District One)	Night: 10:00 p.m.–7:00 a.m.	45	50	55	60	65
	Day: 7:00 a.m.–10:00 p.m.	50	55	60	65	70
Commercial (District Two)	Night: 10:00 p.m.–7:00 a.m.	55	60	65	70	75
	Day: 7:00 a.m.–10:00 p.m.	60	65	70	75	80
Industrial (District Three)	Anytime[1]	65	70	75	80	85

[1] For use at boundaries rather than for noise control within industrial districts.
dBA = A-weighted decibels
L_2 = the noise level exceeded 2 percent of the time during a stated period
L_8 = the noise level exceeded 8 percent of the time during a stated period
L_{25} = the noise level exceeded 25 percent of the time during a stated period
L_{50} = the noise level representing the median noise level
L_{max} = maximum instantaneous noise level
L_N = percentile noise exceedance level

Table 4.I: Maximum Interior Sound Levels, L_N (dBA)

Receiving Land Use	Time Interval	L_8	L_2	L_{max}
Residential	10:00 p.m.–7:00 a.m.	35	40	45
	7:00 a.m.–10:00 p.m.	45	50	55
School	7:00 a.m.–10:00 p.m. (while school is in session)	45	50	55
Hospital and other noise-sensitive zones	Anytime	40	45	50

dBA = A-weighted decibels
L_2 = the noise level exceeded 2 percent of the time during a stated period
L_8 = the noise level exceeded 8 percent of the time during a stated period
L_{max} = maximum instantaneous noise level
L_N = percentile noise exceedance level

Short-Term Construction Noise Impacts. Short-term noise impacts would be associated with excavation, grading, and the erection of buildings on site during construction of the proposed project. Construction-related short-term noise levels would be higher than existing ambient noise levels in the project area at the present time, but would no longer occur once construction of the project is completed.

Two types of short-term noise impacts could occur during construction of the proposed project. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed project would incrementally increase noise levels on access roads leading to the site. A relatively high single-event noise exposure potential will exist at a maximum level of 87 dBA L_{max} with trucks passing at 50 ft. However, the projected construction traffic will be minimal when compared to the existing traffic volumes on Willow Street and other affected roads, and its associated long-term noise level change will not be perceptible. Therefore, short-term construction-related worker commutes and equipment transport noise impacts would not be significant.

The second type of short-term noise impact is related to noise generated during excavation, grading, and construction on site. Construction is performed in discrete steps, each of which has its own mix of equipment, and consequently its own noise characteristics. These various sequential phases would change the character of the noise generated on site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 4.J lists maximum noise levels recommended for noise impact assessments for typical construction

Table 4.J: Typical Maximum Construction Equipment Noise Levels (L_{max})

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 50 ft)	Suggested Maximum Sound Levels for Analysis (dBA at 50 ft)
Pile Drivers, 12,000–18,000 ft-lb/blow	81–96	93
Rock Drills	83–99	96
Jack Hammers	75–85	82
Pneumatic Tools	78–88	85
Pumps	74–84	80
Dozers	77–90	85
Scrapers	83–91	87
Haul Trucks	83–94	88
Cranes	79–86	82
Portable Generators	71–87	80
Rollers	75–82	80
Tractors	77–82	80
Front-End Loaders	77–90	86
Hydraulic Backhoe	81–90	86
Hydraulic Excavators	81–90	86
Graders	79–89	86
Air Compressors	76–89	86
Trucks	81–87	86

Source: Noise Control for Buildings and Manufacturing Plants, Bolt, Beranek & Newman, 1987.
dBA = A-weighted decibels
ft = feet/foot
ft-lb/blow = foot-pounds per blow
L_{max} = maximum instantaneous noise level

equipment based on a distance of 50 ft between the equipment and a noise receptor. Typical maximum noise levels range up to 89 dBA at 50 ft during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1–2 minutes of full power operation followed by 3–4 minutes at lower power settings.

Construction of the proposed project is expected to require the use of earthmovers, bulldozers, water trucks, and pickup trucks. This equipment would be used on site. Based on Table 4.J, the maximum noise level generated by each scraper on site is assumed to be 87 dBA L_{max} at 50 ft from the scraper. Each bulldozer would generate 85 dBA L_{max} at 50 ft. The maximum noise level generated by water and pickup trucks is approximately 86 dBA L_{max} at 50 ft from these vehicles. Each doubling of a sound source with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, the worst-case combined noise level during this phase of construction would be 91 dBA L_{max} at a distance of 50 ft from the active construction area. The construction activities for the proposed project would be located within 25–50 ft of the Residence Inn to the west. Maximum construction noise levels at these sensitive land uses from main construction activities would range from 91–97 dBA L_{max}. Construction activity noise generated between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 6:00 p.m. on Saturday is exempt from the Noise Control Ordinance standards. Therefore, if construction is limited to the hours specified in the City's Noise Control Ordinance and Mitigation Measure N-1, noise generated during construction will not result in a significant impact.

Long-Term Traffic Noise Impacts.

Noise Impacts on Neighboring Sensitive Uses due to Proposed Project. The Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions along roadway segments in the project vicinity. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. Based on the traffic study conducted for the proposed project, the project-related net increase in vehicular trips is anticipated to be 1,388 trips per day. Traffic noise levels were weighted and summed over a 24-hour period in order to determine the CNEL values of any increase in noise.

Tables 4.K and 4.L show the change in noise levels due to the projected project traffic. These noise levels represent worst-case scenarios, which assume that no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used in developing these noise levels and model printouts are provided in Appendix D of this IS/MND. Any change in noise levels greater than 3 dBA is considered significant. As shown in Table 4.L, the project-related traffic results in increases of less than 1 dBA. This increase is considered less than significant.

Table 4.K: Existing Traffic Noise Levels along Willow Street

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 ft from Outermost Lane
Grand Avenue to Project Driveway	34,650	87	173	367	70.1
Project Driveway to Lakewood Boulevard	34,640	87	173	367	70.1

Source: LSA Associates, Inc., October 2010.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel
ft = feet

Table 4.L: Existing plus Project Traffic Noise Levels along Willow Street

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 ft from Outermost Lane	Increase CNEL (dBA) 50 ft from Outermost Lane
Grand Avenue to Project Driveway	36,520	89	179	380	70.3	0.2
Project Driveway to Lakewood Boulevard	36,090	89	178	377	70.2	0.1

Source: LSA Associates, Inc., October 2010.
ADT = average daily traffic
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel
ft = feet

On-Site Traffic Noise Impacts. The proposed on-site car wash and retail uses are not noise sensitive. In addition, the proposed project will not include exterior noise sensitive uses such as outdoor eating areas. Therefore, no on-site mitigation measures would be required.

Long-Term Stationary Noise Impacts. The proposed project includes the construction of an automated car wash and retail uses. The on-site noise-generating activities include the parking lot and the equipment within the car wash. Representative parking activities, such as persons conversing and slamming doors, would generate approximately 60–70 dBA L_{max} at 50 ft. The closest sensitive uses to the proposed parking lots are located at a distance of approximately 50 ft, where they would be exposed to parking lot noise of up to 70 dBA L_{max}. The construction of the car wash along the western edge of the project site would block the line of sight between the hotel to the west and the parking lot, reducing the noise levels by 6–8 dBA to 62–64 dBA L_{max}. This level is less than the City's 65 dBA L_{max} nighttime noise threshold. No mitigation measures would be required.

The proposed automated car wash will be located along the western edge of the proposed project site immediately adjacent to the existing hotel uses. The project design includes the following measures designed to reduce the noise levels from the car wash:

- The car wash building will be constructed of concrete block wall with no openings along the entire west elevation that is adjacent to the existing residence hotels. The tunnel and 19 accessory vacuum parking spaces will be facing the interior of the site and/or the rear of the property.
- The blower/dryer is the only piece of equipment inside of the car wash tunnel that produces any noticeable noise to the outside. The blower is located at the tunnel's exit, which is at the north end of the building. The car wash tunnel will feature a 20 ft long extension beyond the point where the blower is located. The extension will be made of solid concrete block and have a roof over it.
- As added protection, inside the car wash tunnel will be a 30 ft sound insulated wall and ceiling around the blower equipment.

The project design features for the car wash would reduce the noise levels to below a level of significance. No mitigation measures are required.

b) Less Than Significant Impact. Construction of the project would not result in substantial groundborne vibration or groundborne noise on properties adjacent to the project site. Furthermore, project operation would not generate substantial groundborne noise and vibration. Therefore, groundborne noise and vibration impacts are considered less than significant, and no mitigation measures are required.

c) Less Than Significant Impact. Development of the proposed project site will result in an increase in daily traffic trips in the project vicinity over existing conditions; therefore, there will be a potential increase in traffic noise along access roads leading to the project site. However, as described in Response 12.a, the increase would be less than significant.

The proposed project includes the construction of an automated car wash and a retail store. However, the project design would reduce the parking lot and automated car wash noise impacts to below a level of significance. No mitigation measures are required.

d) Less Than Significant with Mitigation Incorporated. Although there would at times be high intermittent construction noise in the project area during project construction, construction of the project would not significantly affect land uses adjacent to the project site. In addition, construction at the project site would comply with the hourly limits specified by the City's Noise Control Ordinance and Mitigation Measure N-1. Therefore, any potential impact would be mitigated to a level that is less than significant.

e) No Impact. The proposed project is located approximately 1,000 ft from the Long Beach Airport. However, the project site is not located within the 65 dBA CNEL airport noise contour. In addition, the project land uses are not considered to be noise sensitive. Therefore, no impacts related to excessive airport noise are anticipated.

f) **No Impact.** The project site is not located within the vicinity of a private airstrip. Therefore, there are no impacts related to this issue.

Mitigation Measure

N-1 **Construction Noise Limits.** Prior to commencement of grading activities and issuance of building permits, the City of Long Beach Director of Development Services, or designee, shall verify that the following notes appear on grading and construction plans:

1. During all site excavation and grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
2. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
3. The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
4. Construction shall be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday and on federal holidays and 9:00 a.m. to 6:00 p.m. on Saturday. In accordance with City standards, no construction activities are permitted outside of these hours, and no construction is permitted on Sundays without a special work permit.

4.13 Population and Housing

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
(b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
(c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Impact Analysis:

a) **No Impact.** Since the proposed project is not a residential project but rather a commercial mixed-use project, direct population growth caused by the project is not expected. Construction and operation of the proposed project may employ people who choose to move to the City; however, most employees are expected to come from the existing City population and that of the surrounding communities. Any increases in population associated with the proposed project would be limited and would not exceed population growth forecasts for the City. Therefore, the proposed project would not induce substantial population growth in the area either directly or indirectly, and no mitigation is required.

b) **No Impact.** The project site is currently developed as a 17,231 sf car dealership, including the showroom and repair/parts departments and asphalt parking. No housing units are located on the project site, and housing displacement impacts would not occur as a result of project implementation. Therefore, the proposed project would not result in any impacts related to housing displacement, and no mitigation is required.

c) **No Impact.** The project site is currently developed as a 17,231 sf car dealership, including the showroom and repair/parts departments and asphalt parking. No housing units or other forms of temporary housing are located on the project site, and no people would be displaced as a result of project implementation. Therefore, the proposed project would not result in an impact related to the displacement of people, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

4.14 Public Services

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project result in substantial adverse physical impacts associated with the provision of or 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:				
i) Fire Protection?	☐	☐	☒	☐
ii) Police Protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒

Impact Analysis:

a)

i) Less Than Significant Impact. The City of Long Beach Fire Department (Fire Department) provides fire and emergency medical response, fire prevention, and hazardous materials regulatory enforcement to the project area. As part of its service to the community, project plans are reviewed by the Fire Chief to ensure compliance with all applicable fire code and ordinance requirements for construction, access, water mains, fire flows, and fire hydrant placement.

The Fire Department consists of four bureaus that include Administration, Operations, Fire Prevention, and Support Services. The Operations Bureau includes the Emergency Medical Services Division (EMS), which is responsible for the primary and continuing education of all firefighters as it relates to the delivery of medical services.

The Fire Department maintains 25 fire stations (including Beach Operations and Fire Headquarters). Fire Station 17 (located at 2241 Argonne Avenue), Fire Headquarters (located at 3205 North Lakewood Boulevard), and Fire Station 16 (located at 2890 East Wardlow Road) are the closest Fire Department facilities to the project site. If required, fire and rescue apparatus from other nearby stations in the City's fire protection system can provide additional support. Response times from these units vary with location and proximity to the project area; however, the average Citywide emergency response time from dispatch to arrival is less than 5 minutes.

The City of Long Beach adopted the California Fire Code (CFC), with some amendments and modifications, as part of the part of the City Municipal Code. Fire flow requirements are based on building types and floor area and range from 1,250 to 8,000 gallons per minute (gpm) at 20 pounds per square inch (psi). The modifications include amendments to fire extinguisher and storage requirements. Generally, the intent of the CFC is to prescribe regulations consistent with nationally recognized good practices for the safeguarding of life and property from the hazards of fire and explosion.

In accordance with the CFC, the Fire Department requires the installation of sprinkler systems in many new buildings, including retail buildings in excess of 5,000 sf and buildings greater than 55 ft in height. In addition, on-site hydrants are required in any portion of a project site that exceeds the allowable distance from a public hydrant located in the right-of-way. Fire flow requirements are subject to Fire Department standards based on the type of building and use on a case-by-case basis.

The project will comply with all Fire Department access requirements and CFC requirements for the placement of fire hydrants and the use of sprinkler systems. Project compliance with requirements set

forth in the Fire Code will provide fire protection for people and structures, as well as the provision of medical services on site.

The proposed project is a retail building and car wash, which could increase the number of on-site visitors and personnel, thereby increasing demand for fire and emergency medical services. Any increase in demand could be accommodated by existing personnel and Fire Department facilities. The proposed project will not significantly impact emergency response times in the project vicinity, and average response times in the area would remain within acceptable response-time limits. With project implementation, the response profile for the project area will remain unchanged in terms of service delivery, staffing requirements, facilities, and equipment. The Fire Department will be able to service the proposed project at the same levels provided to this area of the City before project implementation, and no significant impacts to fire protection services are expected as a result of project implementation. In addition, the project would not require new or physically altered public facilities for fire protection. No mitigation is required.

ii) Less Than Significant Impact. The Long Beach Police Department (LBPD) provides law enforcement services throughout the City. The LBPD operates a helicopter surveillance program; a canine unit; a full-service, 24-hour jail facility; a communications/dispatching center; an investigation bureau; and a firing range. Community-oriented police activities include community relations, traffic and parking enforcement, a Neighborhood Watch Program, crime prevention, bicycle patrol, and a DARE Program. As part of the LBPD's service to the community, project site plans are reviewed by the Police Chief to determine the need for any additional crime prevention and safety measures.

The Patrol Bureau of the LBPD is divided into four divisions (North, South, East, and West). The LBPD East Patrol Division is located approximately 1.5 mi from the proposed project site. The proposed project would likely create a slight increase in police presence due to the increase in visitors/patrons of businesses on site, but project impacts on policing demand, given the size of the project and proposed uses, would be less than significant. In addition, the project would not require new or physically altered public facilities for police protection. No mitigation is required.

iii) No Impact. The City is served by the Long Beach Unified School District, which also serves the City of Signal Hill and a large portion of the City of Lakewood. The District has been operating at or over capacity during the past decade. The proposed project is a mixed-use commercial development. As stated in Section 4.12, the proposed project would not induce substantial population growth. As such, the proposed project would not generate an increased demand for school facilities, nor does the project include the construction of school facilities. Therefore, it is not anticipated that the proposed project would impact Long Beach Unified School District, and no mitigation is required.

iv) No Impact. The proposed project is a mixed-use commercial development. As stated in Section 4.12, the proposed project would not induce substantial population growth. As such, the proposed project would not generate an increased demand for parks, nor does the project include the construction of park facilities. Therefore, it is not anticipated that parks or the availability of parks within the City would be affected by project implementation, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

4.15 Recreation *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
(b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Impact Analysis:

The following response applies to Questions 4.15.a and 4.15.b.

No Impact. The proposed project is a mixed-use commercial development. As stated in Section 4.12, the proposed project would not induce substantial population growth. As such, the proposed project would not generate an increased demand for recreation facilities such that physical deterioration would occur or be accelerated, nor does the project include the construction of recreation facilities. Therefore, it is not anticipated that the recreation facilities or the availability of recreation resources within the City would be affected by project implementation, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

4.16 Transportation/Traffic

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Cause an increase in traffic which 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)?	☐	☐	☒	☐
(b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
(c)	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?	☐	☐	☐	☒
(d)	Substantially increase hazards due to a design feature (e. g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
(e)	Result in inadequate emergency access?	☐	☐	☐	☒
(f)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Impact Analysis

a) Less Than Significant Impact. In accordance with City guidelines, LOS definitions for signalized intersections were based on the Intersection Capacity Utilization (ICU) method, which relates traffic demand to available capacity (volume-to-capacity [v/c] ratios). The ICU analysis methodology describes the operation of an intersection using a range from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding v/c ratios. The ICU analysis assumes a capacity of 1,600 vehicles per hour per lane and a dual-lane capacity of 2,880 vehicles per hour per lane. A clearance adjustment factor of 0.18 was added to the intersections of Grand Avenue/Willow Street and Lakewood Boulevard/Willow Street. The City considers intersections with an ICU of 0.90 (LOS D) as the upper limit of satisfactory operations. A project impact at an intersection is considered significant if the intersection operates at an unsatisfactory LOS (LOS E or F) and the project increases the ICU by 2 percent or higher (ICU $\geq$ 0.02), or the project traffic causes the intersection to deteriorate from LOS D to LOS E or F.

An analysis of the Existing and Existing Plus Project conditions at three intersections in the vicinity of the proposed project was completed to determine potential project impacts on the circulation system. The project study area included the intersections of Grand Avenue/Willow Street, Project Driveway/Willow Street, and Lakewood Boulevard/Willow Street.

To determine the number of trips that could be generated by the project, trip generation rates from the Institute of Transportation Engineers (ITE), *Trip Generation*, 8th Edition, were used for Shopping Center (820) and Automated Car Wash (948). Since there are no ITE trip generation rates available for Automated Car Wash in the a.m. peak hour, San Diego Association of Governments (SANDAG) trip generation rates were compared to the ITE rates, and it was determined that 50 percent of the p.m. peak-hour trip generation rate would be assumed for the a.m. peak hour. Pass-by trips for the shopping center were calculated based on data published in ITE's *Trip Generation Handbook*, 2nd Edition. The trip generation for the proposed project is shown in Table 4.M (also refer to Appendix E of this IS/MND). As shown in Table 4.M, the proposed project is projected to generate approximately 69 a.m. peak-hour trips, 158 p.m. peak-hour trips, and 1,388 daily trips. The project-generated peak-hour trips were assigned to the surrounding arterial network based on the site's proximity to major developments and surrounding land use patterns. Trip distribution patterns assume that 25 percent of project traffic will be distributed west of the project, 50 percent to the east, 20 percent to the south, and 5 percent to the north.

Table 4.M: Project Trip Generation

Land Use	Size	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Existing Site									
New Car Sales									
Trip Generation[1]	17.231	TSF	4	3	7	1	3	4	N/A
Proposed Uses									
Retail	9.121	TSF							
Trip Rate[2]			2.51	1.60	4.11	6.87	7.15	14.02	157.00
Trip Generation			23	14	37	63	65	128	1,432
Pass-By Trips[3]	34	%				(22)	(22)	(44)	(44)
Total Net Trips			23	14	37	41	43	84	1,388
Car Wash	1	Stall							
Trip Rate[4]			19.38	19.38	38.75	38.75	38.75	77.50	N/A
Trip Generation			19	20	39	39	39	78	N/A
Total Project Trip Generation =			**42**	**34**	**76**	**80**	**82**	**162**	**1,388**
Net New Project Trips			**38**	**31**	**69**	**79**	**79**	**158**	**1,388**

[1] New Car Sales a.m. and p.m. peak-hour trip generation based on existing counts at the project driveway collected on September 2, 2010.
[2] Fitted Curve Equations used for Land Use 820: Shopping Center from Institute of Transportation Engineers (ITE) Trip Generation, 8th Edition (2008)
[3] Pass-by rates of 34% based on rates for Land Use 820 - "Shopping Center" from ITE Trip Generation Handbook, 2nd Edition (2004)
[4] ITE Automated Car Wash (948) provides p.m. peak-hour rates only. 50% of p.m. peak-hour rates was assumed for the a.m. peak hour (consistent with other trip generation sources).
N/A = not applicable
TSF = thousand square feet

Existing traffic volumes at study area intersections are based on peak-hour intersection turn movement counts collected by National Data and Surveying Services (NDS) in September 2010. Existing plus project traffic volumes were developed by adding the project traffic to the existing traffic volumes. Existing and existing plus project traffic volumes are shown in Table 4.N.

An intersection LOS analysis was conducted for existing and existing plus project conditions to determine intersection performance using Traffix 8.0 software. LOS calculation worksheets are contained in Appendix E, and the results of the analysis are also shown in Table 4.N. Based on the LOS analysis, the project area intersections would operate at an acceptable LOS (LOS D or better) during the a.m. and p.m. peak hours under existing and existing plus project conditions with the exception of the intersection of Lakewood Boulevard/Willow Street, which operates at an unacceptable LOS in the a.m. and p.m. peak hour under both scenarios. This is not considered a significant project impact because the proposed project would not increase the ICU at the intersection of Lakewood Boulevard/Willow Street by 0.02. Therefore, the proposed project will not conflict with the City of Long Beach LOS policy for the performance of the circulation system, and no mitigation is required.

b) Less Than Significant Impact. The intersection of Lakewood Boulevard/Willow Street is considered a Congestion Management Plan (CMP) arterial monitoring location but would not exceed the significant impact criteria established by the 2004 Los Angeles County CMP. The CMP considers a significant impact to occur when the proposed project increases traffic demand on a CMP arterial monitoring location operating at LOS F by 2 percent of capacity ($v/c \geq 0.02$). The project increases ICU at Lakewood Boulevard/Willow Street by 0.012 in the a.m. and p.m. peak hours; therefore, the proposed project will not conflict with LOS standards and travel demand measures established in the Los Angeles County CMP. No mitigation is required.

Table 4.N: Existing and Existing Plus Project Level of Service Summary

Intersection	Control	Existing						Existing Plus Project						A.M.	P.M.	Significant Impact
		A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour			P.M. Peak Hour					
		V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS			
1. Grand Avenue/ Willow Street	Signal	0.607	--	B	0.822	--	D	0.609	--	B	0.850	--	D	0.002	0.028	No
2. Project Driveway/ Willow Street	TWSC	--	13.3	B	--	10.9	B	--	14.2	B	--	12.8	B	--	--	No
3. Lakewood Boulevard/ Willow Street	Signal	0.976	--	E[2]	1.014	--	F[2]	0.988	--	E[2]	1.026	--	F[2]	0.012	0.012	No

Note: Significant Impact = The City of Long Beach considers a project impact at an intersection to be significant if the intersection operates at an unsatisfactory LOS (LOS E or F) and the project increases the ICU by 2 percent or higher (ICU $\geq$ 0.02), or the project causes the intersection to deteriorate from LOS D to LOS E or F.

[1] For TWSC intersections, reported delay is for worst-case approach.

[2] Unacceptable level of service

ICU = intersection capacity utilization

TWSC = two-way stop control

V/C = volume to capacity (ratio)

c) **No Impact.** The project site is located less than 1 mi south of Long Beach Airport, but the proposed project would not result in a change in air traffic patterns. Please also refer to Section 4.8.e. In addition, the proposed project is expected to serve the surrounding community and would not draw substantial numbers of people to the City such that an increase in air travel would result. Therefore, the proposed project would not result in a significant impact related to air traffic patterns, and no mitigation is required.

d) **Less Than Significant Impact.** The vehicle-turning radius was evaluated for the entrance and exit into the car wash tunnel. The site plan shows a 180-degree turn at these two locations. Vehicle turn templates were overlaid onto the site plan to ensure adequate turning width for a large passenger car. As a result, the proposed design of these turn movements will function properly for a large passenger vehicle without encroaching onto the adjacent curbs/landscaping. It should be noted that a larger type vehicle (e.g., SU-30) would not be able to make these turn movements. The proposed project would not increase hazards due to a design feature, and no mitigation is required.

e) **No Impact.** The project will not change project site access or modify the surrounding street system. Direct access for emergency vehicles is via the project driveway on Willow Street. This street will remain open during construction, and project site access will be maintained. Therefore, implementation of the proposed project will not result in inadequate emergency access, and no mitigation is required.

f) **No Impact.** The project would not affect adopted policies supporting alternative transportation and would be subject to compliance with policies, plans, and programs of the City and other applicable agencies regarding alternative modes of transportation. Pedestrians accessing the project may utilize pedestrian facilities (e.g., sidewalks and crosswalks) that are part of the surrounding street system. In addition, a bus stop is located on the northwest corner of Lakewood Boulevard and Willow Street just south of the proposed project. The project will not remove or relocate any alternative transportation access points. Therefore, the project does not conflict with adopted plans, policies, or programs supporting alternative transportation, and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

4.17 Utilities/Service Systems

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
(b)	Require or result in the construction of new water or wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
(c)	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?	☐	☐	☒	☐
(d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
(e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
(f)	Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
(g)	Comply with federal, state, and local statutes and regulations related to solid wastes.	☐	☒	☐	☐

Impact Analysis:

a) No Impact. The proposed project is not an industrial facility and is not subject to the wastewater treatment requirements of the RWQCB. No impacts would occur. Refer to Section 4.8 for a discussion of the storm water runoff.

The following response applies to 4.17.b, 4.17.d, and 4.17.e.

Less Than Significant Impact. The Long Beach Water Department (LBWD) supplies water to the project area through a system of underground pipelines. There are two types of water supply sources: natural resources and reclamation. Water is used for fire control purposes as well as for drinking (potable), washing, flushing, recreational purposes, and other domestic consumption.

The LBWD is also the wastewater service provider for the project site. Project site wastewater flows into the LBWD sewer system and eventually into the Los Angeles County Sanitation District (LACSD) system. The LBWD operates and maintains nearly 765 mi of sanitary sewer lines that deliver over 40 million gallons of wastewater per day (mgd) to LACSD facilities. Currently, a majority of the City's wastewater is delivered to the Joint Water Pollution Control Plant (JWPCP) of the LACSD, which has a design capacity of 385 mgd and in 2009 processed an average flow of 284 mgd. The remaining portion of the City's wastewater is delivered to the Long Beach Water Reclamation Plant of the LACSD. The plant provides treatment for approximately 25 mgd of water.

The LBWD provides water services for domestic, irrigation, and fire protection purposes to developments within the City. The LBWD also reviews project plans to ensure compliance with all applicable fire code and ordinance requirements for construction, access, water mains, fire flows, and fire hydrant placement. The LBWD provides 100 percent of the City's water needs, mixing locally developed water from LBWD operated wells with water from the Metropolitan Water District of Southern California (MWD).

The LBWD also provides reclaimed water services within the City. Reclaimed water is wastewater that has been treated to a sufficient degree for certain types of uses, is nonpotable, and must be conveyed in a separate system from potable water to avoid the possibility of direct human consumption. Reclaimed water can be used for irrigation purposes. The Water Reclamation Plant provides approximately 21 mgd of

reclaimed water. The City utilizes water for irrigation in local parks, golf courses, schools, cemeteries, nurseries, freeways, greenbelts, and other landscaped areas.

In accordance with State legislation, the LBWD updated its Urban Water Management Plan (UWMP) in December 2005 and revised it in May 2007. The LBWD UWMP, as required by the Urban Water Management Planning Act, assists urban water suppliers with long-term water resources planning and ensures adequate water supplies for existing and future demands. The LBWD UWMP contains analysis of past, current, and projected future water supply and demand as they relate to population density, types of water use, water quality, climate, water source availability and reliability, alternative water sources, and potential water shortages. A contingency plan was also developed to increase water supply during water interruptions or a drought. Alternative water sources would help provide additional water supplies, and water conservation measures would help reduce water demands. The UWMP is required to be updated every 5 years in order to manage short-term and long-term water demand. The LBWD UWMP provides water demand projections in 5-year increments through 2030, which are based on demographic data from the Southern California Association of Government (SCAG) 2004 Regional Transportation Plan (RTP) as well as billing data for each major customer class, weather, and conservation. SCAG's growth projection for the City take into consideration the build-out capacity of the General Plan and whether growth is occurring at the anticipated rate.

In the existing condition, the proposed project site is currently served by an on-site 2-inch water line and has an estimated water demand of approximately 3,200 gallons per day (gpd). The proposed project is also served by an on-site 6-inch sewer line and is estimated to generation 2,585 gpd of wastewater.

The proposed project includes the replacement of the existing on-site 2-inch water line with a 2.5-inch water line to serve the proposed car wash. There will also be a separate meter for car wash water. In addition, each commercial retail component will be served by a separate on-site 2-inch water line and an individual meter.

Based on water use at similar car washes, it is estimated that the car wash would demand approximately 27,000 gallons of water per day. Of that amount, 20,250 gpd (75 percent) would be reclaimed water and 6,750 gpd (25 percent) would be potable water. The irrigation system for proposed landscaping would be connected to the car wash water meter with a separate backflow prevention device. Water for irrigation would come directly from car wash reclamation system after it is processed via reverse osmosis in the reclamation tank. No additional water will be needed for irrigation. The commercial component is expected to demand approximately 900 gpd of potable water. Table 4.O provides water and wastewater demand estimates for the proposed project. The total water demand for the proposed project is estimated to be approximately 25,000 gpd (proposed uses minus existing uses); however, as stated above, 75 percent of the water demand for the car wash would be reclaimed water. Therefore, potable water use is anticipated to be approximately 7,662 gpd, which is an increase of 4,431 gpd from existing conditions. The proposed project would also result in an increase in wastewater anticipated to be approximately 1,790 gpd (proposed uses minus existing uses). No changes to the existing 6-inch sewer line are proposed.

Although all new development is required to comply with State laws regarding water conservation measures, including pertinent provisions of Title 20 and Title 24 of the California Government Code regarding the use of water-efficient appliances, the proposed project will result in an increase in water demand. The proposed project would also generate wastewater through the use of sinks and toilets. The proposed project is consistent with the City's General Plan Land Use Designations and SCAG 2004 RTP. The relatively moderate increase in water use and wastewater generation would be accounted for in the build-out capacity of the General Plan and anticipated growth rates for the City. The project will not necessitate new or expanded water entitlements, and the City will be able to accommodate the increased demand for potable water. Therefore, project impacts associated with an increase in potable water demand are considered less than significant, and no mitigation is required.

Table 4.O: Water and Sewer Demand Estimates

	Gross Square Feet	Wastewater Generation Rate (gpd)	Wastewater Generation (gpd)	Water Use[1]
Existing Use (Commercial Office)	17,231	150/1,000	2,585	3,231
Proposed Retail	9,121	80/1,000	730	912
Car Wash	4,293		3,645	27,000
Total Project Increase			**1,790**	**24,681**

Sources: City of Long Beach, Golden Shores Master Plan Environmental Impact Report, October 2009; and SpaceMasters, Water and Sewer Generation Estimate for 4201 East Willow Street Car Wash, October 2010.

[1] Water demand is based on the generation factors for wastewater plus an additional 25 percent to account for evaporation and adsorption losses.

gpd = gallons per day

Likewise, increased wastewater flows from the proposed project can be accommodated within the existing design capacity of the treatment plants that serve the City. Therefore, the proposed project would not require, nor would it result in, the construction of new water or wastewater treatment or collection facilities or expansion of existing facilities other than those facilities to be constructed on site, which could cause significant environmental effects. Project impacts related to the construction of water and wastewater treatment or collection facilities are less than significant, and no mitigation is required.

c) **Less Than Significant Impact.** Refer to Section 4.9. The project would not increase impervious surface area on site. The decrease in impervious surface area would increase infiltration and reduce the rate and amount of surface runoff. Because the proposed project would decrease the flow to the downstream storm drain system, the project would not contribute runoff water that would exceed the capacity of an existing or planned storm water drainage system. The proposed project does not require or propose construction of new storm water drainage facilities or expansion of existing facilities. No mitigation is required.

f) **Less Than Significant Impact.** The City of Long Beach is a member of the Sanitation Districts of Los Angeles County (LACSD), a confederation of independent special districts that provide wastewater and solid waste services in Los Angeles County. The LACSD works to commit all waste to the County landfill system. There are numerous public and private landfills and transfer stations in Los Angeles County that could potentially receive waste collected from the proposed project. For this reason, the provision of solid waste disposal services should be considered in the context of the regional and local landfills.

The City has increased efforts to divert refuse through waste reduction, recycling, and composting programs. Source reduction programs in place include xeriscaping/grasscycling, backyard and on-site composting/mulching, and business waste and government source reduction program. The City provides recycling services such as residential curbside recycling and commercial pickup service through a private contractor. In addition, each of the 21 permitted private waste haulers operating in the City is required to have a City-approved recycling program in order to meet applicable waste diversion requirements. In order to maintain compliance goals, contractors are required to reuse construction forms where practicable or applicable, attempt to balance soils on site, minimize overcutting of lumber and polyvinyl chloride (PVC) piping where feasible, and reuse landscape containers to the extent feasible.

Construction of the proposed project will require demolition of a portion of the existing asphalt parking lot and demolition of two on-site buildings and a portion of a third existing building. As discussion in Section 4.8, Hazards and Hazardous Materials, all asbestos-containing materials will be removed by a California State licensed contractor and disposed of in accordance with applicable laws and regulations prior to commencement of other demolition activities. Most of the nonhazardous demolition material will be

disposed of at unclassified landfills. The unclassified landfills that accept such materials have sufficient capacity to accommodate the disposal materials that will be generated by demolition of existing on-site structures. Impacts to unclassified landfills due to project implementation will be less than significant.

The proposed project is expected to result in a reduction in solid waste generation. Table 4.P provides solid waste generation estimates for the proposed project. Because the proposed project would result in an overall decrease in the amount of solid waste generated by on-site uses, the project would result in a less than significant impact related to the permitted capacity of LACSD landfills. No mitigation is required.

Table 4.P: Solid Waste Generation[1]

	Gross Square Feet	Waste Factor (lbs/sf/day)	Solid Waste (lbs/sf/day)
Existing Use (Commercial Office)	17,231.00	0.006	103
Proposed Retail	9,121.00	0.006	55
Car Wash	4,293.00	0.0108	46
Total Project Increase			**-2**

[1] Waste generation rates from the California Integrated Waste Management Board, "Estimated Solid Waste Generation Rates for Commercial Establishments" (October 2010), were used to estimate waste generation for the proposed project. Commercial office, retail, and auto services land uses were used to estimate solid waste generation.

lbs/sf/day = pounds per square feet per day

g) Less Than Significant with Mitigation Incorporated. It is expected that the proposed project would comply with existing or future statutes and regulations, including waste diversion programs mandated by City, State, or federal law. In order to fully comply with increased waste diversion goals (refer to discussion of Greenhouse Gases), the City requires the preparation of a Solid Waste Management Plan as specified in Mitigation Measure U-1. Therefore, with implementation of Mitigation Measure U-1, the proposed project would not result in a significant impact related to federal, State, and local statutes and regulations related to solid wastes, and no mitigation is required.

Mitigation Measure

U-1 **Solid Waste Management Plan.** A Solid Waste Management Plan for the proposed project shall be developed and submitted to the City of Long Beach Environmental Services Bureau for review and approval prior to issuance of grading permits. The plan shall identify methods to promote recycling and reuse of construction materials as well as safe disposal consistent with the policies and programs outlined by the City. The plan shall identify methods of incorporating source reduction and recycling techniques into project construction and operation in compliance with State and local requirements such as those described in Chapter 14 of the California Code of Regulations.

4.18 Mandatory Findings of Significance		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
(b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)	☐	☒	☐	☐
(c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Impact Analysis:

a) Less Than Significant with Mitigation Incorporated. The project site is located in an urban area and is currently developed as a 17,231 sf car dealership, including the showroom and repair/parts departments and asphalt parking. The proposed project includes a car wash and retail uses. Based on the project description and the preceding responses, development of the proposed project does not have the potential to degrade the quality of the natural environment. Existing landscaping may, however, provide suitable habitat for nesting birds, some of which are protected by the MBTA. Although the trees will remain after project implementation, disturbing active nests that are protected is a violation of the MBTA. In addition, nests and eggs are protected under Fish and Game Code Section 3503. Adherence to Mitigation Measure B-1 would ensure compliance with the MBTA, thereby reducing potential project impacts related to biological resources to a less than significant level.

While no historic resources have been recorded within the project area, the existing 1963 Ray Vines Chrysler Plymouth dealership buildings on site have been identified as a historic resource under CEQA. Mitigation Measure C-1 would ensure that the proposed project would retain the character-defining features[1] of the showroom building in accordance with the *Secretary of the Interior's Standard for the Rehabilitation of Historic Buildings*. In addition, while no archaeological or paleontological resources were identified within project area boundaries during the records search, the project area has not been surveyed due to the fact that the project site is currently developed with structures, at-grade asphalt parking, and landscaping. Therefore, because the project includes site trenching and excavation, it has the potential to impact unknown buried paleontological resources. Mitigation Measure C-2 requires that a paleontologist be present on site during all grading and other significant ground-disturbing activities more than 10 ft bgs and that a PMP be developed in order to mitigate adverse impacts to paleontological resources that may exist on site. In the event that cultural resources are discovered, no further grading shall occur in the area of the find until the Director of Planning is satisfied that adequate provisions are in place to protect these resources. Implementation of Mitigation Measure C-2 would reduce any potential impacts to previously undiscovered paleontological resources to a less than significant level. Similarly, Mitigation Measure C-3 would reduce any potential impacts related to the discovery of unknown buried human remains on site to a less than significant level.

b) Less Than Significant with Mitigation Incorporated. The project site is located in an urban area and is currently developed as a 17,231 sf car dealership, including the showroom and repair/parts departments and asphalt parking. The proposed project includes a car wash and retail uses. The site has been previously

[1] Character-defining features are the tangible, visual elements of a building.

graded and is surrounded by urban development, including I-405. Impacts related to the proposed project are less than significant or can be reduced to less than significant levels with the incorporation of mitigation measures. Impacts of the proposed project would not be cumulatively considerable in connection with the effects of past projects, the effects of other current projects, or the effects of probable future projects.

c) **Less Than Significant with Mitigation Incorporated.** The project site is located in an urban area and is currently developed as a 17,231 sf car dealership, including the showroom and repair/parts departments and asphalt parking. The proposed project includes a car wash and retail uses. Based on the project description and the preceding responses, development of the proposed project will not cause substantial adverse effects on human beings because all potentially significant impacts of the proposed project can be mitigated to a less than significant level.

5.0 MITIGATION MONITORING AND REPORTING PROGRAM

5.1 Mitigation Monitoring Requirements

Public Resources Code (PRC) Section 21081.6 (enacted by the passage of Assembly Bill [AB] 3180) mandates that the following requirements shall apply to all reporting or mitigation monitoring programs:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a Responsible Agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the Lead Agency or a Responsible Agency, prepare and submit a proposed reporting or monitoring program.
- The Lead Agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which its decision is based.
- A public agency shall provide the measures to mitigate or avoid significant effects on the environment that are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or in the case of the adoption of a plan, policy, regulation, or other project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.
- Prior to the close of the public review period for a draft Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND), a Responsible Agency, or a public agency having jurisdiction over natural resources affected by the project, shall either submit to the Lead Agency complete and detailed performance objectives for mitigation measures which would address the significant effects on the environment identified by the Responsible Agency or agency having jurisdiction over natural resources affected by the project, or refer the Lead Agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a Lead Agency by a Responsible Agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures which mitigate impacts to resources which are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance by a Responsible Agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit that authority of the Responsible Agency or agency having jurisdiction over natural resources affected by a project, or the authority of the Lead Agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

5.2 Mitigation Monitoring Procedures

The mitigation monitoring and reporting program has been prepared in compliance with PRC Section 21081.6. It describes the requirements and procedures to be followed by the City of Long Beach to ensure that all mitigation measures adopted as part of the proposed 4201 East Willow Street Car Wash Project will be carried out as described in this EIR.

Table 5.A lists each of the mitigation measures specified in this EIR and identifies the party or parties responsible for implementation and monitoring of each measure.

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Table 5.A: Mitigation and Monitoring Reporting Program

	Project Design Features (PDFs) and Mitigation Measures	Responsible Party	Timing for PDF or Mitigation Measure
Air Quality			
AQ-1	**SCAQMD Rules 402 and 403.** The City of Long Beach shall ensure that the project complies with South Coast Air Quality Management District (SCAQMD) Rules 402 and 403 to assist in reducing short-term air pollutant emissions. Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Some of the applicable dust suppression techniques from Rule 403 are summarized below. Prior to issuance of a grading permit for the project, the City of Long Beach Director of Development Services or designee shall ensure that notes are included on grading and construction plans and referenced in the construction contractor's agreement that the construction contractor shall be responsible for compliance with Rules 402 and 403. Applicable Rule 403 measures include, but are not limited to, the following: • Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more). • Water active sites at least twice daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.) • All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet (ft) of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114 (freeboard means vertical space between the top of the load and top of the trailer). • Traffic speeds on all unpaved roads shall be reduced to 15 miles per hour (mph) or less.	City of Long Beach Director of Development Services or designee	Prior to issuance of a grading permit

Table 5.A: Mitigation and Monitoring Reporting Program

	Project Design Features (PDFs) and Mitigation Measures	Responsible Party	Timing for PDF or Mitigation Measure
Biological Resources			
B-1	**Migratory Bird Treaty Act.** In the event that project construction or grading activities should occur within the active breeding season for birds (i.e., February 15–August 15), a nesting bird survey shall be conducted by the designated project biologist prior to commencement of construction activities. If active nesting of birds is observed within 100 feet (ft) of the designated construction area prior to construction, the construction crew shall establish an appropriate buffer around the active nest. The designated project biologist shall determine the buffer distance based on the specific nesting bird species and circumstances involved. Once the designated project biologist verifies that the birds have fledged from the nest, the buffer may be removed. Prior to commencement of grading activities and issuance of any building permits, the City of Long Beach Director of Planning, or designee, shall verify that all project grading and construction plans include specific documentation regarding the requirements of the Migratory Bird Treaty Act (MBTA), that preconstruction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field with orange snow fencing.	City of Long Beach Director of Development Services, or designee	Prior to commencement of grading activities and issuance of any building permits
Cultural Resources			
C-1	**Secretary of the Interior's Standard for the Rehabilitation of Historic Buildings.** Prior to issuance of building permits, the City of Long Beach Director of Development Services, or designee, shall verify that building plans would retain the character-defining features of the showroom building in compliance with the *Secretary of the Interior's Standard for the Rehabilitation of Historic Buildings*. Specifically, the proposed project shall retain and reuse the entire existing showroom and the original pole sign at the southeast portion of the site that provide historical significance. The project applicant shall also salvage the concrete shadow blocks on the existing eastern elevation for use in the storefronts and car wash. If enough blocks cannot be salvaged, then contemporary concrete shadow blocks shall be used in place of the salvaged blocks.	City of Long Beach Director of Development Services, or designee	Prior to issuance of building permits
C-2	**Paleontological Mitigation Program.** Prior to the issuance of the first preliminary or precise grading permit, and for any subsequent permit involving excavation that extends deeper than the 2 to 3 feet (ft) of artificial fill that caps the project area the applicant shall provide a letter from a qualified paleontologist. The letter shall state that the applicant has retained this individual, and that the consultant will monitor ground-disturbing activities at or more than 2 ft below ground surface (bgs) and shall provide on-call services in the event that resources are discovered at shallower depths. The paleontologist shall meet with the City of Long Beach Director of	City of Long Beach Director of Development Services, or designee	Prior to the issuance of the first preliminary or precise grading permit

Table 5.A: Mitigation and Monitoring Reporting Program

	Project Design Features (PDFs) and Mitigation Measures	Responsible Party	Timing for PDF or Mitigation Measure
	Development Services, or designee, and shall develop a Paleontological Mitigation Program (PMP) in order to mitigate adverse impacts to paleontological resources that may exist on site in sediments beginning as shallow as 2 ft bgs. The PMP should follow guidelines developed by the Society for Vertebrate Paleontology (SVP 1995) and include but not be limited to monitoring of earthmoving activities during project excavation in sediments that are likely to contain paleontological resources, specimen recovery, and screen washing; preparation of any collected specimens to the point of identification; identification and curation of any collected specimens into a museum repository with permanent, retrievable storage; and preparation of a final compliance report that will provide details of monitoring, fossil identification, cataloging, and repository arrangements.		
C-3	**Human Remains.** Consistent with the requirements of California Code of Regulations (CCR) Section 15064.5(e), if human remains are encountered, work within 25 feet (ft) of the discovery shall be redirected and the County Coroner notified immediately. State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). With the permission of the City, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Consistent with CCR Section 15064.5(d), if the remains are determined to be Native American and an MLD is notified, the City shall consult with the MLD as identified by the NAHC to develop an agreement for the treatment and disposition of the remains. Upon completion of the assessment, the consulting archaeologist shall prepare a report documenting the methods and results and provide recommendations regarding the treatment of the human remains and any associated cultural materials, as appropriate, and in coordination with the recommendations of the MLD. The report should be submitted to the City of Long Beach Director of Planning and the South Central Coastal Information Center. The City of Long Beach Director of Planning, or designee, shall be responsible for reviewing any reports produced by the archaeologist to determine the appropriateness and adequacy of findings and recommendations.	City of Long Beach Director of Development Services, or designee	If human remains are encountered during grading or construction

Table 5.A: Mitigation and Monitoring Reporting Program

Project Design Features (PDFs) and Mitigation Measures		Responsible Party	Timing for PDF or Mitigation Measure
Geology and Soils			
G-1	**Seismic Design Standards.** Appropriate seismic design provisions shall be implemented with project design and construction in accordance with governing building codes. Unless superseded by other regulatory provisions or standards, seismic design criteria shall be developed on the basis of the requirements of the current California Building Code (CBC) and reviewed and approved by the City of Long Beach Building Official prior to issuance of building permits. Prior to issuance of building permits, the City of Long Beach Building Official (or designee) is required to review and approve final design plans to ensure that all structures are designed to resist earthquake forces as defined by the CBC for a Seismic Zone 4.	City of Long Beach Building Official	Prior to issuance of building permits
G-2	**Geotechnical Requirements.** All grading operations and construction will be conducted in conformance with the recommendations included in the geotechnical report on the proposed project site titled *Geotechnical Engineering Report Proposed Car Wash and Retail Buildings 4201 E. Willow Street Long Beach California* (February 2010) (included in Appendix B of this IS/MND). Design, grading, and construction shall be performed in accordance with the requirements of the California Building Code (CBC) applicable at the time of grading, appropriate local grading regulations, and the recommendations of the project geotechnical consultant as summarized in a final written report, subject to review by the City of Long Beach Building official prior to issuance of demolition permits.	City of Long Beach Building Official	Prior to issuance of building permits
Hazards and Hazardous Materials			
HAZ-1	**Asbestos-Containing Materials.** Prior to issuance of demolition permits, predemolition surveys for asbestos-containing materials (ACMs) shall be conducted in accordance with applicable requirements of the Occupational Safety and Health Administration (OSHA) and the United States Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP). All identified ACMs shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable regulations during demolition of structures. Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., South Coast Air Quality Management District [SCAQMD]) and to provide safety to workers and the adjacent community. The project applicant shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the Director of the City of Long Beach Health Department, or designee, showing that abatement of any ACMs identified in these structures has been completed in full compliance with all applicable regulations. An Operating & Maintenance Plan (O&M) shall be prepared	Director of the City Health Department, or designee	Prior to issuance of demolition permits

Table 5.A: Mitigation and Monitoring Reporting Program

	Project Design Features (PDFs) and Mitigation Measures	Responsible Party	Timing for PDF or Mitigation Measure
	for any ACMs to remain in place, and the O&M shall be reviewed and approved by the Director of the City of Long Beach Health Department, or designee, prior to issuance of any demolition permits.		
HAZ-2	**Lead-Based Paint.** Prior to issuance of demolition permits, predemolition surveys for lead-based paints (LBPs) shall be performed in accordance with 29 Code of Federal Regulations (CFR) 1926.62. Building surfaces that are determined to contain concentrations of lead at or above regulatory limits shall be removed in accordance with applicable regulations properly disposed at a state permitted landfill facility. Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., South Coast Air Quality Management District [SCAQMD]) and to provide safety to workers and the adjacent community. The project applicant shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the City of Long Beach Health Department showing that abatement of any LBPs identified in these structures has been completed in full compliance with all applicable regulations. An Operating & Maintenance Plan (O&M) shall be prepared for any LBP to remain in place, and the O&M shall be reviewed and approved by the Director of the City of Long Beach Health Department, or designee, prior to issuance of any demolition permits.	Director of the City Health Department, or designee	Prior to issuance of demolition permits
HAZ-3	**Underground Clarifier.** Prior to the issuance of demolition permits, the project applicant shall submit a report to the City of Long Beach Director of Planning, or designee, documenting the condition and integrity of the existing underground clarifier and adjacent portion of the sanitary sewer discharge line. The report shall further document that the existing clarifier has been removed and indicate whether soil and/or groundwater impacts have occurred. If soil and/or groundwater impacts have occurred, the project applicant shall submit a soil and groundwater remediation plan to the City of Long Beach Director of Planning, or designee, for approval and implementation. The project applicant shall also be responsible for any remediation or repairs to the sanitary sewer line that become necessary as part of the removal of the clarifier.	City of Long Beach Director of Development Services, or designee	Prior to issuance of demolition permits
Noise			
N-1	**Construction Noise Limits.** Prior to commencement of grading activities and issuance of building permits, the City of Long Beach Director of Development Services, or designee, shall verify that the following notes appear on grading and construction plans: 1. During all site excavation and grading, the project contractors shall equip all	City of Long Beach Director of Development Services, or designee	Prior to commencement of grading activities and issuance of building permits

Table 5.A: Mitigation and Monitoring Reporting Program

	Project Design Features (PDFs) and Mitigation Measures	Responsible Party	Timing for PDF or Mitigation Measure
	construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. 2. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site. 3. The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction. 4. Construction shall be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday and on federal holidays and 9:00 a.m. to 6:00 p.m. on Saturday. In accordance with City standards, no construction activities are permitted outside of these hours, and no construction is permitted on Sundays without a special work permit.		
Utilities and Service Systems			
U-1	**Solid Waste Management Plan.** A Solid Waste Management Plan for the proposed project shall be developed and submitted to the Director of the City of Long Beach Environmental Services Bureau, or designee, for review and approval prior to issuance of grading permits. The plan shall identify methods to promote recycling and reuse of construction materials as well as safe disposal consistent with the policies and programs outlined by the City. The plan shall identify methods of incorporating source reduction and recycling techniques into project construction and operation in compliance with State and local requirements such as those described in Chapter 14 of the California Code of Regulations.	Director of the City of Long Beach Environmental Services Bureau, or designee	Prior to issuance of grading permits

6.0 REPORT PREPARERS

6.1 City of Long Beach

Angie Zetterquist, Planner
Amir Kasmai, Transportation Engineer

6.2 Consultant

LSA Associates, Inc. (LSA):

Mona McGuire DeLeon, AICP, Principal in Charge
Nicole Dubois, Project Manager
Nicole West, CPSWQ, Environmental Engineer
Deborah McLean, Principal, Archaeologist
Meredith Riven, Paleontologist
Tung-chen (Tony) Chung, Ph.D., Principal, Noise and Air Quality Specialist
Keith Lay, Air Quality and Noise Specialist
Ken Wilhelm, Principal, Transportation
Robert Aguirre, Transportation Engineer

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8.0 TECHNICAL APPENDICES

Note: All technical appendices are bound in Volume II of this IS/MND, which is provided on the attached CD in portable document format (PDF).

Appendix A: Air Quality Data

Appendix B: Geotechnical Engineering Report

Appendix C: Phase I Environmental Site Assessment

Appendix D: Noise Data

Appendix E: Traffic Data

Appendix F: Cultural Resources Archival Records Searches Letters

Appendix G: Revised Historical Assessment and Site Plan Review of the Long Beach Car Wash and Retail Building, 4201 East Willow Street, City of Long Beach, California

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