

**INITIAL STUDY
AND
MITIGATED NEGATIVE DECLARATION**

**BRIDGE POINT SANTA FE SPRINGS
DEVELOPMENT PLAN APPROVAL (DPA 902, 903,
AND 904) AND
TENTATIVE PARCEL MAP (TPM 73880)
13101 AND 13123 ROSECRANS AVENUE
SANTA FE SPRINGS, CALIFORNIA**



LEAD AGENCY:

**CITY OF SANTA FE SPRINGS
PLANNING AND DEVELOPMENT DEPARTMENT
11710 TELEGRAPH ROAD
SANTA FE SPRINGS, CALIFORNIA 90670**

REPORT PREPARED BY:

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DECEMBER 15, 2015

SFSP 028

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MITIGATED NEGATIVE DECLARATION

PROJECT NAME: Bridge Point Santa Fe Springs.

APPLICANT: Bridge Development Partners, L.L.C., 601 South Figueroa Street, Suite 4450, Los Angeles, CA 90017.

ADDRESS: 13101 and 13123 Rosecrans Avenue. Assessor Parcel Numbers (APNs) include 8059-030-021 and 8059-030-022.

CITY/COUNTY: Santa Fe Springs, Los Angeles County.

DESCRIPTION: The proposed project involves the construction of three concrete tilt-up warehouses buildings (referred to herein as Building 1, Building 2, and Building 3) on a 9.68-acre site located at the corner of Rosecrans Avenue and Maryton Avenue. Building 1 will be located on a 155,530 square-foot parcel in the southernmost portion of the project site. Building 1 will consist of 82,362 square feet of floor area. Of the total floor area, 71,782 square feet will be dedicated to warehousing and 10,580 square feet of office including a 5,000 square foot mezzanine. Building 2 will be located on a 138,331 square-foot parcel in the central portion of the project site. Building 2 will have a total floor area of 75,331 square feet. Of the total floor area, 65,331 square feet will be dedicated to warehousing and 10,000 square feet including a 5,000 square feet mezzanine. Building 3 will be located on a 127,912 square-foot parcel in the northernmost portion of the project site. Building 3 will consist of 74,038 square feet of floor area. Of the total floor area, 64,038 square feet will be dedicated to warehousing and 10,000 square feet including a 5,000 square feet mezzanine. Access to the project will be provided by four new driveways that will include a driveway connection on the north side of Rosecrans Avenue and three driveway connections on the west side of Maryton Avenue. Each of the three buildings will be equipped with six dock high doors and one to two knock out panels for future use located along each building's north-facing elevation. In addition, a total of 349 parking stalls will be provided. The project will require the demolition and removal of the existing structures, debris, garbage, and remnants of the former dairy use that occupied the project site.

FINDINGS: The environmental analysis provided in the attached Initial Study indicates that the proposed project will not result in any significant impacts. For this reason, the City of Santa Fe Springs determined that a *Mitigated Negative Declaration* is the appropriate CEQA document for the proposed project. The following findings may be made based on the analysis contained in the attached Initial Study:

- The proposed project *will not* have the potential to degrade the quality of the environment.
- The proposed project *will not* have the potential to achieve short-term goals to the disadvantage of long-term environmental goals.

MITIGATED NEGATIVE DECLARATION (CONTINUED)

- The proposed project *will not* have impacts that are individually limited, but cumulatively considerable, when considering planned or proposed development in the City.
- The proposed project *will not* have environmental effects that will adversely affect humans, either directly or indirectly.

The environmental analysis is provided in the attached Initial Study prepared for the proposed project. The project is also described in greater detail in the attached Initial Study.

Signature

Date

City of Santa Fe Springs Planning and Development Department

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CITY OF SANTA FE SPRINGS
BRIDGE POINT SANTA FE SPRINGS • DEVELOPMENT PLAN APPROVAL (DPA 902, 903, AND 904) AND TENTATIVE PARCEL MAP
(TPM 73880) • 13101 AND 13123 ROSECRANS AVE.

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SECTION 1 - INTRODUCTION

1.1 PURPOSE OF THE INITIAL STUDY

The proposed project involves the construction of three concrete tilt-up warehouses buildings (referred to herein as Building 1, Building 2, and Building 3) on a 9.68-acre site located at the corner of Rosecrans Avenue and Maryton Avenue. Building 1 will be located on a 155,530 square-foot parcel in the southernmost portion of the project site. Building 1 will consist of 82,362 square feet of floor area. Of the total floor area, 71,782 square feet will be dedicated to warehousing and 10,580 square feet of office including a 5,000 square foot mezzanine. Building 2 will be located on a 138,331 square-foot parcel in the central portion of the project site. Building 2 will have a total floor area of 75,331 square feet. Of the total floor area, 65,331 square feet will be dedicated to warehousing and 10,000 square feet including a 5,000 square feet mezzanine. Building 3 will be located on a 127,912 square-foot parcel in the northernmost portion of the project site. Building 3 will consist of 74,038 square feet of floor area. Of the total floor area, 64,038 square feet will be dedicated to warehousing and 10,000 square feet including a 5,000 square feet mezzanine.

Access to the project will be provided by four new driveways that will include a driveway connection on the north side of Rosecrans Avenue and three driveway connections on the west side of Maryton Avenue. Each of the three buildings will be equipped with six dock high doors and one to two knock out panels for future use located along each building's north-facing elevation. In addition, a total of 349 parking stalls will be provided. The project will require the demolition and removal of the existing structures, debris, garbage, and remnants of the former dairy use that occupied the project site.¹

The City of Santa Fe Springs is the designated *Lead Agency* for the proposed project and will be responsible for the project's environmental review.² The construction of the proposed industrial building is considered to be a project under the California Environmental Quality Act (CEQA) and, as a result, the project is subject to the City's environmental review process.³ As part of the proposed project's environmental review, the City of Santa Fe Springs has authorized the preparation of this Initial Study.⁴ The primary purpose of CEQA is to ensure that decision-makers and the public understand the environmental implications of a specific action or project. An additional purpose of this Initial Study is to ascertain whether the proposed project will have the potential for significant adverse impacts on the environment once it is implemented. Pursuant to the CEQA Guidelines, additional purposes of this Initial Study include the following:

- To provide the City of Santa Fe Springs with information to use as the basis for deciding whether to prepare an environmental impact report (EIR), mitigated negative declaration, or negative declaration for a project;

¹ Herdman Rierson Architecture + Design, Inc. *Conceptual Site Plan*. Plan dated November 17, 2015.

² California, State of. *California Public Resources Code. Division 13, Chapter 2.5. Definitions*. as Amended 2001. §21067.

³ California, State of. *Title 14. California Code of Regulations. Chapter 3. Guidelines for the Implementation of the California Environmental Quality Act*. as Amended 1998 (CEQA Guidelines). §15060 (b).

⁴ Ibid. (CEQA Guidelines) §15050.

- To facilitate the project’s environmental assessment early in the design and development of the proposed project;
- To eliminate unnecessary EIRs; and,
- To determine the nature and extent of any impacts associated the proposed project.

Although this Initial Study was prepared with consultant support, the analysis, conclusions, and findings made as part of its preparation fully represent the independent judgment and position of the City of Santa Fe Springs, in its capacity as the Lead Agency. The City determined, as part of this Initial Study’s preparation, that a Mitigated Negative Declaration is the appropriate environmental document for the proposed project’s CEQA review. Certain projects or actions may also require oversight approvals or permits from other public agencies. This Initial Study and the *Notice of Intent to Adopt a Mitigated Negative Declaration* will be forwarded to responsible agencies, trustee agencies, and the public for review and comment. A 20-day public review period will be provided to allow these entities and other interested parties to comment on the proposed project and the findings of this Initial Study.⁵ Questions and/or comments should be submitted to the following contact person:

Mr. Cuong Nguyen, Senior Planner
City of Santa Fe Springs, Planning and Development Department
11710 East Telegraph Road
Santa Fe Springs, California 90670
562-868-0511 Ext. 7359

1.2 INITIAL STUDY’S ORGANIZATION

The following annotated outline summarizes the contents of this Initial Study:

- *Section 1 - Introduction*, provides the procedural context surrounding this Initial Study's preparation and insight into its composition.
- *Section 2 - Project Description*, provides an overview of the existing environment as it relates to the project area and describes the proposed project’s physical and operational characteristics.
- *Section 3 - Environmental Analysis*, includes an analysis of potential impacts associated with the construction and the subsequent operation of the proposed project.
- *Section 4 - Conclusions*, summarizes the findings of the analysis.
- *Section 5 - References*, identifies the sources used in the preparation of this Initial Study.

⁵ California, State of. *Title 14. California Code of Regulations. Chapter 3. Guidelines for the Implementation of the California Environmental Quality Act.* as Amended 1998 (CEQA Guidelines). §15060 (b).

1.3 INITIAL STUDY CHECKLIST

The environmental analysis provided in Section 3 of this Initial Study indicates that the proposed project will not result in any significant impacts on the environment. For this reason, the City of Santa Fe Springs determined that a Mitigated Negative Declaration is the appropriate CEQA document for the proposed project. The findings of this Initial Study are summarized in Table 1-1 provided on the following pages.

**Table 1-1
 Summary (Initial Study Checklist)**

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
Section 3.1 Aesthetic Impacts. <i>Would the project:</i>				
a) Have a substantial adverse affect on a scenic vista?			X	
b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?				X
c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?				X
d) Create a new source of substantial light or glare that would adversely affect day- or night-time views in the area?		X		
Section 3.2 Agriculture and Forestry Resources Impacts. <i>Would the project:</i>				
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?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?			X	
c) Would the project conflict with existing zoning for or cause rezoning of, forest land (as defined in Public Resources Code §4526), or zoned timberland production (as defined by Government Code §51104[g])?				X
d) Would the project result in the loss of forest land or the conversion of forest land to a non-forest use?				X
e) Involve other changes in the existing environment that, due to their location or nature, may result in conversion of farmland to non-agricultural use?				X
Section 3.3 Air Quality Impacts. <i>Would the project:</i>				
a) Conflict with or obstruct implementation of the applicable air quality plan?				X

**Table 1-1
 Summary (Initial Study Checklist)**

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		X		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?		X		
e) Create objectionable odors affecting a substantial number of people?				X
Section 3.4 Biological Resources Impacts. <i>Would the project have a substantial adverse effect:</i>				
a) 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 Wildlife or U. S. Fish and Wildlife Service?				X
b) 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 Wildlife or U.S. Fish and Wildlife Service?				X
c) 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?				X
d) In interfering substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory life corridors, or impede the use of native wildlife nursery sites?		X		
e) In conflicting with any local policies or ordinances, protecting biological resources, such as a tree preservation policy or ordinance?				X
f) By conflicting with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?				X
Section 3.5 Cultural Resources Impacts. <i>Would the project:</i>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the CEQA Guidelines?				X

**Table 1-1
 Summary (Initial Study Checklist)**

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the CEQA Guidelines?		X		
c) Directly or indirectly destroy a unique paleontological resource, site or unique geologic feature?			X	
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
Section 3.6 Geology Impacts. <i>Would the project result in or expose people to potential impacts involving:</i>				
a) The exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault (as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault), ground-shaking, liquefaction, or landslides?		X		
b) Substantial soil erosion or the loss of topsoil?				X
c) Location on a geologic unit or a 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?			X	
d) Location on expansive soil, as defined in California Building Code (2012), creating substantial risks to life or property?				X
e) Soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
Section 3.7 Greenhouse Gas Emissions Impacts. <i>Would the project:</i>				
a) Result in the generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Increase the potential for conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases?				X
Section 3.8 Hazards and Hazardous Materials Impacts. <i>Would the project:</i>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		

**Table 1-1
 Summary (Initial Study Checklist)**

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment or result in reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site, which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5, and as a result, would it create a significant hazard to the public or the environment?			X	
e) Be located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) Within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury, or death involving wild lands fire, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?				X
Section 3.9 Hydrology and Water Quality Impacts. <i>Would the project:</i>				
a) Violate any water quality standards or waste discharge requirements?		X		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge in such a way that would cause 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)?		X		
c) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				X
d) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner that would result in flooding on- or off-site?				X

**Table 1-1
 Summary (Initial Study Checklist)**

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
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?		X		
f) Substantially degrade water quality?				X
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?				X
h) Place within a 100-year flood hazard area, structures that would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of flooding because of dam or levee failure?				X
j) Result in inundation by seiche, tsunami, or mudflow?				X
Section 3.10 Land Use and Planning Impacts. <i>Would the project:</i>				
a) Physically divide an established community, or otherwise result in an incompatible land use?				X
b) Conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation or natural community conservation plan?				X
Section 3.11 Mineral Resources Impacts. <i>Would the project:</i>				
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?				X
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?				X
Section 3.12 Noise Impacts. <i>Would the project result in:</i>				
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?			X	

**Table 1-1
 Summary (Initial Study Checklist)**

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
b) Exposure of people to, or generation of, excessive ground-borne noise levels?			X	
c) Substantial permanent increase in ambient noise levels in the project vicinity above noise levels existing without the project?			X	
d) Substantial temporary or periodic increases in ambient noise levels in the project vicinity above levels existing without the project?		X		
e) For a project located with 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?				X
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?				X
Section 3.13 Population and Housing Impacts. <i>Would the project:</i>				
a) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			X	
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			X	
Section 3.14 Public Services Impacts. <i>Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which would cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives in any of the following areas:</i>				
a) Fire protection services?		X		
b) Police protection services?		X		
c) School services?				X
d) Other governmental services?				X
Section 3.15 Recreation Impacts. <i>Would the project:</i>				
a) 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?				X

**Table 1-1
 Summary (Initial Study Checklist)**

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
b) Affect existing recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X
Section 3.16 Transportation Impacts. <i>Would the project:</i>				
a) Cause a conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system?		X		
b) Exceed, either individually or cumulatively, a level of service standard established by the County Congestion Management Agency for designated roads or highways?				X
c) A change in air traffic patterns, including either an increase in traffic levels or a change in the location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?				X
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X
Section 3.17 Utilities Impacts. <i>Would the project:</i>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?				X
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?			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?		X		

**Table 1-1
 Summary (Initial Study Checklist)**

Environmental Issues Area Examined	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact
e) Result in a determination by the provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
f) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with Federal, State, and local statutes and regulations related to solid waste?				X
Section 3.18 Mandatory Findings of Significance. <i>The approval and subsequent implementation of the proposed project:</i>				
a) Will not have the potential to degrade the quality of the environment, with the implementation of the recommended standard conditions and mitigation measures included herein.				X
b) Will not have the potential to achieve short-term goals to the disadvantage of long-term environmental goals, with the implementation of the recommended standard conditions and mitigation measures referenced herein.				X
c) Will not have impacts that are individually limited, but cumulatively considerable, when considering planned or proposed development in the immediate vicinity, with the implementation of the recommended standard conditions and mitigation measures contained herein.				X
d) Will not have environmental effects that will adversely affect humans, either directly or indirectly, with the implementation of the recommended standard conditions and mitigation measures contained herein.				X
e) The Initial Study indicated there is no evidence that the proposed project will have an adverse effect on wildlife resources or the habitat upon which any wildlife depends.				X



SECTION 2 - PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

The proposed project involves the construction of three concrete tilt-up warehouses buildings (referred to herein as Building 1, Building 2, and Building 3) on a 9.68-acre site located at the corner of Rosecrans Avenue and Maryton Avenue. Building 1 will be located on a 155,530 square-foot parcel in the southernmost portion of the project site. Building 1 will consist of 82,362 square feet of floor area. Of the total floor area, 71,782 square feet will be dedicated to warehousing and 10,580 square feet of office including a 5,000 square foot mezzanine. Building 2 will be located on a 138,331 square-foot parcel in the central portion of the project site. Building 2 will have a total floor area of 75,331 square feet. Of the total floor area, 65,331 square feet will be dedicated to warehousing and 10,000 square feet including a 5,000 square feet mezzanine. Building 3 will be located on a 127,912 square-foot parcel in the northernmost portion of the project site. Building 3 will consist of 74,038 square feet of floor area. Of the total floor area, 64,038 square feet will be dedicated to warehousing and 10,000 square feet including a 5,000 square feet mezzanine.⁶

Access to the project will be provided by four new driveways that will include a driveway connection on the north side of Rosecrans Avenue and three driveway connections on the west side of Maryton Avenue. Each of the three buildings will be equipped with six dock high doors and one to two knock out panels for future use located along each building's north-facing elevation. In addition, a total of 349 parking stalls will be provided. The project's implementation will necessitate the removal of the existing structures, debris, garbage, and remnants of the former dairy use that occupied the project site.⁷ In addition, the project will require the approval of a Parcel Map (TTM 73880) and a Development Plan Approval (DPA 902-904) for the three buildings.

2.2 PROJECT LOCATION

The project site is located within the southern portion of the City. The City of Santa Fe Springs is located approximately 16.4 miles southeast of downtown Los Angeles and 13.6 miles northwest of downtown Santa Ana.⁸ Santa Fe Springs is bounded on the north by Whittier and an unincorporated County area (West Whittier), on the east by Whittier, La Mirada, and an unincorporated County area (East Whittier), on the south by Cerritos and Norwalk, and on the west by Pico Rivera and Downey. The corporate boundary of the City of Santa Fe Springs and the City of Norwalk extend along the project sites western and northern boundary. Major physiographic features located in the surrounding region include the San Gabriel River (located 3.21 miles to the west of the site), Coyote Creek (located 0.59 miles to the east of the project site), and the Puente Hills (located 5.08 miles to the northeast of the project site).⁹

⁶ Herdman Rierson Architecture + Design, Inc. *Conceptual Site Plan*. Plan dated November 17, 2015.

⁷ Ibid.

⁸ Google Earth. Site accessed August 28, 2015.

⁹ Ibid.

Regional access to Santa Fe Springs is possible from the Santa Ana Freeway (I-5) and the San Gabriel River Freeway (I-605). The I-5 Freeway traverses the City in an east-west orientation while the I-605 Freeway extends along the City's westerly side in a north-south orientation.¹⁰ Other freeways that serve the area include the Artesia (SR-91) Freeway and the Glenn Anderson (I-105) Freeway. The nearest freeway connection is provided by Rosecrans Avenue ramp connections with the I-5 freeway (0.50 miles to the west). The location of Santa Fe Springs in a regional context is shown in Exhibit 2-1. A citywide map is provided in Exhibit 2-2 and a vicinity map is provided in Exhibit 2-3.

The project site's legal addresses include 13101 and 13123 Rosecrans Avenue. The Assessor Parcel Numbers (APNs) that are applicable to the site include 8059-030-022 and 8059-030-021.¹¹ The project site is located along the northwest corner of the Rosecrans Avenue and Maryton Avenue intersection. Additionally, the project site's frontage along Maryton Avenue extends along the whole west side of the street.

2.3 ENVIRONMENTAL SETTING

The 9.68-acre site is located in the midst of an urban area and is surrounded on all sides by development. Exhibit 2-4 shows an aerial photograph of the project site and the adjacent development. Surrounding land uses in the vicinity of the project site are listed below:

- *North of the Project Site.* The John H. Glen High School campus is located to the north of the project site. That portion of the campus that abuts the project site includes the athletic field. The main campus buildings are located 838 feet to the north of the project site's property line. This school is located within the corporate boundaries of the City of Norwalk. Views of this area are provided in Exhibit 2-5.
- *East of the Project Site.* Maryton Avenue extends along the majority of the project site's eastern boundary. Industrial uses are located opposite the project site, along the east side of Maryton Avenue. An industrial use is located to the east of the northern portion of the project site, on the north side of the Maryton Avenue cul-de-sac. Views of this area are provided in Exhibit 2-6.
- *West of the Project Site.* Various industrial uses are located to the west of the project site. These uses are located within the corporate boundaries of the City of Norwalk. In addition, the Rosecrans Town Center abuts the project site to the southwest and is located along the north side of Rosecrans Avenue. Views of this area are provided in Exhibit 2-7.
- *South of the Project Site.* Rosecrans Avenue extends along the project site's south side in an east-to-west orientation. Single-family homes are located along the south side of Rosecrans Avenue. These homes are also located in the City of Norwalk corporate boundaries. Views of this area are provided in Exhibit 2-8.

¹⁰ Google Earth. Site accessed August 28, 2015.

¹¹ Los Angeles County. *Los Angeles County Tax Assessor, Parcel Viewer*. Website accessed on September 18, 2015.

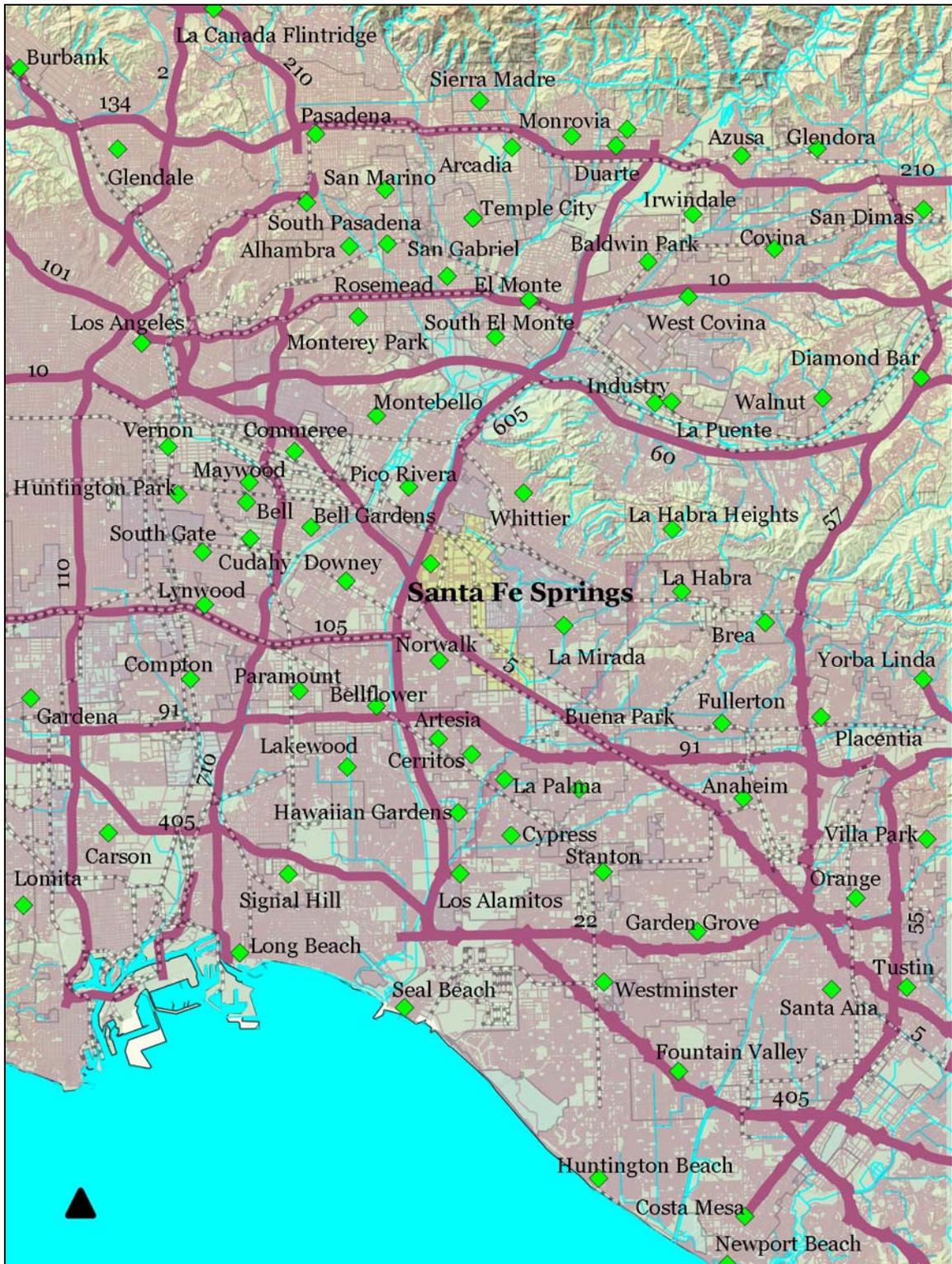


EXHIBIT 2-1
REGIONAL LOCATION
SOURCE: QUANTUM GIS

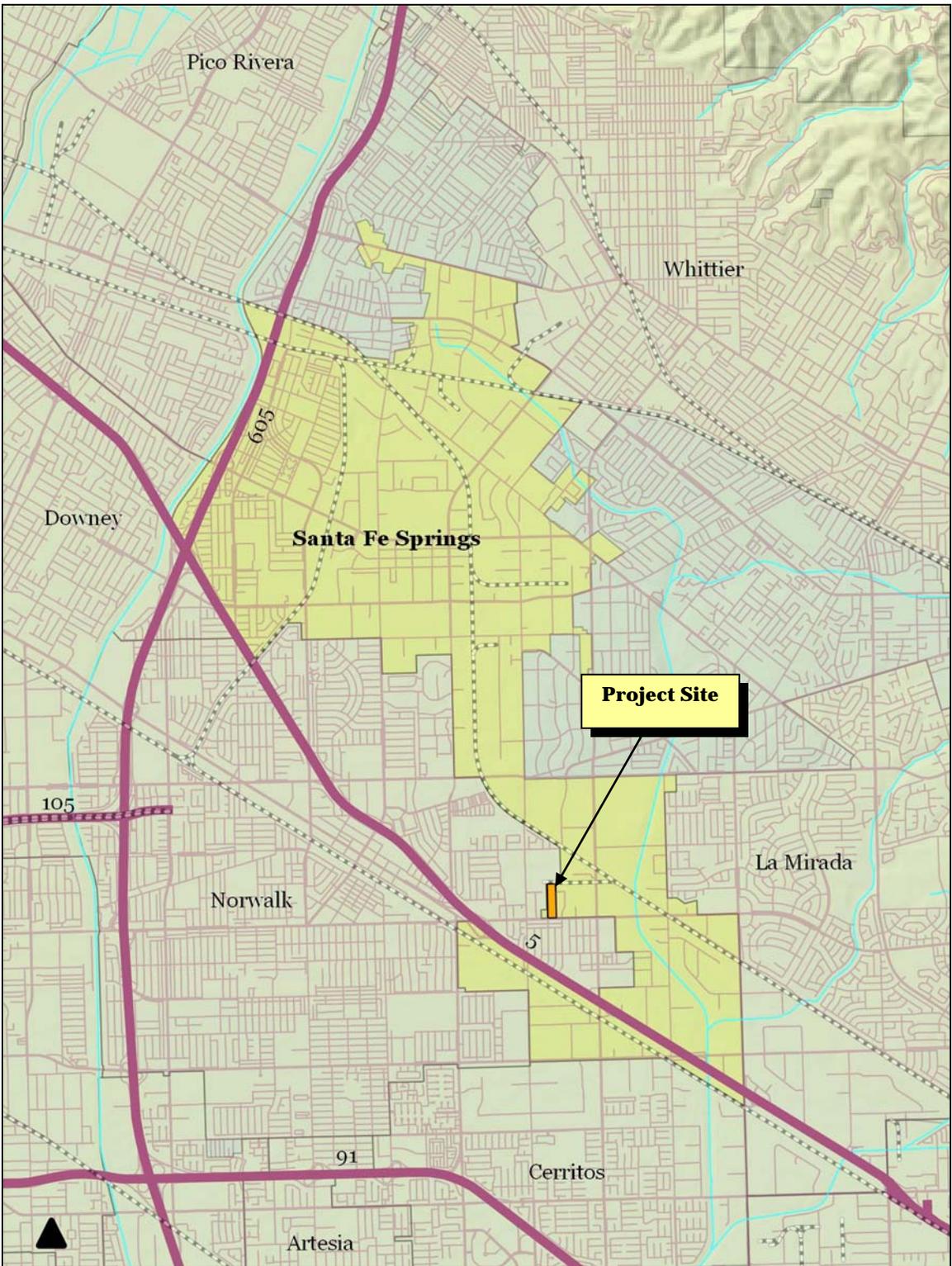


EXHIBIT 2-2
CITYWIDE MAP
SOURCE: QUANTUM GIS

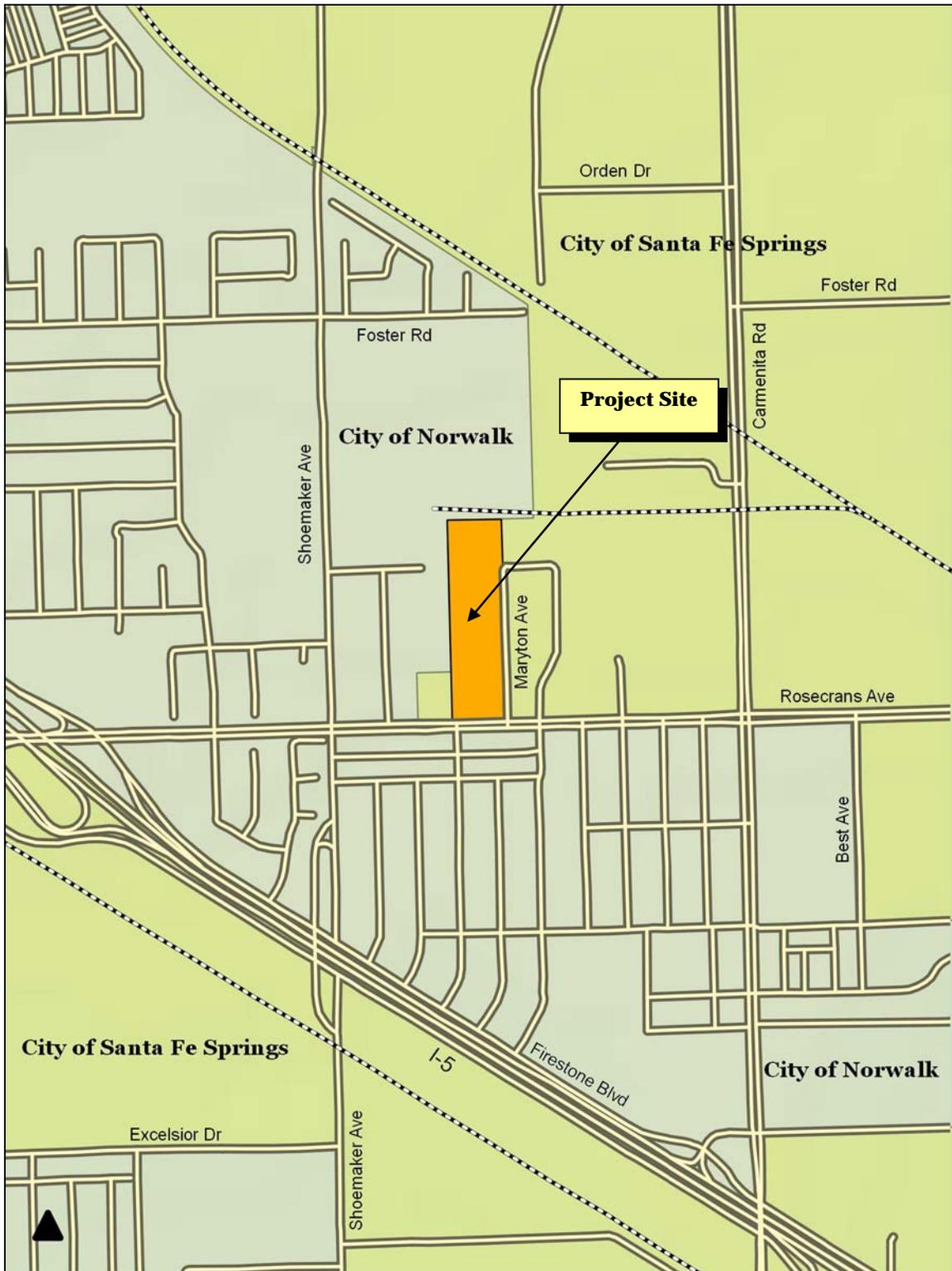


EXHIBIT 2-3
LOCAL MAP
SOURCE: QUANTUM GIS



EXHIBIT 2-4
AERIAL PHOTOGRAPH
SOURCE: GOOGLE EARTH



View of the John H. Glenn High School campus (looking southwest)



View of the John H. Glenn High School athletic field (looking northeast)

EXHIBIT 2-5
VIEWS OF LAND USES NORTH OF THE PROJECT SITE
SOURCE: BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING



View looking north down Maryton Avenue. Project site is located behind the fence in the right side of the photograph.



Typical light industrial uses located on the east side of Maryton Avenue.

EXHIBIT 2-6
VIEWS OF LAND USES EAST OF THE PROJECT SITE
SOURCE: BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING



View of the industrial uses to the west looking south.



View looking west towards the Rosecrans Town Center.

EXHIBIT 2-7
VIEWS OF LAND USES WEST OF THE PROJECT SITE
SOURCE: BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING



View of Rosecrans Avenue south of the site.



View of the residential units along the south side of Rosecrans Avenue looking south west.

EXHIBIT 2-8
VIEWS OF LAND USES SOUTH OF THE PROJECT SITE
SOURCE: BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING

The project will require the demolition and removal of the existing structures, debris, garbage, and remnants of the former dairy that occupied the project site. The property is fenced off on the north, east, west, and parts of the south side by a chain link fence. The original dairy retailing building is located along the project site's Rosecrans Avenue frontage. This building was occupied by a thrift store. A single family residence and garage is located in the southeastern corner of the property. Other dilapidated structures and debris are located in the project site's interior. The northern portion of the project site is being used for parking (both for autos and trailers).¹² Views of the project site are provided in Exhibits 2-9 and 2-10.

A notable use within the vicinity is the John H. Glenn High School, located to the north of the project site with the main campus buildings located 838 feet to the northwest. Other notable uses include the Norwalk Golf Center, located 892 feet to the northwest, and the John Zimmerman Park located 0.43 miles to the northwest of the project site along Shoemaker Avenue.¹³

2.4 PROJECT DESCRIPTION

2.4.1 PHYSICAL CHARACTERISTICS OF PROPOSED PROJECT

The proposed project will involve the construction of the new concrete tilt-up buildings referred to herein as Building 1, Building 2, and Building 3. The proposed project will consist of the following elements:

- *Site Plan.* The proposed project involves the construction of three new concrete tilt-up buildings within the 9.68-acre site located at the corner of Rosecrans Avenue and Maryton Avenue. The total floor area (including mezzanines) of the three new buildings will be 231,731 square feet. The three buildings will consist of a single level with a building maximum height of 36 feet (30 foot interior clear height). The total lot coverage will be 51.39%.¹⁴
- *Building 1 Characteristics.* Building 1 will be located on a 155,530 square-foot parcel located in the southernmost portion of the project site. Building 1 will consist of 82,362 square feet of floor area. Of the total floor area, 71,362 square feet will be dedicated to warehousing and 10,580 square feet including 5,000 square feet of mezzanine will be designated office. A parking area for employees and patrons will be provided along the building's elevation facing Rosecrans Avenue. A second parking lot with access from Maryton Avenue is also provided. A total of six dock high loading doors and two knock out panels for future use will be located along the building's north side. The access to the truck loading and maneuvering area will be secured by a gate. The total landscaped area for Building 1 will be 25,308 square feet.¹⁵

¹² Blodgett Baylosis Environmental Planning. Field survey of the project site (Surveys were conducted on Monday, June 29th and Tuesday, September 16, 2015).

¹³ Ibid.

¹⁴ Herdman Rierson Architecture + Design, Inc. *Conceptual Site Plan*. Plan dated November 17, 2015.

¹⁵ Ibid.



Existing residence located on the southeast corner of the project site.



View of the thrift shop that was the former dairy building.

EXHIBIT 2-9
VIEWS OF THE PROJECT SITE
SOURCE: BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING



View of the existing agricultural structures in the southern portion of the site facing west.



View of debris and rubbish in the central portion of the property.

EXHIBIT 2-10
VIEWS OF THE PROJECT SITE
SOURCE: BLODGETT BAYLOSIS ENVIRONMENTAL PLANNING

- *Building 2 Characteristics.* Building 2 will be located on a 138,331 square-foot parcel in the central portion of the project site. Building 2 will have a total floor area of 75,331 square feet. Of the total floor area, 65,331 square feet will be dedicated to warehousing and 10,000 square feet including a 5,000 square foot mezzanine will be designated office. This building will use the parking area just north of the building. A total of six dock high loading doors and two knock out panels for future use will be located along the building's north side. The access to the truck loading and maneuvering area will be secured by a gate. The total landscaped area for Building 2 will be 14,191 square feet.¹⁶
- *Building 3 Characteristics.* Building 3 will be located on a 127,912 square-foot parcel in the northernmost portion of the project site. Building 3 will consist of 74,038 square feet of floor area. Of the total floor area, 64,038 square feet will be dedicated to warehousing and 10,000 square feet including a 5,000 square foot mezzanine will be designated office. This building will utilize the parking area along the north and east sides of the building. A total of six dock high doors and one knock out panel for future use will be located along the building's north side. The access to the truck loading and maneuvering area will be secured by a gate. The total landscaped area for Building 3 will be 4,253 square feet.¹⁷
- *Vehicular Access.* Access to the project will be provided by four new driveways. One drive will connect with Rosecrans Avenue and will access the parking area along the Rosecrans Avenue frontage. This driveway will have a maximum curb-to-curb width of 26 feet. Three other driveways will connect with the west side of Maryton Avenue and these driveways will also provide truck access to the loading docks. The northern driveway will have a curb-to-curb width of 35 feet, the center driveway will have a curb-to-curb width of 40 feet, while the southern driveway will have a curb-to-curb width of 30-feet.¹⁸
- *Parking Characteristics.* The site plan indicates that a total of 349 parking stalls will be provided. Parking will be located within four parking areas discussed previously. Of the total number of parking spaces, 248 will be standard size stalls, 86 will be compact stalls, and 15 will be ADA stalls.¹⁹
- *Landscaping Characteristics.* A total of 43,752 square feet will be dedicated to landscaping. Landscaping will be installed along the Rosecrans Avenue and Maryton Avenue, next to the building public entrances, and along the project site's northern perimeter.²⁰

The conceptual site plan is shown in Exhibit 2-11. Conceptual elevations are provided in Exhibit 2-12 to Exhibit 2-14.

¹⁶ Herdman Rierson Architecture + Design, Inc. *Conceptual Site Plan*. Plan dated November 17, 2015.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Ibid.

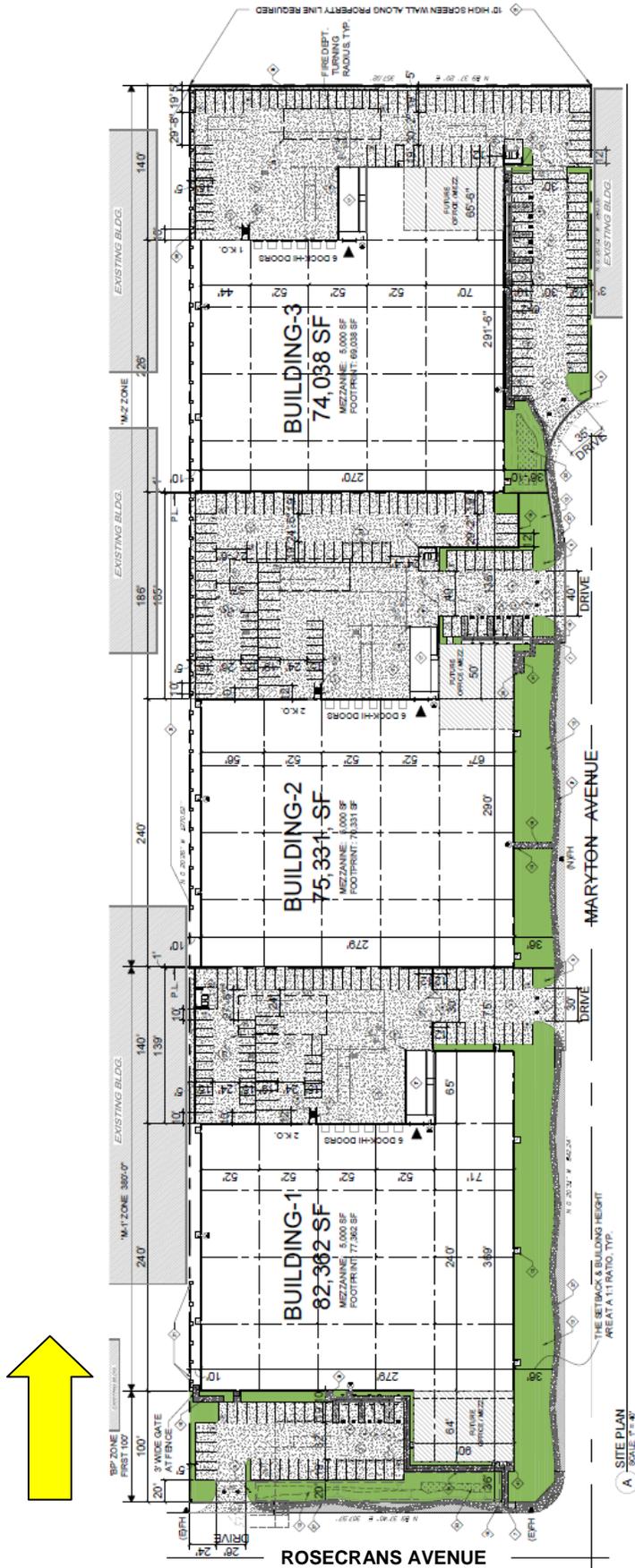


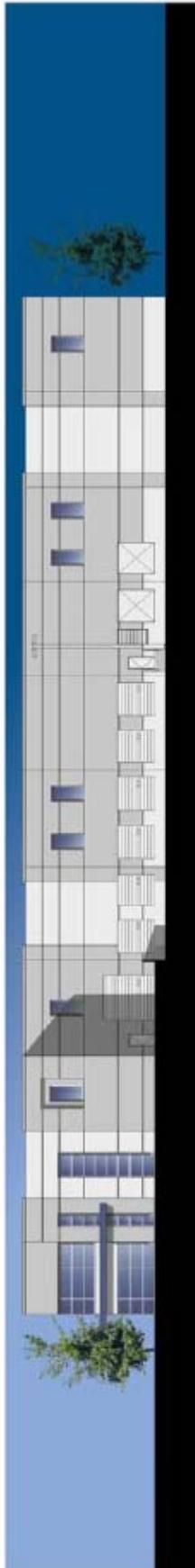
EXHIBIT 2-11
CONCEPTUAL SITE PLAN
 SOURCE: HERDMAN RIERSON ARCHITECTURE + DESIGN, INC.



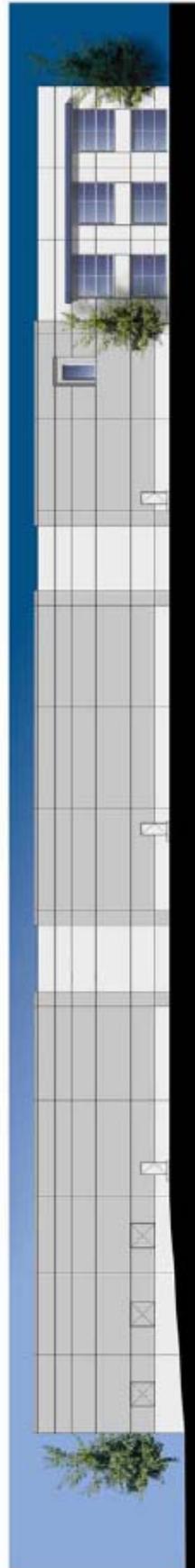
BUILDING 1 - EAST ELEVATION



BUILDING 1 - SOUTH ELEVATION



BUILDING 1 - NORTH ELEVATION

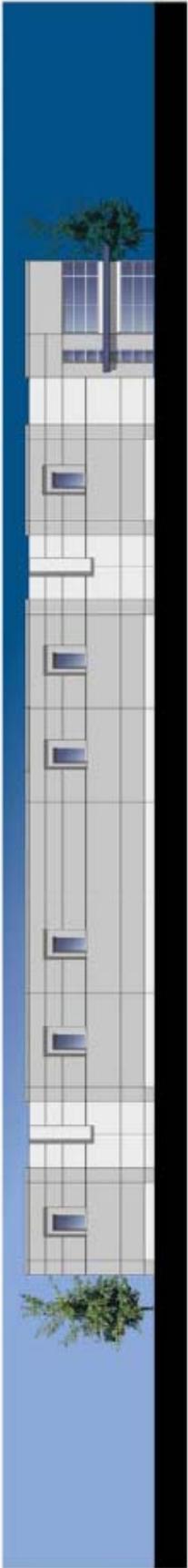


BUILDING 1 - WEST ELEVATION

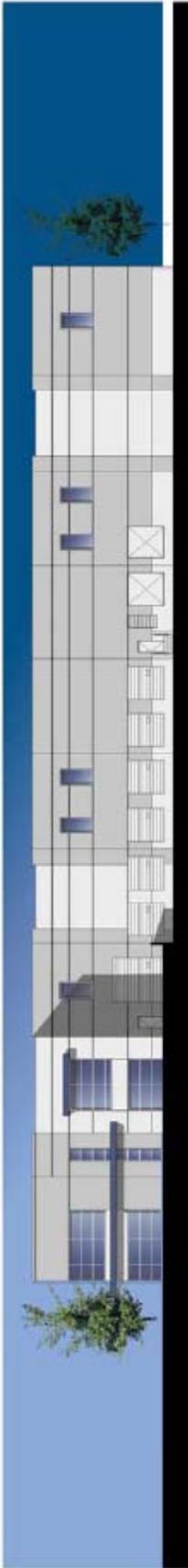
EXHIBIT 2-12
BUILDING 1 ELEVATIONS
SOURCE: HERDMAN RIERSON ARCHITECTURE + DESIGN, INC.



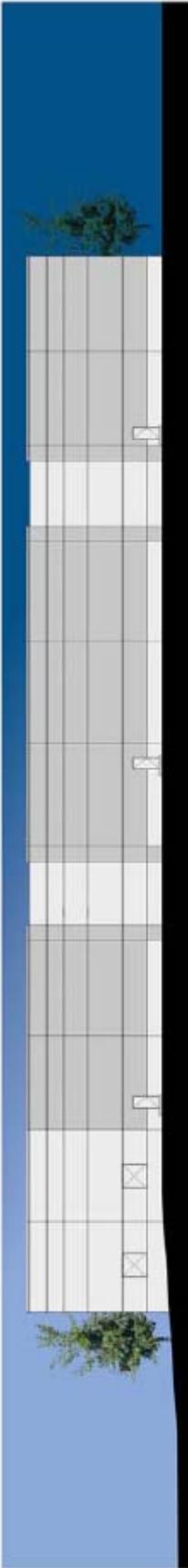
BUILDING 2 - EAST ELEVATION



BUILDING 2 - SOUTH ELEVATION

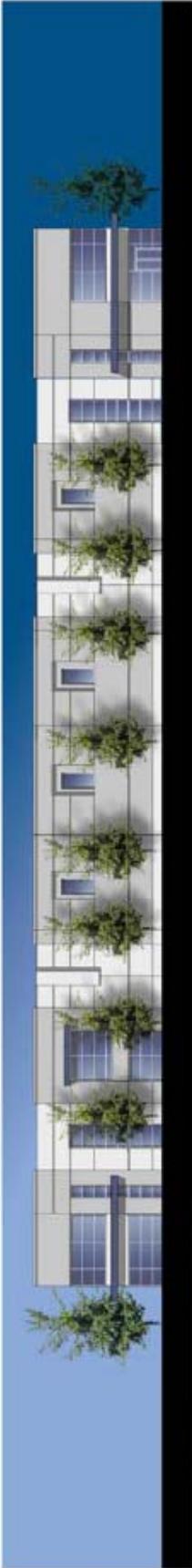


BUILDING 2 - NORTH ELEVATION

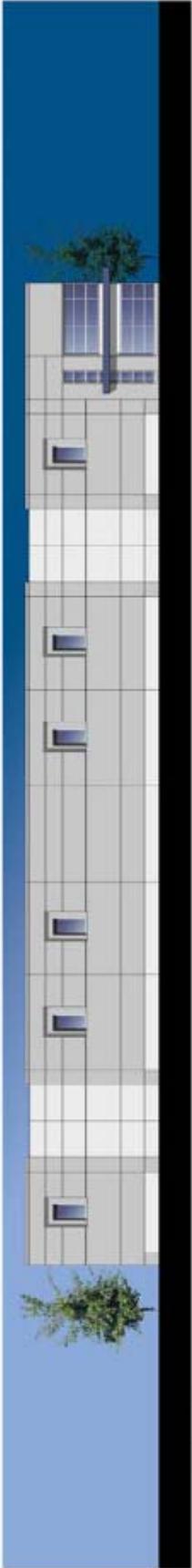


BUILDING 2 - WEST ELEVATION

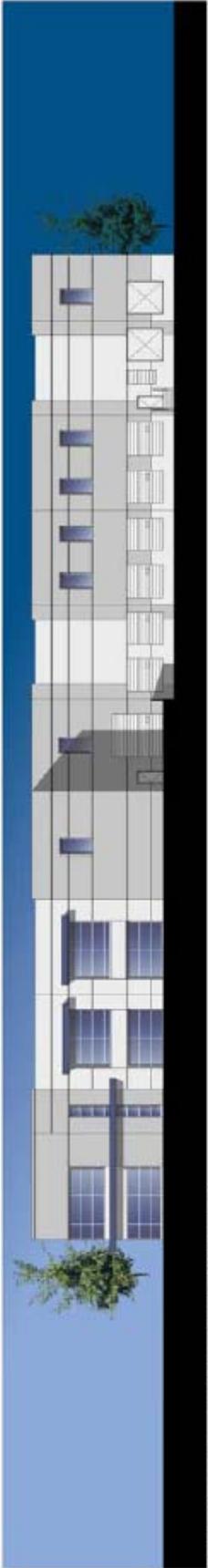
EXHIBIT 2-13
BUILDING 2 ELEVATIONS
SOURCE: HERDMAN RIERSON ARCHITECTURE + DESIGN, INC.



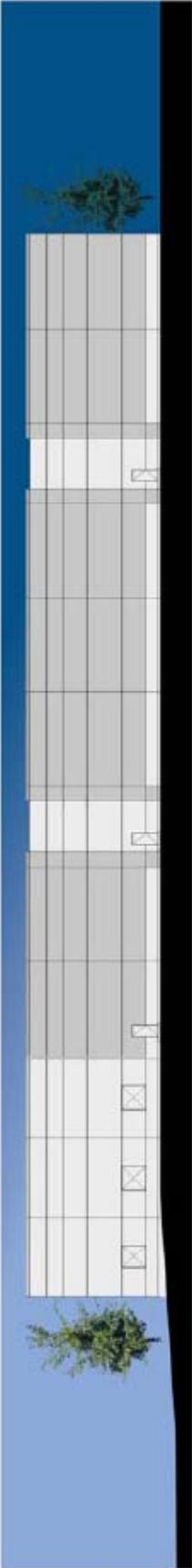
BUILDING 3 - EAST ELEVATION



BUILDING 3 - SOUTH ELEVATION



BUILDING 3 - NORTH ELEVATION



BUILDING 3 - WEST ELEVATION

EXHIBIT 2-14
BUILDING 3 ELEVATIONS
SOURCE: HERDMAN RIERSON ARCHITECTURE + DESIGN, INC.

**Table 2-1
 Summary of Proposed Project**

Project Element	Total Area	Building #1	Building #2	Building #3
Parcel (Site) Area	421,773 sq.ft	155,530 sq.ft	138,331 sq.ft	127,912 sq.ft
Building Floor Area	231,731 sq.ft	82,362 sq.ft	75,331 sq.ft	74,038 sq.ft
Loading Docks	18 (plus six knock out panels)	Six panels (plus two knock out panels)	Six panels (plus two knock out panels)	Six panels (plus one knock out panel)
Floor Area Ratio (FAR)	51%	53%	54%	58%
Lot Coverage	51.39%	50%	51%	54%
Landscape Area	43,752 sq.ft.	25,308 sq.ft	14,191 sq.ft	4,253 sq.ft
Parking Stalls (Total)	349 stalls	123 stalls	114 stalls	112 stalls
Standard Stalls	248 stalls	87 stalls	81 stalls	80 stalls
Compact Stalls	86 stalls	31 stalls	28 stalls	27 stalls
ADA Stalls	15 stalls	five stalls	five stalls	five stalls

Source: Herdman Rierson Architecture + Design, Inc. *Conceptual Site Plan*. Plan dated November 17, 2015.

2.4.2 CONSTRUCTION CHARACTERISTICS

The proposed project will take approximately 11 months to complete. The proposed project’s construction will consist of the following phases:

- *Demolition.* The existing concrete tilt-up structure and on-site improvements will need to be demolished in order to accommodate the proposed project. This phase will take approximately two months to complete.
- *Grading.* During this phase, the entire project site will be graded and leveled. This phase will take approximately one month to complete.
- *Site Preparation.* The project site will be prepared for the construction of the three new structures. This phase will take approximately one month to complete.
- *Construction and Installation.* The new concrete tilt up buildings will be constructed during this phase. This phase will take approximately four months to complete.
- *Paving, Landscaping, and Finishing.* This phase will involve paving, the installation of the landscaping, and the completion of the on-site improvements. This phase will last approximately three months to complete.

2.5 PROJECT OBJECTIVES

The City of Santa Fe Springs seeks to accomplish the following objectives with this review of the proposed project:

- To minimize the environmental impacts associated with the proposed project;
- To promote infill development;
- To promote increased property valuation as a means to finance public services and improvements in the City; and,
- To ensure that the proposed development is in conformance with the policies of the City of Santa Fe Springs General Plan.

The project Applicant is seeking to accomplish the following objectives with the proposed project:

- To more efficiently utilize the site; and,
- To realize a fair return on their investment.

2.6 DISCRETIONARY ACTIONS

A Discretionary Decision is an action taken by a government agency (for this project, the government agency is the City of Santa Fe Springs) that calls for an exercise of judgment in deciding whether to approve a project. The proposed project will require the following approvals:

- A Development Plan Approval (DPA 902, 903, and 904) for the new buildings;
- A Parcel Map (TPM 73880);
- The adoption of the Mitigated Negative Declaration; and,
- The adoption of the Mitigation Monitoring and Reporting Program (MMRP).



SECTION 3 - ENVIRONMENTAL ANALYSIS

This section of the Initial Study prepared for the proposed project analyzes the potential environmental impacts that may result from the proposed project's implementation. The issue areas evaluated in this Initial Study include the following:

Aesthetics (Section 3.1);	Land Use and Planning (Section 3.10);
Agricultural and Forestry Resources (Section 3.2);	Mineral Resources (Section 3.11);
Air Quality (Section 3.3);	Noise (Section 3.12);
Biological Resources (Section 3.4);	Population and Housing (Section 3.13);
Cultural Resources (Section 3.5);	Public Services (Section 3.14);
Geology and Soils (Section 3.6);	Recreation (Section 3.15);
Greenhouse Gas Emissions; (Section 3.7);	Transportation and Circulation (Section 3.16);
Hazards and Hazardous Materials (Section 3.8);	Utilities (Section 3.17); and,
Hydrology and Water Quality (Section 3.9);	Mandatory Findings of Significance (Section 3.18).

The environmental analysis included in this section reflects the Initial Study Checklist format used by the City of Santa Fe Springs in its environmental review process (refer to Section 1.3 herein). Under each issue area, an analysis of impacts is provided in the form of questions and answers. The analysis then provides a response to the individual questions. For the evaluation of potential impacts, questions are stated and an answer is provided according to the analysis undertaken as part of this Initial Study's preparation. To each question, there are four possible responses:

- *No Impact.* The proposed project *will not* have any measurable environmental impact on the environment.
- *Less Than Significant Impact.* The proposed project *may have* the potential for affecting the environment, although these impacts will be below levels or thresholds that the City of Santa Fe Springs or other responsible agencies consider to be significant.
- *Less Than Significant Impact with Mitigation.* The proposed project *may have* the potential to generate impacts that will have a significant impact on the environment. However, the level of impact may be reduced to levels that are less than significant with the implementation of mitigation measures.
- *Potentially Significant Impact.* The proposed project may result in environmental impacts that are significant.

This Initial Study will assist the City in making a determination as to whether there is a potential for significant adverse impacts on the environment associated with the implementation of the proposed project.

3.1 AESTHETICS

3.1.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant adverse aesthetic impact if it results in any of the following:

- An adverse effect on a scenic vista;
- Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- A substantial degradation of the existing visual character or quality of the site and its surroundings; or,
- A new source of substantial light and glare that would adversely affect day-time or night-time views in the area.

3.1.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. *Would the project have a substantial adverse affect on a scenic vista?* • *Less than Significant Impact.*

The proposed project involves the construction of three new concrete tilt up warehouses with a total floor area (including mezzanines) of 231,731 square feet along the north side of Rosecrans Avenue. The project will be a substantial improvement over the existing on-site conditions. As indicated previously, the site was previously occupied by the former Norwalk Dairy. The site now exhibits blight and is covered over in debris, crates, garbage, unmaintained vegetation, and defunct pipes and valves. In addition, the southern portion of the site contains vacant and dilapidated structures.²¹ The implementation of the proposed project will require the demolition and removal of the existing on-site improvements and debris.

The proposed project will not adversely impact the views from the houses located along the south side of Rosecrans Avenue. Once complete, the proposed project will not negatively impact views of the Puente Hills and San Gabriel Mountains because the new warehouses will be 36 feet in height and will be setback 36 feet from the property line along the north side of Rosecrans Avenue.²² Furthermore, current development restricts views of the San Gabriel Mountains from the south side of Rosecrans Avenue. Views of the Puente Hills are also restricted by the industrial development located west of the project site.²³ As a result, no loss in scenic vistas is anticipated to occur and the impacts are anticipated to be less than significant.

²¹ Blodgett Baylosis Environmental Planning. Field survey of the project site (Surveys were conducted on Monday, June 29th and Tuesday, September 16, 2015).

²² Herdman Rierson Architecture + Design, Inc. *Conceptual Site Plan*. Plan dated November 17, 2015.

²³ Blodgett Baylosis Environmental Planning. Field survey of the project site (Surveys were conducted on Monday, June 29th and Tuesday, September 16, 2015).

B. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? • No Impact.

The project site was previously occupied by the former Norwalk Dairy. At the present time, the site is covered in debris and inoperable machinery and other rubbish. The existing onsite vegetation and trees that are present on-site consist of species that are most commonly found in an urban environment, either as ornamental landscaping or as unmaintained ruderal vegetation. The project site is developed and there are no remaining natural rock outcroppings present on-site.²⁴ In addition, there are no historic buildings present on-site (refer to Section 3.5). According to the California Department of Transportation (Caltrans), neither Rosecrans Avenue nor Maryton Avenue is designated scenic highways and there is no State or County designated scenic highways in the vicinity of the project site.²⁵ As a result, no impacts on scenic resources or designated scenic highways will result from the proposed project's implementation.

C. Would the project result in a substantial degradation of the existing visual character or quality of the site and its surroundings? • No Impact.

As noted previously, the site is blighted and is covered over in debris, obsolete pipes and valves, crates, garbage, and unmaintained ruderal vegetation. The northern portion of the site is currently used as a truck and container storage area while the southern portion of the site contains dilapidated buildings and structures. Once constructed, the proposed project will improve the quality of the site and the surrounding areas by requiring the removal of the existing on-site improvements, debris, and vegetation. In addition, the proposed development will feature modern architecture and new landscaping. The new buildings and landscaping will be a substantial improvement in a citywide context because the warehouses will be located on a site that occupies frontage along a major arterial route east of the City's corporate boundaries. As a result, no impacts will occur.

D. Would the project create a new source of substantial light or glare that would adversely affect day-or-night-time views in the area? • Less Than Significant Impact with Mitigation.

Exterior lighting can be a nuisance to adjacent land uses that are sensitive to this lighting. This nuisance lighting is referred to as *light trespass* which is typically defined as the presence of unwanted light on properties located adjacent to the source of lighting. The single family units located across the project site along the south side of Rosecrans Avenue are light sensitive receptors.²⁶ The predominant source of light impacts will be related to the surface parking lot and building lighting associated with Building 1. Because light sensitive receptors are found in the vicinity of the project site, the following mitigation is required in order to minimize the potential impacts to the greatest extent possible:

- The Applicant must ensure that appropriate light shielding is provided for the lighting equipment in the parking area, buildings, and security as a means to limit glare and light trespass. The plan

²⁴ Blodgett Baylosis Environmental Planning. Field survey of the project site (Surveys were conducted on Monday, June 29th and Tuesday, September 16, 2015).

²⁵ California Department of Transportation. *Official Designated Scenic Highways*. www.dot.ca.gov

²⁶ Blodgett Baylosis Environmental Planning. Field survey of the project site (Surveys were conducted on Monday, June 29th and Tuesday, September 16, 2015).

for the lighting must be submitted to the Planning Department, Police Services Department, and the Chief Building Official for review and approval prior to the issuance of any building permits.

- An interior parking and street lighting plan and an exterior photometric plan indicating the location, size, and type of existing and proposed lighting shall be prepared by the Applicant and submitted for review and approval by the Planning Department, Police Services Department, and the Chief Building Official.

The mitigation identified above would reduce the potential impacts to levels that are less than significant.

3.1.3 CUMULATIVE IMPACTS

The potential aesthetic impacts related to views, aesthetics, and light and glare are site specific. The proposed project will not restrict scenic views along Rosecrans Avenue, damage or interfere with any scenic resources or highways, or degrade the project site and surrounding areas. However, the proposed project has the potential to create unwanted glare and light trespass. The mitigation measures discussed in Sections 3.1.2.D will reduce any potential impacts to levels that are less than significant.

3.1.4 MITIGATION MEASURES

The analysis determined that no significant adverse impacts related to aesthetics and views are anticipated with adherence to existing regulations and requirements. However, due to the presence of light sensitive receptors in the vicinity of the project site, the following mitigation measures are required to reduce potential impacts to levels that are less than significant:

Mitigation Measure No. 1 (Aesthetics). The Applicant must ensure that appropriate light shielding is provided for the lighting equipment in the parking area, buildings, and security as a means to limit glare and light trespass. The plan for the lighting must be submitted to the Planning and Development Department, Police Services Department, and the Chief Building Official for review and approval prior to the issuance of any building permits.

Mitigation Measure No. 2 (Aesthetics). An interior parking and street lighting plan and an exterior photometric plan indicating the location, size, and type of existing and proposed lighting shall be prepared by the Applicant and submitted for review and approval by the Planning and Development Department, Police Services Department, and the Chief Building Official.

3.2 AGRICULTURE AND FORESTRY RESOURCES

3.2.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant impact on agriculture resources if it results in any of the following:

- The conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide importance;
- A conflict with existing zoning for agricultural use or a Williamson Act Contract;
- A conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §4526), or zoned timberland production (as defined by Government Code §51104[g]);
- The loss of forest land or the conversion of forest land to a non-forest use; or,
- Changes to the existing environment that due to their location or nature may result in the conversion of farmland to non-agricultural uses.

3.2.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? • Less than Significant Impact.

According to the California Department of Conservation, the City of Santa Fe Springs does not contain any areas of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.²⁷ The project site was formerly developed as a dairy, though the use has closed and all agriculture activities have ceased. The site is currently used for storage and contains debris, obsolete pipes and valves, dilapidated structures, crates, containers, and parked trucks. As a result, no impacts on prime farmland soils will occur with the implementation of the proposed project.

B. Would the project conflict with existing zoning for agricultural use or a Williamson Act Contract? • Less than Significant Impact.

The project site is currently zoned as Buffer Parking (B-P) for the first 100 feet, Light Manufacturing (M-1) for the next 380 feet, and M-2 (Heavy Manufacturing) for the remainder of the site, which permits any principal permitted use within the M-1, M-2, and M-L zone. According to the City's zoning code, agricultural uses, excluding dairies, stockyards, slaughter of animals and manufacture of fertilizer, are listed as a permitted use within the M-1 zone.²⁸ The proposed project will not require a zone change and no loss in land zoned for/or permitting agricultural uses will occur. In addition, according to the California

²⁷ California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. *Important Farmland in California 2010*. ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/statewide/2010/fmmp2010_08_11.pdf.

²⁸ City of Santa Fe Springs Municipal Code. Title XV, Land Usage. Chapter 155, Code 155.211 Principal Permitted Uses.

Department of Conservation Division of Land Resource Protection, the project site is not subject to a Williamson Act Contract.²⁹ As a result, no impacts on existing Williamson Act Contracts will result from the proposed project's implementation.

C. Would the project conflict with existing zoning for or cause rezoning of, forest land (as defined in Public Resources Code Section 4526), or zoned timberland production (as defined by Government Code § 51104[g])? • No Impact.

The City of Santa Fe Springs and the project site are located in the midst of a larger urban area and no forest lands are located within the City (refer to Exhibit 3-1). The City of Santa Fe Springs General Plan and the Santa Fe Springs Zoning Ordinance do not specifically provide for any forest land preservation.³⁰ As a result, no impacts on forest land or timber resources will result from the proposed project's implementation.

D. Would the project result in the loss of forest land or the conversion of forest land to a non-forest use? • No Impact.

No forest lands are located within the vicinity of the project site. As a result, no loss or conversion of forest lands will result from the proposed project's implementation.

E. Would the project involve other changes in the existing environment that, due to their location or nature, may result in conversion of farmland to non-agricultural use? • No Impact.

The proposed project's implementation will not result in the conversion of any existing farm lands or forest lands to urban uses. As a result, no impacts will result from the implementation of the proposed project.

3.2.3 CUMULATIVE IMPACTS

The analysis determined that there are no agricultural or forestry resources in the project area and that the implementation of the proposed project would not result in any significant adverse impacts on these resources. As a result, no cumulative impacts on agricultural or farmland resources will occur.

3.2.4 MITIGATION MEASURES

The analysis of agricultural and forestry resources indicated that no significant adverse impacts on these resources would occur as part of the proposed project's implementation and no mitigation is required.

²⁹ California Department of Conservation. *State of California Williamson Act Contract Land*.
ftp://ftp.consrv.ca.gov/pub/dlrp/WA/2012%20Statewide%20Map/WA_2012_8x11.pdf

³⁰ City of Santa Fe Springs. *Santa Fe Springs General Plan* and the Santa Fe Springs Municipal Code, Chapter 155.

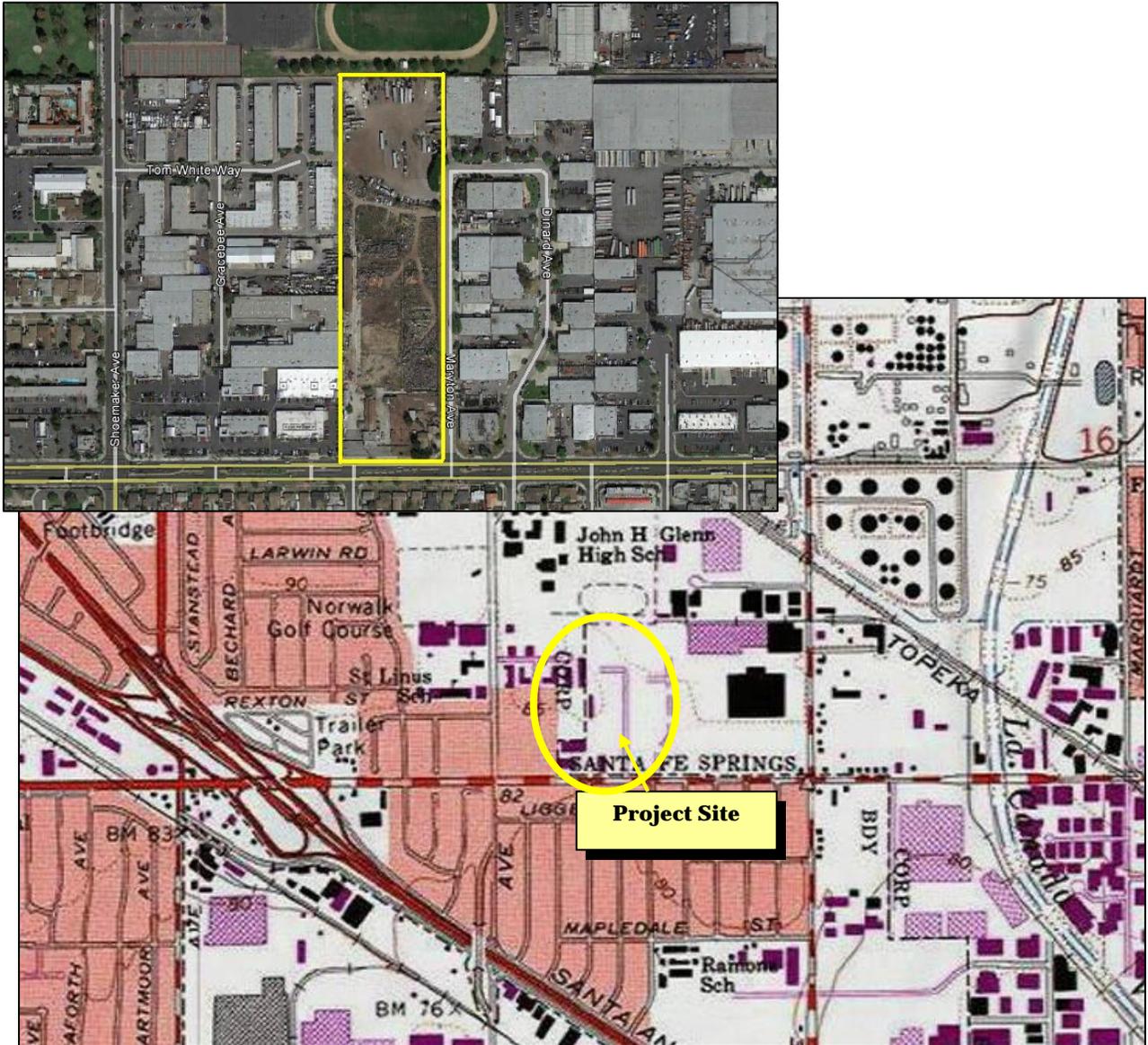


EXHIBIT 3-1
LAND COVERAGE AND LAND USE MAP
SOURCE: UNITED STATES GEOLOGICAL SURVEY

3.3 AIR QUALITY

3.3.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project will normally be deemed to have a significant adverse environmental impact on air quality, if it results in any of the following:

- A conflict with or the obstruction of the implementation of the applicable air quality plan;
- A violation of an air quality standard or contribute substantially to an existing or projected air quality violation;
- A cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard;
- The exposure of sensitive receptors to substantial pollutant concentrations; or,
- The creation of objectionable odors affecting a substantial number of people.

The South Coast Air Quality Management District (SCAQMD) has established quantitative thresholds for short-term (construction) emissions and long-term (operational) emissions for the following criteria pollutants:

- *Ozone (O₃)* is a nearly colorless gas that irritates the lungs, damages materials, and vegetation. O₃ is formed by photochemical reaction (when nitrogen dioxide is broken down by sunlight).
- *Carbon monoxide (CO)*, a colorless, odorless toxic gas that interferes with the transfer of oxygen to the brain, is produced by the incomplete combustion of carbon-containing fuels emitted as vehicle exhaust.
- *Nitrogen dioxide (NO₂)* is a yellowish-brown gas, which at high levels can cause breathing difficulties. NO₂ is formed when nitric oxide (a pollutant from burning processes) combines with oxygen.
- *Sulfur dioxide (SO₂)* is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Health effects include acute respiratory symptoms and difficulty in breathing for children.
- *PM₁₀ and PM_{2.5}* refers to particulate matter less than ten microns and two and one-half microns in diameter, respectively. Particulates of this size cause a greater health risk than larger-sized particles since fine particles can more easily cause irritation.

Projects in the South Coast Air Basin (SCAB) generating construction-related emissions that exceed any of the following emissions thresholds are considered to be significant under CEQA:

- 75 pounds per day or 2.50 tons per quarter of reactive organic compounds;
- 100 pounds per day or 2.50 tons per quarter of nitrogen dioxide;
- 550 pounds per day or 24.75 tons per quarter of carbon monoxide;
- 150 pounds per day or 6.75 tons per quarter of PM₁₀; or,
- 150 pounds per day or 6.75 tons per quarter of sulfur oxides.

A project would have a significant effect on air quality if any of the following operational emissions thresholds for criteria pollutants are exceeded:

- 55 pounds of reactive organic compounds;
- 55 pounds of nitrogen dioxide;
- 550 pounds of carbon monoxide;
- 150 pounds of PM₁₀; or,
- 150 pounds of sulfur oxides.

3.3.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. *Would the project conflict with or obstruct implementation of the applicable air quality plan?* • *No Impact.*

The project area is located within the South Coast Air Basin (SCAB), which covers a 6,600 square-mile area within Los Angeles, the non-desert portions of Los Angeles County, Riverside County, and San Bernardino County.³¹ Measures to improve regional air quality are outlined in the SCAQMD's Air Quality Management Plan (AQMP).³² The most recent AQMP was adopted in 2012 and was jointly prepared with the California Air Resources Board (CARB) and the Southern California Association of Governments (SCAG).³³ The AQMP will help the SCAQMD maintain focus on the air quality impacts of major projects associated with goods movement, land use, energy efficiency, and other key areas of growth. Key elements of the 2012 AQMP include enhancements to existing programs to meet the 24-hour PM_{2.5} Federal health standard and a proposed plan of action to reduce ground-level ozone. The primary criteria pollutants that remain non-attainment in the local area include PM_{2.5} and Ozone. Specific criteria for determining a project's conformity with the AQMP is defined in Section 12.3 of the SCAQMD's CEQA Air Quality Handbook. The Air Quality Handbook refers to the following criteria as a means to determine a project's conformity with the AQMP:³⁴

- *Consistency Criteria 1* refers to a proposed project's potential for resulting in an increase in the frequency or severity of an existing air quality violation or its potential for contributing to the continuation of an existing air quality violation.

³¹ South Coast Air Quality Management District, *Final 2012 Air Quality Plan*, Adopted June 2007.

³² *Ibid.*

³³ *Ibid.*

³⁴ South Coast Air Quality Management District. *CEQA Air Quality Handbook*. April 1993.

- *Consistency Criteria 2* refers to a proposed project’s potential for exceeding the assumptions included in the AQMP or other regional growth projections relevant to the AQMP’s implementation.³⁵

In terms of Criteria 1, the proposed project’s long-term (operational) airborne emissions will be below levels that the SCAQMD considers to be a significant adverse impact (refer to the analysis included in the next section where the long-term stationary and mobile emissions for the proposed project are summarized in Tables 3-1 and 3-2). The proposed project will also conform to Consistency Criteria 2 since it will not significantly affect any regional population, housing, and employment projections prepared for the City of Santa Fe Springs. Projects that are consistent with the projections of employment and population forecasts identified in the Regional Comprehensive Plan (RCP) prepared by the Southern California Association of Governments (SCAG) are considered consistent with the AQMP growth projections, since the RCP forms the basis of the land use and transportation control portions of the AQMP. According to the Growth Forecast Appendix prepared by SCAG for the 2012-2035 Regional Transportation Plan (RTP), the City of Santa Fe Springs is projected to add a total of 900 new jobs through the year 2035.³⁶ A total of 217 new jobs will be created upon the implementation of the proposed project. According to the State Employment Development Department, the City’s current unemployment rate is 8.3% which means that there are 600 residents actively seeking work. The number of new jobs assumes one new job for every 1,000 square feet of floor area and is well within SCAG’s employment projections for the City of Santa Fe Springs and the proposed project will not violate Consistency Criteria 2. As a result, no impacts related to the implementation of the AQMP will occur.

B. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation? • Less Than Significant Impact with Mitigation.

The entire project construction period is expected to last for approximately 11 months (refer to Section 2.4.2) and would include site preparation, erection of the new warehouse, and finishing the project (paving areas, painting, and installing landscaping). The analysis of daily construction and operational emissions was prepared utilizing CalEEMod V.2013.2.2. The assumptions regarding the construction phases and the length of construction followed those identified herein in Section 2.4.2. As shown in Table 3-1 (on the following page), daily construction emissions are not anticipated to exceed the SCAQMD significance thresholds.

**Table 3-1
 Estimated Daily Construction Emissions**

Construction Phase	ROG	NO₂	CO	SO₂	PM₁₀	PM_{2.5}
Demolition (on-site)	4.28	45.65	35.03	0.03	2.83	2.21
Demolition (off-site)	0.10	0.76	1.46	--	0.22	0.06
Total Demolition Phase	4.38	46.41	36.49	0.03	3.05	2.27
Grading (on-site)	3.66	38.44	26.07	0.02	8.70	5.38

³⁵ South Coast Air Quality Management District. *CEQA Air Quality Handbook*. April 1993.

³⁶ Southern California Association of Governments. *Growth Forecast. Regional Transportation Plan 2012-2035*. April 2012.

**Table 3-1
 Estimated Daily Construction Emissions (continued)**

Construction Phase	ROG	NO₂	CO	SO₂	PM₁₀	PM_{2.5}
Grading (off-site)	0.06	0.07	0.97	--	0.16	0.04
Total Grading	3.72	38.51	27.04	0.02	8.86	5.42
Site Preparation (on-site)	5.07	54.63	41.10	0.03	21.00	12.63
Site Preparation (off-site)	0.07	0.09	1.17	--	0.20	0.05
Total Site Preparation	5.14	54.72	42.27	0.03	21.20	12.68
Building Construction (on-site)	3.40	28.50	18.50	0.02	1.96	1.84
Building Construction (off-site)	1.15	6.08	16.21	0.03	2.22	0.66
Total Building Construction	4.55	34.58	34.71	0.05	4.18	2.50
Paving (on-site)	2.46	22.38	14.81	0.02	1.26	1.16
Paving (off-site)	0.06	0.07	0.97	--	0.16	0.04
Total Paving	2.52	22.45	15.78	0.02	1.42	1.20
Architectural Coatings (on-site)	59.98	2.18	1.86	--	0.17	0.17
Architectural Coatings (off-site)	0.11	0.14	1.82	--	0.34	0.09
Total Architectural Coatings	60.11	2.32	3.68	--	0.51	0.26
Maximum Daily Emissions	60.09	54.72	42.27	0.06	21.20	12.68
Daily Thresholds	75	100	550	150	150	55

Source: CalEEMod V.2012.2.2

The estimated daily construction emissions (shown in Table 3-1) assume compliance with applicable SCAQMD rules and regulations for the control of fugitive dust and architectural coating emissions, which include, but are not limited to, water active grading of the site and unpaved surfaces at least three times daily, daily clean-up of mud and dirt carried onto paved streets from the site, and use of low VOC paint.

Long-term emissions refer to those air quality impacts that will occur once the proposed project has been constructed and is operational. These impacts will continue over the operational life of the project. The long-term air quality impacts associated with the proposed project include mobile emissions associated with vehicular traffic. The analysis of long-term operational impacts also used the CalEEMod V.2013.2.2 computer model. Table 3-2 (shown on the following page), depicts the estimated operational emissions generated by the proposed project.

Table 3-2
Estimated Operational Emissions in lbs/day

Emission Source	ROG	NO₂	CO	SO₂	PM₁₀	PM_{2.5}
Area-wide (lbs/day)	8.86	--	0.06	--	--	--
Energy (lbs/day)	--	0.05	0.04	--	--	--
Mobile (lbs/day)	2.31	7.58	30.25	0.08	5.56	1.56
Total (lbs/day)	11.18	7.64	30.36	0.08	5.57	1.56
Daily Thresholds	55	55	55o	15o	15o	55

Source: CalEEMod V.2013.2.2

As indicated in Table 3-2, the projected long-term emissions are below thresholds considered to represent a significant adverse impact. Since the project area is located in a non-attainment area for ozone and particulates, the following measures will be applicable to the proposed project as a means to mitigate potential construction emissions:

- All unpaved demolition and construction areas shall be watered during excavation, grading and construction, and temporary dust covers shall be used to reduce dust emissions and meet SCAQMD Rule 403. Watering could reduce fugitive dust by as much as 55 percent.
- All materials transported off-site shall either be sufficiently watered or securely covered to prevent excessive amounts of dust and spillage.
- All clearing, earthmoving, or excavation activities shall be discontinued during periods of high winds (i.e. greater than 15 mph), so as to prevent excessive amounts of fugitive dust.
- The Applicant shall ensure that the contractors adhere to all pertinent SCAQMD protocols regarding grading, site preparation, and construction activities.

The aforementioned mitigation will further reduce the potential construction-related impacts to levels that are less than significant.

C. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? • Less Than Significant Impact.

The potential long-term (operational) and short-term (construction) emissions associated with the proposed project are compared to the SCAQMD's daily emissions thresholds in Tables 3-1 and 3-2, respectively. As indicated in these tables, the short-term and long-term emissions will not exceed the SCAQMD's daily thresholds. The SCAB is non-attainment for ozone and particulates. The proposed project's implementation will result in minimal construction-related emissions (refer to the discussion provided in the previous section). Operational emissions will be limited to vehicular and truck traffic

travelling to and from the proposed project. While the proposed project would result in additional vehicle trips, there would be a regional benefit in terms of a reduction in vehicle miles traveled (VMT) because it is an infill project that is consistent with the regional and the State's sustainable growth objectives.

Finally, the proposed project would not exceed these adopted projections used in the preparation of the Regional Transportation Plan (refer to the discussion included in Subsection A). As a result, the potential cumulative air quality impacts are deemed to be less than significant related to the generation of criteria pollutants.

D. Would the project expose sensitive receptors to substantial pollutant concentrations? • Less than Significant Impact with Mitigation.

Sensitive receptors refer to land uses and/or activities that are especially sensitive to poor air quality and typically include homes, schools, playgrounds, hospitals, convalescent homes, and other facilities where children or the elderly may congregate.³⁷ These population groups are generally more sensitive to poor air quality. As indicated previously, the nearest sensitive receptors to the project site are John H. Glenn High School, located along the project site's northern property line, and the single-family residential units, located across the project site along the south side of Rosecrans Avenue.³⁸ The location and extent of the aforementioned sensitive receptors is shown in Exhibit 3-2.

The SCAQMD requires that CEQA air quality analyses indicate whether a proposed project will result in an exceedance of *localized emissions thresholds* or LSTs. LSTs only apply to short-term (construction) and long-term (operational) emissions at a fixed location and do not include off-site or area-wide emissions. The approach used in the analysis of the proposed project utilized a number of screening tables that identified maximum allowable emissions (in pounds per day) at a specified distance to a receptor. The pollutants that are the focus of the LST analysis include the conversion of NO_x to NO₂; carbon monoxide (CO) emissions from construction and operations; PM₁₀ emissions from construction and operations; and PM_{2.5} emissions from construction and operations. As indicated in Table 3-2, the proposed project's operational emissions are not anticipated to exceed thresholds of significance outlined by the SCAQMD. The proposed project's construction emissions are also not anticipated to exceed SCAQMD thresholds; however, due to the size of the project site's size (9.58-acres), the following mitigation is required:

- Construction related activities (i.e. grading, demolition, etc.) shall be restricted to a maximum of five-acres per day.

The use of the "look-up tables" is permitted since each of the construction phases will involve the disturbance of less than five acres of land area. As indicated in Table 3-3, the proposed project will not exceed any LSTs based on the information included in the Mass Rate LST Look-up Tables provided by the SCAQMD. For purposes of the LST analysis, the receptor distance used was 100 meters. As indicated in the table, the proposed project will not exceed any LSTs based on the information included in the Mass Rate LST Look-up Tables.

³⁷ South Coast Air Quality Management District. *CEQA Air Quality Handbook, Appendix 9*. 2004 (as amended).

³⁸ Google Earth. Site accessed February 6th, 2016.

**Table 3-3
 Local Significance Thresholds Exceedance SRA 5**

Emissions	Project Emissions* (lbs/day)	Type	Allowable Emissions Threshold (lbs/day) and a Specified Distance from Receptor (in meters)				
			25	50	100	200	500
NO ₂	54.72	Construction	172	165	176	194	244
NO ₂	7.64	Operations	172	165	176	194	244
CO	42.27	Construction	1,480	1,855	2,437	3,897	9,312
CO	30.36	Operations	1,480	1,855	2,437	3,897	9,312
PM ₁₀	5.57**	Operations	4	10	16	23	49
PM ₁₀	21.20/10.60*	Construction	7	21	39	74	182
PM _{2.5}	1.56	Operations	2	3	4	8	25
PM _{2.5}	12.68/6.34*	Construction	7	10	18	39	120

*= Figures with mitigation measures mentioned in Subsection 3.3.2.B

**=Mitigation provided in Subsection 3.3.2.D for operational emissions

Source: South Coast Air Quality Management District

As shown in Table 3-3, the project will exceed LST thresholds for operational PM₁₀, Construction PM₁₀, and Construction PM_{2.5}. Adherence to the mitigation provided in Subsection 3.3.2.B regarding the watering of the site to control off-road fugitive dust will reduce impacts to levels that are less than significant for construction PM_{2.5}. To further reduce construction and operational PM₁₀ emissions the following mitigation is required:

- The project contractors and future tenants will ensure that all diesel trucks and equipment are not left to idle for longer than five minutes.
- Construction staging and queuing will be prohibited from taking place within 150 feet of the site's northern boundary with the high school.

Most vehicles generate carbon monoxide (CO) as part of the tail-pipe emissions and high concentrations of CO along busy roadways and congested intersections are a concern. The areas surrounding the most congested intersections are often found to contain high levels of CO that exceed applicable standards. These areas of high CO concentration are referred to as *hot-spots*. Two variables influence the creation of a hot-spot and these variables include traffic volumes and traffic congestion. Typically, a hot-spot may occur near an intersection that is experiencing severe congestion (LOS E or LOS F).

The SCAQMD stated in its CEQA Handbook that a CO hot-spot would not likely develop at an intersection operating at LOS C or better. Since the Handbook was written, there have been new CO emissions controls added to vehicles and reformulated fuels are now sold in the SCAB. These new automobile emissions controls, along with the reformulated fuels, have resulted in a lowering of both ambient CO concentrations and vehicle emissions. According to the traffic report, the project is anticipated to generate approximately 1,006 daily trips, with 85 AM peak hour trips and 92 PM peak hour trips. This additional peak hour traffic will not degrade any local intersection's level of service (LOS E or F).

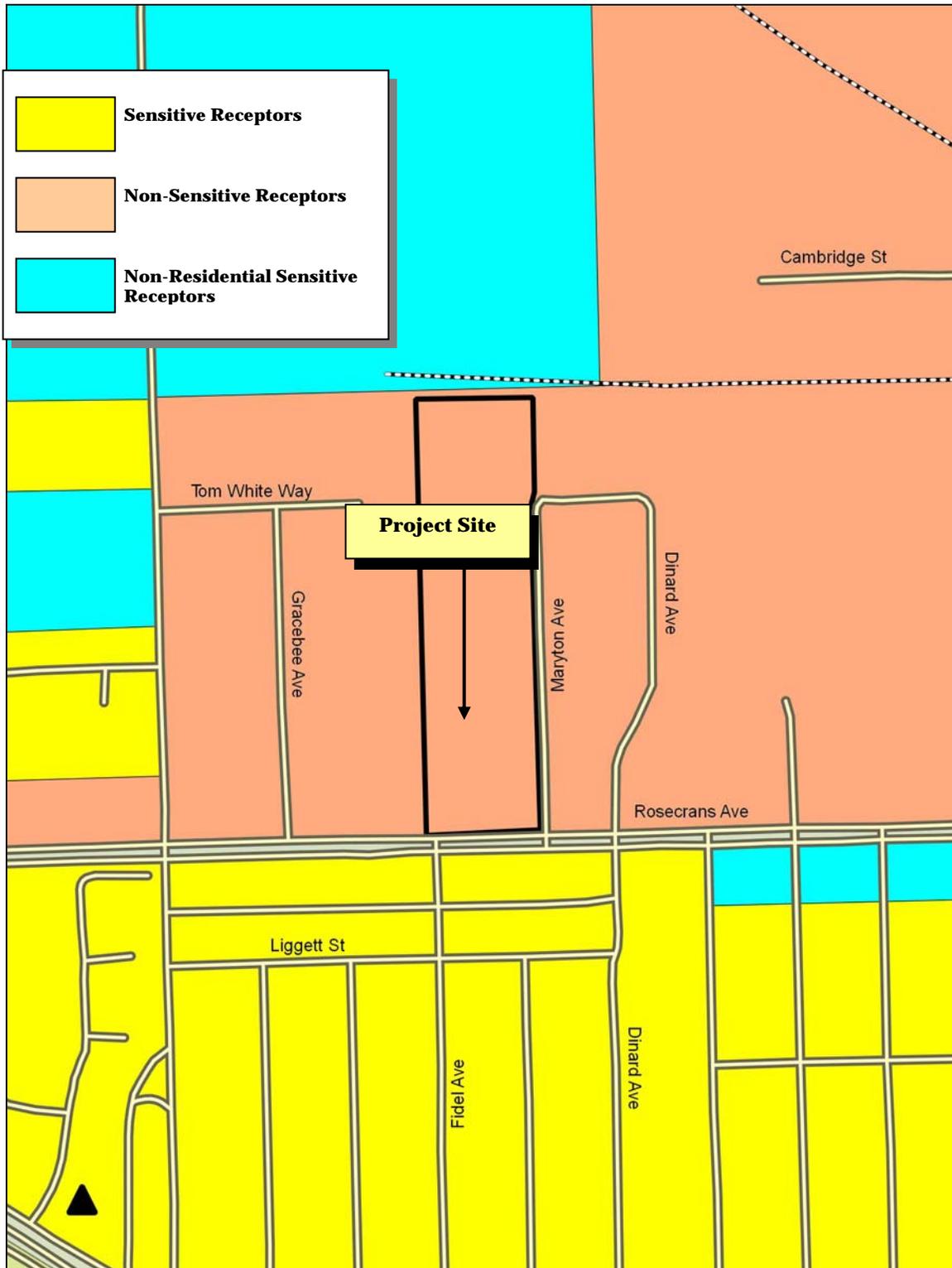


EXHIBIT 3-2
SENSITIVE RECEPTORS MAP
SOURCE: QUANTUM GIS

The only intersection that will be impacted is the Rosecrans Avenue/Maryton Avenue intersection. Mitigation has been provided in Subsection 3.16.2.A in order to reduce potential impacts to levels that are less than significant. In addition, project-generated traffic will not result in the creation of a carbon monoxide hot-spot. Adherence to the above-mentioned mitigation will reduce potential impacts to levels that are less than significant.

E. Would the project create objectionable odors affecting a substantial number of people? • No Impact.

The SCAQMD has identified those land uses that are typically associated with odor complaints. These uses include activities involving livestock, rendering facilities, food processing plants, chemical plants, composting activities, refineries, landfills, and businesses involved in fiberglass molding.³⁹ The proposed project will be involved in general warehousing and distribution uses. Given the nature of the intended use, no impacts related to odors are anticipated with the proposed project.

3.3.3 CUMULATIVE IMPACTS

The proposed project's short-term and long term emissions will be below levels considered to represent a significant impact. However, mitigation was provided to control fugitive dust and PM emissions generated by trucks and diesel equipment. The project's PM emissions are localized and will not result in a cumulative impact.

3.3.4 MITIGATION MEASURES

In addition, the following mitigation is required as part of this project to ensure that potential construction related air quality emissions are mitigated:

Mitigation Measure No. 3 (Air Quality). All unpaved demolition and construction areas shall be watered during excavation, grading and construction, and temporary dust covers shall be used to reduce dust emissions and meet SCAQMD Rule 403. Watering could reduce fugitive dust by as much as 55 percent.

Mitigation Measure No. 4 (Air Quality). All materials transported off-site shall either be sufficiently watered or securely covered to prevent excessive amounts of dust and spillage.

Mitigation Measure No. 5 (Air Quality). All clearing, earthmoving, or excavation activities shall be discontinued during periods of high winds (i.e. greater than 15 mph), so as to prevent excessive amounts of fugitive dust.

Mitigation Measure No. 6 (Air Quality). The Applicant shall ensure that the contractors adhere to all pertinent SCAQMD protocols regarding grading, site preparation, and construction activities.

Mitigation Measure No. 7 (Air Quality). Construction related activities (i.e. grading, demolition, etc) shall be restricted to a maximum of five-acres per day.

³⁹ South Coast Air Quality Management District. *CEQA Air Quality Handbook*. April 1993.

Mitigation Measure No. 8 (Air Quality). The project contractors and future tenants will ensure that all diesel trucks and equipment are not left to idle for longer than five minutes.

Mitigation Measure No. 9 (Air Quality). Construction staging and queuing will be prohibited from taking place within 150 feet of the site's northern boundary with the high school.

3.4 BIOLOGICAL RESOURCES

3.4.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant adverse impact on biological resources if it results in any of the following:

- 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 Wildlife or the U.S. Fish and Wildlife Service;
- A substantial adverse effect on any riparian habitat or other sensitive natural plant community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- A substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means;
- A substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory life corridors, or impede the use of native wildlife nursery sites;
- A conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or,
- A conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

3.4.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

- A. *Would the project 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 Wildlife or U.S. Fish and Wildlife Service?* • No Impact.

A Biological Property Evaluation was prepared for the Applicant by Michael Baker International. The preparer of the Biological Property Evaluation conducted a field survey as well as a record search through the California Department of Fish and Wildlife California Natural Biodiversity Database (CNDDB). The biologist indicated that the prior use as well as the surrounding uses have heavily disturbed most of the naturally occurring habitats; therefore, native plant communities and habitats are no longer present on-site. As indicated in the Biological study, the vegetation present on-site consists of ornamental species in a poorly maintained state.

A majority of the animal species found on-site consist of birds commonly found in an urban environment. Any mammal and reptile species found or expected to be on-site would be species adapted to human presence and development.⁴⁰ As a result, no impacts on any candidate, sensitive, or special status species will result from proposed project's implementation.

B. Would the project 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 Wildlife or U.S. Fish and Wildlife Service? • No Impact.

A review of the U.S. Fish and Wildlife Service National Wetlands Inventory, Wetlands Mapper indicated that there are no wetlands or riparian habitat present on-site or in the adjacent properties. In addition, there are no designated "blue line streams" located within the project site (refer to Exhibit 3-1). As a result, no impacts on natural or riparian habitats will result from the proposed project's implementation.

C. Would the project 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? • No Impact.

According to the biology evaluation, "no jurisdictional drainage features or isolated wetland features that would qualify as "waters of the United States" or "waters of the state" were observed within the proposed project site".⁴¹ As a result, the proposed project will not impact any protected wetland area or designated blue-line stream.

D. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory life corridors, or impede the use of native wildlife nursery sites? • Less than Significant Impact with Mitigation.

As indicated in the biological evaluation, the project site is surrounded by existing development which has removed natural plant communities from the surrounding area. The proposed development will be confined to existing developed areas and areas that have been heavily disturbed (approximately 9.68-acres). There are no riparian corridors, creeks, or useful patches of stepping stone habitat within the project site. The concrete-lined La Cañada Verde Creek is located approximately 0.5 mile to the east, outside of the proposed project footprint. Additionally, the channelization of La Cañada Verde Creek for flood control purposes has eliminated all riparian habitats that could support wildlife movement. Therefore, the proposed project will not disrupt or have any adverse effects on any migratory corridors or linkages that may occur in the general vicinity of the project site.⁴²

⁴⁰ Michael Baker International. *Biological Property Evaluation (Habitat Assessment) for Sensitive Biological Resources on a 9.68-acre Industrial Land Site Located at 13101-13123 Rosecrans Avenue, in the City of Santa Fe Springs, Los Angeles County, California*. Study dated August 13, 2015.

⁴¹ Ibid.

⁴² Ibid.

Even though the likelihood of encountering native resident species on-site is slim, the site in its current state could be an attractor for vectors (rats, mice, cockroaches, etc) due to the amount of debris covering the site and the site's history as a dairy farm. Without proper mitigation, any vectors present on-site will migrate to the surrounding uses during construction activities. As a result, the following mitigation is required:

- As a means to control vectors (rodents, insects, birds, and other scavenging animals etc.), the Applicant and project contractors must retain the service of qualified personnel to undertake periodic and regular inspections of the facility during the site clearance and demolition phase to ensure that appropriate vector control measures are implemented.

Adherence to the above-mentioned mitigation will reduce potential impacts to levels that are less than significant.

E. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? • No Impact.

Title IX (General Regulations) Chapter 96 Codes 130-140 of the City of Santa Fe Springs municipal code serves as the City's "Tree Ordinance." The tree ordinance establishes strict guidelines regarding the removal or tampering of trees located within any public right of-way (such as streets and alleys). The proposed project will not violate the City's current tree ordinance because there are no trees located within the adjacent alleyways and sidewalks; however, the proposed project will require the removal of over 40 trees in order to accommodate the new warehouses. The Applicant intends to provide 43,752 square feet of landscaping, thus mitigating the impacts of removing the site's vegetation. Since no public trees will be removed to accommodate the proposed project, no impacts will occur.

F. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan? • No Impact.

The proposed project will not impact an adopted or approved local, regional, or State habitat conservation plan because the proposed project is located in the midst of an urban area. According to the biological evaluation, the project site is not located within federally designated Critical Habitat. The closest designated Critical Habitat is located approximately 3.95 miles east of the site for coastal California gnatcatcher.⁴³

In addition, the Sycamore and Turnbull Canyons Significant Ecological Area (SEA #44) is the closest protected SEA and is located approximately 5.96 miles northeast from the project site.⁴⁴ The construction and operation of the proposed project will not affect the Sycamore and Turnbull Canyons SEA because the proposed development will be restricted to the project site. Therefore, no impacts will occur.

⁴³ Michael Baker International. *Biological Property Evaluation (Habitat Assessment) for Sensitive Biological Resources on a 9.68-acre Industrial Land Site Located at 13101-13123 Rosecrans Avenue, in the City of Santa Fe Springs, Los Angeles County, California*. Study dated August 13, 2015.

⁴⁴ Google Earth. Site accessed September 20, 2015.

3.4.3 CUMULATIVE IMPACTS

The impacts on biological resources are typically site specific. The proposed project will not involve any loss of protected habitat. Furthermore, the analysis determined that the proposed project will not result in any significant adverse impacts on protected plant and animal species. As result, the proposed project's implementation would not result in an incremental loss or degradation of those protected habitats found in the Southern California region. As a result, no cumulative impacts on biological resources will be associated with the proposed project's implementation.

3.4.4 MITIGATION MEASURES

The analysis indicated that in the event that vectors are encountered on-site, construction activities may force them to migrate and intrude on the adjacent properties. As a result, the following mitigation is required:

Mitigation Measure No. 10 (Biological Resources). As a means to control vectors (rodents, insects, birds, and other scavenging animals etc.), the Applicant and project contractors must retain the service of qualified personnel to undertake periodic and regular inspections of the facility during the site clearance and demolition phase to ensure that appropriate vector control measures are implemented.

3.5 CULTURAL RESOURCES

3.5.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project will normally have a significant adverse impact on cultural resources if it results in any of the following:

- A substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines;
- A substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA Guidelines;
- The destruction of a unique paleontological resource, site, or unique geologic feature; or,
- The disturbance of any human remains, including those interred outside of formal cemeteries.

3.5.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. *Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines?* • *No Impact.*

Historic structures and sites are defined by local, State, and Federal criteria. A site or structure may be historically significant if it is locally protected through a local general plan or historic preservation ordinance. A site or structure may be historically significant according to State or Federal criteria even if the locality does not recognize such significance. The State, through the State Historic Preservation Office (SHPO), maintains an inventory of those sites and structures that are considered to be historically significant. Finally, the U.S. Department of Interior has established specific Federal guidelines and criteria that indicate the manner in which a site, structure, or district is to be defined as having historic significance and in the determination of its eligibility for listing on the National Register of Historic Places.⁴⁵ To be considered eligible for the National Register, a property's significance may be determined if the property is associated with events, activities, or developments that were important in the past, with the lives of people who were important in the past, or represents significant architectural, landscape, or engineering elements. Specific criteria include the following:

- Districts, sites, buildings, structures, and objects that are associated with the lives of significant persons in or past;
- Districts, sites, buildings, structures, and objects that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or,

⁴⁵ U. S. Department of the Interior, National Park Service. National Register of Historic Places. <http://nrhp.focus.nps.gov>. 2010.

- Districts, sites, buildings, structures, and objects that have yielded or may be likely to yield, information important in history or prehistory.

Ordinarily, properties that have achieved significance within the past 50 years are not considered eligible for the National Register. However, such properties *will qualify* if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- A religious property deriving primary significance from architectural or artistic distinction or historical importance;
- Districts, sites, buildings, structures, and objects that are associated with events that have made a significant contribution to the broad patterns of our history;
- A building or structure removed from its original location that is significant for architectural value, or which is the surviving structure is associated with a historic person or event;
- A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life;
- A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events;
- A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived;
- A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or,
- A property achieving significance within the past 50 years if it is of exceptional importance.⁴⁶

According to the Phase I report that was prepared for the project site, use of the site dates back to at least 1928, when the site and surrounding areas were used for agricultural and residential purposes until 1947. Norwalk Dairy opened in 1952 and has occupied the site since.⁴⁷ As indicated previously, the structures present on-site are vacant and in poor condition. The aforementioned structures do not meet any of the eligibility criteria listed above. In addition, the project site is not listed on the State or National historic register.⁴⁸ There are two locations in the City that are recorded on the National Register of Historic Places: the Clarke Estate and the Hawkins-Nimocks Estate (also known as the Patricio Ontiveros Adobe or Ontiveros Adobe).⁴⁹ The Clarke Estate is located at 10211 Pioneer Boulevard and the Ontiveros Adobe is

⁴⁶ U. S. Department of the Interior, National Park Service. National Register of Historic Places. <http://nrhp.focus.nps.gov>. 2010

⁴⁷ Ardent Environmental Group, Inc. *Phase I Environmental Site Assessment*. Report dated October 2, 2015.

⁴⁸ California Department of Parks and Recreation. *California Historical Resources*. <http://ohp.parks.ca.gov/ListedResources>

⁴⁹ National Park Service U.S. Department of the Interior. *National Registrar of Historic Places, Title List Display*. <http://nrhp.focus.nps.gov/natreghome.do>

located at 12100 Mora Drive.⁵⁰ The proposed project will be limited to the project site and will not affect any existing resources listed on the National Register or those identified as being eligible for listing on the National Register. As a result, no impacts are associated with the proposed project's implementation.

B. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA Guidelines? • Less than Significant Impact with Mitigation.

The greater Los Angeles Basin was previously inhabited by the Gabrielino-Tongva people, named after the San Gabriel Mission.⁵¹ The Gabrielino tribe has lived in this region for around 7,000 years.⁵² Prior to Spanish contact, approximately 5,000 Gabrielino people lived in villages throughout the Los Angeles Basin.⁵³ Villages were typically located near major rivers such as the San Gabriel, Rio Hondo, or Los Angeles Rivers. Two village sites were located in the Los Nietos area: *Naxaaw'na* and *Sehat*. The sites of *Naxaaw'na* and *Sehat* are thought to be near the adobe home of Jose Manuel Nietos that was located near the San Gabriel River.⁵⁴ The project site is currently vacant and although the property has been subject to oil drilling activities, the project site is situated in an area of high archaeological significance. As a result, the following mitigation is required:

- The project Applicant will be required to obtain the services of a qualified Native American Monitor during construction-related ground disturbance activities. Ground disturbance is defined by the Tribal Representatives from the Gabrielino Band of Mission Indians, Kizh Nation as activities that include, but are not limited to, pavement removal, pot-holing or auguring, boring, grading, excavation, and trenching, within the project area. The monitor(s) must be approved by the tribal representatives and will be present on-site during the construction phases that involve any ground disturbing activities. The Native American Monitor will complete monitoring logs on a daily basis. The logs will provide descriptions of the daily activities, including construction activities, locations, soil, and any cultural materials identified. The Monitor will photo-document the ground disturbing activities. The monitors must also have Hazardous Waste Operations and Emergency Response (HAZWOPER) certification. In addition, the monitors will be required to provide insurance certificates, including liability insurance, to the an archaeological resource(s) are encountered during grading and excavation activities, pertinent provisions outlined in the California Environmental Quality Act, California Public Resources Code Division 13, Section 21083.2 (a) through (k) shall apply. The on-site monitoring shall end when the project site grading and excavation activities are completed.

Adherence to the abovementioned mitigation will reduce potential impacts to levels that are less than significant.

⁵⁰ U. S. Department of the Interior, National Park Service. National Register of Historic Places. [www. National register of historic places.](http://www.nationalregister.gov)

⁵¹ Tongva People of Sunland-Tujunga. *Introduction*. http://www.lausd.k12.ca.us/Verdugo_HS/classes/multimedia/intro.html

⁵² Ibid.

⁵³ Rancho Santa Ana Botanical Garden. *Tongva Village Site*. <http://www.rsabg.org/tongva-village-site-1>

⁵⁴ McCawley, William. *The First Angelinos, The Gabrielino Indians of Los Angeles*. 1996.

C. *Would the project directly or indirectly destroy a unique paleontological resource, site or unique geologic feature?* • *Less than Significant Impact.*

The likelihood of the discovery of paleontological resources is considered to be low due to the previous disturbance that has occurred in order to accommodate the existing development. Thus, the proposed project is not anticipated to disturb any paleontological resources and the impacts are less than significant.

D. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*
• *No Impact.*

There are two cemeteries located within five miles of the project site. The Little Lake Cemetery (operated by the little Lake Cemetery District) is the nearest cemetery to the project site and is located approximately 2.32 miles to the northwest along Florence Avenue.⁵⁵ Paradise Memorial Park is the second closest cemetery to the project site. This cemetery is located on the east side of Pioneer Boulevard and south of Florence Avenue approximately 2.82 miles to the northwest of the project site.⁵⁶ The proposed project will be restricted to the designated project site and will not affect the aforementioned cemeteries. In addition, the proposed project is not likely to disturb any on-site burials due to the level of disturbance that has occurred in order to accommodate the existing development. Mitigation provided in Subsection 3.5.2.B will reduce any potential impacts regarding the discovery of human remains. As a result, the proposed construction activities are not anticipated to impact any interred human remains.

3.5.3 CUMULATIVE IMPACTS

The potential environmental impacts related to cultural resources are site specific. Furthermore, the analysis herein also determined that the proposed project would not result in any impacts on cultural resources; however, since the site is located in an area that is highly sensitive, mitigation has been provided to reduce potential impacts regarding archeological resources.

3.5.4 MITIGATION MEASURES

The environmental analysis in the preceding sections determined that the proposed project is located in an area that has a high sensitivity for cultural resources. As a result, the following mitigation is required:

Mitigation Measure No. 11 (Cultural Resources). The project Applicant will be required to obtain the services of a qualified Native American Monitor during construction-related ground disturbance activities. Ground disturbance is defined by the Tribal Representatives from the Gabrielino Band of Mission Indians, Kizh Nation as activities that include, but are not limited to, pavement removal, pot-holing or auguring, boring, grading, excavation, and trenching, within the project area. The monitor(s) must be approved by the tribal representatives and will be present on-site during the construction phases that involve any ground disturbing activities. The Native American Monitor will complete monitoring logs on a daily basis. The logs will provide descriptions of the daily activities, including construction activities, locations, soil, and any cultural materials identified. The Monitor will photo-document the ground disturbing activities. The monitors must also have Hazardous Waste Operations

⁵⁵ Google Earth. Site accessed September 29, 2015

⁵⁶ Ibid.

and Emergency Response (HAZWOPER) certification. In addition, the monitors will be required to provide insurance certificates, including liability insurance, to the an archaeological resource(s) are encountered during grading and excavation activities, pertinent provisions outlined in the California Environmental Quality Act, California Public Resources Code Division 13, Section 21083.2 (a) through (k) shall apply. The on-site monitoring shall end when the project site grading and excavation activities are completed.

3.6 GEOLOGY AND SOILS

3.6.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant adverse impact on the environment if it results in the following:

- The exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, ground-shaking, liquefaction, or landslides;
- Substantial soil erosion resulting in the loss of topsoil;
- The exposure of people or structures to potential substantial adverse effects, including location on a geologic unit or a 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;
- Locating a project on an expansive soil, as defined in the California Building Code, creating substantial risks to life or property; or,
- Locating a project in, or exposing people to, potential impacts including soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

3.6.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

- A. *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault (as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault), ground-shaking, liquefaction, or landslides? • Less than Significant Impact with Mitigation.*

The City of Santa Fe Springs is located in a seismically active region (refer to Exhibit 3-3). Many major and minor local faults traverse the entire Southern California region, posing a threat to millions of residents including those who reside in the City. Earthquakes from several active and potentially active faults in the Southern California region could affect the proposed project site. In 1972, the Alquist-Priolo Earthquake Zoning Act was passed in response to the damage sustained in the 1971 San Fernando Earthquake.⁵⁷

⁵⁷ California Department of Conservation. *What is the Alquist-Priolo Act* <http://www.conservation.ca.gov/cgs/rghm/ap/Pages/main.aspx>

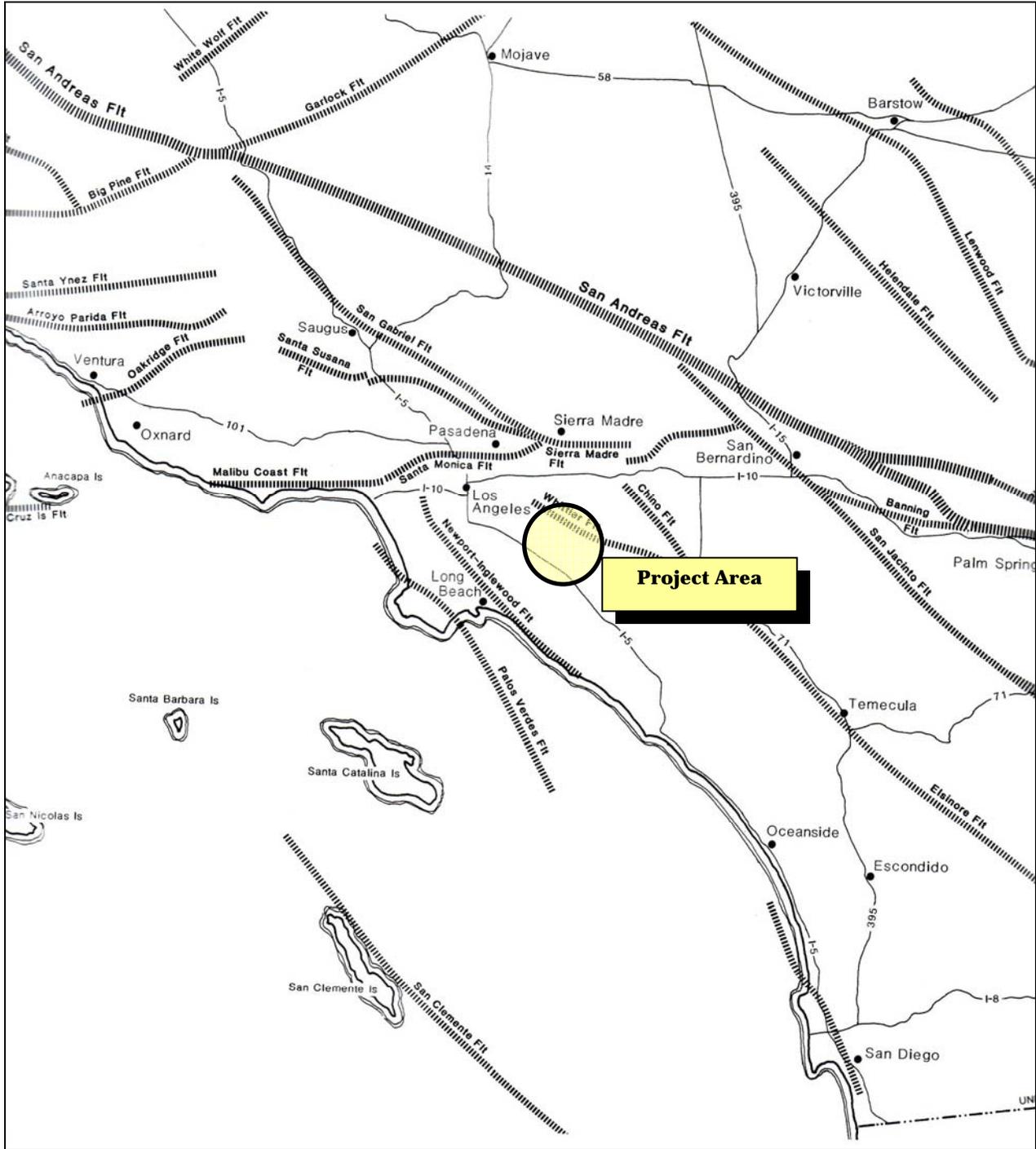


EXHIBIT 3-3
FAULTS IN THE SOUTHERN CALIFORNIA AREA
SOURCE: UNITED STATES GEOLOGICAL SURVEY

The Alquist-Priolo Earthquake Fault Zoning Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults.⁵⁸ A list of cities and counties subject to the Alquist-Priolo Earthquake Fault Zones is available on the State's Department of Conservation website. The City of Santa Fe Springs is not on the list.⁵⁹ According to the Geotechnical Report prepared for the Applicant by Leighton and Associates, Inc, the closest know fault to the project site is the Whittier Fault, located six miles northeast of the project site.⁶⁰ Although the potential impacts in regards to ground shaking are less than significant since the risk is no greater in and around the project site than for the rest of the area.

The project site is located in an area that is subject to liquefaction (refer to Exhibit 3-4). According to the United States Geological Survey, liquefaction is the process by which water-saturated sediment temporarily loses strength and acts as a fluid. Essentially, liquefaction is the process by which the ground soil loses strength due to an increase in water pressure following seismic activity. The geotechnical report stated that there is a potential for structural damage due to liquefaction.⁶¹ As a result, the following mitigation is required per the preparers of the report:

- Leighton and Associates, Inc. recommends over excavating the near-surface soils to a depth of ten feet and extending a minimum of ten feet beyond the building footprint (with special provisions adjacent to the western property line).
- Leighton and Associates, Inc. recommends the placement of at least two geogrid layers within the compacted fill under the proposed structures.
- Leighton and Associates, Inc. recommends the use of stiffened foundations to further reduce the potential impacts related to liquefaction.
- Leighton and Associates, Inc. will be required to observe all on-site construction activities including site clearing, during over excavation of compressible soil, during compaction of all fill materials, after excavation of all footings and prior to placement of concrete, during utility trench backfilling and compaction, during pavement sub grade and base preparation, and when any unusual conditions are encountered.

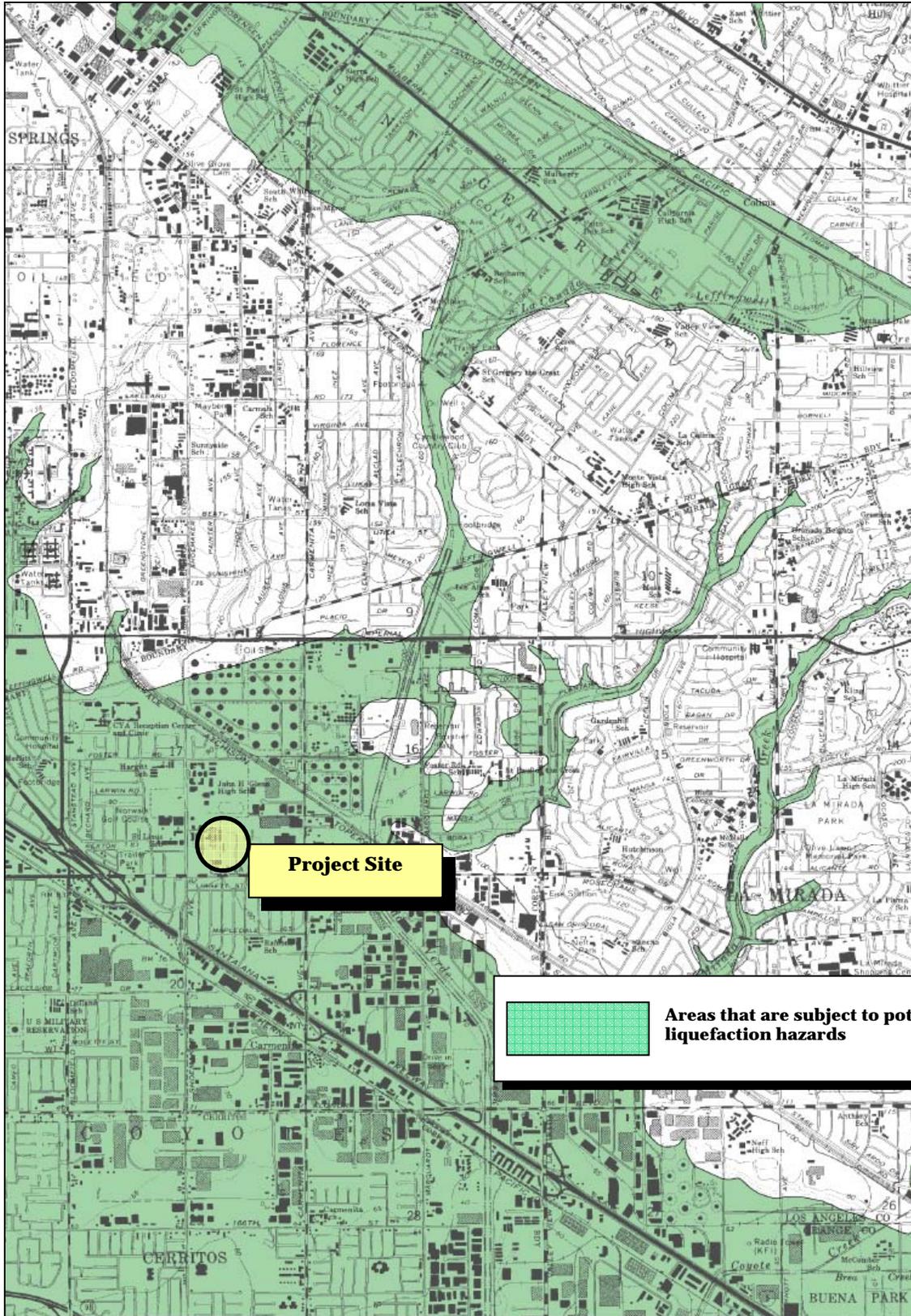
Adherence to the above-mentioned mitigation will reduce potential impacts to levels that are less than significant. Lastly, the project site is not subject to the risk of landslides (refer to Exhibit 3-4) because there are no hills or mountains located in the vicinity of the project site. As a result, the potential impacts in regards to liquefaction and landslides are less than significant since the risk is no greater in and around the project site than for the rest of the area.

⁵⁸ California Department of Conservation. *What is the Alquist-Priolo Act* <http://www.conservation.ca.gov/cgs/rghm/ap/Pages/main.aspx>.

⁵⁹ California Department of Conservation. *Table 4, Cities and Counties Affected by Alquist Priolo Earthquake Fault Zones as of January 2010*. <http://www.conservation.ca.gov/cgs/rghm/ap/Pages/affected.aspx>

⁶⁰ Leighton and Associates, Inc. *Preliminary Geotechnical Investigation, Proposed Commercial/Industrial Development, Former Norwalk Dairy, 13101 Rosecrans Avenue, City of Santa Fe Springs, California*. Report dated September 21, 2015.

⁶¹ Ibid.



Project Site

Areas that are subject to potential liquefaction hazards

EXHIBIT 3-4
LIQUEFACTION RISK
SOURCE: CALIFORNIA GEOLOGICAL SURVEY

B. Would the project expose people or structures to potential substantial adverse effects, including substantial soil erosion or the loss of topsoil? • No Impact.

As indicated in the geotechnical report, the soils located within the first five feet below the surface include soils consisting of manure and artificial fill.⁶² Alluvial soil was encountered further below the layer of introduced soils. The alluvial soil discovered during the excavations generally consisted of combinations of sand and silt, with some clay interspersed. In general, the alluvial soil in the upper 15 to 20 feet consisted of loose to medium dense, moist sand and silty sand. At depths below 15 feet, the soils encountered generally consisted of stiff, sandy silt, silt, and silty clay. These soils tended to be moist to very moist with moisture contents in the range of 30 to 40 percent.⁶³ The soils that underlie the project site are classified as imported fill. In addition, the project site is currently developed and the underlying native soils have been disturbed in order to facilitate previous construction activities. As a result, no impacts are anticipated to occur.

C. Would the project expose people or structures to potential substantial adverse effects, including location on a geologic unit or a 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? • Less than Significant Impact.

As stated previously, the surrounding area is relatively level and is at no risk for landslides (refer to Exhibit 3-4). The potential for lateral spreading, subsidence, and collapse are non-existent due to the nature of the soils that underlie the project site. According to the lateral spreading analysis included in the geotechnical report, there is a possibility for up to two inches of lateral displacement, a negligible amount according to the preparers of the report.⁶⁴ Therefore, the analysis concluded that there is no potential for lateral spreading and lateral spreading will not present a constraint to future development.⁶⁵

In addition, the project site is not prone to subsidence because subsidence occurs via soil shrinkage and is triggered by a significant reduction in an underlying groundwater table.⁶⁶ The soils that underlie the project site are not prone to shrinking and swelling (refer to section 3.6.D), thus no impacts related to unstable soils and subsidence are expected. Furthermore, the construction of the proposed project is not anticipated to uncover or drain any underlying groundwater table. The site is located in an area that is subject to liquefaction. As a result, mitigation has been provided in the preceding subsection to control and reduce the potential impacts related to structural damage resulting from liquefaction. Lastly, the alluvial soil within the upper 15 feet onsite has a negligible collapse potential. Soils below are also expected to have a negligible collapse potential. Therefore, the potential impacts are anticipated to be less than significant.

⁶² Leighton and Associates, Inc. *Preliminary Geotechnical Investigation, Proposed Commercial/Industrial Development, Former Norwalk Dairy, 13101 Rosecrans Avenue, City of Santa Fe Springs, California*. Report dated September 21, 2015.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Subsidence Support. *What Causes House Subsidence?* <http://www.subsidence-support.co.uk/what-causes-subsidence.html>

D. *Would the project result in, or expose people to, potential impacts including location on expansive soil, as defined in Uniform Building Code (2012), creating substantial risks to life or property? • No Impact.*

Testing done by Leighton and Associates, Inc. indicated that the onsite near-surface soil is expected to have a very low to low expansion potential.⁶⁷ As a result, no impacts related to expansive soils will occur.

E. *Would the project result in, or expose people to, potential impacts, including soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? • No Impact.*

The proposed project will not utilize septic tanks. As a result, no impacts associated with the use of septic tanks will occur as part of the proposed project's implementation.

3.6.3 CUMULATIVE IMPACTS

The potential cumulative impacts related to earth and geology is typically site specific. Furthermore, the analysis herein determined that the proposed project would not result in significant adverse impacts related to landform modification, grading, or the destruction of a geologically significant landform or feature. As a result, no cumulative earth and geology impacts will occur.

3.6.4 MITIGATION MEASURES

The analysis determined that the proposed project would not result in any significant adverse impacts related to earth and geology. However, since the project site is located in a liquefaction zone, the following mitigation is required:

Mitigation Measure No. 12 (Geology and Soils). Leighton and Associates, Inc. recommends over excavating the near-surface soils to a depth of ten feet and extending a minimum of ten feet beyond the building footprint (with special provisions adjacent to the western property line).

Mitigation Measure No. 13 (Geology and Soils). Leighton and Associates, Inc. recommends the placement of at least two geogrid layers within the compacted fill under the proposed structures.

Mitigation Measure No. 14 (Geology and Soils). Leighton and Associates, Inc. recommends the use of stiffened foundations to further reduce the potential impacts related to liquefaction.

Mitigation Measure No. 15 (Geology and Soils). Leighton and Associates, Inc. will be required to observe all on-site construction activities including site clearing, during over excavation of compressible soil, during compaction of all fill materials, after excavation of all footings and prior to placement of concrete, during utility trench backfilling and compaction, during pavement sub grade and base preparation, and when any unusual conditions are encountered.

⁶⁷ Subsidence Support. *What Causes House Subsidence?* <http://www.subsidence-support.co.uk/what-causes-subsidence.html>

3.7 GREENHOUSE GAS EMISSIONS

3.7.1 THRESHOLDS OF SIGNIFICANCE

A project may be deemed to have a significant adverse impact on greenhouse gas emissions if it results in any of the following:

- The generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and,
- The potential for conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases.

3.7.2 ENVIRONMENTAL ANALYSIS

A. *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? • Less Than Significant Impact.*

The State of California requires CEQA documents to include an evaluation of greenhouse gas (GHG) emissions or gases that trap heat in the atmosphere. GHG are emitted by both natural processes and human activities. Examples of GHG that are produced both by natural and industrial processes include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). The accumulation of GHG in the atmosphere regulates the earth's temperature. Without these natural GHG, the Earth's surface would be about 61°F cooler. However, emissions from fossil fuel combustion have elevated the concentrations of GHG in the atmosphere to above natural levels.⁶⁸

Scientific evidence indicates there is a correlation between increasing global temperatures/climate change over the past century and human induced levels of GHG. These and other environmental changes have potentially negative environmental, economic, and social consequences around the globe. GHG differ from criteria or toxic air pollutants in that the GHG emissions do not cause direct adverse human health effects. Rather, the direct environmental effect of GHG emissions is the increase in global temperatures, which in turn has numerous impacts on the environment and humans. For example, some observed changes to include shrinking glaciers, thawing permafrost, later freezing and earlier break-up of ice on rivers and lakes, a lengthened growing season, shifts in plant and animal ranges, and earlier flowering of trees. Other, longer term environmental impacts of global warming may include a rise in sea level, changing weather patterns with increases in the severity of storms and droughts, changes to local and regional ecosystems including the potential loss of species, and a significant reduction in winter snow pack.⁶⁹

CEQA requires an agency to engage in forecasting “to the extent that an activity could reasonably be expected under the circumstances. An agency cannot be expected to predict the future course of governmental regulation or exactly what information scientific advances may ultimately reveal.” The

⁶⁸ California, State of. OPR Technical Advisory – CEQA and Climate Change: Addressing Climate Change through the California Environmental Quality Act (CEQA) Review. June 19, 2008.

⁶⁹ Ibid.

CEQA Guidelines specifically authorize lead agencies to conclude discussion of an impact if the lead agency finds that further discussion would be speculative. Further, the California Supreme Court has specifically upheld this type of finding in a CEQA analysis when there is no accepted methodology or standard to evaluate a potential cumulative impact. CEQA does not require an agency to evaluate an impact that is “too speculative,” provided that the agency identifies the impact, engages in a “thorough investigation” but is “unable to resolve an issue,” and then discloses its conclusion that the impact is too speculative for evaluation (*CEQA Guidelines* § 15145, Office of Planning and Research commentary). Additionally, CEQA requires that impacts be evaluated at a level that is “specific enough to permit informed decision making and public participation” with the “production of information sufficient to understand the environmental impacts of the proposed project and to permit a reasonable choice of alternatives so far as environmental aspects are concerned” (*CEQA Guidelines* § 15146, Office of Planning and Research commentary).

Table 3-4 summarizes annual greenhouse gas emissions from build-out of the proposed project. As indicated in Table 3-4, the CO₂E total for the project is 6,985.60 pounds per day or 3.16 MTCO₂E per day which is below the threshold. The SCAQMD has recommended several GHG thresholds of significance. These thresholds include 1,400 metric tons per year of CO₂E for commercial projects, 3,500 tons per year for residential projects, 3,000 tons per year for mixed-use projects, and 7,000 tons per year for industrial projects. The project will generate approximately 1,153.40 metric tons per year of CO₂E. As a result, the impacts are under the recommended thresholds. Therefore, the project’s GHG impacts are less than significant.

**Table 3-4
 Greenhouse Gas Emissions Inventory**

Source	GHG Emissions (Lbs/Day)			
	CO ₂	CH ₄	N ₂ O	CO ₂ E
Construction Phase - Demolition	4,089.28	1.11	--	4,112.63
Construction Phase - Site Preparation	4,065.00	1.22	--	4,090.75
Construction Phase - Grading	3,093.78	0.93	--	3,113.38
Construction Phase – Construction (2016)	2,669.28	0.66	--	2,683.18
Construction Phase - Paving	2,316.37	0.69	--	2,331.04
Construction Phase - Coatings	281.44	0.02	--	282.07
Long-term Area Emissions	0.12	--	--	0.13
Long-term Energy Emissions	67.96	--	--	68.38
Long-term Mobile Emissions	6,911.68	0.25	--	6,917.08
Total Long-term Emissions	6,979.77	0.25	--	6,985.60

Source: CalEEMod.

B. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases? • No Impact.

AB 32 requires the reduction of GHG emissions to 1990 levels, which would require a minimum 28 percent reduction in "business as usual" GHG emissions for the entire State. Additionally, Governor Edmund G. Brown signed into law Executive Order (E.O.) B-30-15 on April 29, 2015, the Country’s most ambitious

policy for reducing Greenhouse Gas Emissions. E.O. B-30-15 calls for a 40 percent reduction in greenhouse gas emissions below 1990 levels by 2030.⁷⁰ The proposed project will not involve or require any variance from an adopted plan, policy, or regulation governing GHP emissions. The emissions generated by the proposed project will be less than the thresholds of significance established for CO₂ (refer to Table 3-4). As a result, no significant adverse impacts related to a potential conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases are anticipated.

The proposed project would incorporate several design features that are consistent with the California Office of the Attorney General's recommended policies and measures to reduce GHG emissions. A list of the Attorney General's recommended measures and the project's conformance with each are listed in Table 3-5. The new on-site improvements will incorporate sustainable practices that include water, energy, and solid waste efficiency measures.

**Table 3-5
 Project Consistency With the Attorney General's Recommendations**

Attorney General's Recommended Measures	Project Compliance	Percent Reduction
Smart growth, jobs/housing balance, transit-oriented development, and infill development through land use designations, incentives and fees, zoning, and public-private partnerships.	Compliant. The proposed project will facilitate new infill development in an urban area.	10%-20%
Create transit, bicycle, and pedestrian connections through planning, funding, development requirements, incentives and regional cooperation; create disincentives for auto use; and implement TDM measures.	Compliant. The project will include bicycle racks.	5%
Energy- and water-efficient buildings and landscaping through ordinances, development fees, incentives, project timing, prioritization, and other implementing tools.	Compliant. The new buildings will be required to comply with the City's low impact development (LID) guidelines where applicable. The project will be consistent with the requirements of AB-1881.	10%
Waste diversion, recycling, water efficiency, energy efficiency and energy recovery in cooperation with public services, districts and private entities.	Compliant. The project's contractors will be required to adhere to the use of sustainability practices involving solid waste disposal.	0.5%
Urban and rural forestry through tree planting requirements and programs; preservation of agricultural land and resources that sequester carbon; heat island reduction programs.	Compliant. The project will involve the installation of additional landscaping beyond that which presently exists.	0.5%
Regional cooperation to find cross-regional efficiencies in GHG reduction investments and to plan for regional transit, energy generation, and waste recovery facilities.	Compliant. Refer to responses above.	NA
Total Reduction Percentage:		36%

Source: California Office of the Attorney General, *Sustainability and General Plans: Examples of Policies to Address Climate Change*, updated January 22, 2010.

⁷⁰ Office of Governor Edmund G. Brown Jr. *New California Goal Aims to Reduce Emissions 40 Percent Below 1990 Levels by 2030*. <http://gov.ca.gov/news.php?id=18938>

Table 3-6 identifies which CARB Recommended Actions applies to the proposed project. Of the 39 measures identified, those that would be considered to be applicable to the proposed project would primarily be those actions related to electricity, natural gas use, water conservation, and waste management. A discussion of each applicable measure and the project’s conformity with the measure is provided in Table 3-6. As indicated in the table, the proposed project would not impede the implementation of CARB’s recommended actions.

Table 3-6
Recommended Actions for Climate Change

ID #	Sector	Strategy Name	Applicable to Project?	Will Project Conflict With Implementation?
T-1	Transportation	Light-Duty Vehicle GHG Standards	No	No
T-2	Transportation	Low Carbon Fuel Standard (Discrete Early Action)	No	No
T-3	Transportation	Regional Transportation-Related GHG Targets	No	No
T-4	Transportation	Vehicle Efficiency Measures	No	No
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)	No	No
T-6	Transportation	Goods-Movement Efficiency Measures	No	No
T-7	Transportation	Heavy Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	No	No
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization	No	No
T-9	Transportation	High Speed Rail	No	No
E-1	Electricity and Natural Gas	Increased Utility Energy Efficiency Programs More Stringent Building and Appliance Standards	Yes	No
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh	No	No
E-3	Electricity and Natural Gas	Renewable Portfolio Standard	No	No
E-4	Electricity and Natural Gas	Million Solar Roofs	No	No
CR-1	Electricity and Natural Gas	Energy Efficiency	Yes	No
CR-2	Electricity and Natural Gas	Solar Water Heating	No	No
GB-1	Green Buildings	Green Buildings	No	No
W-1	Water	Water Use Efficiency	Yes	No
W-2	Water	Water Recycling	No	No
W-3	Water	Water System Energy Efficiency	No	No
W-4	Water	Reuse Urban Runoff	No	No
W-5	Water	Increase Renewable Energy Production	No	No
W-6	Water	Public Goods Charge (Water)	No	No
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources	No	No

**Table 3-6
 Recommended Actions for Climate Change (continued)**

ID #	Sector	Strategy Name	Applicable to Project?	Will Project Conflict With Implementation?
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction	No	No
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission	No	No
I-4	Industry	Refinery Flare Recovery Process Improvements	No	No
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations	No	No
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)	No	No
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements	No	No
RW-3	Recycling and Waste Management	High Recycling/Zero Waste	Yes	No
F-1	Forestry	Sustainable Forest Target	No	No
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)	No	No
H-2	High Global Warming Potential Gases	SF6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	No	No
H-3	High Global Warming Potential Gases	Reduction in Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)	No	No
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)	No	No
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources	No	No
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources	No	No
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases	No	No
A-1	Agriculture	Methane Capture at Large Dairies	No	No

Source: California Air Resources Board, *Assembly Bill 32 Scoping Plan*, 2008.

3.7.3 CUMULATIVE IMPACTS

The analysis herein also determined that the proposed project would not result in any significant adverse impacts related to the emissions of greenhouse gases. As a result, no significant adverse cumulative impacts will result from the proposed project’s implementation.

3.7.4 MITIGATION MEASURES

The analysis of potential impacts related to greenhouse gas emissions indicated that no significant adverse impacts would result from the proposed project’s approval and subsequent implementation. As a result, no mitigation measures are required.

3.8 HAZARDS AND HAZARDOUS MATERIALS

3.8.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant adverse impact on risk of upset and human health if it results in any of the following:

- The creation of a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;
- The creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- The generation of hazardous emissions or the handling of hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school;
- Locating the project on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 resulting in a significant hazard to the public or the environment;
- Locating the project within an area governed by an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or a public use airport;
- Locating the project in the vicinity of a private airstrip that would result in a safety hazard for people residing or working in the project area;
- The impairment of the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan; or,
- The exposure of people or structures to a significant risk of loss, injury, or death involving wild land fire, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands.

3.8.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? • Less than Significant Impact with Mitigation.

A Phase I report was prepared for the Applicant by Ardent Environmental Group, Inc. The Phase I included a site reconnaissance, which identified the presence of waste oil held containers of various sizes ranging from quart sized containers to five gallon buckets in the northern (truck/trailer parking) portion of the site.⁷¹ Additionally, Ardent also noted the presence of five-gallon buckets and 55-gallon drums containing grease, gear oil, and hydraulic oil, though they did not observe the storage or disposal of any

⁷¹ Ardent Environmental Group, Inc. *Phase I Environmental Site Assessment*. Report dated October 2, 2015.

other hazardous materials.⁷² The Applicant and contractors will need to comply with all pertinent Federal and State regulations regarding hazardous materials during the project's construction and operational phase. In addition, Ardent Environmental recommended the following mitigation:

- Following removal of the industrial valves, waste oil containers, machinery, abandoned farm vehicles, trash and debris, commercial trucks, and metal shipping containers from the site, soil sampling may be necessary in areas of staining if observed. All miscellaneous containers of waste oil and other chemicals should be consolidated and removed from the site by a licensed hazardous waste hauler.

Once operational, the tenant would need to comply with the EPA's Hazardous Materials Transportation Act, Title 42, Section 11022 of the United States Code and Chapter 6.95 of the California Health and Safety Code which requires the reporting of hazardous materials when used or stored in certain quantities. Furthermore, the future tenant will need to file a Hazardous Materials Disclosure Plan and a Business Emergency Plan to ensure the safety of the employees and citizens of Santa Fe Springs.

The Phase I report identified the presence of lead based paint and asbestos-containing materials. Thus, the following mitigation is required:

- The Applicant, and the contractors, must adhere to all requirements governing the handling, removal, and disposal of asbestos-containing materials, lead paint, underground septic tanks, and other hazardous substances and materials that may be encountered during demolition and land clearance activities. Any contamination encountered during the demolition, grading, and/or site preparation activities must also be removed and disposed of in accordance with applicable laws prior to the issuance of any building permit.

Adherence to the aforementioned mitigation will reduce potential impacts to levels that are less than significant. The EPA's Environfacts database was consulted to determine the nature and extent of any reported contamination (air, water, soils, waste, etc.) that is associated with the project site. The project site is not included on the list.⁷³ As a result, no additional hazardous waste will be removed on-site beyond what was identified by Ardent Environmental Group. Therefore, the potential impacts will be less than significant with adherence to the above-mentioned mitigation.

B. Would the project create a significant hazard to the public or the environment, or result in reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? • Less than Significant Impact.

The construction of the proposed project is not anticipated to release hazardous materials into the environment due to the location of the project site. The City of Santa Fe Springs contains multiple methane risk zones. Methane is an odorless, combustible gas that may become explosive if concentrations are great enough in enclosed, unventilated spaces. Methane is a direct result of the decomposition of organic materials that were disposed of in the area landfills. Methane associated with old landfills in the

⁷² Ardent Environmental Group, Inc. *Phase I Environmental Site Assessment*. Report dated October 2, 2015.

⁷³ United States Environmental Protection Agency. *Envirofacts*. <http://www.epa.gov/enviro/index.html>.

area is not identified as being a problem at the project location. The Phase I indicated that there is a low likelihood that elevated concentrations of methane gas are present on-site.⁷⁴ In addition, the Phase I stated that there is a low likelihood that elevated concentrations of VOCs (derived from petroleum hydrocarbons) are present in soil gas that would pose a potential human health risk through vapor intrusion.⁷⁵ However, according to the Phase I, the Santa Fe Springs Fire Department will require a methane gas survey be completed in accordance with its City Ordinance No. 955 during the planning stages of redevelopment. Though the Phase I indicated that the Santa Fe Springs Fire Department concluded that the concentration of methane gas would not be considered elevated and there was no justification to require a methane gas barrier beneath proposed buildings.⁷⁶

As indicated in the previous section, the proposed project's future tenant will need to comply with all Federal and State regulations regarding the handling and transportation of hazardous materials should the nature of the proposed use be involved in the handling of such chemicals and materials. Adherence to the regulations outlined in Section 3.8.2.A will reduce potential impacts to levels that are less than significant.

C. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? • Less than Significant Impact.

John H Glenn High School is located along the north side of the project site.⁷⁷ The future tenant(s) are still uncertain; nevertheless, the tenant(s) will need to comply with all Federal and State regulations regarding the handling and transportation of hazardous materials should the future tenant be involved in such uses. In addition, the Applicant must adhere to the mitigation provided in Section 3.8.2.A should lead and/or asbestos containing materials be encountered during construction activities. As a result, the impacts are anticipated to be less than significant.

D. Would the project be located on a site, which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5, and, as a result, would it create a significant hazard to the public or the environment? • Less than Significant Impact.

The site is not listed in the California Department of Toxic Substances Control Envirostor website as a Cortese site.⁷⁸ Four Cortese sites are located in the City and include the following: Neville Chemical Company (12800 Imperial Highway), McKesson Chemical Company (9005 Sorenson Avenue), Waste Disposal, Inc. (12731 Los Nietos Road), and Angeles Chemical Company, Inc. (8915 Sorenson Avenue). The proposed project will not affect any of the aforementioned sites. As a result, the impacts are expected to be less than significant.

⁷⁴ Ardent Environmental Group, Inc. *Phase I Environmental Site Assessment*. Report dated October 2, 2015.

⁷⁵ Ibid.

⁷⁶ Ibid.

⁷⁷ Ibid.

⁷⁸ California Department of Toxic Substances Control. *Envirostor*. <http://www.envirostor.dtsc.ca.gov/public/>.

E. Would the project be located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area? • No Impact.

The project site is not located within two miles of a public use airport. Fullerton Airport is located approximately 4.43 miles to the southeast of the project site. The Joint Forces Training Base Los Alamitos is located approximately 7.20 miles to the south. The Long Beach Airport is located approximately 7.90 miles to the southwest.⁷⁹ The proposed project is not located within the Runway Protection Zones (RPZ) of any of the aforementioned airports. In addition, the proposed project will not penetrate the designated slopes for any of the aforementioned airports. Essentially, the proposed project will not introduce a building that will interfere with the approach and take off of airplanes utilizing any of the aforementioned airports. As a result, no impacts are anticipated.

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? • No Impact.

The project site is not located within two miles of a private airstrip.⁸⁰ As a result, the proposed project will not present a safety hazard related to aircraft and/or airport operations at a private use airstrip and no impacts will occur.

G. Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? • No Impact.

At no time will Rosecrans Avenue or Maryton Avenue be completely closed to traffic. The construction plan must identify specific provisions for the regulation of construction vehicle ingress and egress to the site during construction as a means to provide continued through-access. All construction staging must occur on-site. As a result, no impacts are associated with the proposed project's implementation.

H. Would the project expose people or structures to a significant risk of loss, injury, or death involving wild lands fire, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands? • No Impact.

The project site and surrounding properties are urbanized and the majority of the parcels are developed. There are no areas of native vegetation found within the project site or in the surrounding properties that could provide a fuel source for a wildfire. As a result, there are no impacts associated with potential wildfires from off-site locations.

3.8.3 CUMULATIVE IMPACTS

The potential impacts related to hazardous materials are site specific. Furthermore, the analysis herein also determined that the implementation of the proposed project would not result in any significant

⁷⁹ Google Earth. Site accessed February 24, 2015.

⁸⁰ Tollfreeairline. *Los Angeles County Public and Private Airports, California*.
<http://www.tollfreeairline.com/california/losangeles.htm>

adverse impacts related to hazards and/or hazardous materials. As a result, no significant adverse cumulative impacts related to hazards or hazardous materials will result from the proposed project's implementation.

3.8.4 MITIGATION MEASURES

In addition, the following mitigation is required as part of this project to ensure that potential impacts related to hazardous and hazardous materials are mitigated:

Mitigation Measure No. 16 (Hazards and Hazardous Materials). Following removal of the industrial valves, waste oil containers, machinery, abandoned farm vehicles, trash and debris, commercial trucks, and metal shipping containers from the site, soil sampling may be necessary in areas of staining if observed. All miscellaneous containers of waste oil and other chemicals should be consolidated and removed from the site by a licensed hazardous waste hauler.

Mitigation Measure No. 17 (Hazards and Hazardous Materials). The Applicant, and the contractors, must adhere to all requirements governing the handling, removal, and disposal of asbestos-containing materials, lead paint, underground septic tanks, and other hazardous substances and materials that may be encountered during demolition and land clearance activities. Any contamination encountered during the demolition, grading, and/or site preparation activities must also be removed and disposed of in accordance with applicable laws prior to the issuance of any building permit.

3.9 HYDROLOGY AND WATER QUALITY

3.9.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant adverse environmental impact on water resources or water quality if it results in any of the following:

- A violation of any water quality standards or waste discharge requirements;
- A substantial depletion of groundwater supplies or interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;
- A substantial alteration of the existing drainage pattern of the site or area through the alteration of the course of a stream or river in a manner that would result in substantial erosion or siltation on- or off-site;
- A substantial alteration of the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner that would result in flooding on- or off-site;
- The creation or contribution of water runoff that would exceed the capacity of existing or planned storm water drainage systems or the generation of substantial additional sources of polluted runoff;
- The substantial degradation of water quality;
- The placement of housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map;
- The placement of structures within 100-year flood hazard areas that would impede or redirect flood flows;
- The exposure of people or structures to a significant risk of flooding as a result of dam or levee failure; or,
- The exposure of a project to inundation by seiche, tsunami, or mudflow.

3.9.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project violate any water quality standards or waste discharge requirements? • Less than Significant Impact with Mitigation.

The proposed project involves the demolition and removal of the existing on-site improvements and debris in order to accommodate the construction of the three new warehouses. In its current state, a majority of the property is covered over in pervious surfaces (dirt, grass, etc). Once complete, the pervious surfaces

will comprise approximately 11 percent of the project site.⁸¹ Two biofiltration areas will be installed within the landscaped areas. The first biofiltration area will be installed in the landscape area located along the northern side of Rosecrans Avenue. The second biofiltration area will be installed within the landscaped area located east of the third building along the west side of where Maryton Avenue banks eastward.⁸² The biofiltration areas will be installed to facilitate proper filtration and percolation of storm water runoff.

In addition, the project will include the installation of three Stormtech MC-3500 stormwater chambers. Each of the three chambers will be located in the parking areas and will range in size from 48, 55, and 60 chambers.⁸³ The purpose of the stormwater chambers is to contain stormwater in the event of heavy rainfall. The excess water will either be diverted into the existing storm drain through a system of newly proposed storm drains or will filter and percolate into the ground.

A total of four new 18-inch storm drains will be installed on-site. Of the four new storm drains, three will extend from the proposed Stormtech MC-3500 stormwater chambers. These three storm drains will ultimately connect to a new 18-inch storm drain extending along the eastern side of the project site. The aforementioned storm drain will extend along the site's entire east side and will connect into an existing storm drain located in the center of Rosecrans Avenue. Roof drains will be installed on each of the three new warehouses and will direct additional storm water into the main storm drain proposed along the site's eastern property line.⁸⁴

In the absence of mitigation, the new impervious surfaces (buildings, internal driveways, parking areas, etc.) that will be constructed may result in debris, leaves, soils, oil/grease, and other pollutants.⁸⁵ As a result, the project Applicant will be required to implement storm water pollution control measures pursuant to the National Pollutant Discharge Elimination System (NPDES) requirements. The Applicant would also be required to prepare a Water Quality Management Plan (WQMP) utilizing Best Management Practices to control or reduce the discharge of pollutants to the maximum extent practicable. The WQMP will also identify post-construction best management practices (BMPs) that will be the responsibility of the project's future tenant to implement over the life of the project. In addition, the following mitigation is required as part of this project to ensure that potential water quality impacts are mitigated:

- Prior to issuance of any grading permit for the project that would result in soil disturbance of one or more acres of land, the Applicant shall demonstrate that coverage has been obtained under California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board, and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing shall be provided to the Chief Building Official and the City Engineer.

⁸¹ Herdman Rierison Architecture + Design, Inc. *Conceptual Site Plan*. Plan dated November 17, 2015.

⁸² Thienes Engineering, Inc. *Conceptual Utility Plan, Rosecrans Avenue and Maryton Avenue*. Plan dated September 28, 2015.

⁸³ *Ibid.*

⁸⁴ *Ibid.*

⁸⁵ Blodgett Baylosis Environmental Planning. *Field survey of the project site* (Surveys were conducted on Monday, June 29th and Tuesday, September 16, 2015).

- The Applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall be submitted to the Chief Building Official and City Engineer prior to the issuance of a grading permit. The Applicant shall register their SWPPP with the State of California. A copy of the current SWPPP shall be kept at the project site and be available for review on request.

With the aforementioned mitigation, the impacts would be less than significant.

B. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge in such a way that would cause a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of a pre-existing nearby well would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? • Less than Significant Impact with Mitigation.

Grading related activities are not anticipated to encounter and deplete groundwater supplies from any underlying aquifer. The geotechnical report included an on-site drilling study. The drilling took place up to 51.5 feet from surface ground level. No groundwater was found.⁸⁶ In addition, the proposed project will be connected to the City's utility lines and is not anticipated to deplete groundwater supplies through the consumption of the water (water consumption impacts are analyzed in Section 3.17.2.D). Additionally, the Phase I identified the presence of an inactive agricultural well located east of the existing barn.⁸⁷ A total of four groundwater monitoring wells were encountered within the eastern portion of the site along the west side of Maryton Avenue.⁸⁸ As a result of the findings, Ardent Environmental recommended the following mitigation:

- The groundwater monitoring wells should be accurately located (i.e. surveyed) with respect to the property boundary to determine whether these features lie on-site or immediately off-site. If the wells are determined to be on-site, the well owners, assuming to be Golden West, should be notified of potential redevelopment activities. If necessary, the wells might need to be relocated or abandoned. An environmental attorney should be consulted to make sure all appropriate access agreements are in-place between Golden West and the site owners prior to any additional groundwater monitoring or well relocation activities.
- The agricultural well should be abandoned by a State-licensed drilling contractor in accordance with current regulatory guidelines

With the aforementioned mitigation, the impacts would be less than significant.

⁸⁶ Leighton and Associates, Inc. *Preliminary Geotechnical Investigation, Proposed Commercial/Industrial Development, Former Norwalk Dairy, 13101 Rosecrans Avenue, City of Santa Fe Springs, California*. Report dated September 21, 2015.

⁸⁷ Ibid.

⁸⁸ Ibid.

C. *Would the project substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site? • No Impact.*

The proposed project will not alter the existing drainage pattern of the site since the project site was previously developed and any natural drainage patterns have been altered to accommodate the prior use. As indicated in the geotechnical report, the site has a slight variation in elevation, and drains “gently to the south”.⁸⁹ Once complete, storm water will continue to drain south via four new 18-inch storm drains located in the eastern portion of the site.

Additionally, the project site is located approximately 0.58 miles to the west of the Coyote Creek flood control channel.⁹⁰ The proposed project will be restricted to the designated site and will not alter the course of the channelized Coyote Creek. No other bodies of water are located in and around the project site. As a result, no impacts are anticipated.

D. *Would the project substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner, which would result in flooding on- or off-site? • No Impact.*

As indicated previously, the proposed project will be restricted to the designated site and will not alter the course of the heavily channelized Coyote Creek located approximately 0.58 miles to the east. In addition, the proposed project will be properly drained and is not expected to result in on or off-site flooding. As a result, no impacts are anticipated.

E. *Would the project create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? • Less than Significant Impact with Mitigation.*

The proposed project will require the demolition of the current on-site improvements in order to facilitate the construction of the three new warehouses. As noted in Subsection 3.9.2.A, the project will include the installation of two biofiltration areas, three Stormtech MC-3500 stormwater chambers, and four new 18-inch storm drains. Once complete, the largely pervious site will have the amount of pervious surfaces reduced to 11 percent. In the absence of mitigation, the impervious surfaces (internal driveways, parking areas, etc.) that will be constructed as part of the site’s development could lead to the presence of debris, leaves, soils, oil/grease, and other pollutants within the parking areas.⁹¹ The following measures are required as a means to address potential storm water impacts:

- All catch basins and public access points that cross or abut an open channel shall be marked by the Applicant with a water quality label in accordance with City standards. This measure must be completed and approved by the City Engineer prior to the issuance of a Certificate of Occupancy.

⁸⁹ Leighton and Associates, Inc. *Preliminary Geotechnical Investigation, Proposed Commercial/Industrial Development, Former Norwalk Dairy, 13101 Rosecrans Avenue, City of Santa Fe Springs, California.* Report dated September 21, 2015.

⁹⁰ Google Earth. Site accessed October 7, 2015.

⁹¹ Blodgett Baylosis Environmental Planning. Field survey of the project site (Surveys were conducted on Monday, June 29th and Tuesday, September 16, 2015).

- The Applicant shall be responsible for the construction of all on-site drainage facilities as required by the City Engineer.

The aforementioned mitigation will reduce the potential impacts to levels that are less than significant.

F. Would the project otherwise substantially degrade water quality? • No Impact.

Adherence to the mitigation provided in Sections 3.9.2.A and 3.9.2.E will reduce potential water quality impacts to levels that are less than significant. As a result, no other impacts are anticipated.

G. Would the project 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? • No Impact.

According to the Federal Emergency Management Agency (FEMA) flood insurance map obtained from the Los Angeles County Department of Public Works, the proposed project site is located in Zone X (refer to Exhibit 3-5). This flood zone has an annual probability of flooding of less than 0.2% and represents areas outside the 500-year flood plain. Thus, properties located in Zone X are not located within a 100-year flood plain.⁹² In addition, the proposed project involves the construction of three warehouses. The project Applicant never intended to construct residential units as part of the proposed project. As a result, no impacts related to flood flows are associated with the proposed project's implementation.

H. Would the project place within a 100-year flood hazard area, structures that would impede or redirect flood flows? • No Impact.

As indicated previously, the project site is not located within a designated 100-year flood hazard area as defined by FEMA.⁹³ As a result, the proposed project will not involve the placement of any structures that would impede or redirect potential floodwater flows since the site is not located within a flood hazard area. Therefore, no flood-related impacts are anticipated with the proposed project's implementation.

I. Would the project expose people or structures to a significant risk of flooding as a result of dam or levee failure? • No Impact.

The Santa Fe Springs General Plan and the City's Hazard Mitigation Plan indicates the greatest potential for dam failure and the attendant inundation comes from the Whittier Narrows Dam located approximately five miles northwest of the City. In the event of dam failure, the western portion of the City located to the west of Norwalk Boulevard would experience flooding approximately one hour after dam failure. The maximum flood depths could reach as high as five feet in depth, gradually declining to four feet at the southern end of the City's impacted area.⁹⁴ Since the project site is located outside the potential inundation area of this reservoir, no impacts are anticipated.

⁹² FEMA. *Flood Zones, Definition/Description*. <http://www.fema.gov/floodplain-management/flood-zones>

⁹³ Ibid.

⁹⁴ City of Santa Fe Springs. *Natural Hazards Mitigation Plan*. October 11, 2004.

CITY OF SANTA FE SPRINGS
 BRIDGE POINT SANTA FE SPRINGS • DEVELOPMENT PLAN APPROVAL (DPA 902, 903, AND 904) AND TENTATIVE PARCEL MAP
 (TPM 73880) • 13101 AND 13123 ROSECRANS AVE.



AIN 8059030022
13101 ROSECRANS AVE SANTA FE SPRINGS CA 90670
 FIRM Panel: 06037C1843F
 Effective Date: 09/26/2008
 Flood Zone: X
 City: Santa Fe Springs
 Contact: n/a

AIN 8059030021
13123 ROSECRANS AVE SANTA FE SPRINGS CA 90670
 FIRM Panel: 06037C1843F
 Effective Date: 09/26/2008
 Flood Zone: X
 City: Santa Fe Springs
 Contact: n/a

EXHIBIT 3-5
FEMA FLOOD MAP
 SOURCE: LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

J. Would the project result in inundation by seiche, tsunami, or mudflow? • No Impact.

There are no bodies of surface water located in the vicinity of the project site that could generate a seiche. In addition, the project site is located approximately 11.37 miles inland from the Pacific Ocean and the project area would not be exposed to the effects of a tsunami.⁹⁵ Lastly, the proposed project will not result in any mudslides since the project site will be leveled and properly drained. As a result, no impacts are expected.

3.9.3 CUMULATIVE IMPACTS

The potential impacts related to hydrology and storm water runoff are typically site specific. Furthermore, the analysis determined that the implementation of the proposed project would not result in any significant adverse impacts. As a result, no cumulative impacts are anticipated.

3.9.4 MITIGATION MEASURES

In addition, the following mitigation is required as part of this project to ensure that potential water quality impacts are mitigated:

Mitigation Measure No. 18 (Hydrology and Water Quality). Prior to issuance of any grading permit for the project that would result in soil disturbance of one or more acres of land, the Applicant shall demonstrate that coverage has been obtained under California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board, and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing shall be provided to the Chief Building Official and the City Engineer.

Mitigation Measure No. 19 (Hydrology and Water Quality). The Applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall be submitted to the Chief Building Official and City Engineer prior to the issuance of a grading permit. The Applicant shall register their SWPPP with the State of California. A copy of the current SWPPP shall be kept at the project sites and be available for review on request.

Mitigation Measure No. 20 (Hydrology and Water Quality). The groundwater monitoring wells should be accurately located (i.e. surveyed) with respect to the property boundary to determine whether these features lie on-site or immediately off-site. If the wells are determined to be on-site, the well owners, assuming to be Golden West, should be notified of potential redevelopment activities. If necessary, the wells might need to be relocated or abandoned. An environmental attorney should be consulted to make sure all appropriate access agreements are in-place between Golden West and the site owners prior to any additional groundwater monitoring or well relocation activities.

⁹⁵ Google Earth. Site accessed October 7, 2015.

Mitigation Measure No. 21 (Hydrology and Water Quality). The agricultural well should be abandoned by a State-licensed drilling contractor in accordance with current regulatory guidelines.

Mitigation Measure No. 22 (Hydrology and Water Quality). All catch basins and public access points that cross or abut an open channel shall be marked by the Applicant with a water quality label in accordance with City standards. This measure must be completed and approved by the City Engineer prior to the issuance of a Certificate of Occupancy.

Mitigation Measure No. 23 (Hydrology and Water Quality). The Applicant shall be responsible for the construction of all on-site drainage facilities as required by the City Engineer.

3.10 LAND USE AND PLANNING

3.10.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant impact on land use and development if it results in any of the following:

- The disruption or division of the physical arrangement of an established community;
- A conflict with an applicable land use plan, policy, or regulation of the agency with jurisdiction over the project (including but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or,
- A conflict with any applicable conservation plan or natural community conservation plan.

3.10.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. *Would the project physically divide or disrupt an established community or otherwise result in an incompatible land use?* • *No Impact.*

The proposed project will be restricted to the project site and will not divide or disrupt any residential neighborhood. The nearest such use is the single-family neighborhood located across the street from the project site along the south side of Rosecrans Avenue. In addition, the proposed project will not result in an incompatible land use since the project site is located in a portion of the City that is predominately industrial. Lastly, the project site is currently zoned as *Buffer Parking* (B-P), *Light Manufacturing* (M-1), and *Heavy Manufacturing* (M-2) (refer to Exhibit 3-6 for the zoning map). The project site's General Plan land use designation is Industrial (refer to Exhibit 3-7 for the General Plan land use map). The project will require the approval of a Parcel Map (TPM 73880) and a Development Plan Approval for each building (DPA 902, 903, and-904). Despite the need for the aforementioned discretionary approvals, the project conforms to the site's General Plan land use designations as well as the site's zoning designations. As a result, no impacts will occur.

B. *Would the project conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?* • *No Impact.*

The industrial warehouse buildings that are contemplated will not conflict with any existing General Plan land use designation or zoning designation.⁹⁶ As indicated in the previous subsection, the site's General Plan and Zoning designations are *Industrial*, *Buffer Pacing* (B-P), *Light Manufacturing* (M-1), and *Heavy Manufacturing* (M-2), respectively. The project conforms to the standards outlined for uses located in the aforementioned zones.

⁹⁶ City of Santa Fe Springs. General Plan Land Use Map and Zoning Map. As amended. 2010.

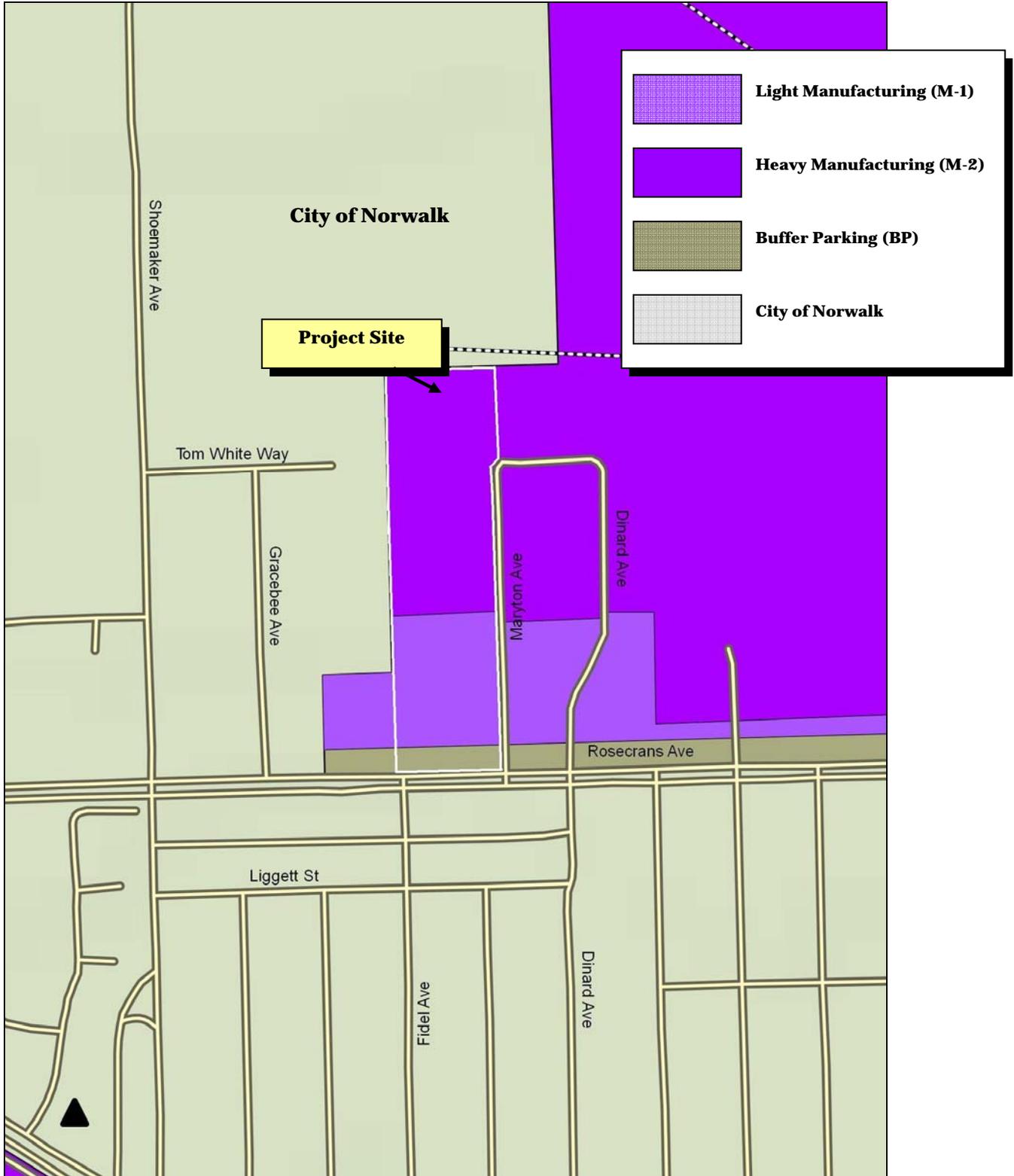


EXHIBIT 3-6 ZONING MAP

SOURCE: CITY OF SANTA FE SPRINGS AND QUANTUM GIS

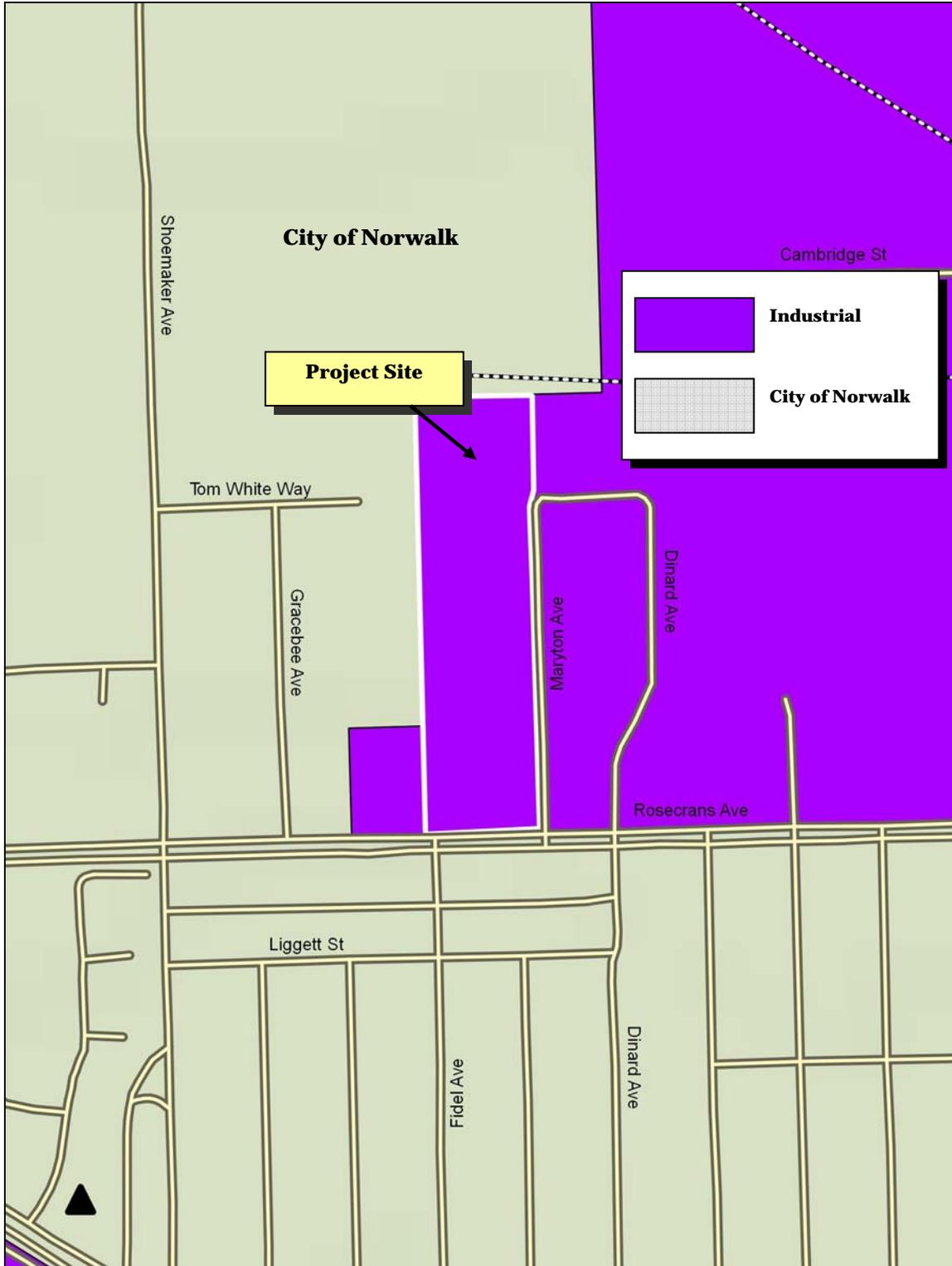


EXHIBIT 3-7
GENERAL PLAN LAND USE DESIGNATIONS
SOURCE: CITY OF SANTA FE SPRINGS AND QUANTUM GIS

The project will have a height of 36 feet, which is less than the maximum permitted height of 50 feet established for M-1 zoned properties. There are no building height limits established for B-P and M-2 zones. In addition, the project site is located approximately 11.37 miles inland from the Pacific Ocean and is not subject to a local coastal program.⁹⁷ As a result, no impacts will occur.

C. *Will the project conflict with any applicable habitat conservation plan or natural community conservation plan?* • *No Impact.*

The proposed project will not impact an adopted or approved local, regional, or State habitat conservation plan because the proposed project is located in the midst of an urban area. According to the biological evaluation, the project site is not located within federally designated Critical Habitat. The closest designated Critical Habitat is located approximately 3.95 miles east of the site for coastal California gnatcatcher.⁹⁸ In addition, the Sycamore and Turnbull Canyons Significant Ecological Area (SEA #44) is the closest protected SEA and is located approximately 5.96 miles northeast from the project site.⁹⁹ The construction and operation of the proposed project will not affect the Sycamore and Turnbull Canyons SEA because the proposed development will be restricted to the project site. Therefore, no impacts will occur.

3.10.3 CUMULATIVE IMPACTS

The potential cumulative impacts with respect to land use are site specific. Furthermore, the analysis determined that the proposed project will not result in any significant adverse impacts. As a result, no significant adverse cumulative land use impacts will occur as part of the proposed project's implementation.

3.10.4 MITIGATION MEASURES

The analysis determined that no significant adverse impacts on land use and planning would result from the implementation of the proposed project. As a result, no mitigation measures are required.

⁹⁷ Google Earth. Site accessed October 7, 2015.

⁹⁸ Michael Baker International. *Biological Property Evaluation (Habitat Assessment) for Sensitive Biological Resources on a 9.68-acre Industrial Land Site Located at 13101-13123 Rosecrans Avenue, in the City of Santa Fe Springs, Los Angeles County, California.* Study dated August 13, 2015.

⁹⁹ Google Earth. Site accessed September 20, 2015.

3.11 MINERAL RESOURCES

3.11.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant adverse impact on energy and mineral resources if it results in any of the following:

- The loss of availability of a known mineral resource that would be of value to the region and the residents of the State; or,
- 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.

3.11.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. *Would the project 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?* • No Impact.

According to the California Department of Conservation Division of Oil, Gas, and Geothermal Resources Well Finder, there are no existing or former oil wells and/or oil extraction activities located within the project site.¹⁰⁰ The nearest recorded well to the project site is located approximately 0.74 miles to the southeast of the project site along Freeway Drive.¹⁰¹ Furthermore, the project area is not located within a Significant Mineral Aggregate Resource Area (SMARA), nor is it located in an area with active mineral extraction activities. As a result, no impacts on existing mineral resources will result from the proposed project's implementation.

B. *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?* • No Impact.

The resources and materials that will be utilized for the construction of the proposed project will not include any materials that are considered rare or unique. Thus, no impacts will result with the implementation of the proposed project.

3.11.3 CUMULATIVE IMPACTS

The potential impacts on mineral resources are site specific. Furthermore, the analysis determined that the proposed project would not result in any impacts on mineral resources. As a result, no cumulative impacts will occur.

¹⁰⁰ California Department of Conservation. <http://maps.conservation.ca.gov/doggr/index.html#close>. Site accessed October 7, 2015.

¹⁰¹ Google Earth. Site accessed October 7, 2015.

3.11.4 MITIGATION MEASURES

The analysis of potential impacts related to mineral resources indicated that no significant adverse impacts would result from the proposed project's approval and subsequent implementation. As a result, no mitigation measures are required.

3.12 NOISE

3.12.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant impact on the environment if it results in any of the following:

- The exposure of persons to, or the generation of, noise levels in excess of standards established in the local general plan, noise ordinance or applicable standards of other agencies;
- The exposure of people to, or the generation of, excessive ground-borne noise levels;
- A substantial permanent increase in ambient noise levels in the vicinity of the project above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- Locating within an area governed by an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or private use airport, where the project would expose people to excessive noise levels; or,
- Locating within the vicinity of a private airstrip that would result in the exposure of people residing or working in the project area to excessive noise levels.

3.12.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

- A. *Would the project result in exposure of persons to, or the generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? • Less than Significant Impact.*

Noise levels may be described using a number of methods designed to evaluate the “loudness” of a particular noise. The most commonly used unit for measuring the level of sound is the decibel (dB). Zero on the decibel scale represents the lowest limit of sound that can be heard by humans. The eardrum may rupture at 140 dB. In general, an increase of between 3.0 dB and 5.0 dB in the ambient noise level is considered to represent the threshold for human sensitivity. In other words, increases in ambient noise levels of 3.0 dB or less are not generally perceptible to persons with average hearing abilities.¹⁰² Noise levels that are associated with common, everyday activities are illustrated in Exhibit 3-8. The ambient noise environment within the project area is dominated by traffic noise emanating from Rosecrans Avenue and Maryton Avenue, from the adjacent uses, and from trains travelling through the BN&SF railroad right-of-way (ROW).

¹⁰² Bugliarello, et. al., *The Impact of Noise Pollution*, Chapter 127, 1975.

Noise Levels – in dBA

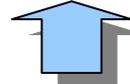
 <i>Serious Injury</i>	165	
	160	
	155	
	150	
 <i>Pain</i>	145	
	140	<i>sonic boom</i>
	135	
	130	
	125	<i>jet take off at 200 ft.</i>
	120	
 <i>Discomfort</i>	115	<i>music in night club interior</i>
	110	<i>motorcycle at 20 ft.</i>
	105	<i>power mower</i>
	100	
	95	<i>freight train at 50 ft.</i>
	90	<i>food blender</i>
 <i>Range of Typical Noise Levels</i>	85	<i>electric mixer, light rail train horn</i>
	80	
	75	
	70	<i>portable fan, roadway traffic at 50 ft.</i>
	65	
	60	<i>dishwasher, air conditioner</i>
	55	
	50	<i>normal conversation</i>
	45	<i>refrigerator, light traffic at 100 ft.</i>
	40	
 <i>Threshold of Hearing</i>	35	<i>library interior (quiet study area)</i>
	30	
	25	
	20	
	15	
	10	<i>rustling leaves</i>
	5	
0		

EXHIBIT 3-8 TYPICAL NOISE SOURCES AND LOUDNESS SCALE

Source: Blodgett Baylosis Environmental Planning

A Westward Digital Sound Level Meter Model: 5URG5 was used to conduct the noise measurements. A series of 100 discrete noise measurements were recorded along the north Side of Rosecrans Avenue and along the west side of Maryton Avenue and the results of the survey are summarized in Table 3-7. The measurements were taken on a Friday morning at 11:00 AM.

Table 3-7 indicates the variation in noise levels over time during the measurement period.¹⁰³ As indicated previously, the L₅₀ noise level represents the noise level that is exceeded 50% of the time. Half the time the noise level exceeds this level and half the time the noise level is less than this level. The average noise level along Rosecrans Avenue during the measurement period was 67.1 dBA, while the average noise level along Maryton Avenue during the measurement period was 52.2 dBA.

**Table 3-7
 Noise Measurement Results**

Noise Metric	Noise Level (dBA) along Rosecrans Avenue	Noise Level (dBA) along Maryton Avenue
L ₅₀ (Noise levels <50% of time)	66.7 dBA	50.2 dBA
L ₇₅ (Noise levels <75% of time)	69.2 DBA	52.2 dBA
L ₉₀ (Noise levels <90% of time)	71.1 dBA	60.7 dBA
L ₉₉ (Noise levels <99% of time)	77.7 dBA	76.1 dBA
L _{min} (Minimum Noise Level)	54.1 dBA	43.4 dBA
L _{max} (Maximum Noise Level)	78.9 dBA	84.4 dBA
Average Noise Level	67.1 dBA	52.2 dBA

Source: Blodgett Baylosis Environmental Planning, October 12, 2015

As indicated in Table 3-7, the average noise level along Rosecrans Avenue during the measurement period was 67.1 dBA, while the average noise level along Maryton Avenue during the measurement period was 52.2 dBA. The implementation of the proposed project will not expose future employees to excessive noise because the use that is contemplated for development is not a noise sensitive receptor. In addition, the future tenant will be required to adhere to all pertinent noise control regulations outlined by the City of Santa Fe Springs. According to the Noise Element of the City’s General Plan, interior noise levels for manufacturing uses are to be less than 65 dBA. In addition, the project’s future tenants will not exceed the noise standards identified in the table provided in Section 155.424 of the City’s Zoning Ordinance. Exterior noise emanating from the site will not impact the single-family houses to the south or the high school to the north (refer to Subsection 3.12.2.B and C). As a result, the potential impacts will be less than significant.

¹⁰³ Bugliarello, et. al., *The Impact of Noise Pollution*, Chapter 127, 1975.

B. Would the project result in exposure of people to, or the generation of, excessive ground-borne noise levels? • Less than Significant Impact.

Once operational, the project will not result in the exposure of people (employees and nearby residents) to excessive ground-borne noise levels. The project is not considered to be a sensitive receptor; therefore, employees will not be affected by noise generated through daily activities occurring on-site. The residents occupying the single-family houses along the south side of Rosecrans Avenue will not be affected by noise stemming from daily operations because all of the dock high doors will be located along each of the three building's northern elevations. The existing homes will be separated from the loading and receiving areas by the new buildings and an approximate distance of 450 feet will further attenuate the noise from loading and receiving activities. Any noise generated by the trucks during the loading phases will be attenuated by the three buildings, which will obstruct the line of sight from the single-family houses located along the south side of Rosecrans Avenue. Noise emanating from the northern portion of the project site will not affect the adjacent high school because open space abuts the project site and the nearest buildings on campus are located 371 feet to the northwest. The future tenant will be required to adhere to the City's noise control requirements. Traffic noise generated by vehicles travelling along Rosecrans Avenue will also mask any noise emanating from the project site.

Furthermore, the proposed project is expected to generate 1,006 average daily trips per day (refer to Section 3.16). According to the traffic report, the intersection of Rosecrans Avenue and Maryton Avenue is expected to result in a doubling of traffic volumes and a degradation of the aforementioned intersection's LOS from A to F. However, mitigation has been provided which restricts vehicles' ability to make a left turn onto Rosecrans Avenue from southbound Maryton Avenue during the afternoon peak hour. The mitigation included above will divert traffic, thus preventing a doubling of traffic travelling eastbound along Rosecrans Avenue from Maryton Avenue. As a result, the impacts are anticipated to be less than significant.

C. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? • Less than Significant Impact.

The project's traffic will not be great enough to result in a measurable or perceptible increase in traffic noise (it typically requires a doubling of traffic volumes to increase the ambient noise levels to 3.0 dBA or greater). The proposed project is expected to generate 1,006 average daily trips per day (refer to Section 3.16). Mitigation has been provided in order to prevent the degradation of the Rosecrans Avenue and Maryton Avenue intersection. Adherence to the mitigation provided in Subsection 3.16.2.A will reduce project trip rates to levels that are far less than the doubling of traffic that would be required to generate a perceptible increase in traffic noise. Furthermore, any activities that would result in a generation of excessive noise would not be located within the line of sight for the single family houses located along the south side of Rosecrans Avenue (all of the dock high doors for the three warehouses will be located along the building's north facing elevations). Noise emanating from the northern portion of the project site will not affect the adjacent high school because open space abuts the project site and the nearest buildings on campus are located 371 feet to the northwest. Therefore, the project will not result in a substantial permanent increase in noise as long as the future tenant(s) adhere to all pertinent noise standards set by the City. As a result, the impacts are anticipated to be less than significant.

D. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? • Less than Significant Impact with Mitigation.

Noise levels associated with various types of construction equipment are summarized in Exhibit 3-9. The noise levels are those that would be expected at a distance of 50 feet from the noise source. Composite construction noise is best characterized in a study prepared by Bolt, Beranek, and Newman. In the aforementioned study, the noisiest phases of construction are anticipated to be 89 dBA as measured at a distance of 50 feet from the construction activity. This value takes into account both the number of pieces and spacing of the heavy equipment typically used in a construction effort. In later phases during building erection, noise levels are typically reduced from these values and the physical structures further break up line-of-sight noise. However, as a worst-case scenario, the 89 dBA value was used as an average noise level for the construction activities at 50 feet from the noise sources.

As indicated previously, the nearest noise sensitive receptors are the single-family houses located directly across the street along the south side of Rosecrans Avenue. John H. Glenn High School, an additional sensitive receptor, abuts the project site to the north. Since there are sensitive receptors located in the vicinity of the project site, the following mitigation is warranted:

- The Applicant shall ensure that the contractors conduct demolition and construction activities between the hours of 7:00 AM and 6:00 PM on weekdays and 9:00 AM to 12:00 PM on Saturdays, with no construction permitted on Sundays or Federal holidays.
- The Applicant shall ensure that the contractors use construction equipment that includes working mufflers and other sound suppression equipment as a means to reduce machinery noise.
- The Applicant shall notify the nearby residents along Rosecrans Avenue as to the times and duration of construction activities. In addition to the notification of the individual residences, signage must be placed on the site's main access gate along Rosecrans Avenue and Maryton Avenue that clearly identify a contact person (and the phone number) that local residents may call to complain about noise related to construction and/or operations. Upon reception of a complaint, the contractor must respond immediately by reducing noise to acceptable levels. In addition, all complaints and subsequent communication between the affected residents and contractors must be forwarded to the City's Planning and Development Department.
- To ensure that noise from equipment and vehicles are kept to a minimum, the project Contractors shall ensure that all diesel trucks and equipment are not left to idle for longer than five minutes.
- All grading and construction activities shall comply with County of Los Angeles Code, Title 12, Section 12.12.030 that controls and restricts noise from the use of construction and grading equipment.

The aforementioned mitigation will reduce the impacts to levels that are less than significant.

Typical noise levels 50-ft. from source

			<u>70</u>	<u>80</u>	<u>90</u>	<u>100</u>
Equipment Powered by Internal Combustion Engines	Earth Moving Equipment	Compactors (Rollers)				
		Front Loaders				
		Backhoes				
		Tractors				
		Scrapers, Graders				
		Pavers				
		Trucks				
	Materials Handling Equipment	Concrete Mixers				
		Concrete Pumps				
		Cranes (Movable)				
		Cranes (Derrick)				
	Stationary Equipment	Pumps				
		Generators				
		Compressors				
	Impact Equipment	Pneumatic Wrenches				
Jack Hammers						
Pile Drivers						
Other Equipment	Vibrators					
	Saws					

EXHIBIT 3-9 TYPICAL CONSTRUCTION NOISE LEVELS

Source: Blodgett Baylosis Environmental Planning

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? • No Impact.

The project site is not located within two miles of a public use airport. Fullerton Airport is located approximately 4.43 miles to the southeast of the project site. The Joint Forces Training Base Los Alamitos is located approximately 7.20 miles to the south. The Long Beach Airport is located approximately 7.90 miles to the southwest.¹⁰⁴ The proposed project is not located within the Runway Protection Zones (RPZ) of any of the aforementioned airports. As a result, no impacts are anticipated.

F. Within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? • No Impact.

As indicated previously in Section 3.8.2.F, the project site is not located within two miles of a private airstrip. As a result, no noise impacts related to the exposure of persons to aircraft noise from a private airstrip will result from the proposed project.

3.12.3 CUMULATIVE IMPACTS

The analysis indicated that the proposed project would not result in any significant adverse cumulative noise impacts. As a result, no significant adverse cumulative noise impacts will occur with the implementation of the proposed project.

3.12.4 MITIGATION MEASURES

The following measure will reduce the potential construction noise impacts:

Mitigation Measure No. 24 (Noise). The Applicant shall ensure that the contractors conduct demolition and construction activities between the hours of 7:00 AM and 6:00 PM on weekdays and 9:00 AM to 12:00 PM on Saturdays, with no construction permitted on Sundays or Federal holidays.

Mitigation Measure No. 25 (Noise). The Applicant shall ensure that the contractors use construction equipment that includes working mufflers and other sound suppression equipment as a means to reduce machinery noise.

Mitigation Measure No. 26 (Noise). The Applicant shall notify the nearby residents along Rosecrans Avenue as to the times and duration of construction activities. In addition to the notification of the individual residences, signage must be placed on the site's main access gate along Rosecrans Avenue and Maryton Avenue that clearly identify a contact person (and the phone number) that local residents may call to complain about noise related to construction and/or operations. Upon reception of a complaint, the contractor must respond immediately by reducing noise to acceptable levels. In addition, all complaints and subsequent communication between the affected residents and contractors must be forwarded to the City's Planning and Development Department.

¹⁰⁴ Google Earth. Site accessed February 24, 2015.

CITY OF SANTA FE SPRINGS
BRIDGE POINT SANTA FE SPRINGS • DEVELOPMENT PLAN APPROVAL (DPA 902, 903, AND 904) AND TENTATIVE PARCEL MAP
(TPM 73880) • 13101 AND 13123 ROSECRANS AVE.

Mitigation Measure No. 27 (Noise). To ensure that noise from equipment and vehicles are kept to a minimum, the project Contractors shall ensure that all diesel trucks and equipment are not left to idle for longer than five minutes.

Mitigation Measure No. 28 (Noise). All grading and construction activities shall comply with County of Los Angeles Code, Title 12, Section 12.12.030 that controls and restricts noise from the use of construction and grading equipment.

3.13 POPULATION AND HOUSING

3.13.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant impact on housing and population if it results in any of the following:

- A substantial growth in the population within an area, either directly or indirectly related to a project;
- The displacement of a substantial number of existing housing units, necessitating the construction of replacement housing; or,
- The displacement of substantial numbers of people, necessitating the construction of replacement housing.

3.13.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. *Would the project induce substantial population growth in an area, either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?* • *No Impact.*

Growth-inducing impacts are generally associated with the provision of urban services to an undeveloped or rural area. The variables that typically contribute to growth-inducing impacts, and the project’s potential growth-inducing impacts, are identified in Table 3-8.

**Table 3-8
 Potential Growth-Inducing Impacts**

Factor Contributing to Growth Inducement	Project’s Potential Contribution	Basis for Determination
New development in an area presently undeveloped.	The proposed project will promote development of an underutilized parcel.	The project will promote development consistent with the City’s land use policy.
Extension of roadways and other transportation facilities.	The project will not involve the extension or modification of any off-site roadways.	The only roadway improvements will include new curb cuts and the paving of the site.
Extension of infrastructure and other improvements.	No off-site water, sewer, and other infrastructure are anticipated.	The only infrastructure improvements will serve the proposed project site only.
Major off-site public projects (treatment plants, etc).	No major facilities are proposed at this time.	No off-site facilities will be required to accommodate the projected demand.
Removal of housing requiring replacement housing elsewhere.	The project does not involve the removal of existing affordable or subsidized units.	No affordable housing will be affected by the proposed project.
Additional population growth leading to increased demand for services.	The proposed project will provide long-term growth in employment.	Long-term employment will be provided by the proposed development.
Short-term growth inducing impacts related to the project’s construction.	The proposed project may result in the creation of new construction employment.	Short-term increases in construction employment are a beneficial impact.

As indicated in Table 3-8, the proposed development would not result in any growth inducing impacts related to potential population growth. In addition, the jobs that are expected to be added are well within the employment projections contemplated by SCAG. According to the Growth Forecast Appendix prepared by SCAG for the 2012-2035 Regional Transportation Plan (RTP), the City of Santa Fe Springs is projected to add a total of 900 new jobs through the year 2035.¹⁰⁵ A total of 216 new jobs are estimated to be created upon the implementation of the proposed project. The number of new jobs assumes one new job for every 1,000 square feet of floor area. Given the City's current unemployment rate is 8.3% which means that there are 600 residents actively seeking work, no impacts are anticipated to occur.

B. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? • Less than Significant Impact.

The southeast portion of the site is occupied by a detached single-family unit, which houses a family member of the current property owner.¹⁰⁶ The project's implementation will require the vacation, removal, and demolition of all on-site improvements, structures, and activities, including the aforementioned residence. However, the impacts will be less than significant because the resident is a family member of the owner and is aware of future project proposals.

C. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? • Less than Significant Impact.

As indicated previously, the site currently houses a resident within the unit located in the southeast portion of the site. However, the resident is aware of future plans involving the site and its redevelopment. As a result, the impacts are anticipated to be less than significant.

3.13.3 CUMULATIVE IMPACTS

The analysis of potential population and housing impacts indicated that no significant adverse impacts would result from the proposed project's implementation since the project's potential employment generation was accounted for by SCAG. As a result, no significant adverse cumulative impacts will occur.

3.13.4 MITIGATION MEASURES

The analysis of potential population and housing impacts indicated that no significant adverse impacts would result from the proposed project's approval and subsequent implementation.

¹⁰⁵ Southern California Association of Governments. *Growth Forecast. Regional Transportation Plan 2012-2035*. April 2012.

¹⁰⁶ Ardent Environmental Group, Inc. *Phase I Environmental Site Assessment*. Report dated October 2, 2015.

3.14 PUBLIC SERVICES

3.14.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant adverse impact on public services if it results in any of the following:

- A substantial adverse physical impact associated with the provision of new or physically altered governmental facilities, the construction of which would cause a significant environmental impact in order to maintain acceptable service ratios, response times, or other performance objectives relative to *fire protection services*;
- A substantial adverse physical impact associated with the provision of new or physically altered governmental facilities, the construction of which would cause a significant environmental impact in order to maintain acceptable service ratios, response times, or other performance objectives relative to *police protection services*;
- A substantial adverse physical impact associated with the provision of new or physically altered governmental facilities, the construction of which would cause a significant environmental impact in order to maintain acceptable service ratios, response times, or other performance objectives relative to *school services*; or,
- A substantial adverse physical impact associated with the provision of new or physically altered governmental facilities, the construction of which would cause a significant environmental impact in order to maintain acceptable service ratios, response times, or other performance objectives relative to *other government services*.

3.14.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

- A. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which would cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives relative to fire protection services?* • *Less than Significant Impact with Mitigation.*

The City of Santa Fe Springs Department of Fire and Rescue provides fire prevention and emergency medical services within the City. The Fire Department consists of three separate divisions: Operations, Fire Prevention, and Environmental Protection. The Operations Division provides fire suppression, emergency medical services (EMS), hazardous materials response, and urban search and rescue. The Fire Prevention Division provides plan check, inspections, and public education. Finally, the Environmental Protection Division is responsible for responding to emergencies involving hazardous materials. The Fire Department operates from four stations: Station No. 1 (11300 Greenstone Avenue), Station No. 2 (8634 Dice Road), Station No. 3 (15517 Carmenita Road), and Station No. 4 (11736 Telegraph Road). The first response station to the site is Station No. 3. The Fire Department currently

reviews all new development plans, and future development will be required to conform to all fire protection and prevention requirements, including, but not limited to, building setbacks and emergency access. The site in its current state presents a fire safety hazard. Debris, inoperable pipes, valves, other miscellaneous equipment, and maintained vegetation cover the project site. In addition, the structures present on-site are dilapidated, and gas, motor oil, and grease may be present on-site due to the truck and trailer parking located within the northern portion of the site. If approved, the proposed project will reduce the existing fire safety hazard by requiring the clean-up, removal, and demolition of all structures, improvements, and debris located on-site. Therefore, the proposed project would not place additional demands on fire services since the project will involve the construction of a modern structure that will be subject to all pertinent fire and building codes. Compliance with the following mitigation as well as the pertinent codes and ordinances, would reduce the impacts to levels that are less than significant:

- The proposed project will undergo review by the City of Santa Fe Springs Department of Fire and Rescue to ensure that sprinklers, hydrants, fire flow, etc. are adequate in meeting the Department's requirements.

Adherence to the above mitigation will reduce potential impacts to levels that are less than significant.

B. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which would cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives relative to police protection? • Less than Significant Impact with Mitigation.

The City of Santa Fe Springs Department of Police Services is responsible for management of all law enforcement services within the city. The DPS is staffed by both city personnel and officers from the City of Whittier Police Department (WPD) that provide contract law enforcement services to Santa Fe Springs. The law enforcement contract between the two cities provides for a specified number of WPD patrolling officers though the Department of Police Services has the ability to request an increased level of service. WPD law enforcement personnel assigned to the City includes 35 sworn officers and six civilian employees.¹⁰⁷ Once operational, the proposed project is not anticipated to be an attractor for crime due to the lack of unsecure vacant space. In addition, gates will be provided to control access to the entry points of each parking lot that has ingress and egress to Maryton Avenue. Furthermore, in order to ensure the proposed industrial project elements adhere to the City's security requirements, the following mitigation will be required:

- The City of Santa Fe Springs Department of Police Services shall review the site plan for the proposed project to ensure that the development adheres to the Department requirements.

Adherence to the above mitigation will reduce potential impacts to levels that are less than significant.

¹⁰⁷ City of Whittier. <http://www.cityofwhittier.org/depts/police/sfs/default.asp>

- C. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which would cause significant environmental impacts in order to maintain acceptable service ratios or other performance objectives relative to school services?* • *No Impact.*

The proposed project will not involve any development and/or uses that could potentially affect school enrollments. Nevertheless, the project Applicant will be required to pay development fees to the local school districts. As a result, no impacts on schools will result.

- D. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which would cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives relative to other governmental services?* • *No Impact.*

No new governmental services will be needed, and the proposed project is not expected to have any impact on existing governmental services. As a result, no impacts are anticipated.

3.14.3 CUMULATIVE IMPACTS

The future development contemplated as part of the proposed project's implementation will not result in an incremental increase in the demand for public services. As a result, no cumulative impacts are anticipated.

3.14.4 MITIGATION MEASURES

The analysis of public service impacts indicated that no significant adverse impacts are anticipated; however, to ensure the proposed project meets the City's Fire and Police department standards, the following mitigation is required:

Mitigation Measure No. 29 (Public Services). The proposed project will undergo review by the City of Santa Fe Springs Department of Fire and Rescue to ensure that sprinklers, hydrants, fire flow, etc. are adequate in meeting the Department's requirements.

Mitigation Measure No. 30 (Public Services). The City of Santa Fe Springs Department of Police Services shall review the site plan for the proposed project to ensure that the development adheres to the Department requirements.

3.15 RECREATION

3.15.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant adverse impact on the environment if it results in any of the following:

- 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; or,
- The construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

3.15.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

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? • No Impact.

Due to the nature of the proposed project (warehousing), no increase in the usage of City parks and recreational facilities is anticipated to occur. The City of Santa Fe Springs Parks and Recreation Services operate six public parks devoted to active recreation. The proposed project would not result in any development that would potentially physically alter any public park facilities and services. No parks are located adjacent to the site. The nearest park is Heritage Park and is located approximately 2.35 miles to the northwest.¹⁰⁸ As a result, no impacts are anticipated.

B. Would the project affect existing recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? • No Impact.

The proposed project would not result in any development that would potentially increase the demand for recreational facilities and services. As a result, no significant adverse impacts are anticipated.

3.15.3 CUMULATIVE IMPACTS

The analysis determined that the proposed project would not result in any potential impact on recreational facilities and services. As a result, no cumulative impacts on recreational facilities would result from the proposed project's implementation.

¹⁰⁸ Google Earth. Site accessed October 8, 2015.

3.15.4 MITIGATION MEASURES

The analysis of potential impacts related to parks and recreation indicated that no significant adverse impacts would result from the proposed project's approval and subsequent implementation. As a result, no mitigation measures are required.

3.16 TRANSPORTATION AND CIRCULATION

3.16.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project will normally have a significant adverse impact on traffic and circulation if it results in any of the following:

- A conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- A conflict with an applicable congestion management program, including but not limited to, level of service standards and travel demand measures, or other standards established by the County Congestion Management Agency for designated roads or highways;
- Results in a change in air traffic patterns, including either an increase in traffic levels or a change in the location that results in substantial safety risks;
- Substantially increases hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Results in inadequate emergency access; or,
- A conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The analysis focuses on the potential traffic impacts to the surrounding roadway network near the Project site, and the identification of mitigation measures, as appropriate, at potentially impacted locations. Traffic conditions were analyzed for six (6) intersections in the City of Santa Fe Springs under Existing Year (2015) baseline conditions and for Opening Year (2016) conditions both without and with the Project. Five of the study intersections are currently signalized, while one intersection located at the southeast corner of the site is stop-controlled in the southbound direction.

Future conditions were estimated using industry standard traffic engineering methodologies and the guidelines, assumptions, and criteria established by the City of Santa Fe Springs. Future traffic volumes and project trip distribution patterns were developed based on measurements and observations conducted by Minagar & Associates, Inc. at each of the study intersections, in addition to recent roadway machine counts collected in 2014. The following sub-sections highlight the key findings of the traffic impact study.¹⁰⁹

¹⁰⁹ Minagar & Associates, Inc. *Traffic Impact Study for 216,731- SF Industrial Warehouse "Bridge Point Santa Fe Springs" Project NW Corner of Rosecrans Avenue & Maryton Avenue in the City of Santa Fe Springs, CA.* Report dated October 6th, 2015.

The traffic impact analysis was conducted in accordance with the goals, objectives, requirements, assumptions, policies, and procedures of the following:

- City of Santa Fe Springs traffic impact study guidelines;
- City of Santa Fe Springs General Plan and Circulation Element;
- City of Santa Fe Springs Municipal Code; and, the
- County of Los Angeles Congestion Management Program (CMP).

Traffic analysis and level of service (LOS) parameters, such as LOS and intersection performance metrics, significant impact thresholds, saturation flow rates for lane groups, and other factors were applied in accordance with the City’s currently adopted methods for traffic studies.

Prior to conducting the traffic analysis, Minagar & Associates, Inc. analyzed the general project vicinity with respect to the City of Santa Fe Springs’ surrounding access and circulation system to define the study scope and area. Exhibit 3-10 depicts the project site, project vicinity, and the location of the study intersections with respect to the local street system.¹¹⁰ Table 3-9 lists the locations of the study intersections, and the AM/PM peak traffic hours identified from the traffic counts, which were subsequently used in the analysis.

**Table 3-9
 Study Intersections and Weekday Peak Traffic Hours**

No.	Location	Intersection Control	Peak Hour	
			AM Period	PM Period
1	Rosecrans Ave. at Maryton Ave.	Two-Way Stop Control	7:15 – 8:15 AM	5:00 – 6:00 PM
2	Rosecrans Ave. at Carmenita Ave.	Signalized	7:15 – 8:15 AM	4:00 – 5:00 PM
3	Rosecrans Ave. at Marquadt Rd.	Signalized	7:00 – 8:00 AM	5:00 – 6:00 PM
4	Imperial Hwy at Carmenita Rd.	Signalized	7:15 – 8:15 AM	4:15 – 5:15 PM
5	Rosecrans Ave. at Bloomfield Ave. (west of I-5 undercrossing)	Signalized	7:00 – 8:00 AM	4:45 -5:45 PM
6	Rosecrans Ave. at Bloomfield Ave./Firestone Blvd. (east of I-5)	Signalized	7:15 – 8:15 AM	4:45 -5:45 PM

Source: Minagar & Associates, Inc. 2015.

Minagar & Associates, Inc. field staff collected intersection turning movement traffic volume counts at each of the six study locations. Traffic counts were conducted during the morning and afternoon peak periods (7:00-9:00 AM, 4:00-6:00 PM) during typical non-holiday weekdays in September 2015. Traffic count sheets are provided in *Appendix A* of the traffic report.

¹¹⁰ Minagar & Associates, Inc. *Traffic Impact Study for 216,731- SF Industrial Warehouse “Bridge Point Santa Fe Springs” Project NW Corner of Rosecrans Avenue & Maryton Avenue in the City of Santa Fe Springs, CA.* Report dated October 6th, 2015.

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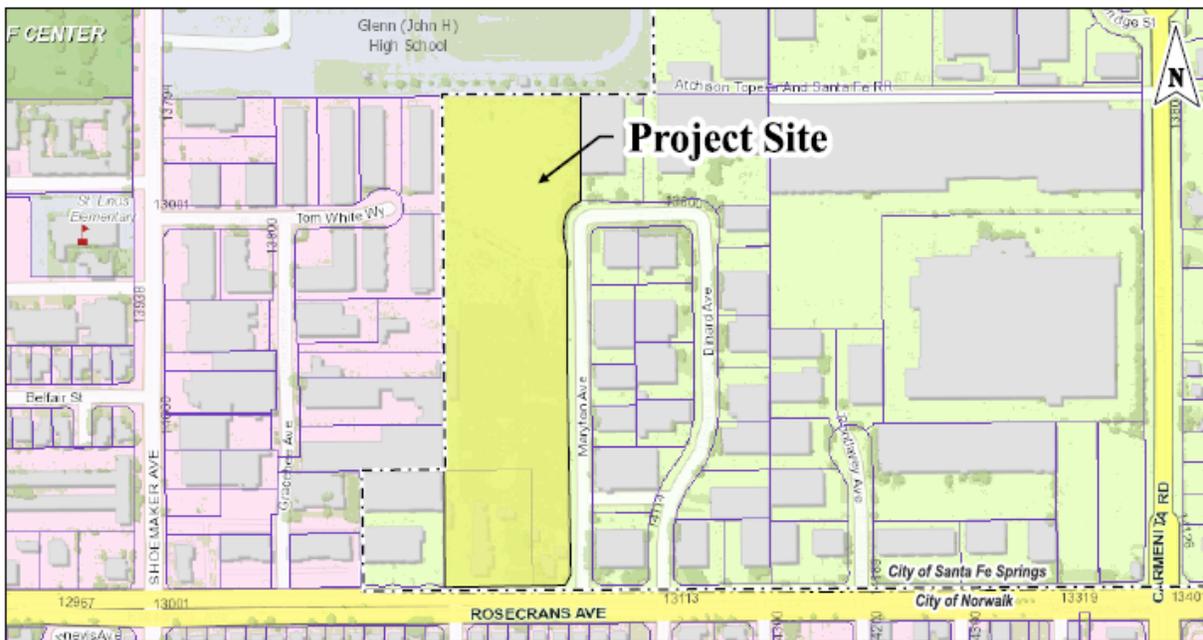


EXHIBIT 3-10
STUDY AREA INTERSECTIONS
 SOURCE: MINAGAR & ASSOCIATES, INC.

The following evaluation scenarios were considered in the traffic analysis:

- Existing Year 2015
- Opening Year 2015, Without Project
- Opening Year 2016, With Project
- Opening Year + Project, With Mitigation (as necessary)

The analysis methodology used in the TIS is based on the City of Santa Fe Springs’ traffic study criteria, which is derived from the requirements and procedures established in the Los Angeles County Metropolitan Transportation Authority’s Congestion Management Program (CMP). Intersection operating conditions are defined in terms of “Level of Service” (LOS), a grading scale used to represent the quality of traffic flow at an intersection. Level of Service ranges from LOS “A,” representing free-flow conditions, to LOS “F,” which indicates failing or severely congested traffic flow. Both the City of Santa Fe Springs and the County of Los Angeles CMP recognize LOS “D” as the minimum satisfactory Level of Service during peak hour conditions.¹¹¹

**Table 3-10
 City of Santa Fe Springs Intersection Level of Service (LOS) Criteria**

Service	ICU	Description
A	< 0.61	At LOS A, there are no cycles that are fully loaded, and few are even close to loaded. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turning movements are easily made, and nearly all drivers find freedom of operation.
B	0.61 – 0.70	LOS B represents stable operation. An occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel somewhat restricted with platoons of vehicles.
C	0.71 – 0.80	In LOS C, stable operation continues. Full signal cycle loading is still intermittent, but more frequent. Occasionally drivers may have to wait through more than one red signal indication, and back-ups may develop behind turning vehicles.
D	0.81 – 0.90	LOS D encompasses a zone of increasing restriction, approaching instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive back-ups.
E	0.91 – 1.00	LOS E represents the most vehicles that any particular intersection approach can accommodate. At capacity (V/C – 1.00) there may be long queues of vehicles waiting upstream of the intersection and delays may be great (up to several signal cycles).
F	> 1.00	LOS F represents jammed conditions. Back-ups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration; hence, volumes carried are not predictable, V/C values are highly variable, because full utilization of the approach may be prevented by outside conditions.

Source: “LOS for Arterial Intersections,” L.A. County Congestion Management Program, 2010.

¹¹¹ Minagar & Associates, Inc. *Traffic Impact Study for 216,731- SF Industrial Warehouse “Bridge Point Santa Fe Springs” Project NW Corner of Rosecrans Avenue & Maryton Avenue in the City of Santa Fe Springs, CA.* Report dated October 6th, 2015.

To determine the above peak-hour intersection LOS values for each intersection, the intersection capacity utilization (ICU) methodology was used. ICU methodology calculates the efficiency of an intersection to handle certain traffic conditions by summing the V/C of critical east/west and north/south conflicting movement combinations, which are determined from the volume and direction of entering traffic, and the capacity and configuration of the approach lanes serving this traffic. The resulting ICU is expressed in terms of the overall volume-to-capacity of the intersection, and adapted to a simplistic grading scale in terms of level of service (LOS), where LOS "A" represents free-flow activity and LOS "F" represents overcapacity operation.

For the unsignalized, two-way stop controlled intersection at Rosecrans Avenue and Maryton Avenue (southeast corner of the project site), the Highway Capacity Manual (HCM-2010) methods were used to evaluate peak hour vehicle delays, in seconds per vehicle (s/v). The HCM-2010 LOS criteria for unsignalized intersections are defined on a similar type of grading scale, as follows: LOS A ≤ 10 s/v; LOS B $>10-15$ s/v, LOS C $>15-25$ s/v, LOS D $>25-35$ s/v, LOS E $>35-50$ s/v, and LOS F >50 s/v.

The impact significance criteria for intersections are based a sliding scale, as shown in Table 3-11 below, which signifies the need for project mitigation where the anticipated project trips would trigger an increase in the V/C ratio of a study intersection by an amount equal to or greater than the values shown in the table.¹¹²

**Table 3-11
 City of Santa Fe Springs Traffic Impact Significance Thresholds**

Signalized Intersections		
Pre-Project V/C (Level of Service)		Project-Related Increase in V/C
> 0.70 to 0.80	(C)	+0.04 or more
> 0.80 to 0.90	(D)	+0.02 or more
> 0.90	(E to F)	+0.01 or more
Unsignalized Intersections		
Pre-Project Level of Service		Project-Related Increase in Average Total Delay
C or better		5 seconds/vehicle or more
D		4 seconds/vehicle or more
E or F		3 seconds/vehicle or more

Source: Minagar & Associates, Inc. 2015.

¹¹² Minagar & Associates, Inc. *Traffic Impact Study for 216,731- SF Industrial Warehouse "Bridge Point Santa Fe Springs" Project NW Corner of Rosecrans Avenue & Maryton Avenue in the City of Santa Fe Springs, CA.* Report dated October 6th, 2015.

3.16.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

- A. *Would the project cause a conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? • Less than Significant Impact with Mitigation.*

This section describes existing conditions regarding land use, existing roadway network, site access and parking, transit and pedestrian facilities, and the “Existing Year (2015)” intersection levels of service. Existing Year 2015 weekday peak hour intersection Levels of Service (LOS) were determined by developing a traffic model based on the prevailing lane configurations, intersection traffic signal and signage controls, and AM/PM peak hour traffic volumes observed and document from the field. The overall intersection volume-to-capacity (v/c) and LOS were determined using the ICU analysis module in Synchro-8.0, a traffic modeling, analysis and micro simulation computer program commonly used in regulatory traffic impact studies. Detailed LOS calculation worksheets are provided in Appendix B of the traffic report.¹¹³

Exhibit 3-11 shows the locations of each study intersection with respect to the project site and study area, including the existing traffic controls and lane geometrics. Existing peak-hour traffic volumes (in Passenger Car Equivalent [PCE] volumes) at each intersection and approach are shown on Exhibit 3-12.

Table 3-12 below summarizes the results of the Existing Year 2015 intersection LOS analysis, completed using the methodologies described in Section 1.3.4. As shown Table 3-12, only the signalized intersection at Rosecrans Avenue and Marquardt Avenue, and the unsignalized intersection at Rosecrans Avenue and Maryton Avenue, are operating at acceptable Levels of Service (LOS “D” or better) under the existing Year 2015 conditions during the weekday AM and PM peak hours. The remaining study intersections are currently operating at deficient LOS “F” during the weekday peak hours.

It should be noted that Minagar & Associates, Inc. for the traffic data collection program, initially incorporated the following additional three (3) signalized intersections of Carmenita Rd at Excelsior Dr/I-5 NB Ramps; Carmenita Rd at Firestone Blvd; and Rosecrans Ave at I-5 SB ramps on the traffic counts list. However, due to the existing freeway construction activities, the collected data were very abnormal due to the on-going ramp closures and continuous detours plans. It was also revealed that the aforementioned activities will be going on until our subject project will enter the construction phase.¹¹⁴

¹¹³ Minagar & Associates, Inc. *Traffic Impact Study for 216,731- SF Industrial Warehouse “Bridge Point Santa Fe Springs” Project NW Corner of Rosecrans Avenue & Maryton Avenue in the City of Santa Fe Springs, CA.* Report dated October 6th, 2015.

¹¹⁴ Ibid.

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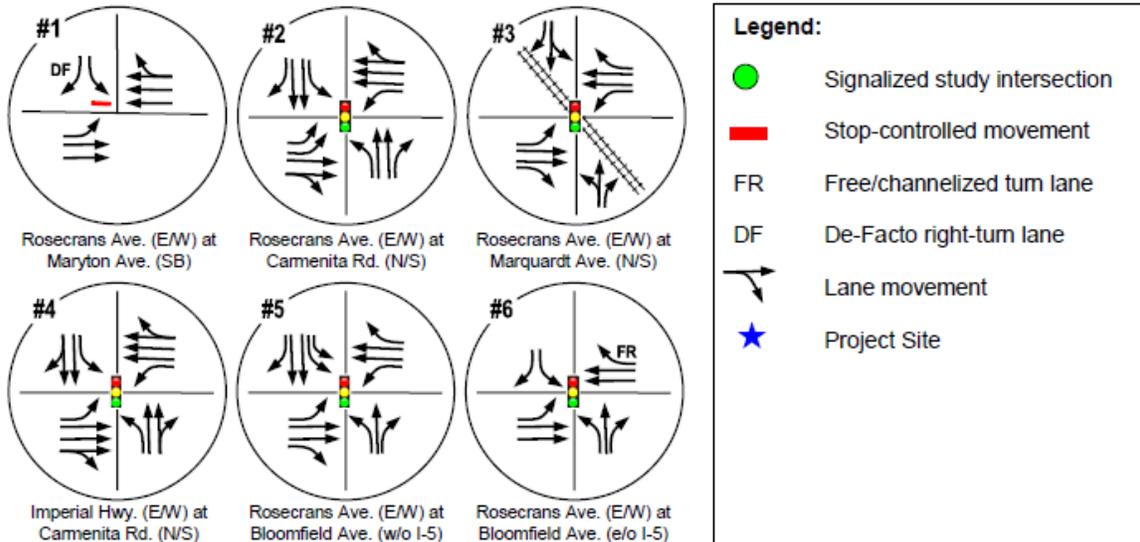


EXHIBIT 3-11
EXISTING INTERSECTION LANE CONFIGURATIONS AND CONTROLS
 SOURCE: MINAGAR & ASSOCIATES, INC.

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<p>1. Rosecrans Avenue & Maryton Avenue</p>	<p>2. Rosecrans Avenue & Carmenita Road</p>	<p>3. Rosecrans Avenue & Marquardt Avenue</p>	<p>Legend:</p> <p>● # Study Intersection</p> <p>↕↔ AM / PM peak hour turning movement</p> <p>x/x traffic volume (in PCEs*)</p>
<p>4. Imperial Highway & Carmenita Road</p>	<p>5. Rosecrans Avenue & Bloomfield Ave. (w/o I-5)</p>	<p>6. Rosecrans Avenue & Bloomfield Ave. (e/o I-5)</p>	<p>* PCE: Passenger Car Equivalent</p>

EXHIBIT 3-12

EXISTING YEAR 2015 TRAFFIC VOLUMES – WEEKDAY AM/PM PEAK HOUR

SOURCE: MINAGAR & ASSOCIATES, INC.

**Table 3-12
 Intersection Levels of Service – Existing Year (2015)**

No.	Intersection	Peak Hour	Existing Year 2015	
			V/C or Delay	LOS
1	Rosecrans Ave. at Maryton Ave.	AM	14.1 s/v	B
		PM	0.6 s/v	A
2	Rosecrans Ave. at Carmenita Ave.	AM	1.251	F
		PM	1.264	F
3	Rosecrans Ave. at Marquadt Rd.	AM	0.723	C
		PM	0.781	C
4	Imperial Hwy at Carmenita Rd.	AM	1.289	F
		PM	1.368	F
5	Rosecrans Ave. at Bloomfield Ave. (west of I-5 undercrossing)	AM	1.507	F
		PM	1.485	F
6	Rosecrans Ave. at Bloomfield Ave./ I-5 NB Off-ramp (east of I-5 undercrossing)	AM	1.241	F
		PM	1.115	F

Source: Minagar & Associates, Inc. 2015.

Analysis of future traffic conditions compares the anticipated traffic levels at each study intersection before and after the project is developed, in order to identify locations where the added project traffic could potentially cause significant impacts on the surrounding street network.¹¹⁵

The Opening Year 2016 baseline scenario represents local traffic conditions anticipated just prior to the opening of the project. Based on the project information provided by the City and developer, the warehouse facility would be constructed and occupied with approved building permits sometime late in the Year 2016.

The Opening Year 2016 baseline traffic volumes were developed by first identifying an annual ambient traffic growth factor. Minagar & Associates, Inc. collected average daily traffic (ADT) volume machine counts on various street segments in the City of Santa Fe Springs in 2009 and 2014, and subsequently compiled a report summarizing the changes in traffic volumes and patterns over this five-year period. The results of the 2014 report showed that on average, citywide traffic volumes decreased by an average of -0.10% per year over the previous five years.¹¹⁶

This historical traffic volume data would suggest that volumes for the Opening Year 2016 scenario should be adjusted downwards from the Existing Year 2015 conditions; however, it was conservatively decided that a negative adjustment factor would not be applied. Rather, for the purposes of this evaluation, the traffic analysis has assumed that the annual change in ambient traffic would be negligible between the existing conditions and the targeted project opening year.

¹¹⁵ Minagar & Associates, Inc. *Traffic Impact Study for 216,731- SF Industrial Warehouse “Bridge Point Santa Fe Springs” Project NW Corner of Rosecrans Avenue & Maryton Avenue in the City of Santa Fe Springs, CA.* Report dated October 6th, 2015.

¹¹⁶ Ibid.

At this time, no known major development projects in the vicinity have been found or are expected to be built leading up to the Opening Year 2016 which would generate additional traffic not reflected by the Existing Year 2015 baseline traffic volume counts. In order to account for unforeseen potential cumulative developments in the area occurring within the City of Santa Fe Springs, the neighboring cities of Norwalk and La Mirada, or unincorporated Los Angeles County, the existing traffic volume base was conservatively increased by +1.0% for the Opening Year 2016 baseline conditions.¹¹⁷

Peak hour traffic operations at each study intersection were evaluated for the Opening Year 2016 baseline conditions (without the project) based on the above traffic volume adjustments. As shown in Table 3-13, all of the study area intersections would continue to operate at their existing levels of service (LOS) during the weekday peak hours in the Year 2016.

**Table 3-13
 Intersection Levels of Service – Opening Year (2016) Conditions
 Without Project**

No.	Intersection	Peak Hour	Opening Year 2016 Baseline (Without Project)	
			V/C or Delay	LOS
1	Rosecrans Ave. at Maryton Ave.	AM	14.1 s/v	B
		PM	0.6 s/v	A
2	Rosecrans Ave. at Carmenita Ave.	AM	1.263	F
		PM	1.276	F
3	Rosecrans Ave. at Marquadt Rd.	AM	0.729	C
		PM	0.787	C
4	Imperial Hwy at Carmenita Rd.	AM	1.300	F
		PM	1.381	F
5	Rosecrans Ave. at Bloomfield Ave. (west of I-5 undercrossing)	AM	1.521	F
		PM	1.499	F
6	Rosecrans Ave. at Bloomfield Ave./I-5 NB Off-ramp (east of I-5 undercrossing)	AM	1.252	F
		PM	1.125	F

Source: Minagar & Associates, Inc. 2015.

Trip generation estimates for the project were developed using trip rates contained in the Institute of Transportation Engineers' (ITE) Trip Generation, 9th Edition based on the Warehousing land use category, ITE Code 150. Based on our understanding of the proposed site use, project traffic was assumed to consist of a mix of passenger car and heavy vehicle (truck) traffic. Passenger Car Equivalent (PCE) adjustment factors were applied to all traffic volumes throughout the traffic study, including for 2-axle, 3-axle and 4+ axle trucks comprising the project's trip generation. The net trip generation for the project, adjusted for trucks, will result in a daily trip generation of 1,006 PCE trips, 85 AM peak hour PCE trips

¹¹⁷ Minagar & Associates, Inc. *Traffic Impact Study for 216,731- SF Industrial Warehouse "Bridge Point Santa Fe Springs" Project NW Corner of Rosecrans Avenue & Maryton Avenue in the City of Santa Fe Springs, CA.* Report dated October 6th, 2015.

(67 in, 18 out) and 92 PM peak hour PCE trips (23 in, 609 out). Table 3-14 summarizes of the anticipated PCE-based AM/PM peak hour project trip generation.¹¹⁸

**Table 3-14
 Project Trip Generation**

Trip Generation Rates									
ITE Land Use	ITE Code	Rate Unit	Daily Rate	AM Peak Hour Rate			PM Peak Hour Rate		
				In	Out	Total	In	Out	Total
Warehousing	150	KSF	3.56	0.237	0.063	0.300	0.080	0.240	0.320

Project Trip Generation									
Project Land Use		Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
				In	Out	Total	In	Out	Total
Warehousing		225,220 KSF	802	54	14	68	18	54	72
Passenger Vehicles	80.0%		642	43	11	54	15	44	58
Trucks	20.0%		160	11	3	14	4	11	14

Project Trips – Passenger Car Equivalents (PCE)										
Vehicle Type	Veh. Mix	Daily Vehs.	PCE Factor	Daily PCE	AM Peak Hour PCE			PM Peak Hour PCE		
					In	Out	Total	In	Out	Total
Passenger Vehicles	80.0%	642	1.0	642	43	11	54	15	44	59
Lg. 2-Axle Trucks	9.0%	72	2.0	144	9	3	12	3	10	13
3-Axle Trucks										
4-Axle Trucks	11.0%	88	2.5	220	15	4	19	5	15	20
Total Truck PCE Trips				364	24	7	31	8	25	33
Total Project PCE Trips				1,006	67	18	85	23	69	92

Source: Minagar & Associates, Inc. 2015.

Project trips were distributed to the study area roadway network using patterns developed from existing peak hour traffic volumes, the latest project site plan, existing truck routes, and a study of travel routes between regional connectors and the project site. Based on this method, it was estimated that 50 percent of site traffic will access the site west on Rosecrans Avenue via I-5, Bloomfield Avenue, and Firestone Boulevard; the remaining 50 percent of site traffic will access the site east on Rosecrans Avenue via Carmenita Road, Marquardt Avenue/Stage Road, and Imperial Highway to the north. AM and PM peak hour project trip generation estimates were then assigned to the surrounding street network, as shown in Exhibits 3-13 and 3-14, below.¹¹⁹

¹¹⁸ Minagar & Associates, Inc. *Traffic Impact Study for 216,731- SF Industrial Warehouse “Bridge Point Santa Fe Springs” Project NW Corner of Rosecrans Avenue & Maryton Avenue in the City of Santa Fe Springs, CA.* Report dated October 6th, 2015.

¹¹⁹ Ibid.

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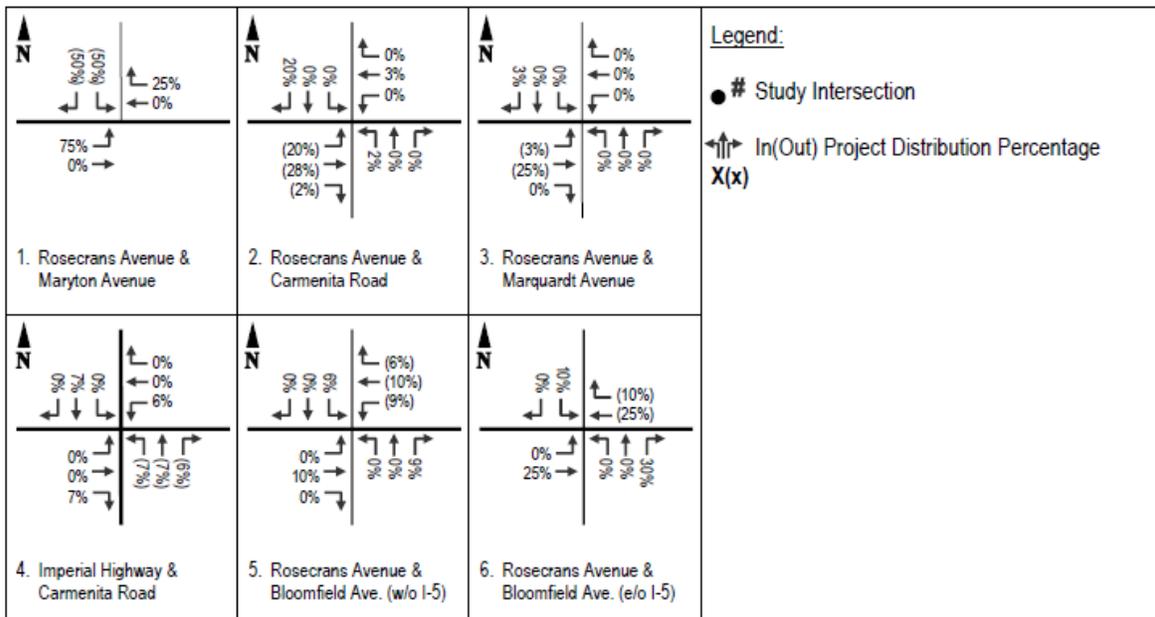


EXHIBIT 3-13
PROJECT TRIP DISTRIBUTION – WEEKDAY AM/PM PEAK HOURS
 SOURCE: MINAGAR & ASSOCIATES, INC.

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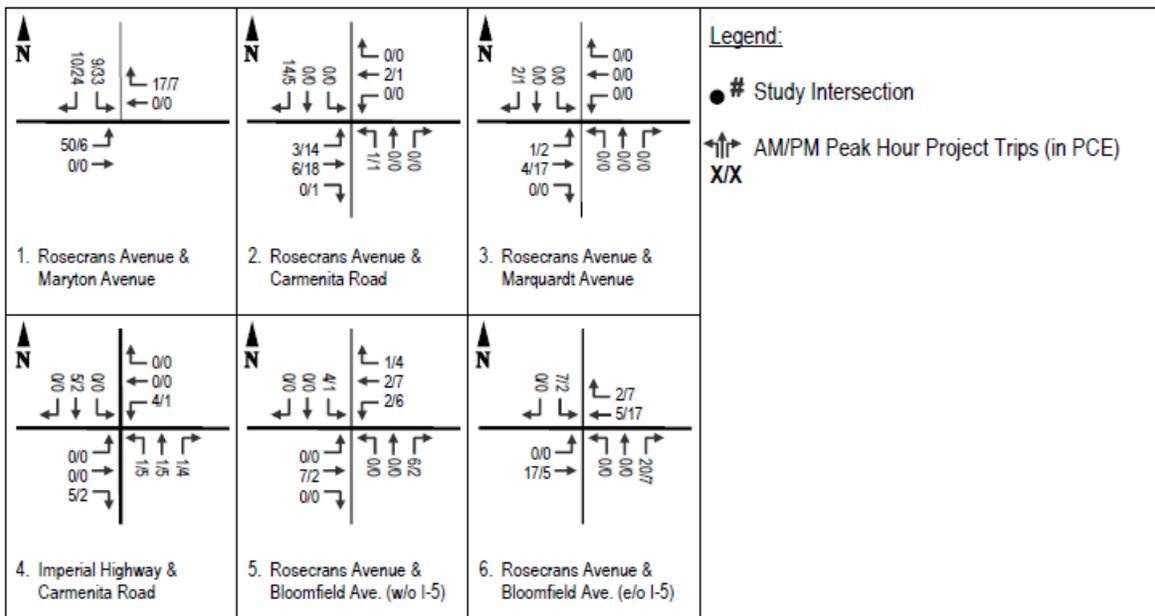


EXHIBIT 3-14
PROJECT TRIP ASSIGNMENT - WEEKDAY AM/PM PEAK HOUR
PASSENGER CAR EQUIVALENTS

SOURCE: MINAGAR & ASSOCIATES, INC.

The Opening Year 2016 Plus Project analysis scenario represents the added AM and PM peak hour project traffic to the future roadway and traffic conditions. As shown in Table 3-15 based on the level of service analysis, all six study intersections will continue to operate at their pre-project LOS in the AM and PM peak hours during the typical weekdays.¹²⁰ The only exception would be at the intersection of Rosecrans Avenue and Maryton Avenue, which would degrade from LOS B to LOS C during the AM peak hour, and from LOS A to LOS F in the PM peak hour. The remaining five signalized intersections will continue to operate under LOS F during the AM and PM weekday peak hours.¹²¹

**Table 3-15
 Intersection Levels of Service – Opening Year (2016)
 Conditions With Project**

No.	Intersection	Peak Hour	Opening Year 2016 With Project	
			V/C or Delay	LOS
1	Rosecrans Ave. at Maryton Ave.	AM	24.0 s/v 146.9 s/v	C
		PM		F
2	Rosecrans Ave. at Carmenita Ave.	AM	1.264 1.281	F
		PM		F
3	Rosecrans Ave. at Marquadt Rd.	AM	0.731 0.792	C
		PM		C
4	Imperial Hwy at Carmenita Rd.	AM	1.306 1.385	F
		PM		F
5	Rosecrans Ave. at Bloomfield Ave. (west of I-5 undercrossing)	AM	1.525 1.503	F
		PM		F
6	Rosecrans Ave. at Bloomfield Ave./I-5 NB Off-ramp (east of I-5 undercrossing)	AM	1.258 1.131	F
		PM		F

Source: Minagar & Associates, Inc. 2015.

A comparison of "Pre-Project" and "With Project" traffic conditions was performed to assess the significance level of potential traffic impacts due to the project on the surrounding study area intersections. Using the significance thresholds established by the City of Santa Fe Springs, the Opening Year 2016 volume-to-capacity ratios and LOS were compared without and with the project conditions. The findings of this evaluation revealed that although most of the study intersections would continue to operate at deficient levels of service (LOS "E" or worse) during the peak hours of the day, none of the intersections would be significantly impacted by the addition of project trips from the Bridge Development Warehouse site.¹²²

Table 3-16 summarizes the above comparative analyses to illustrate the changes in ICU (Control Delay for the unsignalized intersection) and LOS at each study location, indicating that potential significant traffic impacts are not expected at any of the signalized study intersections. At a minimum, the relative increase in the peak hour intersection V/C ratio due to the anticipated addition of project trips was +0.001. At

¹²⁰ Minagar & Associates, Inc. *Traffic Impact Study for 216,731- SF Industrial Warehouse "Bridge Point Santa Fe Springs" Project NW Corner of Rosecrans Avenue & Maryton Avenue in the City of Santa Fe Springs, CA.* Report dated October 6th, 2015.

¹²¹ Ibid.

¹²² Ibid.

most, the greatest relative change in peak hour intersection V/C ratio was +0.006 (0.6%) at several intersections. The only anticipated significant traffic impact would occur during the PM peak hour at the intersection of Rosecrans Avenue and Maryton Avenue, in which the average vehicle delay would increase to 147 seconds due to southbound vehicles experiencing a significant lack of gaps to turn left and merge with eastbound traffic on Rosecrans Avenue. In order to address this anticipated project-related traffic impact, it is recommended that the Applicant work with the City to implement the following off-site improvement:

- The Applicant must install a modified R33A (CA) sign at the Rosecrans Avenue/Maryton Avenue intersection facing southbound approaching traffic on Maryton Avenue. The sign shall depict No Left Turns during the 4-6 PM afternoon peak period from Monday to Friday.¹²³

**Table 3-16
 Comparison of Intersection LOS and Project Impact Significance**

No.	Intersection	Peak Hour	Opening Year 2016					Change	Significant Impact?
			Without Project		With Project				
			V/C or Delay	LOS	V/C or Delay	LOS			
1.	Rosecrans Ave. at Maryton Ave.	AM PM	14.1 s/v	B	24.0 s/v	C	+9.9 s/v +146.3 s/v	No	
			0.6 s/v	A	146.9 s/v	F		Yes	
			With Mitigation:		8.0 s/v	A	-6.1 s/v	No	
2.	Rosecrans Ave. at Carmenita Ave.	AM PM	1.263	F	1.264	F	+0.001 +0.005	No	
			1.276	F	1.281	F		No	
3.	Rosecrans Ave. at Marquadt Ave.	AM PM	0.729	C	0.731	C	+0.002 +0.005	No	
			0.787	C	0.792	C		No	
4.	Imperial Hwy at Carmenita Rd.	AM PM	1.300	F	1.306	F	+0.006 +0.006	No	
			1.381	F	1.385	F		No	
5.	Rosecrans Ave. at Bloomfield Ave (west of I-5 undercrossing)	AM PM	1.521	F	1.525	F	+0.004 +0.004	No	
			1.499	F	1.503	F		No	
6.	Rosecrans Ave. at Bloomfield Ave./I-5 NB Off-ramp (east of I-5 undercrossing)	AM PM	1.252	F	1.258	F	+0.006 +0.006	No	
			1.125	F	1.131	F		No	

Source: Minagar & Associates, Inc. 2015

Since the remaining study intersections would not be impacted by the Project during the weekday AM and/or PM peak hours, it is therefore concluded that the proposed project satisfies the traffic/transportation impact requirements of the California Environmental Quality Act (CEQA) and can be accommodated within the Circulation Element of the City of Santa Fe Springs' General Plan.¹²⁴

¹²³ Minagar & Associates, Inc. *Traffic Impact Study for 216,731- SF Industrial Warehouse "Bridge Point Santa Fe Springs" Project NW Corner of Rosecrans Avenue & Maryton Avenue in the City of Santa Fe Springs, CA.* Report dated October 6th, 2015.

¹²⁴ Ibid.

- B. Would the project result in a conflict with an applicable congestions management program, including but not limited to, level of service standards and travel demand measures, or other standards established by the County Congestion Management Agency for designated roads or highways? • No Impact.*

The County of Los Angeles is included in the Los Angeles County Congestion Management Program (CMP), which is prepared and maintained by the Los Angeles County Metropolitan Transportation Authority (Metro). The requirements of the CMP became effective with voter approval of Proposition 111. The purpose of the CMP is to link land use, transportation, and air quality decisions, to develop a partnership among transportation decision-makers in devising appropriate transportation solutions that include all modes of travel, and to propose transportation projects that are eligible to compete for State gas tax funds. The CMP also serves to consistently track trends during peak traffic hours at major intersections in the country and identify areas in great need of improvements where traffic congestion is worsening. The CMP requires that intersections which are designated as being officially monitored by the Program be analyzed under the County's CMP criteria if the proposed project is expected to generate 50 or more peak hour trips on a CMP-designated facility.

The CMP requires that intersections which are designated as under official monitoring by the program be analyzed using CMP criteria, should the proposed project generate 50 or more peak hour trips on the subject intersection. The intersection of Imperial Highway at Carmenita Road is a CMP-monitored intersection. Since the project will generate less than 50 peak hour intersection trips at this CMP location, a separate CMP analysis is therefore not required for this traffic impact study.¹²⁵ As a result, no impacts will occur.

- C. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in the location that results in substantial safety risks? • No Impact.*

The proposed project will not result in any changes in air traffic patterns because the proposed project will not significantly increase traffic to levels that would warrant mitigation. As a result, no impacts will occur with the implementation of the proposed project.

- D. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? • Less than Significant Impact.*

Vehicle access to the project site will be provided by a driveway connection along the north side of Rosecrans Avenue and by three driveway connections along the west side of Maryton Avenue. As indicated in the traffic report, in order to mitigate this anticipated project-related traffic impact, it is recommended that the Applicant work with the City to install a modified R33A (CA) sign in the existing median facing southbound traffic on Maryton Avenue. The sign shall depict No Left Turns during the 4-6 PM afternoon peak period from Monday to Friday, and will result in the diversion of southbound left-turning trips to the right (west) during the critical afternoon hours of traffic congestion at this

¹²⁵Minagar & Associates, Inc. *Traffic Impact Study for 216,731- SF Industrial Warehouse "Bridge Point Santa Fe Springs" Project NW Corner of Rosecrans Avenue & Maryton Avenue in the City of Santa Fe Springs, CA.* Report dated October 6th, 2015.

intersection. Adherence to the above-mentioned mitigation (also provided in Subsection 3.16.2.A) will reduce potential impacts to levels that are less than significant.

E. Would the project result in inadequate emergency access? • No Impact.

The proposed project will not affect emergency access to any adjacent parcels. At no time will any local streets or parcels be closed to traffic. As a result, the proposed project's implementation will not result in any impacts.

F. Would the project result in a conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? • No Impact.

No existing bus stops will be removed as part of the proposed project's implementation. As a result, the proposed project's implementation will not result in any impacts.

3.16.3 CUMULATIVE IMPACTS

The future development contemplated as part of the proposed project's implementation will not result in any increased traffic generation in the area. As a result, no cumulative impacts are anticipated.

3.16.4 MITIGATION MEASURES

The analysis of potential impacts related to traffic and circulation indicated that no significant adverse impacts would result from the proposed project's approval and subsequent implementation. However, the following mitigation has been provided to insure proper traffic flow:

Mitigation Measure No. 31 (Transportation and Circulation). The Applicant must install a modified R33A (CA) sign at the Rosecrans Avenue/Maryton Avenue intersection facing southbound approaching traffic on Maryton Avenue. The sign shall depict No Left Turns during the 4-6 PM afternoon peak period from Monday to Friday.

3.17 UTILITIES

3.17.1 THRESHOLDS OF SIGNIFICANCE

According to the City of Santa Fe Springs, acting as Lead Agency, a project may be deemed to have a significant adverse impact on utilities if it results in any of the following:

- An exceedance of the wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- The construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts;
- The construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- An overcapacity of the storm drain system causing area flooding;
- A determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand;
- The project will be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs;
- Non-compliance with Federal, State, and local statutes and regulations relative to solid waste;
- A need for new systems, or substantial alterations in power or natural gas facilities; or,
- A need for new systems, or substantial alterations in communications systems.

3.17.2 ANALYSIS OF ENVIRONMENTAL IMPACTS

A. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? • Less than Significant Impact.

The City of Santa Fe Springs is located within the service area of the Sanitation District 2 of Los Angeles County. The nearest wastewater treatment plant to Santa Fe Springs is the Los Coyotes Water Reclamation Plant (WRP) located in Cerritos. The Los Coyotes WRP is located at 16515 Piuma Avenue in the City of Cerritos and occupies 34 acres at the northwest junction of the San Gabriel River (I-605) and the Artesia (SR-91) Freeways. The plant was placed in operation on May 25, 1970, and initially had a capacity of 12.5 million gallons per day and consisted of primary treatment and secondary treatment with activated sludge. The Los Coyotes WRP provides primary, secondary, and tertiary treatment for 37.5 million gallons of wastewater per day. The plant serves a population of approximately 370,000 people.

Over five million gallons per day of the reclaimed water is reused at over 270 reuse sites. Reuse includes landscape irrigation of schools, golf courses, parks, nurseries, and greenbelts; and industrial use at local companies for carpet dying and concrete mixing. The remainder of the effluent is discharged to the San Gabriel River.¹²⁶ The Los Coyotes WRP has a treatment capacity of 350 million gallons of wastewater per day and serves a population of approximately 3.5 million people. Treated wastewater is disinfected with chlorine and conveyed to the Pacific Ocean. The reclamation projects utilize pump stations from the two largest Sanitation Districts' Water Reclamation plants includes the San Jose Creek WRP in Whittier and Los Coyotes WRP in Cerritos.¹²⁷

The Los Coyotes WRP has a design capacity of 37.5 million gallons per day (mgd) and currently processes an average flow of 31.8 mgd. The Joint Water Pollution Control Plant (JWPCP) located in the City of Carson has a design capacity of 385 mgd and currently processes an average flow of 326.1 mgd.¹²⁸ The Long Beach WRP has a design capacity of 25 mgd and currently processes an average flow of 20.2 mgd.¹²⁹ As indicated in Table 3-17, the future development is projected to generate 23,840 gallons of effluent on a daily basis, which is well under the capacity of the aforementioned WRPs.

**Table 3-17
 Wastewater (Effluent) Generation (gals/day)**

Use	Unit	Factor	Generation
Proposed Project	216,731 square feet	0.11 gals/unit	23,840 gals/day
Net Change			23,840 gals/day

Source: Blodgett Baylois Environmental Planning 2015

The proposed project will connect to an existing eight-inch sewer line located within Maryton Avenue and to an existing 42-inch trunk sewer line that extends along the south side of Rosecrans Avenue. The existing sewer lines have sufficient capacity to accommodate the projected flows. Adequate sewage collection and treatment are currently available. In addition, the new plumbing fixtures that will be installed will consist of water conserving fixtures as is required by the current City Code requirements, no new or expanded sewage and/or water treatment facilities will be required to accommodate the proposed project; as a result, the impacts are expected to be less than significant.

¹²⁶ Los Angeles County Sanitation Districts. http://www.lacsd.org/wastewater/wwfacilities/joint_outfall_system_wrp/los_coyotes.asp

¹²⁷ Ibid.

¹²⁸ Los Angeles County Sanitation Districts. *Joint Water Pollution Control Plant*. <http://www.lacsd.org/wastewater/wwfacilities/jwpcp/default.asp>

¹²⁹ Los Angeles County Sanitation Districts. *Long Beach Water Reclamation Plant*. http://www.lacsd.org/wastewater/wwfacilities/joint_outfall_system_wrp/long_beach.asp

B. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts? • No Impact.

As indicated previously, the proposed project will generate approximately 23,840 gallons of wastewater a day. The proposed project will connect to an existing eight-inch sewer line located within Maryton Avenue and to an existing 42-inch trunk sewer line located within the south side of Rosecrans Avenue. The future wastewater generation will be within the treatment capacity of the Los Coyotes and Long Beach WRP. Therefore, no new water and wastewater treatment facilities will be needed to accommodate the excess effluent generated by the proposed project and no impacts are anticipated to occur.

C. Would the project 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? • Less than Significant Impact.

As indicated in Subsection 3.9.2.A, the project will include the installation of two biofiltration areas within the landscaped areas. The first biofiltration area will be installed in the landscape area located along the northern side of Rosecrans Avenue. The second biofiltration area will be installed within the landscaped area located east of the third building along the west side of where Maryton Avenue banks eastward.¹³⁰ The biofiltration areas will be installed to facilitate proper filtration and percolation of storm water runoff.

In addition, the project will include the installation of three Stormtech MC-3500 stormwater chambers. Each of the three chambers will be located in the parking areas and will range in size from 48, 55, and 60 chambers.¹³¹ The purpose of the stormwater chambers is to contain storm water in the event of heavy rainfall. The excess water will either be diverted into the existing storm drain through a system of newly proposed storm drains, or will filter and percolate into the ground.

A total of four new 18-inch storm drains will be installed on-site. Of the four new storm drains, three will extend from the proposed Stormtech MC-3500 stormwater chambers. These three storm drains will ultimately connect to a new 18-inch storm drain extending along the eastern side of the project site. The aforementioned storm drain will extend along the site's entire east side and will connect into an existing storm drain located in the center of Rosecrans Avenue. Roof drains will be installed on each of the three new warehouses and will direct additional storm water into the main storm drain proposed along the site's eastern property line.¹³²

Once operational, the proposed project will be required to comply with all pertinent Federal Clean Water Act requirements. The project proposes new impervious surfaces that will be subject to the National Pollutant Discharge Elimination System (NPDES) permit from the Regional Water Quality Control Board. The project will also be required to comply with the City's storm water management guidelines. The

¹³⁰ Thienes Engineering, Inc. Conceptual Utility Plan, Rosecrans Avenue and Maryton Avenue. Plan dated September 28, 2015.

¹³¹ Ibid.

¹³² Ibid.

construction of the biofiltration areas, stormwater detention chambers, as well as the addition of the four new storm water lines, will serve to divert and control as much storm water as possible without having to expand or construct new facilities. As a result, the impacts will be less than significant.

D. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? • Less than Significant Impact with Mitigation.

According to the City’s Urban Water Management Plan, the City of Santa Fe Springs Water System has approximately 6,015 service connections through a pipeline network of approximately 108 miles. The large industrial makeup of the City creates high daytime water demands and low nighttime water demands. The City’s potable water system is supplied by one water well, two MWD connections, and two 4-million gallon reservoirs each with its own booster pumping station.¹³³

Table 3-18 indicates the water consumption estimated for the proposed project. The proposed project is projected to consume approximately 30,342 gallons of water on a daily basis.¹³⁴ The proposed project will connect to an existing 12-inch water line located along the site’s southern property line. Additionally, the estimated water consumption does not take into account the installation of more modern water conserving plumbing fixtures.

**Table 3-18
 Water Consumption (gals/day)**

Use	Unit	Factor	Generation
Proposed Project	216,731 square feet	0.14 gals/unit	30,342 gals/day
Net Change			30,342 gals/day

Source: Blodgett Baylosis Environmental Planning 2015

California has experienced a prolonged drought over the past four years. In response to this drought, Governor Brown announced emergency legislation aimed at reducing water consumption. Governor Brown signed an Executive Order in April in which cities, including Santa Fe Springs, are required to reduce their citywide water consumption by 28 percent. Governor Brown also outlined other initiatives that would include fines for those consumers that fail to conserve water. Even though the demand for water generated by the proposed project will not exceed City water supplies, the proposed project should incorporate features that aim to reduce water consumption on a larger scale. As a result, the following mitigation has been recommended:

¹³³ City of Santa Fe Springs, Urban Water Management Plan (2010-2014). Department of Public Works, Utilities Services Division. June 2011.

¹³⁴ Blodgett Baylosis Environmental Planning Utilities Calculations. Utilities worksheets provided in the Appendices.

- The project Applicant will be required to install Xeriscape, or landscaping with plants that require less water, as an alternative to traditional landscaping and turf. According to the Los Angeles County Department of Public Works, the addition of Xeriscape can reduce outdoor water consumption by as much as 50 percent.

Adherence to the mitigation provided above will mitigate potential impacts to levels that are less than significant.

E. Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments? • Less than Significant Impact.

As indicated in Subsection 3.17.2.A, the proposed project will connect to an existing eight-inch sewer line located within Maryton Avenue and to an existing 42-inch trunk sewer line that extends along the south side of Rosecrans Avenue. The existing sewer lines have sufficient capacity to accommodate the projected flows. Adequate sewage collection and treatment are currently available. In addition, the new plumbing fixtures that will be installed will consist of water conserving fixtures as is required by the current City Code requirements. No new or expanded sewage and/or water treatment facilities will be required to accommodate the proposed project; as a result, the impacts are expected to be less than significant.

F. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? • No Impact.

The Sanitation Districts operate a comprehensive solid waste management system serving the needs of a large portion of Los Angeles County. This system includes sanitary landfills, recycling centers, materials recovery/transfer facilities, and energy recovery facilities. The two operational sites are the Calabasas Landfill, located near the City of Agoura Hills, and the Scholl Canyon Landfill, located in the City of Glendale. The Puente Hills Landfill was closed in October 2013, and closure activities at the site will take 12 to 18 months to complete.¹³⁵ At the other closed landfills, which include the Spadra, the Palos Verdes, and the Mission Canyon landfills, the Sanitation Districts continue to maintain environmental control systems. Local municipal solid waste collection services are currently provided by Consolidated Disposal Services, CR and R Waste and Recycling, and Serv-Wel Disposal Company. In addition, the aforementioned companies provide service hauling construction and demolition debris, which ties into Ordinance No. 914. Ordinance No.914 requires each contractor of a project with a value in excess of \$50,000 to recycle materials generated on site. The required goal is to reuse or recycle at least 75 percent of the project waste.

The majority of this disposable solid waste will be taken to the Commerce “Waste-to-Energy” incineration plant for incineration. Recyclable waste will be sorted from the waste stream and sent to a recycling facility. Residual waste associated with demolition and operational activities will be disposed of at area landfills. Operational waste that cannot be recycled or taken to area landfills, will be transported to the

¹³⁵ Los Angeles County Sanitation Districts. *Solid Waste Facilities*. <http://www.lacsd.org/solidwaste/swfacilities/default.asp>

Commerce incinerator. The proposed project will contribute to a limited amount to this waste stream. As a result, the impacts on solid waste generation are anticipated to be less than significant. Trash collection is provided by the Consolidated Disposal Service, CR and R Waste and Recycling, and Serv-Well Disposal Company. As indicated in Table 3-19, the future daily solid waste generation is projected to be 1,300 pounds per day.

**Table 3-19
 Solid Waste Generation (lbs/day)**

Use	Unit	Factor	Generation
Proposed Project	216,731 square feet	6 lbs/unit	1,300 lbs/day
Net Change			1,300 lbs/day

Source: Blodgett Baylosis Environmental Planning 2015

G. *Would the project comply with Federal, State, and local statutes and regulations related to solid waste?* • *No Impact.*

The proposed use, like all other developments in the City, will be required to adhere to all pertinent ordinances related to waste reduction and recycling. As a result, no impacts on the existing regulations pertaining to solid waste generation will result from the proposed project’s implementation.

3.17.3 CUMULATIVE IMPACTS

The potential impacts related to water line and sewer line capacities are site specific. Furthermore, the analysis herein also determined that the proposed project would not result in any significant adverse impacts on local utilities. However, due to the severity of California’s ongoing drought, mitigation has been provided to ease the demand for water.

3.17.4 MITIGATION MEASURES

The analysis determined that the following mitigation would be required to address potential impacts to water consumption. These mitigation measures are identified below:

Mitigation Measure No. 32 (Utilities). The project Applicant will be required to install Xeriscape, or landscaping with plants that require less water, as an alternative to traditional landscaping and turf. According to the Los Angeles County Department of Public Works, the addition of Xeriscape can reduce outdoor water consumption by as much as 50 percent.

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

The following findings can be made regarding the Mandatory Findings of Significance set forth in Section 15065 of the CEQA Guidelines based on the results of this environmental assessment:

- The approval and subsequent implementation of the proposed project *will not* have the potential to degrade the quality of the environment.
- The approval and subsequent implementation of the proposed project *will not* have the potential to achieve short-term goals to the disadvantage of long-term environmental goals.
- The approval and subsequent implementation of the proposed project *will not* have impacts that are individually limited, but cumulatively considerable, when considering planned or proposed development in the immediate vicinity.
- The approval and subsequent implementation of the proposed project *will not* have environmental effects that will adversely affect humans, either directly or indirectly.
- The Initial Study indicated there is no evidence that the proposed project will have an adverse effect on wildlife resources or the habitat upon which any wildlife depends.



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SECTION 4 - CONCLUSIONS

4.1 FINDINGS

The Initial Study determined that the proposed project is not expected to have any significant adverse environmental impacts. The following findings can be made regarding the Mandatory Findings of Significance set forth in Section 15065 of the CEQA Guidelines based on the results of this Initial Study:

- The proposed project *will not* have the potential to degrade the quality of the environment.
- The proposed project *will not* have the potential to achieve short-term goals to the disadvantage of long-term environmental goals.
- The proposed project *will not* have impacts that are individually limited, but cumulatively considerable, when considering planned or proposed development in the immediate vicinity.
- The proposed project *will not* have environmental effects that will adversely affect humans, either directly or indirectly.

In addition, pursuant to Section 21081(a) of the Public Resources Code, findings must be adopted by the decision-maker coincidental to the approval of a Mitigated Negative Declaration, which relates to the Mitigation Monitoring Program. These findings shall be incorporated as part of the decision-maker's findings of fact, in response to AB-3180 and in compliance with the requirements of the Public Resources Code. In accordance with the requirements of Section 21081(a) and 21081.6 of the Public Resources Code, the City of Santa Fe Springs can make the following additional findings:

- A Mitigation Reporting and Monitoring Program will be required; and,
- An accountable enforcement agency or monitoring agency shall not be identified for the mitigation measures adopted as part of the decision-maker's final determination.



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SECTION 5 - REFERENCES

5.1 PREPARERS

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5.2 REFERENCES

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CITY OF SANTA FE SPRINGS

BRIDGE POINT SANTA FE SPRINGS • DEVELOPMENT PLAN APPROVAL (DPA 902, 903, AND 904) AND TENTATIVE PARCEL MAP (TPM 73880) • 13101 AND 13123 ROSECRANS AVE.

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APPENDICES

- APPENDIX A - AIR QUALITY WORKSHEETS**
- APPENDIX B – BIOLOGICAL PROPERTY EVALUATION**
- APPENDIX C – GEOTECHNICAL STUDY**
- APPENDIX D – PHASE I REPORT**
- APPENDIX E – NOISE WORKSHEETS**
- APPENDIX F – TRAFFIC STUDY**
- APPENDIX G – UTILITIES WORKSHEETS**

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CITY OF SANTA FE SPRINGS
 BRIDGE POINT SANTA FE SPRINGS • DEVELOPMENT PLAN APPROVAL (DPA 902, 903, AND 904) AND TENTATIVE PARCEL MAP
 (TPM 73880) • 13101 AND 13123 ROSECRANS AVE.

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Rosecrans and Maryton Warehouses
 South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	82.36	1000sqft	1.89	82,362.00	0
Unrefrigerated Warehouse-No Rail	75.33	1000sqft	1.73	75,331.00	0
Unrefrigerated Warehouse-No Rail	74.04	1000sqft	1.70	74,038.00	0
Parking Lot	350.00	Space	3.15	140,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9	Operational Year	2017		
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW/hr)	630.89	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction times discussed in the MND

Demolition - Per the Los Angeles County Assessor Parcel Map for the two parcels that comprise the project site.

Architectural Coating - Per SCAQMD

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Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	230.00	109.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	PhaseEndDate	3/17/2017	3/30/2017
tblConstructionPhase	PhaseStartDate	12/31/2016	1/2/2017
tblGrading	AcresOfGrading	11.00	10.00
tblProjectCharacteristics	OperationalYear	2014	2017

2.0 Emissions Summary

CITY OF SANTA FE SPRINGS
 BRIDGE POINT SANTA FE SPRINGS • DEVELOPMENT PLAN APPROVAL (DPA 902, 903, AND 904) AND TENTATIVE PARCEL MAP
 (TPM 73880) • 13101 AND 13123 ROSECRANS AVE.

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2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1523	54.7263	42.2753	0.0622	18.2675	2.9404	21.2078	9.9840	2.7051	12.6892	0.0000	5,854.8178	5,854.8178	1.2371	0.0000	5,880.7977
2017	60.0965	2.3312	3.6907	7.3600e-003	0.3465	0.1761	0.5226	0.0919	0.1759	0.2678	0.0000	636.0674	636.0674	0.0472	0.0000	637.0580
Total	66.2487	67.0676	46.9960	0.0686	18.6140	3.1165	21.7304	10.0759	2.8810	12.9670	0.0000	6,490.8863	6,490.8863	1.2843	0.0000	6,517.8567

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.1523	54.7263	42.2753	0.0622	18.2675	2.9404	21.2078	9.9840	2.7051	12.6892	0.0000	5,854.8178	5,854.8178	1.2371	0.0000	5,880.7977
2017	60.0965	2.3312	3.6907	7.3600e-003	0.3465	0.1761	0.5226	0.0919	0.1759	0.2678	0.0000	636.0674	636.0674	0.0472	0.0000	637.0580
Total	66.2487	67.0676	46.9960	0.0686	18.6140	3.1165	21.7304	10.0759	2.8810	12.9670	0.0000	6,490.8863	6,490.8863	1.2843	0.0000	6,517.8567

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.8641	5.7000e-004	0.0605	0.0000	2.2000e-004	2.2000e-004	2.2000e-004	2.2000e-004	2.2000e-004	2.2000e-004	0.1273	0.1273	3.5000e-004			0.1348
Energy	6.2300e-003	0.0566	0.0476	3.4000e-004	4.3000e-003	4.3000e-003	4.3000e-003	4.3000e-003	4.3000e-003	4.3000e-003	67.9695	67.9695	1.3000e-003	1.2500e-003		68.3831
Mobile	2.3194	7.5895	30.2595	0.0812	5.4553	0.1139	5.5692	1.4576	0.1048	1.5625	6,911.6809	6,911.6809	0.2573			6,917.0831
Total	11.1888	7.8487	30.3878	0.0816	6.4653	0.1184	6.6787	1.4678	0.1094	1.6870	6,978.7778	6,978.7778	0.2688	1.2500e-003		6,986.8010

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.8641	5.7000e-004	0.0605	0.0000	2.2000e-004	2.2000e-004	2.2000e-004	2.2000e-004	2.2000e-004	2.2000e-004	0.1273	0.1273	3.5000e-004			0.1348
Energy	6.2300e-003	0.0566	0.0476	3.4000e-004	4.3000e-003	4.3000e-003	4.3000e-003	4.3000e-003	4.3000e-003	4.3000e-003	67.9695	67.9695	1.3000e-003	1.2500e-003		68.3831
Mobile	2.3194	7.5895	30.2595	0.0812	5.4553	0.1139	5.5692	1.4576	0.1048	1.5625	6,911.6809	6,911.6809	0.2573			6,917.0831
Total	11.1888	7.8487	30.3878	0.0816	6.4653	0.1184	6.6787	1.4678	0.1094	1.6870	6,978.7778	6,978.7778	0.2688	1.2500e-003		6,986.8010

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2016	3/31/2016	5	23	
2	Site Preparation	Site Preparation	4/1/2016	5/31/2016	5	43	
3	Grading	Grading	6/1/2016	6/30/2016	5	22	
4	Building Construction	Building Construction	7/1/2016	11/30/2016	5	109	
5	Paving	Paving	12/1/2016	12/30/2016	5	22	
6	Architectural Coating	Architectural Coating	1/2/2017	3/30/2017	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 353,897; Non-Residential Outdoor: 117,966 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	162	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	130	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	58.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	156.00	61.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	31.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.5472	0.0000	0.5472	0.0829	0.0000	0.0829			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365			4,089.2841	1.1121		4,112.6374
Total	4.2876	45.6559	35.0303	0.0399	0.5472	2.2921	2.8393	0.0829	2.1365	2.2194			4,089.2841	1.1121		4,112.6374

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3.2 Demolition - 2016

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0431	0.6913	0.4889	1.8600e-003	0.0439	0.0110	0.0549	0.0120	0.0101	0.0221			187.4035	1.3300e-003		187.4315
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0627	0.0793	0.9750	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458			178.4188	9.1500e-003		178.6110
Total	0.1058	0.7706	1.4640	3.9800e-003	0.2116	0.0124	0.2240	0.0565	0.0114	0.0679			365.8222	0.0105		366.0424

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.5472	0.0000	0.5472	0.0829	0.0000	0.0829			0.0000			0.0000
Off-Road	4.2876	45.6559	35.0303	0.0399		2.2921	2.2921		2.1365	2.1365			4,089.2841	1.1121		4,112.6374
Total	4.2876	45.6559	35.0303	0.0399	0.5472	2.2921	2.8393	0.0829	2.1365	2.2194			4,089.2841	1.1121		4,112.6374

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3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0431	0.6913	0.4889	1.8600e-003	0.0439	0.0110	0.0549	0.0120	0.0101	0.0221		187.4035	187.4035	1.3300e-003		187.4315
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0527	0.0793	0.9750	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4188	178.4188	9.1500e-003		178.6110
Total	0.1058	0.7996	1.4640	3.9800e-003	0.2116	0.0124	0.2240	0.0565	0.0114	0.0679		366.8222	366.8222	0.0106		368.0424

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,085.0053	4,085.0053	1.2262		4,090.7544
Total	5.0771	54.6323	41.1053	0.0391	18.0663	2.9387	21.0048	9.9307	2.7036	12.6343		4,085.0053	4,085.0053	1.2262		4,090.7544

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3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0752	0.0940	1.1700	2.5500e-003	0.2012	1.6900e-003	0.2029	0.0534	1.5500e-003	0.0549		214.1025	214.1025	0.0110		214.3332
Total	0.0752	0.0940	1.1700	2.5500e-003	0.2012	1.6900e-003	0.2029	0.0534	1.5500e-003	0.0549		214.1025	214.1025	0.0110		214.3332

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,085.0053	4,085.0053	1.2262		4,090.7544
Total	5.0771	54.6323	41.1053	0.0391	18.0663	2.9387	21.0048	9.9307	2.7036	12.6343	0.0000	4,085.0053	4,085.0053	1.2262		4,090.7544

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3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0752	0.0940	1.1700	2.5500e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		214.1025	214.1025	0.0110		214.3332
Total	0.0752	0.0940	1.1700	2.5500e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		214.1025	214.1025	0.0110		214.3332

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5041	0.0000	6.5041	3.3623	0.0000	3.3623			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225		3,093.7889	3,093.7889	0.9332		3,113.3860
Total	3.6669	38.4466	26.0787	0.0298	6.5041	2.1984	8.7025	3.3623	2.0225	5.3848		3,093.7889	3,093.7889	0.9332		3,113.3860

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3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0627	0.0793	0.9750	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4188	178.4188	8.1500e-003		178.6110
Total	0.0627	0.0793	0.9750	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4188	178.4188	8.1500e-003		178.6110

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5041	0.0000	6.5041	3.3623	0.0000	3.3623			0.0000			0.0000
Off-Road	3.6669	38.4466	26.0787	0.0298		2.1984	2.1984		2.0225	2.0225	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860
Total	3.6669	38.4466	26.0787	0.0298	6.5041	2.1984	8.7025	3.3623	2.0225	5.3848	0.0000	3,093.7889	3,093.7889	0.9332		3,113.3860

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3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0627	0.0783	0.9750	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4188	178.4188	9.1500e-003		178.6110
Total	0.0627	0.0783	0.9750	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4188	178.4188	9.1500e-003		178.6110

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0288		1.9674	1.9674		1.8486	1.8486		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	3.4062	28.5063	18.5066	0.0288		1.9674	1.9674		1.8486	1.8486		2,669.2864	2,669.2864	0.6620		2,683.1890

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3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5079	5.2684	6.0750	0.0133	0.3812	0.0868	0.4680	0.1086	0.0798	0.1883		1,329.9764	1,329.9764	9.4900e-003		1,330.1757
Worker	0.6517	0.8148	10.1403	0.0221	1.7437	0.0146	1.7583	0.4634	0.0134	0.4758		1,855.5551	1,855.5551	0.0952		1,857.5543
Total	1.1696	6.0832	16.2163	0.0354	2.1250	0.1013	2.2263	0.5710	0.0932	0.6642		3,185.6315	3,185.6315	0.1047		3,187.7301

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0288		1.9674	1.9674		1.8486	1.8486	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	3.4062	28.5063	18.5066	0.0288		1.9674	1.9674		1.8486	1.8486	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890

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3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5079	5.2684	6.0750	0.0133	0.3812	0.0868	0.4680	0.1086	0.0798	0.1883		1,329,976.4	1,329,976.4	9.4900e-003		1,330,175.7
Worker	0.6517	0.8148	10.1403	0.0221	1.7437	0.0146	1.7583	0.4624	0.0134	0.4758		1,855,555.1	1,855,555.1	0.0952		1,857,554.3
Total	1.1698	6.0832	16.2153	0.0354	2.1250	0.1013	2.2263	0.6710	0.0932	0.6642		3,185,531.5	3,185,531.5	0.1047		3,187,730.1

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0858	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316,376.7	2,316,376.7	0.6987		2,331,049.5
Paving	0.3751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4609	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316,376.7	2,316,376.7	0.6987		2,331,049.5

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3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0627	0.0783	0.9750	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4188	178.4188	9.1500e-003		178.6110
Total	0.0627	0.0783	0.9750	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4188	178.4188	9.1500e-003		178.6110

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0858	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316,376.7	2,316,376.7	0.6987		2,331,049.5
Paving	0.3751					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4609	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316,376.7	2,316,376.7	0.6987		2,331,049.5

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3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0627	0.0783	0.9750	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4188	178.4188	9.1500e-003		178.6110
Total	0.0627	0.0783	0.9750	2.1200e-003	0.1677	1.4000e-003	0.1691	0.0445	1.2900e-003	0.0458		178.4188	178.4188	9.1500e-003		178.6110

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	59.6478					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8881	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	59.9801	2.1850	1.8881	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721

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3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1164	0.1462	1.8227	4.3900e-003	0.3465	2.7900e-003	0.3493	0.0919	2.5700e-003	0.0945		354.6194	354.6194	0.0175		354.9860
Total	0.1164	0.1462	1.8227	4.3900e-003	0.3465	2.7900e-003	0.3493	0.0919	2.5700e-003	0.0945		354.6194	354.6194	0.0175		354.9860

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	59.6478					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8881	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	59.9801	2.1850	1.8881	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721

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3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1164	0.1462	1.8227	4.3800e-003	0.3465	2.7900e-003	0.3493	0.0919	2.5700e-003	0.0945		354.6194	354.6194	0.0175		354.9860
Total	0.1164	0.1462	1.8227	4.3800e-003	0.3465	2.7900e-003	0.3493	0.0919	2.5700e-003	0.0945		354.6194	354.6194	0.0175		354.9860

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3194	7.5895	30.2595	0.0812	5.4553	0.1139	5.5692	1.4576	0.1048	1.5625		6,911.6809	6,911.6809	0.2573		6,917.0831
Unmitigated	2.3194	7.5895	30.2595	0.0812	5.4553	0.1139	5.5692	1.4576	0.1048	1.5625		6,911.6809	6,911.6809	0.2573		6,917.0831

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4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	213.32	213.32	213.32	914,219	914,219
Unrefrigerated Warehouse-No Rail	195.11	195.11	195.11	836,175	836,175
Unrefrigerated Warehouse-No Rail	191.75	191.75	191.75	821,822	821,822
Total	600.18	600.18	600.18	2,572,216	2,572,216

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.512163	0.060173	0.180257	0.139094	0.042244	0.006664	0.016017	0.031880	0.001940	0.002497	0.004356	0.000592	0.002122

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Natural Gas Mitigated	6.2300e-003	0.0566	0.0476	3.4000e-004		4.3000e-003	4.3000e-003	4.3000e-003	4.3000e-003	4.3000e-003		67.9695	67.9695	1.3000e-003	1.2500e-003	68.3831
Natural Gas Unmitigated	6.2300e-003	0.0566	0.0476	3.4000e-004		4.3000e-003	4.3000e-003	4.3000e-003	4.3000e-003	4.3000e-003		67.9695	67.9695	1.3000e-003	1.2500e-003	68.3831

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No EPI	184,588	1.9900e-003	0.0181	0.0152	1.1000e-004		1.3800e-003	1.3800e-003	1.3800e-003	1.3800e-003	1.3800e-003		21.7162	21.7162	4.2000e-004	4.0000e-004	21.8484
Unrefrigerated Warehouse-No EPI	187,812	2.0300e-003	0.0184	0.0155	1.1000e-004		1.4000e-003	1.4000e-003	1.4000e-003	1.4000e-003	1.4000e-003		22.0955	22.0955	4.2000e-004	4.1000e-004	22.2299
Unrefrigerated Warehouse-No EPI	205,341	2.2100e-003	0.0201	0.0169	1.2000e-004		1.5300e-003	1.5300e-003	1.5300e-003	1.5300e-003	1.5300e-003		24.1578	24.1578	4.6000e-004	4.4000e-004	24.3048
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		8.2300e-003	0.0688	0.0478	3.4000e-004		4.3100e-003	4.3100e-003	4.3100e-003	4.3100e-003	4.3100e-003		67.9684	67.9684	1.3000e-003	1.2500e-003	68.3831

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5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No EPI	0.187812	2.0300e-003	0.0184	0.0155	1.1000e-004		1.4000e-003	1.4000e-003	1.4000e-003	1.4000e-003	1.4000e-003		22.0955	22.0955	4.2000e-004	4.1000e-004	22.2299
Unrefrigerated Warehouse-No EPI	0.205341	2.2100e-003	0.0201	0.0169	1.2000e-004		1.5300e-003	1.5300e-003	1.5300e-003	1.5300e-003	1.5300e-003		24.1578	24.1578	4.6000e-004	4.4000e-004	24.3048
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Ball	0.184588	1.9900e-003	0.0181	0.0152	1.1000e-004		1.3800e-003	1.3800e-003	1.3800e-003	1.3800e-003	1.3800e-003		21.7162	21.7162	4.2000e-004	4.0000e-004	21.8484
Total		8.2300e-003	0.0688	0.0478	3.4000e-004		4.3100e-003	4.3100e-003	4.3100e-003	4.3100e-003	4.3100e-003		67.9684	67.9684	1.3000e-003	1.2500e-003	68.3831

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.8641	5.7000e-004	0.0605	0.0000		2.2000e-004	2.2000e-004	2.2000e-004	2.2000e-004	2.2000e-004		0.1273	0.1273	3.5000e-004		0.1348
Unmitigated	8.8641	5.7000e-004	0.0605	0.0000		2.2000e-004	2.2000e-004	2.2000e-004	2.2000e-004	2.2000e-004		0.1273	0.1273	3.5000e-004		0.1348

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.3603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.8400e-003	5.7000e-004	0.0605	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004		0.1273	0.1273	3.5000e-004		0.1348
Total	8.8841	5.7000e-004	0.0605	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004		0.1273	0.1273	3.5000e-004		0.1348

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4980					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.3603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.8400e-003	5.7000e-004	0.0605	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004		0.1273	0.1273	3.5000e-004		0.1348
Total	8.8841	5.7000e-004	0.0605	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004		0.1273	0.1273	3.5000e-004		0.1348

7.0 Water Detail

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7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation



Innovation Done Right...We Make a Difference

August 13, 2015

BRIDGE DEVELOPMENT PARTNERS

Contact: Tom Ashcraft
601 S. Figueroa Street, Suite 4450
Los Angeles, California 90017

SUBJECT: Biological Property Evaluation (Habitat Assessment) for Sensitive Biological Resources on a 9.68-Acre Industrial Land Site Located at 13101-13123 Rosecrans Avenue, in the City of Santa Fe Springs, Los Angeles County, California.

Introduction

Michael Baker International (Michael Baker), conducted a biological property evaluation (habitat assessment) for sensitive biological resources on a 9.68-acre industrial land site (project site or site) located in the City of Santa Fe Springs, Los Angeles County, California. Michael Baker biologist Travis J. McGill inventoried and evaluated the condition of the habitat within the proposed project footprint on August 11, 2015.

The habitat assessment was conducted to characterize existing site conditions and to assess the probability of occurrence of sensitive plant and wildlife species that could pose a constraint to development. Special attention was given to the suitability of the habitat on-site to support plant and wildlife species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB) and other electronic databases as sensitive and as potentially occurring in the vicinity of the project site.

Project Location

The proposed project site is generally located north of Interstate 5, south of State Route 60, east of Interstate 605, and west of State Route 57 in the City of Santa Fe Springs, Los Angeles County, California (refer to Exhibit 1, *Regional and Local Vicinity*). The proposed project site is depicted on the Whittier quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series in Section 17, Township 3 south, Range 11 west. Specifically, the project site is located north of Rosecrans Avenue, south of Foster Road, east of Shoemaker Avenue, and west of Carmenita Road (refer to Exhibit 2, *Project Site*).

Methodology

A literature review and records search was conducted to determine which sensitive biological resources have the potential to occur on or within the general vicinity of the project site. In addition to the

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literature review, a general habitat assessment or biological property evaluation of the project site was conducted. The field survey provided information on the existing conditions on the site and its potential to support sensitive biological resources.

Literature Review

Prior to conducting a field visit, a literature review and records search was conducted for sensitive biological resources potentially occurring on or within the general vicinity of the project site. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project site were determined through a query of the CDFW's CNDDDB Rarefind 5 software, the California Native Plant Society's (CNPS) Electronic Inventory of Rare, Threatened, and Endangered Plants of California, Calflora Database, compendia of special-status species published by the CDFW, and United States Fish and Wildlife Service (USFWS) species listings.

Field Investigation

The biological property evaluation of the project site was conducted on August 11, 2015 by Michael Baker biologist Travis J. McGill. Plant communities/land uses identified on aerial photographs during the literature review were verified by walking meandering transects through the project site. The plant communities/land uses were evaluated for their potential to support sensitive plant and wildlife species. All plant and wildlife species observed, as well as dominant plant species, were recorded in a standardized field notebook. In addition, site characteristics such as soil condition, topography, presence of indicator species, slope, conditions of the plant communities, hydrology, jurisdictional features, and evidence of human use of the site were noted.

The plant communities were evaluated for their potential to provide suitable habitat for sensitive plant and wildlife species as well as the identification of corridors and linkages that may support the movement of wildlife through the area. Special attention was paid to any sensitive habitats and/or undeveloped, natural areas having a higher potential to support sensitive plant and wildlife species.

Existing Site Condition

The project site is relatively flat with no areas of significant topographic relief. The on-site elevation ranges from approximately 84 to 90 feet above mean sea level. No soil data for the on-site soils is available via the NRCS Web Soil Survey website. Per the field investigation, on-site soils are heavily disturbed and compacted, from existing dairy activities, development, and storage.

The project site occurs in an area that has been converted from natural habitats into industrial, residential, and commercial land uses. The project site is bordered by industrial and commercial land uses to the east and west, residential properties to the south, and John H. Glenn High School to the north. On-site and surrounding land uses have heavily disturbed, if not completely eliminated, most of the naturally occurring habitats around the project footprint, reducing the suitability of the habitat to support sensitive plant and wildlife species.

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Historically, the site was used as a dairy farm. Currently, the site is mainly used for storage. The northernmost portion of the project site is used as a truck storage yard for RV's and big rig trucks. The middle and eastern portions of the site are currently being used as a junk yard for wood pallets, wood boxes, metal piping, and metal valves. The southern half of the project site consists of disturbed areas and development. Two (2) residential structures and one (1) farming structure are found on the southern and western boundaries on the project site (refer to Exhibit 3, *Land Uses*).

Vegetation

Undisturbed, native plant communities are no longer present within the boundaries of the project site due to the heavy disturbances described above. Ornamental vegetation is found near the northern boundary and around the residences located in the southern portion of the project site. Plant species observed within the project footprint include common sunflower (*Helianthus annuus*), pigweed (*Chenopodium californicum*), Mexican fan palm (*Washingtonia robusta*), common fig (*Ficus carica*), horseweed (*Erigeron canadensis*), tree tobacco (*Nicotiana glauca*), olive (*Olea europaea*), smilo grass (*Stipa miliacea*), and prickly lettuce (*Lactuca serriola*).

Wildlife

The project site provides limited habitat for wildlife species adapted to a high degree of human presence and development. The majority of the wildlife observed during the habitat assessment consisted of avian species. Six (6) avian species were detected which included house finch (*Haemorrhous mexicanus*), black phoebe (*Sayornis nigricans*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), rock pigeon (*Columba livia*), and Anna's hummingbird (*Calypte anna*). Feral cats, roosters, and a goat were also observed within the project boundary during the biological property evaluation.

No mammals were detected during the biological property evaluation. However, mammalian species expected to occur on the project site are those adapted to continual human presence and development (e.g. opossum (*Didelphis virginiana*)).

The project site provides limited habitat for reptilian species acclimated to human presence and disturbance. No reptiles were detected during the biological property evaluation, however, reptilian species expected to occur include western fence lizard (*Sceloporus occidentalis*) and side-blotched lizard (*Uta stansburiana*).

No fish or amphibians were observed on the project site during the biological property evaluation. Further, no hydrogeomorphic features (e.g. creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish or amphibian populations were observed on the project site. Therefore, no fish or amphibian species are expected to occur on-site and are presumed absent.

Nesting Birds

No nesting birds or breeding behaviors were observed during the August 11, 2015 field survey. On-

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site vegetation provides limited nesting opportunities for avian species. However, the project site has the potential to provide suitable nesting opportunities for ground-nesting avian species (e.g. killdeer (*Charadrius vociferous*)). Additionally the ornamental trees located within the project boundaries and surrounding developments (within 300 feet of the project site), have the potential to provide suitable nesting opportunities for avian species. However, the disturbed nature of the project site and its continuous human activity greatly reduces the potential for birds to nest on-site. Additionally, the land uses on-site have reduced, if not completely eliminated foraging habitat for avian species.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project site is surrounded by existing development which has removed natural plant communities from the surrounding area. The proposed development will be confined to existing developed areas and areas that have been heavily disturbed (approximately 9.68-acres). There are no riparian corridors, creeks, or useful patches of stepping stone habitat within the project site. The concrete-lined La Cañada Verde Creek is located approximately 0.5 mile to the east, outside of the proposed project footprint. Additionally, the channelization of La Cañada Verde Creek for flood control purposes has eliminated all riparian habitats that could support wildlife movement. Therefore, the proposed project will not disrupt or have any adverse effects on any migratory corridors or linkages that may occur in the general vicinity of the project site.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The U.S. Army Corps of Engineers (Corps) Regulatory Branch regulates discharge of dredge or fill materials into “waters of the United States” pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Water Quality Control Board (Regional Board) regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

No jurisdictional drainage features or isolated wetland features that would qualify as “waters of the United States” or “waters of the state” were observed within the proposed project site. This project, therefore, will not require regulatory permits from the aforementioned regulatory agencies.

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Sensitive Biological Resources

The CNDDDB and CNPS were queried for reported locations of listed and sensitive plant and wildlife species as well as sensitive natural plant communities in the Whittier USGS 7.5-minute quadrangle. The literature search identified ten (10) sensitive plant species and twenty-three (23) sensitive wildlife species as having the potential to occur within the Whittier USGS 7.5-minute quadrangle. No CDFW sensitive habitats were identified as occurring within the Whittier quadrangle. These sensitive plant and wildlife species were evaluated for their potential to occur on the project site based on habitat requirements, availability/quality of suitable habitat, and known distributions. Species determined to have the potential to occur on-site are presented in Attachment C, *Potentially Occurring Sensitive Biological Resources*. Attachment C provides details of the analysis and field surveys regarding the potential occurrence of listed and sensitive plant and wildlife species within the project site.

No sensitive plant species were observed on-site during the biological property evaluation. Since the project site no longer supports native plant communities, the site does not provide suitable habitat for any of the identified sensitive plant species. Based on habitat requirements for specific species and the availability and quality of habitats needed by each sensitive plant species, it was determined that the project site does not provide suitable habitat that would support any of the sensitive plant species known to occur in the general vicinity of the project site.

No sensitive wildlife species were observed on-site and all sensitive wildlife species known to occur within the vicinity of the project site have a low potential to occur or are presumed absent from the project site.

Critical Habitat

Critical habitat refers to specific areas within the geographical range of species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of a species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. The project site is not located within federally designated Critical Habitat. The closest designated Critical Habitat is located approximately 3.95 miles east of the site for coastal California gnatcatcher (*Poliophtila californica californica*).

Conclusion

No sensitive plant or wildlife species were observed on the project site during the biological property evaluation. It was found that naturally occurring native plant communities are not present on-site and the property does not currently have the potential or support any of the sensitive plant and wildlife species known to occur in the general area.

Surrounding residential, industrial, and commercial development has isolated the project site from connecting to undisturbed, natural habitats still available in the area. The isolation and disturbance level of the project site limits the site's viability to provide suitable habitat for sensitive biological

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resources (i.e. sensitive plant and wildlife species, drainage features). As a result, no significant adverse impacts to biological resources are anticipated, as a result of implementation of the proposed project.

No nesting birds were observed and, given the heavy level of disturbance, none are expected to occur. However, construction activities should be conducted outside of the avian breeding season (generally February 1 to August 31) to avoid impacts to nesting birds. If construction will occur during the avian breeding season, a pre-construction nesting bird clearance survey should be conducted to ensure no birds are nesting on or within 500 feet of the project site.

Please do not hesitate to contact Thomas J. McGill at (909) 974-4907 or tmcgill@mbakerintl.com or Travis J. McGill at (909) 974-4958 or travismcgill@mbakerintl.com should you have any questions or require further information.

Sincerely,



Thomas J. McGill, Ph.D.
Vice President
Natural Resources



Travis J. McGill
Biologist
Natural Resources

Attachments:

- A. *Project Exhibits*
- B. *Site Photographs*
- C. *Potentially Occurring Sensitive Biological Resources*

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**PRELIMINARY GEOTECHNICAL INVESTIGATION,
PROPOSED COMMERCIAL/INDUSTRIAL DEVELOPMENT,
FORMER NORWALK DAIRY, 13101 ROSECRANS AVENUE,
CITY OF SANTA FE SPRINGS, CALIFORNIA**

Prepared For:

BRIDGE DEVELOPMENT PARTNERS
601 South Figueroa Street, Suite 4450
Los Angeles, California 90017

Project No. 11112.001

September 21, 2015

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September 21, 2015

Project No. 11112.001

To: Bridge Development Partners
601 South Figueroa Street, Suite 4450
Los Angeles, California 90017

Attention: Mr. Tom Ashcraft

Subject: Preliminary Geotechnical Investigation, Proposed Commercial/Industrial
Development, Former Norwalk Dairy, 13101 Rosecrans Avenue, City of
Santa Fe Springs, California

In accordance with your authorization, Leighton and Associates, Inc. has conducted this geotechnical investigation for the proposed commercial/industrial development at the site of the former Norwalk Dairy, located at 13101 Rosecrans Avenue in the City of Santa Fe Springs, Los Angeles County, California. A geotechnical investigation of the site was previously conducted (Southern California Geotechnical, SCG, 2015). The purpose of this study has been to collect additional subsurface data for the site, evaluate the proposed development with respect to the site conditions and provide geotechnical recommendations for design and construction of the development.

Based on this investigation, construction of the proposed residential development is feasible from a geotechnical standpoint. The most significant geotechnical issues at the site are those related to the potential for strong seismic shaking, the potential for moderate seismic settlement, the presence of manure and organic rich soils, and potentially compressible soils. Good planning and design of the project can limit the impact of these constraints. This report presents our findings, conclusions, and geotechnical recommendations for the project.

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We appreciate the opportunity to work with you on the development of this project. If you have any questions regarding this report, please call us at your convenience.

Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

Jason D. Hertzberg, GE 2711
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JMD/JDH/PB/rsm

Distribution: (5) Addressee

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1.0 INTRODUCTION

1.1 Site Location and Description

The property proposed for development is the Norwalk Dairy located at 13101 Rosecrans Avenue in the city of Santa Fe Springs, California. The site is rectangular encompassing approximately 10 acres, and bounded by Rosecrans Avenue to the south, Maryton Avenue to the east, John H. Glenn High School to the north, and a several commercial/industrial buildings to the west. Prior to the 1950s, the southern three-quarters of the site was an active dairy, with the majority of the area occupied by animal pens. Since 2008, the majority of the property has been used for storage of wood crates, scrap metal, and other debris. The northern quarter of the subject property has been used as a parking area for commercial trucks and other vehicles since the 1970s. There are multiple structures at the southern end of the site, including a residence, modular home, former dairy storefront, barn, and concrete slabs. In addition, there is a metal canopy structure along the central, western edge of the property. The site and surroundings have low relief and drain gently to the south.

1.2 Proposed Development

The conceptual development plan includes construction of three commercial/industrial structures with associated parking. The structures range up to about 80,000 square feet in area. Drainage, utility, drive aisles, hardscape and landscape improvements are also planned.

Although grading plans for the project are not yet available, we would expect shallow to moderate cuts and fills to achieve design grade (generally on the order of 5 feet or less).

We understand that current plans include placement of relatively shallow (6 to 10 feet below grade) infiltration facilities in the truck court areas north of each structure.

1.3 Purpose of Investigation

The purpose of this study has been to evaluate the proposed development with respect to the site conditions and provide geotechnical recommendations for design and construction of the development.

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Our geotechnical exploration included hollow-stem auger soil borings, cone penetration test (CPT) soundings, backhoe test pits, well permeameter tests, laboratory testing and geotechnical analysis to evaluate existing geotechnical conditions and to develop the recommendations contained in this report. We also reviewed a previous geotechnical report prepared for the site (Southern California Geotechnical, SCG, 2015) and incorporated data from that report into this study.

1.4 Scope of Investigation

The scope of our study has included the following tasks:

- Background Review: We reviewed available, relevant geotechnical/ geologic maps and reports and aerial photographs available from our in-house library.
- Utility Coordination: We contacted Underground Services Alert (USA) prior to excavating borings so that utility companies could mark utilities onsite.
- Field Exploration: Our field exploration included drilling of hollow-stem auger borings, excavation of backhoe test pits, infiltration testing, and cone penetration tests. Logs of the geotechnical borings, backhoe test pits, cone penetration test soundings, and infiltration testing are presented in Appendix B.
 - A total of 8 exploratory soil borings were logged and sampled onsite to evaluate subsurface conditions. The borings were drilled to depths ranging from 8 to 51.5 feet below the existing ground surface (bgs). Relatively undisturbed soil samples were obtained at selected intervals within the borings using a California Ring Sampler. Standard Penetration Tests (SPT) were conducted at selected depths and samples were obtained. Representative bulk soil samples were also collected at shallow depths from the borings.
 - A total of 7 backhoe test pits were excavated to depths ranging from 4 to 7 feet bgs by a subcontracted backhoe operator. The test pits were logged by our field representative during excavation. Representative bulk soil samples were collected from the test pits for laboratory testing. In situ density tests were also conducted within selected test pits using a nuclear density gauge.

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- Well permeameter tests were conducted within 4 borings (LB-2, LB-4, LB-6, and LB-8) to evaluate general infiltration rates of subsurface soils at the depths and locations tested. The well permeameter tests were conducted based on the USBR 7300-89 method. Well permeameter tests were conducted at a bottom depth of approximately 8 feet bgs.
- 5 cone penetration test (CPT) soundings were conducted to depths of approximately 50 feet.

All excavations were backfilled with the soil cuttings. Approximate locations of hollow-stem auger borings, test pits, and CPT soundings are indicated on the accompanying Test Location Map, Figure 2.

- Geotechnical Laboratory Testing: Geotechnical laboratory tests were conducted on selected relatively undisturbed and bulk soil samples obtained during our field investigation. This laboratory testing program was designed to evaluate engineering characteristics of site soils. Laboratory tests conducted during this investigation include:
 - In situ moisture content and dry density
 - Maximum dry density and optimum moisture content
 - Sieve and hydrometer analysis for grain-size distribution
 - Atterberg limits for plasticity
 - Expansion index
 - Consolidation
 - Water-soluble sulfate concentration
 - Resistivity, chloride content and pH

A description of test procedures and results are presented in Appendix C, *Laboratory Test Results*.

- Engineering Analysis: Data obtained from our background review and SCG's study (2015), along with data from our field exploration and geotechnical laboratory testing was evaluated and analyzed to develop geotechnical conclusions and provide preliminary recommendations presented in this report.

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- Report Preparation: Results of our preliminary geotechnical investigation have been summarized in this report, presenting our findings, conclusions and supplemental geotechnical recommendations for design and construction of the proposed development.

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2.0 FINDINGS

2.1 Regional Geologic Conditions

The site is located within the Los Angeles Basin in the northern portion of the Peninsular Range Geomorphic Province of California. Geologic units of the region consist of Pleistocene and Holocene aged colluvium/alluvium and landslide debris, along with Miocene, Pliocene, and Pleistocene siltstones, sandstones, and conglomerates of the Puente, Fernando, and La Habra Formations. Major structural features surrounding this region include the north-northwest trending Whittier Fault and Puente Hills to the north and northeast, the Elysian Park Fold and Thrust Belt and Compton Thrust Fault to the northwest and west, and the Newport-Inglewood Fault offshore to the southwest. In addition, this is an area of large-scale crustal disturbance as the relatively northwestward-moving Peninsular Range Province collides with the Transverse Range Province (including the San Gabriel Mountains) to the north. Several active or potentially active faults have been mapped in the region and are believed to accommodate compression associated with this collision. The Whittier Fault is the closest known active fault and is located approximately 6 miles northeast of the site transecting the southern slopes of the Puente Hills.

2.2 Subsurface Soil Conditions

Based upon our review of pertinent geotechnical literature and our subsurface exploration, the site is underlain by alluvial soil deposits mantled in areas of the site by artificial fill and manure. Manure was primarily observed in the southern half of the property and was found to range from a few inches to up to 20 inches thick. Artificial fill consisting of soft to firm silt and sandy silt was encountered in a few borings to a maximum depth of about 5 feet (boring LB-7).

The alluvial soil encountered within our excavations generally consisted of combinations of sand and silt, with some clay interspersed. In general, the alluvial soil in the upper 15 to 20 feet consisted of loose to medium dense, moist, sand and silty sand. At depths below 15 feet, the soils encountered generally consisted of stiff, sandy silt, silt and silty clay. These soils tended to be moist to very moist with moisture contents in the range of 30 to 40 percent.

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Soils with a strong organic, asphalt, and/or gasoline odor and a black to blueish gray tint were observed in Borings LB-1, LB-3, and LB-5 at depths between 20 and 35 feet.

More detailed descriptions of the subsurface soil are presented on the boring logs (Appendix B).

2.2.1 Organic Content

We collected representative samples from the test pits for total organic carbon testing by the Walkley-Black method. Samples were collected from various areas of the site, including in-situ native soils, organic-rich soils, manure, and artificial fill soils containing organic material and debris. We tested several samples that appeared to have high levels of organic content and samples that appeared to have low levels of organic material to confirm our visual identification. The test results yield total organic carbon in the soil ranging from less than 0.1 to approximately to 5.5 percent and total organic matter ranging from approximately 0.1 to 9.5 percent. The results of these tests are summarized below. The Van Bemmelen correction factor of 1.73 has been applied to estimate total organic matter (i.e., total organic content) from the total organic carbon results (Page et al., 1989).

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Sample ID	Test Pit	Depth (feet)	Total Organic Carbon (%)	Total Organic Content/Matter (%)
OC-2	TP-1	2.3	0.3	0.5
OC-3	TP-1	6.0	0.0	0.1
OC-4	TP-2	0.4	5.5	9.5
OC-5	TP-2	0.8	0.3	0.5
OC-6	TP-2	2.0	0.1	0.2
OC-8	TP-3	0.8	0.2	0.3
OC-10	TP-4	1.5	1.6	2.7
OC-11	TP-4	3.0	0.3	0.4
OC-12	TP-4	7.0	0.1	0.1
OC-14	TP-5	2.0	0.3	0.5
OC-15	TP-5	5.0	0.0	0.1
OC-16	TP-6	0.8	4.8	8.3
OC-17	TP-6	1.8	0.2	0.4
OC-20	TP-7	1.8	0.2	0.3
OC-21	TP-7	3.6	0.1	0.1

In general, soils containing more than 2 percent organic content are considered unsuitable to support additional fill loads or structures.

2.2.2 Compressible and Collapsible Soil

Soil compressibility refers to a soil's potential for settlement when subjected to increased loads as from a fill surcharge. Based on our investigation, the native soil encountered is generally considered slightly to moderately compressible. Partial removal and recompaction of this material under shallow foundations and in areas to receive fill is recommended to reduce the potential for adverse total and differential settlement of the proposed improvements.

Collapse potential refers to the potential settlement of a soil under existing stresses upon being wetted. Test results indicate that the alluvial soil within the upper 15 feet onsite has a negligible collapse potential. Soils below are also expected to have a negligible collapse potential.

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2.2.3 Expansive Soils

Expansive soils contain significant amounts of clay particles that swell considerably when wetted and shrink when dried. Foundations constructed on these soils are subjected to large uplifting forces caused by the swelling. Without proper measures taken, heaving and cracking of building foundations and slabs-on-grade could result.

A sample of the subsurface soil was tested for expansion potential. The test result indicates an Expansion Index of 2. Each of two soil samples tested by SGC yielded an expansion index of 0. Based on our testing, that of SGC and our observations of shallow soils, the onsite near-surface soil is expected to have a very low to low expansion potential.

2.2.4 Sulfate Content

Water-soluble sulfates in soil can react adversely with concrete. However, concrete in contact with soil containing sulfate concentrations of less than 0.1 percent by weight is considered to have negligible sulfate exposure based on American Concrete Institute (ACI) provisions, adopted by the 2013 CBC (CBC, 2013, Chapter 19, and ACI, 2005, Chapter 4).

Near-surface soil samples were tested during this investigation for soluble sulfate content. The results of these tests indicate a sulfate content of less than 0.1 percent by weight, indicating negligible sulfate exposure. However, SGC conducted testing on two soil samples, one of which yielded a soluble sulfate concentration of 0.124 percent. The other soil sample had a sulfate content of 0.015 percent. Based on these results, soils exposed at pad grade are expected to have sulfate levels in the negligible to moderate range and may have a moderate potential for sulfate reaction with concrete.

2.2.5 Resistivity, Chloride and pH

Soil corrosivity to ferrous metals can be estimated by the soil's electrical resistivity, chloride content and pH. In general, soil having a minimum resistivity less than 1,000 ohm-cm is considered severely corrosive. Soil with a chloride content of 500 parts-per-million (ppm) or more is considered corrosive to ferrous metals.

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As a screening for potentially corrosive soil, representative soil samples were tested during this investigation to determine minimum resistivity, chloride content, and pH. Testing indicated a minimum resistivity of 2,000 ohm-cm, a chloride content of 65 ppm, and pH of approximately 10.2. Based on the minimum resistivity and chloride content, the onsite soil is considered to be moderately corrosive to ferrous metals.

2.3 Groundwater

Groundwater was not encountered in any of our excavations to a maximum depth of 51.5 feet bgs.

A Seismic Hazard Zone Report for the Whittier 7.5-Minute Quadrangle, published by the California Department of Conservation, Division of Mines and Geology, estimates the historically shallowest groundwater at the site to be approximately 8 feet bgs. Current groundwater depth is estimated to be on the order of 60 feet below the ground surface according to monitoring well data from 2010 located 750 feet of the property (SWRCB, 2015).

2.4 Faulting and Seismicity

Our review of available in-house literature indicates that there are no known active faults traversing the site. The closest known active or potentially active fault is the Whittier fault, located approximately 6 miles northeast of the site.

The principal seismic hazard that could affect the site is ground shaking resulting from an earthquake occurring along several major active or potentially active faults in southern California. The known regional active and potentially active faults that could produce the most significant ground shaking at the site include the Whittier, Elysian Park thrust, Compton thrust, Newport-Inglewood (L.A. Basin), San Jose, Raymond, Palos Verdes, Verdugo, Chino-Central Avenue (Elsinore), Hollywood, Sierra Madre, and Clamshell-Sawpit faults.

Based on ASCE 7-10 Equation 11.8-1, the F_{PGA} is 1, the PGA is 0.726g, and the PGA_M is 0.726g. As an added check, PGA and hazard deaggregation were also estimated using the United States Geological Survey's (USGS) interactive Deaggregations utility. The results of this analysis indicate that the predominant modal earthquake has a PGA of 0.65g with magnitude of approximately 6.6 (M_W) at a distance on the order of 4 kilometers for the Maximum Considered

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Earthquake (2% probability of exceedance in 50 years); results are included in Appendix D. Based on these results, we have selected a design PGA of 0.65g for seismic analysis of the onsite soils (liquefaction, lateral spreading, seismic settlement, etc.).

2.5 Secondary Seismic Hazards

In general, secondary seismic hazards for sites in the region could include soil liquefaction, earthquake-induced settlement, lateral displacement, landsliding, and earthquake-induced flooding. The potential for secondary seismic hazards at the site is discussed below.

2.5.1 Liquefaction Potential

Liquefaction is the loss of soil strength or stiffness due to a buildup of pore-water pressure during severe ground shaking. Liquefaction is associated primarily with loose (low density), saturated, fine-to-medium grained, cohesionless soils. As the shaking action of an earthquake progresses, the soil grains are rearranged and the soil densifies within a short period of time. Rapid densification of the soil results in a buildup of pore-water pressure. When the pore-water pressure approaches the total overburden pressure, the soil reduces greatly in strength and temporarily behaves similarly to a fluid. Effects of liquefaction can include sand boils, settlement, and bearing capacity failures below structural foundations.

The State of California Division of Mines and Geology (1999) has mapped the site in an area designated as having a liquefaction potential.

Groundwater was not encountered in any of our exploratory borings, to a maximum depth of 51.5 feet bgs.

We have performed a liquefaction evaluation of the site, based on data collected during our site exploration. Our analysis of hollow-stem auger data was based on the modified Seed Simplified Procedure as detailed by Youd et al. (2001) and Martin and Lew (1999). Software developed by CivilTech Software (2008) was utilized for the analysis. Parameters utilized in our analysis include Standard Penetration Test (SPT) results from the hollow-stem auger borings, visual descriptions of soil samples retrieved, and geotechnical laboratory test results, including sieve and

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hydrometer analysis, Atterberg limits, and moisture content. Soil resistance to liquefaction is estimated based on several factors, including relative density, fines content, plasticity, and moisture content.

Based on our hollow-stem auger data analysis, much of the soil profile between depths of approximately 10 to 25 feet bgs would be susceptible to liquefaction under the design seismic ground motion. In our analysis, we used the following principal parameter assumptions: 1) the historically shallowest groundwater level (approximately 8 feet below the existing ground surface), 2) soils with a plasticity index (PI) greater than 18 are not susceptible to liquefaction, 3) soils with a PI less than 12 and a moisture content greater the 85% of the liquid limit are not susceptible to liquefaction, and 4) soils with a factor of safety against liquefaction of at least 1.3 using the cyclic resistance ratio (CRR) divided by the cyclic stress ratio (CSR) from Idriss and Boulanger (2008) were not considered susceptible to liquefaction.

Based on our experience, liquefaction analysis conducted based on hollow-stem boring data tends to be overly conservative. Due to the discrete nature of the samples obtained from borings and the frequent transitions of soil layers onsite between those obtained samples, we believe that the boring data inadequately models total liquefaction potential onsite. Thus, we also conducted liquefaction analysis using the results of the CPT soundings, which provide a continuous log of the subsurface conditions.

We performed further liquefaction analysis of the site based on the CPT results. Our analysis of CPT data was based on the NCEER (1998) method as detailed by Youd et al. (2001). Software developed by GeoLogismiki Geotechnical Software (2006) was utilized for the analysis.

Based on our CPT soundings, potentially liquefiable soils are generally limited to 4-foot-thick layers or less, with the thickest layer being an 8-foot-thick layer in CPT-5 below a depth of approximately 10 feet.

We performed an analysis of potential for structural damage due to liquefaction (surface manifestations) based on the work of Ishihara (1995). This method considers the thickness of non-liquefiable soil below the ground surface and foundations, compared to the thickness of underlying

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liquefiable soils. Our analysis indicates that there is a potential for structural damage due to liquefaction. This will require mitigation, as discussed in the recommendations portion of this report.

A summary of the liquefaction analysis is included in Appendix D.

2.5.2 Lateral Displacement/Spread

We performed lateral spreading analysis based on the Youd (2002) empirical method. In our analysis, we considered sloping ground conditions, but not a free-face condition, since free-face conditions in the area of the site were not identified. This analysis indicates roughly 2 inches of lateral displacement, which, for this method, is negligible. The liquefiable soil layers are finer grained than the applicable range that the Youd 2002 analysis is based on. It is possible that soils this fine do not typically have significant lateral spreads, and thus are not included in the model, which is based on empirical data. However, as these soils are finer grained, we also performed lateral spread analysis based on the procedure by Youd et al. (2009) for higher fines content and clay-like layers. Results of that analysis did not indicate a potential for lateral spread. As such, lateral spreading is not considered a significant constraint for the project.

2.5.3 Seismically Induced Settlement

During a strong seismic event, seismically induced settlement can occur within loose to moderately dense, dry or saturated granular soil. Settlement caused by ground shaking is often nonuniformly distributed, which can result in differential settlement.

Total seismically induced settlement was evaluated using data obtained from hollow-stem auger borings and CPT soundings conducted onsite. Due to the discrete nature of the samples obtained from borings and the frequent transitions of soil layers onsite between those obtained samples, we believe that the boring data tends to overstate the total seismic settlement onsite. The following analysis utilizes data obtained from CPT soundings onsite because of the frequent measurements throughout the depth of the soundings, thus resulting in more accurate analysis of the in-situ soil.

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The potential total settlement resulting from seismic loading is considered moderate (up to 4.2 inches) for this site, assuming the historic high groundwater level. Differential settlement resulting from seismic loading is generally assumed to be one-half of the total seismically induced settlement over a distance of 40 feet.

2.6 Infiltration Testing

Four well permeameter tests (LB-2, LB-4, LB-6 and LB-8) were conducted in truck drive court areas to estimate infiltration rates of the soils in these areas. Well permeameter tests were conducted at bottom depths of approximately 7 to 10 feet below the existing ground surface (bgs).

Well permeameter tests are useful for field measurements of soil infiltration rates, and are suited for testing when the design depth of the basin or chamber is deeper than current existing grades. It should be noted that this is a clean-water, small-scale test, and that correction factors need to be applied. The test consists of excavating a boring to the depth of the test (or deeper if it is partially backfilled with soil and a bentonite plug with a thin soil covering is placed just below the design test elevation). A layer of clean sand is placed in the boring bottom to support a float valve and temporary perforated well casing pipe. In addition, sand is poured around the outside of the well casing within the test zone to prevent the boring from caving/collapsing or eroding when water is added. The float valve, placed inside the casing, adds water stored in barrels at the top of the hole to the boring as water infiltrates into the soil, while maintaining a relatively constant water head in the boring. The infiltration rate during intervals of the test is defined as the incremental flow rate of water infiltrated, divided by the surface area of the infiltration interface. The test was conducted based on the USBR 7300-89 test method.

The infiltration rates of these clean-water, small-scale tests ranged from approximately 2 to 50 inches per hour (prior to applying correction factors).

Soil conditions encountered in the tested range included silt and sand. Silt and clayey silt and silty clay was encountered at depths of about 15 to 20 feet across most of the site.

Design rates, correction factors, and other infiltration facility recommendations are discussed in Section 3.6. Infiltration test results are provided in Appendix B.

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3.0 CONCLUSIONS AND RECOMMENDATIONS

Based on this investigation, construction of the proposed development is feasible from a geotechnical standpoint. No severe geologic or soils related issues were identified that would preclude development of the site for the proposed improvements. The most significant geotechnical issues at the site are those related to the potential for strong seismic shaking, the potential for moderate seismic settlement, and potentially compressible soils. Good planning and design of the project can limit the impact of these constraints. Remedial recommendations for these and other geotechnical issues are provided in the following sections.

Recommendations for mitigation for potential structural damage due to liquefaction and seismic settlement include overexcavation of compressible soils, placement of geogrid and artificial fill (Section 3.1.3) with an elevated compaction standard below the buildings (Section 3.1.5) and stiffened foundation design (Section 3.2 and 3.3). These recommendations are intended to provide mitigation of life safety hazards with respect to liquefaction and seismic settlement for persons occupying structures onsite. Some damage to structures may occur under the specific design seismic conditions analyzed.

Based on the findings, conclusions, and recommendations contained in this report, it is our judgment, based on the specific data and information contained or referenced in this report, that the proposed development will be safe against hazards from landslides, settlement or slippage, and the proposed grading should not adversely affect the stability of adjacent properties, provided the recommendations presented herein are correctly implemented.

The site is not expected to be prone to adverse effects of: slope instability, expansive soils, or adverse differential settlement from cut/fill transitions (significant/steep cuts and fills are not proposed).

Although not identified during this investigation, abandoned septic tanks, seepage pits, or other buried structures, trash pits, or items related to past site uses are probably present. As such items are encountered during grading, they will require further evaluation and special consideration.

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3.1 General Earthwork and Grading

All grading should be performed in accordance with the General Earthwork and Grading Specifications presented in Appendix E, unless specifically revised or amended below or by future recommendations based on final development plans.

3.1.1 Site Preparation

Prior to construction, the site should be cleared of debris, which should be disposed of offsite. Any underground obstructions should be removed. Resulting cavities should be properly backfilled and compacted. Efforts should be made to locate existing utility lines. Those lines should be removed or rerouted if they interfere with the proposed construction, and the resulting cavities should be properly backfilled and compacted.

3.1.2 Overexcavation and Recompaction

To reduce the potential for adverse differential settlement of the proposed improvements, the underlying subgrade soil should be prepared in such a manner that a uniform response to the applied loads is achieved. Recommendations for overexcavation and other measures to mitigate seismic settlement beneath structures are provided in Section 3.1.3.

Areas outside the limits of building overexcavation, such as areas planned for asphalt or concrete pavement, flatwork, and site walls, and areas to receive fill, should be overexcavated to a minimum depth of 24 inches below the existing ground surface or 24 inches below the proposed subgrade, whichever is deeper. In addition, any undocumented artificial fill should be overexcavated.

Local conditions may require that deeper overexcavation be performed; such areas should be evaluated by Leighton during grading.

Very moist to wet silty and clayey soils were encountered at depths of about 15 feet below the ground surface. Because the recommended overexcavation depth is only slightly shallower, soft wet soils may be encountered. If encountered, use of special equipment to make the recommended overexcavation may be needed, and stabilization of the removal bottom with rock or additional geogrid may be recommended to

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provide a firm surface for fill placement. Care should be taken during grading to avoid overexcavation deeper than recommended. If very moist soft soils are encountered, work in the area should be suspended and the geotechnical consultant notified so the conditions can be reviewed.

After completion of the overexcavation, and prior to fill placement, the exposed surfaces should be scarified to a minimum depth of 6 inches, moisture conditioned to or slightly above optimum moisture content, and recompacted. We recommend a minimum standard of 95 percent relative compaction (relative to the ASTM D 1557 laboratory maximum density) under the buildings and 90 percent relative compaction in other areas.

These recommendations should be reviewed once grading and foundation plans are available.

3.1.3 Mitigation of Potential Liquefaction/Seismic Settlement

The potential total settlement resulting from seismic loading is considered moderate (up to 4.2 inches) for this site, assuming the historic high groundwater level and design level earthquake. Differential settlement resulting from seismic loading is generally assumed to be one-half of the total seismically induced settlement over a distance of 40 feet. We recommend that the potential for damaging liquefaction and seismic settlement be reduced by 1) overexcavating the near-surface soils to a depth of 10 feet and extending a minimum of 10 feet beyond the building footprint (with special provisions adjacent to the western property line), 2) placing at least 2 geogrid layers within the compacted fill under the proposed structures, and 3) providing stiffened foundations, as described in Section 3.2.

We recommend that each structure be underlain by two layers of Tensar TriAx TX160 geogrid. The first layer of geogrid should be placed on the recompacted removal bottom approximately 10 feet below existing grade, rolled out perpendicular to the west property line. The second layer of geogrid should be placed within the compacted fill one foot above the first layer of geogrid, placed with the roll axis perpendicular to the first layer. Except at the west side of the buildings, the geogrid should extend a minimum of 10 feet beyond the outside footing edges (including footings for attached columns or similar architectural features), or a minimum distance

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equal to the overexcavation depth below the footings, whichever is farther. Recommendations for placement of geogrid on the west side of the buildings near the property line are provided in the following paragraph. Adjacent geogrid rolls should abut, but need not overlap. Joints or seams in the roll direction should be tied together per the manufacturer's recommendations or may overlap a minimum of 8 feet. Joints or seams in the roll direction and between adjacent rolls should be staggered so that joints do not occur in the same area in adjacent rolls; joints in adjacent rolls should be staggered a minimum of 30 feet (on center).

Along the western property line, where the new buildings are located 10 feet off the adjacent property line, it will be necessary to make the recommended overexcavation in slot cuts to limit the risk of damage to offsite properties. The placement of geogrid in this area will need to be modified. The recommended procedure for making the overexcavation and placement of geogrid in this area is illustrated on Figures 3a through 3e.

The overexcavation along the western property line may be started approximately 3 feet off the property line by excavating a roughly 3-foot-high vertical. The excavation should then continue to the recommended 10-foot depth by excavating a slope inclined at 1.5:1 (horizontal to vertical, see Figure 3a). The removal bottom should then be scarified, moisture conditioned, and recompact to a minimum of 95 percent relative compaction.

A 13-foot-wide slot cut may then be excavated into the 1.5:1 slope extending a minimum of 5 feet beyond the building footprint and to the 10-foot overexcavation depth. The slot cuts should be constructed in an "ABC" manner with the series of "A" slots being excavated and backfilled before "B" slots, which should be excavated and backfilled prior to the series of "C" slots. The slot cuts are made by excavating a slot, and then skipping two slot widths to excavate the next slot in the series. After excavating and recompact the three series of slots, the entire length will have been excavated and recompact. Prior to backfilling each slot or placing geogrid, the slot should be scarified and recompact to a minimum of 95 percent relative compaction. The slot cuts and geologic conditions should be observed and mapped during excavation. If instability of slots is noted, the slot should be backfilled immediately. If 13-foot-wide slots appear unfeasible, the slot may be reduced to a width of 10 feet or 6.5 feet

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(alternative roll width or half roll width of TriAx TX160 geogrid, see Figure 3b).

After the slot is excavated and its bottom scarified and recompact, TriAx TX160 geogrid should be placed on the excavation bottom extending from under the proposed building, into the slot cut and up the slot backcut adjacent to the PL. This requires placement of about 12 feet of geogrid on the backcut slope and leaving roughly a 20-foot-long portion of the roll of geogrid on the top of the backcut for later use (roughly 32 feet of geogrid from the base of the slot backcut, see Figure 3c).

Once a slot is excavated, processing of bottom, placement of geogrid, and backfill/compaction should be completed as quickly as feasible. The slot should be backfilled and the 1.5:1 slope reestablished. Once all slots for one of the buildings are completed, a minimum of 12 inches of compacted fill should be placed on the lowest geogrid layer (that placed on the removal bottom). A second geogrid layer should then be placed perpendicular to the first. On the west side of the building, this layer should extend to the base of the reconstructed 1.5:1 slope (see Figure 3d).

After placement of the second geogrid layer, backfill of the overexcavation should continue until a total of approximately 5 feet of compacted fill has been placed in the removal (approximately 5 feet below rough grade). The geogrid roll left on the PL should then be unrolled and should extend 26 feet from the edge of the slot cut to about 20 feet under the west side of the building. It need not extend across the entire building. A lift of compacted fill should be placed above this geogrid layer and an additional layer of geogrid should then be placed. This upper layer should be placed parallel to the property line and perpendicular to the geogrid layer immediately below. This layer should also be 26 feet wide (the width of 2 rolls of geogrid) and overtly the layer immediately below. Like the layer below, this layer need only be placed along the west side of the buildings (see Figure 3e).

Backfill of the overexcavation should then continue to design grade.

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3.1.4 Removal of Manure, Organic-Rich Soil and Uncontrolled Artificial Fill

Prior to overexcavation and recompaction of the onsite alluvial soil, all manure should be cleared and removed from the site. Heavy concentrations of organic-rich soil should be removed. Minor amounts of organic soil may be mixed with clean soil and used as fill, provided the organic content does not exceed 2 percent.

Removal and disposal of manure and organic-rich soil should be observed by Leighton. Organic content testing should be performed during removal to guide disposal operations.

In addition to the above, prior to overexcavation and recompaction of the onsite alluvial soil, any clean uncontrolled artificial fill should be removed and may be used as compacted fill for the project.

3.1.5 Fill Placement and Compaction

Onsite soil to be used for compacted structural fill should also be free of debris and oversized material (greater than 8 inches in largest dimension). Any soil to be placed as fill, whether onsite or imported material, should be reviewed and possibly tested by Leighton.

All fill soil should be placed in thin, loose lifts, moisture conditioned, as necessary to near optimum moisture content, and compacted to a minimum 90 percent relative compaction. However, all fill under the buildings should be compacted to a minimum of 95 percent relative compaction. Relative compaction should be determined in accordance with ASTM Test Method D1557. Aggregate base for pavement should be compacted to a minimum of 95 percent relative compaction.

3.1.6 Import Fill Soil

Import soil to be placed as fill should be geotechnically accepted by Leighton. Preferably at least 3 working days prior to proposed import to the site, the contractor should provide Leighton pertinent information of the proposed import soil, such as location of the soil, whether stockpiled or native in place, and pertinent geotechnical reports if available. We recommend that a Leighton representative visit the proposed import site

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to observe the soil conditions and obtain representative soil samples. Potential issues may include soil that is more expansive than onsite soil, soil that is too wet, soil that is too rocky or too dissimilar to onsite soils, oversize material, organics, debris, etc.

3.1.7 Shrinkage and Subsidence

The change in volume of excavated and recompacted soil varies according to soil type and location. This volume change is represented as a percentage increase (bulking) or decrease (shrinkage) in volume of fill after removal and recompaction. This value does not factor in removal of debris or other materials. Subsidence occurs as in-place soil (e.g., natural ground) is moisture-conditioned and densified to receive fill, such as in processing an overexcavation bottom. Subsidence is in addition to shrinkage due to recompaction of fill soil. Field and laboratory data used in our calculations included laboratory-measured maximum dry densities for soil types encountered at the subject site, the measured in-place densities of soils encountered and our experience. We preliminarily estimate the following earth volume changes will occur during grading:

Shrinkage	Approximately 15 to 20 percent
Subsidence (overexcavation bottom processing)	Approximately 0.15 foot

The level of fill compaction, variations in the dry density of the existing soils and other factors influence the amount of volume change. Some adjustments to earthwork volume should be anticipated during grading of the site.

3.1.8 Rippability and Oversized Material

Oversized material (rock or rock fragments greater than 8 inches in dimension) was not observed during our investigation. Oversized material should not be used within structural fill areas.

3.2 Shallow Foundation Recommendations

Overexcavation and recompaction of the footing subgrade and seismic settlement mitigation soil should be performed as detailed in Section 3.1. The

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following recommendations are based on the onsite soil conditions and soils with a low to very low expansion potential.

3.2.1 Minimum Embedment and Width

Based on our preliminary investigation, footings should have a minimum embedment per code requirements, with a minimum width of 24 and 12 inches for isolated and continuous footings, respectively.

3.2.2 Allowable Bearing

An allowable bearing pressure of 1,800 pounds-per-square-foot (psf) may be used, based on the minimum embedment depth and width above. This allowable bearing value may be increased by 250 psf per foot increase in depth or width to a maximum allowable bearing pressure of 2,500 psf. If higher bearing pressures are required, this should be reviewed on a case-by-case basis and may include additional overexcavation and/or soil reinforcement. These allowable bearing pressures are for total dead load and sustained live loads. Footing reinforcement should be designed by the structural engineer. However, as a minimum, footing reinforcement should consist of two No. 5 rebar at the top and bottom of the footing and No.4 rebar spaced at 18 inches on center in each direction for isolated footings.

3.2.3 Lateral Load Resistance

Soil resistance available to withstand lateral loads on a shallow foundation is a function of the frictional resistance along the base of the footing and the passive resistance that may develop as the face of the structure tends to move into the soil. The frictional resistance between the base of the foundation and the subgrade soil may be computed using a coefficient of friction of 0.30. The passive resistance may be computed using an allowable equivalent fluid pressure of 240 pounds per cubic foot (pcf), assuming there is constant contact between the footing and undisturbed soil. The coefficient of friction and passive resistance may be combined without further reduction.

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3.2.4 Increase in Bearing and Friction - Short Duration Loads

The allowable bearing pressure and coefficient of friction values may be increased by one-third when considering loads of short duration, such as those imposed by wind and seismic forces.

3.2.5 Settlement Estimates

The recommended allowable bearing pressure is generally based on a total allowable, post-construction static settlement of 1.0 inches. Differential settlement due to static loading is estimated at 1/2 inch over a horizontal distance of 30 feet. Since settlement is a function of footing sustained load, size and contact bearing pressure, differential settlement can be expected between adjacent columns or walls where a large differential loading condition exists. Seismic settlement is anticipated to be higher, but is considered in life safety.

3.3 Recommendations for Slabs-On-Grade

Concrete slabs-on-grade should be designed by the structural engineer in accordance with the current CBC for soil with a low to very low expansion potential and considering the potential for liquefaction and seismic settlement. Where conventional light floor loading conditions exist, the following minimum recommendations should be used. More stringent requirements may be required by local agencies, the structural engineer, the architect, or the CBC. Laboratory testing should be conducted at finish grade to evaluate the expansion index of near-surface subgrade soils. In addition, slabs-on-grade should have the following minimum recommended components:

- Subgrade Moisture Conditioning: The subgrade soil should be moisture conditioned to at least 2 percentage points above optimum moisture content to a minimum depth of 12 inches prior to placing the moisture vapor retarder, steel or concrete.
- Moisture Retarder: A minimum of 10-mil moisture retarder should be placed below slabs where moisture-sensitive floor coverings or equipment is planned. The structural engineer should specify pertinent concrete design parameters and moisture migration prevention measures, such as whether a capillary break (4 inches of clean ½-inch-minimum gravel) should be placed

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under the vapor retarder and whether or not a sand blotter layer should be placed over the vapor retarder. The moisture barrier may be placed directly on subgrade provided gravel or other protruding objects that could puncture the moisture retarder are removed from the subgrade prior to placement. A heavier vapor retarder (such as 15 mil Stego Wrap) placed directly on prepared subgrade may also be used. Moisture retarders can reduce, but not eliminate moisture vapor rise from the underlying soils up through the slab. Moisture retarders should be designed and constructed in accordance with applicable American Concrete Institute, Portland Cement Association, Post-Tensioning Institute, ASTM International, and California Building Code requirements and guidelines.

- Concrete Thickness and Reinforcement in Warehouse/Industrial Areas: Warehouse/industrial slabs-on-grade should be designed by the structural engineer based on anticipated wheel, equipment, and storage loads. Considering the site conditions and the potential for liquefaction and seismic settlement, we recommend a minimum slab thickness of 6 inches, reinforced with No. 4 rebar spaced at 18 inches on center in both directions, mid-depth in the slab. Crack control joints should be provided at a maximum spacing of 15 feet on center.

The structural engineer should consider the following parameters.

Provided that the slab subgrade soils are compacted to a minimum of 95 percent relative compaction at 1 to 2 percentage points above optimum (as measured by ASTM D 1557), an average subgrade spring constant (modulus of subgrade reaction, k) of 130 pounds-per-square-inch-per-inch deflection (or pci) (with linear deflections up to 3/4-inch and a non-linear response for larger deflections) may be assumed for analysis of loading on slabs-on-grade. This value should not be used for estimation of actual settlements, but is intended to estimate shears, moments, and local distortions. An alternate check may be used by assuming an allowable bearing pressure of 1,200 psf (though the modulus of subgrade reaction method is the preferred method). If soils are allowed to dry out prior to placing concrete, the upper 9 inches should be scarified, moisture conditioned to 1 to 2 percentage points above optimum moisture content, and recompacted to a minimum of 95 percent relative compaction (based on ASTM D 1557) prior to placing steel or concrete.

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- Concrete Thickness--Office Areas: Slabs-on-grade for office space should be at least 5 inches thick (this is referring to the actual minimum thickness, not the nominal thickness). Reinforcing steel should be designed by the structural engineer, but as a minimum (for conventionally reinforced, 5-inch-thick slabs) should be No. 4 rebar placed at 18 inches on center, each direction, mid-depth in the slab. Crack control joints should be provided at a maximum spacing of 15 feet on center for office areas.

Minor cracking of the concrete as it cures, due to drying and shrinkage, is normal and should be expected. However, cracking is often aggravated by a high water/cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due to hot, dry, and/or windy weather conditions during placement and curing. Cracking due to temperature and moisture fluctuations can also be expected. Low slump concrete can reduce the potential for shrinkage cracking. Additionally, our experience indicates that reinforcement in slabs and foundations can generally reduce the potential for concrete cracking. The structural engineer should consider these components in slab design and specifications.

Moisture retarders can reduce, but not eliminate moisture vapor rise from the underlying soils up through the slab. Floor covering manufacturers should be consulted for specific recommendations.

Leighton does not practice in the field of moisture vapor transmission evaluation, since this is not specifically a geotechnical issue. Therefore, we recommend that a qualified person, such as the flooring subcontractor and/or structural engineer, be consulted with to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction. That person should provide recommendations for mitigation of potential adverse impact of moisture vapor transmission on various components of the structures as deemed appropriate.

3.4 Seismic Design Parameters

Seismic parameters presented in this report should be considered during project design. In order to reduce the effects of ground shaking produced by regional seismic events, seismic design should be performed in accordance with the most recent edition of the California Building Code (CBC). The following data should be considered for the seismic analysis of the subject site:

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2013 CBC Categorization/Coefficient	Design Value
Site Longitude (decimal degrees)	-118.0523
Site Latitude (decimal degrees)	33.9039
Site Class Definition (ASCE 7 Table 20.3-1)	D*
Mapped Spectral Response Acceleration at 0.2s Period, S_a (Figure 1613.3.1(1))	1.891g
Mapped Spectral Response Acceleration at 1s Period, S_1 (Figure 1613.3.1(2))	0.677g
Short Period Site Coefficient at 0.2s Period, F_a (Table 1613.3.3(1))	1.0
Long Period Site Coefficient at 1s Period, F_v (Table 1613.3.3(2))	1.5
Adjusted Spectral Response Acceleration at 0.2s Period, S_{M0} (Eq. 16-37)	1.891g
Adjusted Spectral Response Acceleration at 1s Period, S_{M1} (Eq. 16-38)	1.016g
Design Spectral Response Acceleration at 0.2s Period, S_{D0} (Eq. 16-39)	1.261g
Design Spectral Response Acceleration at 1s Period, S_{D1} (Eq. 16-40)	0.677g

*see next paragraph.

Based on 2013 CBC Section 1613.3.2 and ASCE 7-10 Section 20.3, site Class D maybe be used for site structures with a fundamental period of vibration of 0.5 second or less (we assume this project meets that requirement); otherwise, Site Class F should be used, in which additional evaluation would be required.

3.5 Retaining Walls

We recommend that retaining walls be backfilled with very low expansive soil and constructed with a backdrain in accordance with the recommendations provided on Figure 4 (rear of text). Using expansive soil as retaining wall backfill will result in higher lateral earth pressures exerted on the wall. Based on these recommendations, the following parameters may be used for the design of conventional retaining walls:

Static Equivalent Fluid Weight (pcf)	
Condition	Level Backfill
Active	35 pcf
At-Rest	55 pcf
Passive	240 pcf (allowable) (Maximum of 3,500 psf)

The above values do not contain an appreciable factor of safety unless noted, so the structural engineer should apply the applicable factors of safety and/or load factors during design, as specified by the California Building Code.

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Cantilever walls that are designed to yield at least $0.001H$, where H is equal to the wall height, may be designed using the active condition. Rigid walls and walls braced at the top should be designed using the at-rest condition.

Passive pressure is used to compute soil resistance to lateral structural movement. In addition, for sliding resistance, a frictional resistance coefficient of 0.3 may be used at the concrete and soil interface. The lateral passive resistance should be taken into account only if it is ensured that the soil providing passive resistance, embedded against the foundation elements, will remain intact with time.

In addition to the above lateral forces due to retained earth, surcharge due to improvements, such as an adjacent structure or traffic loading, should be considered in the design of the retaining wall. Loads applied within a 1:1 projection from the surcharging structure on the stem of the wall should be considered in the design.

A soil unit weight of 120 pcf may be assumed for calculating the actual weight of the soil over the wall footing.

Walls over 6 feet tall should be reviewed on a case-by-case basis, and will require a seismic increment load.

3.6 Pavement Design

Flexible Pavements:

Based on the design procedures outlined in the current Caltrans Highway Design Manual, and using an assumed design R-value of 50, flexible pavement sections may consist of the following for the street types indicated. Final pavement design should be based on the Traffic Index determined by the project civil engineer and R-value testing provided near the end of grading.

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Asphalt Pavement Section Thickness			
Traffic Index	Asphaltic Concrete (AC) Thickness (inches)	Class 2 Aggregate Base* Thickness (inches)	Total Pavement Section Thickness (inches)
5 (auto access)	3	4	7
6	3	5	8
7	4	5	9
8	4.5	6	10.5
9	5.5	7	12.5
10	6	8	14

*per Caltrans Standard Specifications, Section 26

If the pavement is to be constructed prior to construction of the structures, we recommend that the full depth of the pavement section be placed in order to support heavy construction traffic.

Rigid Pavements:

For onsite Portland Cement Concrete (PCC) pavement in truck drive aisles and parking areas, we recommend a minimum of 7-inch-thick concrete with dowels at joints, placed on compacted fill subgrade, with the upper 8 inches compacted to a minimum of 95 percent relative compaction. In areas with car traffic only, we recommend a minimum of 6-inch-thick concrete, placed on compacted fill subgrade with the upper 8 inches compacted to a minimum of 95 percent relative compaction.

The PCC pavement sections should be provided with crack-control joints spaced no more than 15 feet on center each way. If sawcuts are used, they should have a minimum depth of ¼ of the slab thickness and made within 24 hours of concrete placement.

Other Pavement Recommendations:

Irrigation adjacent to pavements without a deep curb or other cutoff to separate landscaping from the paving may result in premature pavement failure.

All pavement construction should be performed in accordance with the Standard Specifications for Public Works Construction or Caltrans Specifications. Field observations and periodic testing, as needed during placement of the base course materials, should be undertaken to ensure that the requirements of the standard specifications are fulfilled.

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Prior to placement of aggregate base, the subgrade soil should be processed to a minimum depth of 6 inches, moisture-conditioned, as necessary, and recompact to a minimum of 95 percent relative compaction. Aggregate base should be moisture conditioned, as necessary, and compacted to a minimum of 95 percent relative compaction.

3.7 Temporary Excavations

All temporary excavations, including utility trenches, retaining wall excavations and other excavations should be performed in accordance with project plans, specifications and all OSHA requirements.

No surcharge loads should be permitted within a horizontal distance equal to the height of cut or 5 feet, whichever is greater from the top of the slope, unless the cut is shored appropriately. Excavations that extend below an imaginary plane inclined at 45 degrees below the edge of any adjacent existing site foundation should be properly shored to maintain support of the adjacent structures.

Cantilever shoring should be designed based on an active equivalent fluid pressure of 35 pcf. If excavations are braced at the top and at specific design intervals, the active pressure may then be approximated by a rectangular soil pressure distribution with the pressure per foot of width equal to $25H$, where H is equal to the depth of the excavation being shored.

During construction, the soil conditions should be regularly evaluated to verify that conditions are as anticipated. The contractor should be responsible for providing the "competent person" required by OSHA, standards to evaluate soil conditions. Close coordination between the competent person and the geotechnical engineer should be maintained to facilitate construction while providing safe excavations.

3.8 Infiltration

The measured infiltration rates of the clean-water, small-scale infiltration tests ranged from approximately 2 to 50 inches per hour. For design purposes, we recommend a clean-water, small-scale infiltration rate (prior to applying correction factors) of 6 inches per hour. We recommend that a correction factor/safety factor be applied to this infiltration rate in conformance with the Los Angeles County Technical Guidance Document for WQMP, since monitoring of

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actual facility performance has shown that actual infiltration rates are lower than for small-scale tests. The small-scale infiltration rate should be divided by a correction factor of at least 3, but the correction/safety factor may be higher based on project specific aspects. The presence of silt and clay soils 5 to 10 feet below the small scale test depth should be considered in applying the correction factor.

These values are for a clean, unsilted infiltration surface in native, sandy alluvial soil. These values may be reduced over time as silting of the basin occurs. Furthermore, if the basin or chamber bottom is allowed to be compacted by heavy equipment, this value is expected to be significantly reduced. Infiltration of water through soil is highly dependent on such factors as grain size distribution of the soil particles, particle shape, clay content, and density. Small changes in soil conditions, including density, can cause large differences in observed infiltration rates.

Further testing may be required depending on the final design of infiltration facilities, particularly if plans for infiltration facilities are materially changed from what is described herein.

We recommend that Leighton evaluate the infiltration facility excavations, to confirm that granular, intact alluvium is exposed in the bottoms and sides. Additional excavation or evaluation may be required if silty or clayey soils are exposed. It is critical to infiltration that the basin or chamber bottom not be allowed to be compacted during construction; rubber-tired equipment and vehicles should not be allowed to operate on the bottom. We recommend that the bottom 3 feet of the basins or chambers be excavated with an excavator or similar.

If fill material is needed to be placed in the basin, such as due to removal of uncontrolled artificial fill, the fill material should be select, free-draining sand, to be observed and approved by Leighton.

It should be noted that during periods of prolonged precipitation, the underlying soils tend to become saturated to greater and greater depths/extents. Therefore, infiltration rates tend to decrease with prolonged infiltration.

It is important to consider the impact that infiltration facilities can play on nearby subterranean structures, such as basement walls, or open excavations. Any

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such nearby features should be identified and evaluated as to whether infiltrating water can impact these.

Our infiltration evaluation has not considered environmental/hazardous materials aspects. We suggest that your environmental consultant review infiltration facility concepts. The Los Angeles Department of Public Works has issued guidelines in GS200.1 (2014b) stating that, "Stormwater infiltration is not allowed in areas that pose a risk of causing pollutant mobilization."

Infiltration Contingency:

Estimating infiltration rates, especially based on small-scale testing, is inexact and indefinite, and often involves known and unknown soil complexities, potentially resulting in a condition where actual infiltration rates of the completed facility are significantly less than design rates. In open infiltration basins, this could create nuisance water in the basin. As such, basin enhancements may be needed after completion of the basins if prolonged or frequent standing water is experienced. A potential basin enhancement might be to install an infiltration trench in the basin bottom to capture and infiltrate low flows and to help speed infiltration during/after storms; specific recommendations, such as minimum trench depth, would be developed based on conditions observed.

3.9 Trench Backfill

Utility-type trenches onsite can be backfilled with the onsite material, provided it is free of debris, significant organic material and oversized material. Prior to backfilling the trench, pipes should be bedded and shaded in a granular material that has a sand equivalent of 30 or greater. The sand should extend 12 inches above the top of the pipe. The bedding/shading sand should be densified in-place by mechanical means, or in accordance with Greenbook specifications. The native backfill should be placed in loose layers, moisture conditioned, as necessary, and mechanically compacted using a minimum standard of 90 percent relative compaction. The thickness of layers should be based on the compaction equipment used in accordance with the Standard Specifications for Public Works Construction (Greenbook).

3.10 Surface Drainage

Inadequate control of runoff water and/or poorly controlled irrigation can cause the onsite soils to expand and/or shrink, producing heaving and/or settlement of

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foundations, flatwork, walls, and other improvements. Maintaining adequate surface drainage, proper disposal of runoff water, and control of irrigation should help reduce the potential for future soil moisture problems.

Positive surface drainage should be designed to be directed away from foundations and toward approved drainage devices, such as gutters, paved drainage swales, or watertight area drains and collector pipes.

Surface drainage should be provided to prevent ponding of water adjacent to the structures. In general, the area around the buildings should slope away from the building. We recommend that unpaved landscaped areas adjacent to the buildings be avoided. Roof runoff should be carried to suitable drainage outlets by watertight drain pipes or over paved areas.

3.11 Sulfate Attack and Corrosion Protection

Based on the results of laboratory testing, concrete structures in contact with the onsite soil will have negligible to moderate exposure to water-soluble sulfates in the soil. The concrete should be designed in accordance with Table 4.3.1 of the American Concrete Institute ACI 318-08 provisions (ACI, 2008). However, since this site has been a dairy, special precautions are warranted for corrosion protection of concrete. Type V cement should be used for concrete construction where the underlying soil has an organic content of 1 percent or more, and the concrete should be designed in accordance with Table 4.3.1 of the American Concrete Institute ACI 318-08 provisions (ACI, 2008). Additional testing should be conducted during construction.

Based on our laboratory testing, the onsite soil is considered to be moderately corrosive to ferrous metals. It is recommended that any buried pipe be made of non-ferrous material, or that any ferrous pipe be protected by dielectric tape, polyethylene sleeves and/or other methods, with recommendations from a corrosion engineer. Corrosion information presented in this report should be provided to your underground utility subcontractors. Additional testing and evaluation by a corrosion engineer may be warranted if metallic utilities are planned.

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3.12 Additional Geotechnical Services

The preliminary geotechnical recommendations presented in this report are based on subsurface conditions as interpreted from limited subsurface explorations and limited laboratory testing. Our supplemental geotechnical recommendations provided in this report are based on information available at the time the report was prepared and may change as plans are developed. Additional geotechnical investigation and analysis may be required based on final improvement plans. Leighton should review the site and grading plans when available and comment further on the geotechnical aspects of the project. Geotechnical observation and testing should be conducted during excavation and all phases of grading operations. Our conclusions and preliminary recommendations should be reviewed and verified by Leighton during construction and revised accordingly if geotechnical conditions encountered vary from our preliminary findings and interpretations.

Geotechnical observation and testing should be provided:

- After completion of site clearing.
- During overexcavation of compressible soil.
- During compaction of all fill materials.
- After excavation of all footings and prior to placement of concrete.
- During utility trench backfilling and compaction.
- During pavement subgrade and base preparation.
- When any unusual conditions are encountered.

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4.0 LIMITATIONS

This report was based in part on data obtained from a limited number of observations, site visits, soil excavations, samples, and tests. Such information is, by necessity, incomplete. The nature of many sites is such that differing soil or geologic conditions can be present within small distances and under varying climatic conditions. Changes in subsurface conditions can and do occur over time. Therefore, our findings, conclusions, and recommendations presented in this report are based on the assumption that Leighton Consulting, Inc. will provide geotechnical observation and testing during construction.

This report was prepared for the sole use of Bridge Development Partners for application to the design of the proposed commercial/industrial development in accordance with generally accepted geotechnical engineering practices at this time in California.

See the GBA insert on the following page for important information about this geotechnical engineering report.

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Phase I Environmental Site Assessment

**Norwalk Dairy
13101 and 13123 Rosecrans Avenue
Santa Fe Springs, California**

Prepared for:
Bridge Development Partners
601 South Figueroa Street
Los Angeles, California 90017

Prepared by:
Arden Environmental Group, Inc.
1827 Capital Street, Suite 103
Corona, California 92880

October 2, 2015
Project No. 100545004





October 2, 2015
Project No. 100545004

Mr. Tom Ashcraft
Bridge Development Partners
601 South Figueroa Street
Los Angeles, California 90017

Subject: Norwalk Dairy
Phase I Environmental Site Assessment
13101 and 13123 Rosecrans Avenue
Santa Fe Springs, California

Dear Mr. Ashcraft:

Ardent Environmental Group, Inc. (Ardent) has performed a Phase I Environmental Site Assessment (ESA) the above-referenced property (site). Work was completed in general accordance with the proposal dated August 7, 2015. The attached report presents our methodology, findings, opinions, and conclusions regarding the environmental conditions at the site. We appreciate the opportunity to be of service to you on this project. If there are any questions, please feel free to call the undersigned at your convenience.

Sincerely,
Ardent Environmental Group, Inc.

A handwritten signature in blue ink that reads "Kasia Edlund".

Kasia Edlund
Staff Geologist

A handwritten signature in blue ink that reads "Paul Roberts".

Paul A. Roberts, P.G.
Principal Geologist

PAR/KE/nw

Distribution: (1) Addressee (electronic copy)

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 Santa Fe Springs, California

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EXECUTIVE SUMMARY

Ardent Environmental Group, Inc. (Ardent) was retained by Bridge Development Partners (Bridge) to perform a Phase I Environmental Site Assessment (ESA) for the Norwalk Dairy property located at 13101 and 13123 Rosecrans Avenue in the city of Santa Fe Springs, Los Angeles County, California ("site" or "subject property"). As noted herein, the site was formerly used as a dairy, known as the Norwalk Dairy. Bridge is considering acquiring the site for redevelopment for commercial use. In preparation of the sale of the property, Ardent completed a Phase I ESA for the current owners of the site (Vanderham Family Holdings, LLC; referred to herein as the "Vanderham Phase I ESA"), dated October 2, 2014. Based on the results of the Vanderham Phase I ESA, Ardent also complete a soil gas investigation. This report presents an updated Phase I ESA and includes a summary of the findings presented in the Vanderham Phase I ESA, subsurface investigation, and a review of other environmental reports completed for the site. Site assessment activities for this report were conducted between August 12, 2015 and August 21, 2015.

In summary, the following items were noted:

- The site and site vicinity was used for agricultural and residential purposes from at least 1928 through 1947. From at least 1952 through 1963, the site was used as a dairy, with a Milk Barn and a residence in the southern portion, corrals in the mid-portion, and vacant land in the northern portion. In 1981 through the present, the northern portion of the site was used as a trucking facility. By 2005, some of the mid-portion of the site began to be used to store industrial valves and machinery. The southern portion of the site remained as a dairy through 2011. At the time of this report, the northern portion of the site was being used by a trucking company to store commercial trucks and shipping containers and the mid-portion of the site was being used to store industrial valves and machinery. The southwest portion of the site contained a vacant Milk Barn and a mobile home and the southeast portion contained a residence and detached garage.
- Four groundwater monitoring wells, three located on-site and one located immediately adjacent to the property, were identified during the site reconnaissance. The wells are located along the eastern property line. Golden West Refinery (Golden West) was formerly located 0.4-mile northeast of the site and uses these wells as part of its regional groundwater monitoring and characterization of petroleum hydrocarbons in groundwater. During the Vanderham Phase I ESA, Ardent measured free product in the four wells which ranged between 0.25- to 0.75-inch thick. Groundwater was measured at a depth of approximately 25 feet below the ground surface (bgs), and according to Golden West, flows in a southwesterly direction. The client has no information regarding ownership or access agreements with the responsible parties. Based on the on-going monitoring activities by Golden West, it is our assumption that these wells are owned by the refinery. Based on our observations, groundwater beneath the site is impacted by petroleum hydrocarbons from the Golden West

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release. These assumptions were later verified by another consultant during an on-site groundwater investigation.

- There have been no indications in regulatory files that would suggest that underground storage tanks (USTs) have been used at the site. The trucking facility is used to store commercial trucks and metal shipping containers, with minor truck repairing activities reported. During our site reconnaissance, many miscellaneous small containers of what appeared to be waste oil were noted throughout the northern portion of the site. No significant staining or evidence of a release was noted, however, a large portion of the site is covered with industrial valves, machinery, abandoned farm equipment, various trash and debris, commercial trucks and shipping containers, making visual assessment difficult. There has been no indication in regulatory files that would suggest that large quantities of petroleum hydrocarbons have been used, stored, or generated at the site. Therefore, based on the information obtained to-date, there is a low likelihood that the site has contributed to the local groundwater issues associated with Golden West.
- Based on the known free product beneath the site and the historical use of the site as a dairy, there is a possibility of vapor intrusion of either volatile organic compounds (VOCs) due to the petroleum hydrocarbons and/or methane gas due to the organic breakdown of manure and petroleum hydrocarbons associated with the Golden West release and former land use as a dairy. To further assess these possible conditions, Ardent complete a soil gas survey throughout the site. Laboratory results and field monitoring activities indicated no detectable concentrations of VOCs or elevated methane gas. Based on these findings, there is a low likelihood that a vapor intrusion issue or an explosion hazard is present at the site. These results were further verified by another consultant during a subsequent investigation. Due to the site being formerly used as a dairy, the City of Santa Fe Springs Fire Department (SFSFD) will require methane gas monitoring prior to redevelopment of the site. These activities are completed during the planning stages of development once construction plans are submitted to the City for review and approval. Based on the results of the preliminary investigations described above, there is a low likelihood that the SFSFD will require methane gas or VOC mitigation measures during construction of the planned buildings.
- One agricultural well and clarifier, used by the dairy, are also located on-site. Based on their uses (pumping groundwater and clarifying animal wastes and soap from discharged water), these features would not be considered an environmental concern to the site.
- In 2008, an asbestos and lead-based paint (LBP) survey was completed at the site by others and identified asbestos-containing building materials (ACMs) and LBP. The report did not quantify the materials. During the work described above, Ardent quantified these materials for further bidding and removal purposes. Transite pipelines were commonly used at historical agricultural properties for the transfer of water. Therefore, transite pipelines may be encountered during redevelopment activities.
- With the exception of Golden West, no other on- or off-site environmental concerns were noted.

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Ardent has performed this Phase I ESA in general conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) Practice E 1527-13, ASTM Practice E 2600-10, and the EPA Standards and Practices for All Appropriate Inquiries (AAI), Final Rule (40 CFR, Part 312), for the Norwalk Dairy located at 13101 and 13123 Rosecrans Avenue in the city of Santa Fe Springs, Los Angeles County, California. Any limitations or exceptions encountered during completion of this report are stated in Section 1.4. No evidence or indication of RECs, or conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the subject property has been revealed, with the exception of the impacted groundwater from the Golden West Refinery. Although not considered a REC in accordance with ASTM Standards, ACM and LBP have been identified at the site.

Based on the information obtained during this assessment, Ardent has the following recommendations.

- Golden West maintains four groundwater monitoring wells along the eastern property line. Three of the four groundwater monitoring wells are located on-site. An environmental attorney should be consulted to make sure the appropriate access agreements are in-place between Golden West and the site owners prior to additional groundwater monitoring or possible well relocation/abandonment activities.
- The agricultural well and clarifier should be abandoned by State-licensed contractors and in accordance with current regulatory guidelines.
- Following removal of the industrial valves, waste oil containers, machinery, abandoned farm vehicles, trash and debris, commercial trucks, and metal shipping containers from the site, soil sampling may be necessary in areas of staining if observed. All miscellaneous containers of waste oil and other chemicals should be consolidated and removed from the site by a licensed hazardous waste hauler.
- Prior to demolition of the on-site structures, the known ACMs should be removed and LBP should be stabilized. Work should be completed by a State-licensed asbestos abatement contractor.

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1 INTRODUCTION

Ardent Environmental Group, Inc. (Ardent) was retained by Bridge Development Partners (Bridge) to perform a Phase I Environmental Site Assessment (ESA) for the Norwalk Dairy property located at 13101 and 13123 Rosecrans Avenue in the city of Santa Fe Springs, Los Angeles County, California ("site" or "subject property"; Figure 1). Work was completed in general accordance with the proposal dated August 7, 2015 between Bridge and Ardent. As noted herein, the site was formerly used as a dairy, known as the Norwalk Dairy. Bridge is considering acquiring the site for redevelopment for commercial use. In preparation of the sale of the property, Ardent completed a Phase I ESA for the current owners of the property (Vanderham Family Holdings, LLC; referred to herein as the "Vanderham Phase I ESA"), dated October 2, 2014. Based on the results of the Vanderham Phase I ESA, Ardent also complete a soil and soil gas investigation. This report presents an updated Phase I ESA and includes a summary of the findings presented in the Vanderham Phase I ESA, subsurface investigation, and a review of other environmental reports completed for the site. The following sections identify the purpose, the involved parties, the scope of work, and the limitations and exceptions associated with the Phase I ESA.

1.1 Purpose of Phase I ESA

In accordance with the American Society for Testing and Materials (ASTM) E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Standard E 1527-13), the objective of the Phase I ESA was to identify, to the extent feasible pursuant to ASTM Standard E 1527-13, recognized environmental conditions (RECs), which are defined by ASTM as "...the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

The United States Environmental Protection Agency ("USEPA" or "EPA") has stated that ASTM Standard E 1527-13, is consistent with the Standards and Practices for All Appropriate Inquires (AAI), Final Rule (40 Code of Federal Regulations [CFR], Part 312) and is compliant with the statutory criteria for all appropriate inquires. All appropriate inquires, as

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defined in the AAI Final Rule, must be conducted by persons seeking the landowner liability protections under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) prior to acquiring a property or seeking or receiving federal Brownfields grants under the authorities of CERCLA. The purpose of AAI, as defined in the AAI Final Rule, was to identify releases and threatened releases of hazardous substances which cause or threaten to cause the incurrence of response costs.

As part of this Phase I ESA, Ardent also assessed whether a vapor encroachment condition (VEC) exists at the site. The VEC assessment was completed following the ASTM E 2600-10 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions (ASTM Standard E 2600-10). The objective of this work was to evaluate whether possible contaminants (e.g. volatile organic compounds [VOCs]) are present in soil and/or groundwater in the site vicinity which might pose a possible vapor intrusion into existing or future buildings at the site.

1.2 Involved Parties

Mr. Paul Roberts and/or Ms. Kasia Edlund of Ardent conducted the historical research, site reconnaissance, regulatory inquiries, and document review. Mr. Roberts meets the definition of an environmental professional as set forth in the AAI Final Rule.

1.3 Scope of Work

Ardent's scope of work for this Phase I ESA is consistent with ASTM Standard E1527-13 and included the activities listed below.

- **Review of User Provided Information** – Review of information regarding title and judicial records for environmental liens or activity and use limitations, recorded environmental liens, actual or specialized knowledge or commonly known information regarding environmental conditions at the site, the relationship of the purchase price of the property to the fair market value, readily available maps, environmental reports, and other environmental documents pertaining to the site, as available and obtained from the user/client.
- **Records Review** – Acquisition and review of records, including federal, state, tribal, and local regulatory agency databases, for the site and for properties located within a specified radius of the site; local regulatory agency files for the site and selected nearby properties of potential environmental concern; physical setting sources, including topographic maps, geologic maps, and geologic and hydrogeologic reference documents;

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and historic land use information including aerial photographs, historical fire insurance rate maps, building department records, and city directories, as necessary, that are reasonably ascertainable, publicly available, can be obtained within reasonable time and cost, and are practically reviewable.

- **Vapor Encroachment Condition (VEC)** – Review available regulatory and client provided data to assess Tier 1 non-numeric screening for the site. Ardent evaluated whether contaminants were present in soil and/or groundwater in the site vicinity which might pose a VEC at the site.
- **Site Reconnaissance** – Performance of a site reconnaissance to visually observe the site and any structure(s) located on the site to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles. The purpose of the site reconnaissance is to obtain information indicating the likelihood of identifying RECs in connection with the site, including the general site setting, site usage, use and storage of hazardous materials and petroleum products, disposal of waste products and materials, sources of polychlorinated biphenyls (PCBs), and evidence of releases and possible risks of contamination from activities at adjacent properties.
- **Interviews** – Interviews with site representatives, including owners, occupants, and site managers, regarding the environmental condition of the site to the extent necessary and such persons are available. Interviews with state and/or local government officials as necessary.
- **Report** – Evaluation of the information and data obtained by the Phase I ESA process outlined above and preparation of this Phase I ESA report documenting findings and providing opinions and conclusions regarding possible environmental impacts and RECs at the site.

1.4 Limitations and Exceptions

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ardent should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

The findings, opinions, and conclusions are based on an analysis of the observed site conditions and the referenced literature. It should be understood that the conditions of a site

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could change with time as a result of natural processes or the activities of man at the subject property or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ardent has no control. Ardent cannot warrant or guarantee that not finding indicators of any particular hazardous material means that this particular hazardous material or any other hazardous materials do not exist on the site. Additional research, including invasive testing, can reduce the uncertainty, but no techniques now commonly employed can eliminate the uncertainty altogether.

1.5 Special Terms and Conditions

As indicated in Section 13.1.5 of ASTM Standard E 1527-13, the following, which is not intended to be all inclusive, represents out-of-scope items with respect to a Phase I ESA: asbestos-containing materials (ACMs), radon, lead-based paint (LBP), lead in drinking water, wetlands, regulatory compliance, cultural and historic risk, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality unrelated to releases of hazardous substances or petroleum products into the environment, biological agents, and mold. As part of our agreement with the client, Ardent visually assessed site buildings (if present) for possible ACMs, LBP, and mold. In addition, ASTM Standard E 2600-10 supplements the ASTM Standard E 1527-13 to include evaluation of VEC using Tier 1 screening.

This study did not include an evaluation of geotechnical conditions or potential geologic hazards. In addition, Ardent did not address interpretations of zoning regulations, building code requirements, or property title issues.

1.6 User Reliance

This report may be relied upon and is intended exclusively for use by the client, its partners, members, investors, affiliates, successors and assigns, and lenders. Any use or reuse of the findings, opinions, and/or conclusions of this report by parties other than the foregoing parties is undertaken at said parties' sole risk.

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1.7 Physical Limitations

Access into the main residence on the southeast corner of the site at 13123 Rosecrans Avenue was not obtained during the site reconnaissance. Based on the type of building (i.e. residence), there is a low likelihood that large quantities of chemicals have been used or stored in this building. Lack of entry into this building would not be considered a data gap in our professional opinion. No other physical limitations were encountered during the completion of this Phase I ESA report.

1.8 Data Gaps

No significant data gaps were noted during the preparation of this Phase I ESA report.

2 GENERAL SITE CHARACTERISTICS

The following sections describe the location and the current uses of the site and adjacent properties. A site location map is presented as Figure 1, and a site vicinity map is presented as Figure 2. Selected photographs of the site and surrounding properties are provided in Appendix A.

2.1 Location and Legal Description

The site is located at 13101 and 13123 Rosecrans Avenue in the city of Santa Fe Springs, Los Angeles County, California (Figure 1). The site has been assigned the Assessor Parcel Numbers (APNs) 8059-030-021 and -022. A complete and legal description of the property is presented in a Preliminary Title Report presented in Appendix B.

The site is bounded as shown on Figure 2. Site boundary information was obtained during a site visit by Ardent personnel.

2.2 Site Description and Current Site Uses/Operations

The following paragraphs present a description of the structures present at the site, the tenants currently occupying the site, the activities being conducted on-site, the heating and cooling systems utilized in the site building, the sewage disposal system, and the potable water provider for the site, if any.

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2.2.1 Site Description

The site is located on the northwest corner of the intersection of Rosecrans Avenue and Maryton Avenue in the city of Santa Fe Springs, California (Figure 1). The site is located on the northern side of Rosecrans Avenue, between Carmenita Road to the east and Shoemaker Avenue to the west (Figure 1). The site comprises approximately 9.68-acre.

2.2.2 Occupants

A trucking company occupies the northern portion of the site and uses the land to store semi-truck and storage containers. The central portion of the site is leased to a business who stores industrial valves used in the oil industry and miscellaneous equipment. The southern portion of the site is used by a small thrift store, which occupies a portion of the former Milk Barn, and a family member of the current owner occupies a converted shed near the residence as a dwelling.

2.2.3 Heating and Cooling Systems

Heating/cooling systems are powered by electricity and natural gas provided by local utility companies.

2.2.4 Sewage Disposal/Septic Systems

The site buildings were constructed in the mid-1940s and mid-1950s and were reportedly connected to the municipal sewer system in the mid-1970s. There was no indication in regulatory files indicating that the septic tanks were removed, and therefore, these features might still be present. Based on the type of land use (diary and residence), these features, if present, would not be considered an environmental concern to the site.

2.2.5 Potable Water

Potable water is supplied to the site by the local purveyor of drinking water. As noted herein, an agricultural well is located immediately east of the Milk Barn. According to Mr. Ray Hoogsteen, a family member of the owner of the site, this well is not used for municipal purposes. The well formerly supplied water used by the milking and dairy activities.

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2.3 Adjacent Properties

In general, the site vicinity is used for commercial, residential and educational purposes (Figure 2). The site is bounded to the north by John H. Glenn High School. South of the site and beyond Rosecrans Avenue are single-family homes. Commercial properties, such as Southern California Valve, Beard Electric and Bless Auto Service are located east of the site and beyond Maryton Avenue (Figure 2). Commercial properties such as Fresenius Medical Care, Kustom 1 Warehouse and Hockey West are located immediately west of the site.

No aboveground storage tanks (ASTs), evidence of underground storage tanks (USTs), 55-gallon drums, or possible hazardous materials or wastes were noted currently being stored by off-site facilities along the property line with the site.

3 USER PROVIDED INFORMATION

The following sections summarize information provided by the user to assist the environmental professional in identifying the possibility of RECs in connection with the subject property, and to fulfill the user's responsibilities in accordance with Section 6 of ASTM Standard E 1527-13. A copy of the user questionnaire is presented in Appendix B. The questionnaire was completed by Mr. Tom Ashcraft of Bridge.

3.1 Current Title Information

A Preliminary Title Report provided by the client was reviewed by Ardent. The title report was prepared by Chicago Title Company dated July 23, 2015. According to the Preliminary Title Report, the site is owned by "Vanderham Family Holdings, LLC, a California Limited Liability Company." A copy of the Preliminary Title Report is provided in Appendix B.

3.2 Environmental Liens or Activity and Use Limitations

Based on our review of available documentation, no records of environmental liens or activity and use limitations (AULs) were noted associated with the subject property. In addition, Mr. Ashcraft was not aware of any environmental liens or AULs against the subject property that are filed or recorded under federal, state, or local law.

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3.3 Specialized Knowledge

Mr. Ashcraft indicated that, for purposes of this assessment, the client has no specialized knowledge or experience pertaining to the site or the adjacent properties that are material to RECs in connection with the subject property, except as noted in Section 3.7 below.

3.4 Commonly Known or Reasonably Ascertainable Information

Mr. Ashcraft was not aware of any commonly known or reasonably ascertainable information pertaining to the site.

3.5 Valuation Reduction for Environmental Issues

In a transaction involving the purchase of a parcel of commercial real estate, the user shall consider the relationship of the purchase price of the property to fair market value of the property if the property was not affected by hazardous substances or petroleum products. Mr. Ashcraft indicated that the proposed sale price reflects fair market value of the subject property.

3.6 Reason for Performing Phase I ESA

Ardent was retained by Bridge to perform the Phase I ESA for the purpose of purchasing the property.

3.7 Other User Provided Information

In October 2014, Ardent completed a Phase I ESA for the current owners of the site. Based on the results of this investigation, Ardent completed a subsequent subsurface investigation which included the collection of soil gas samples. During this time, Ardent also quantified the ACMs and LBP previously detected at the site by others.

In 2015, a potential purchaser of the site retained SCS Engineers (SCS) to complete its own Phase I ESA and subsurface investigation. The following presents a summary of these assessments. Copies of the reports that were available to Ardent are provided in Appendix C.

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3.7.1 Phase I ESA by Ardent, dated October 2, 2014

As part of its planned sale of the site, the current owner of the property retained Ardent to complete a Phase I ESA for the site. The following presents the conclusions and recommendations from this report.

- The site and site vicinity was used for agricultural and residential purposes from at least 1928 through 1947. From at least 1952 through 1963, the site was used as a dairy, with a Milk Barn and a residence in the southern portion, corrals in the mid-portion, and vacant land in the northern portion. In 1981 through to the present, the northern portion of the site was used as a trucking facility. By 2005, some of the mid-portion of the site began to be used to store industrial valves and machinery. The southern portion of the site remained as a dairy through 2011. At the time of the report, the northern portion of the site was being used by a trucking company to store commercial trucks and shipping containers and the mid-portion of the site was being used to store industrial valves and machinery. The southwest portion of the site contained a vacant Milk Barn and a mobile home and the southeast portion contained a vacant residence and detached garage.
- Five, and possibly six, groundwater monitoring wells were located either on-site or immediately adjacent to the property. The wells were located along the northern and eastern property line. Golden West Refinery (Golden West) was formerly located 0.4-mile northeast of the site and uses these wells as part of its regional groundwater monitoring and characterization of petroleum hydrocarbons in groundwater. During the Phase I ESA, Ardent measured free product in the four wells along the eastern boundary of the site, ranging between 0.25- to 0.75-inch thick. Groundwater was measured at a depth of approximately 25 feet below the ground surface (bgs), and according to Golden West, flows in a southwesterly direction. The client had no information regarding ownership or access agreements with the responsible parties. Based on the on-going monitoring activities by Golden West, it is our assumption that these wells are owned by the refinery. Based on our observations, groundwater beneath the site is impacted by petroleum hydrocarbons from the Golden West release.
- One agricultural well, possibly used at the dairy, was also located on-site.
- There have been no indications in regulatory files that would suggest that USTs have been used at the site. The trucking facility was used to store commercial trucks and metal shipping containers, with minor truck repairing activities reported. During our site reconnaissance, many miscellaneous small containers of what appeared to be waste oil and other liquid chemicals were noted throughout the site. The owner of the site subsequently removed these materials from the property. No significant staining or evidence of a release was noted, however, a large portion of the site is covered with industrial valves, machinery, abandoned farm equipment, various trash and debris, commercial trucks and shipping containers, making visual assessment difficult. However, there has been no

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indication in regulatory files that would suggest that large quantities of petroleum hydrocarbons have been used, stored, or generated at the site. Therefore, based on the information obtained to-date, there is a low likelihood that the site has contributed to the local groundwater issues associated with Golden West.

- Based on the known free product beneath the site and the historical use of the site as a dairy, there is a possibility of vapor intrusion of either volatile organic compounds (VOCs) due to the petroleum hydrocarbons and/or methane gas due to the organic breakdown of manure and petroleum hydrocarbons associated with the Golden West release and former land use as a dairy.
- In 2008, an asbestos and lead-based paint (LBP) survey was completed at the site by others and identified asbestos-containing building materials (ACMs) and LBP. The subsequent report did not quantify the materials, and therefore, use of the information for obtaining cost removal would be difficult. Based on our experience, Transite pipes were also commonly used at historical agricultural properties for the transfer of water.
- With the exception of Golden West, no other on- or off-site environmental concerns were noted.

Based on these conclusions, Ardent presented the following recommendations.

- The groundwater monitoring wells should be accurately located (i.e. surveyed) with respect to the property boundary to determine whether these features lie on-site or immediately off-site. If the wells are determined to be on-site, the well owners, assuming to be Golden West, should be notified of potential redevelopment activities. If necessary, the wells might need to be relocated or abandoned. An environmental attorney should be consulted to make sure all appropriate access agreements are in-place between Golden West and the site owners prior to any additional groundwater monitoring or well relocation activities.
- The agricultural well should be abandoned by a State-licensed drilling contractor in accordance with current regulatory guidelines.
- A soil gas survey should be completed throughout the site to assess whether elevated concentrations of methane gas and/or VOCs are present due to the historical land use as a dairy and the reported release of petroleum hydrocarbons to the shallow groundwater. This survey can also be completed to assess whether unknown areas of concern are present on-site as part of a screening technique.
- Following removal of the industrial valves, machinery, abandoned farm vehicles, trash and debris, commercial trucks, and metal shipping containers from the site, soil sampling may be necessary in areas of staining, if observed.

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- The quantities of the ACMs and LBP previously discovered by others should be determined and documented. If needed, additional samples should be collected. The results should be presented in a comprehensive report that can be provided to an asbestos abatement contractor for bidding purposes.

3.7.2 Soil Gas Survey by Ardent, dated October 1, 2014

To further assess whether elevated concentrations of VOCs and methane gas were present due to historical land uses, Ardent completed a soil gas survey throughout the site. The survey included the installation of 16 soil vapor monitoring points to depths of approximately 5 feet bgs throughout the site. Soil gas samples were collected and analyzed by a mobile laboratory and methane gas was monitored at each sampling point using a hand held field instrument. Laboratory results indicated no detectable concentrations of VOCs and no methane gas was reported. Based on these data, Ardent concluded that there was a low likelihood that elevated concentrations of VOCs and methane gas were present in shallow soil gas throughout the site.

3.7.3 Asbestos Inspection by Ardent, dated October 1, 2014

As presented in the Vanderham Phase I ESA, a previous consultant completed a comprehensive asbestos and LBP survey of the existing structures on the site, but did not quantify the materials. For contractors to provide costs for removal, the location of the materials and quantities needed to be verified. Ardent described the materials, locations, approximate quantities and condition. This document can be used to obtain removal costs from qualified contractors prior to demolition.

3.7.4 Soil and Groundwater Investigation Report by SCS, dated May 2015

As part of its real estate due diligence, a potential buyer of the property retained SCS to complete a Phase I ESA and soil and groundwater investigation at the site. Ardent was not provided a copy of the Phase I ESA report for review.

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Based on a summary presented in the subsurface investigation report, SCS' environmental concerns included the historical land use as a dairy and the petroleum hydrocarbon impacted groundwater migrating onto the site from the Golden West Refinery. To further assess these conditions, SCS recommended collecting soil, soil gas, and groundwater. The soil gas investigation was completed to assess the concentrations of methane gas as monitored from sample points located throughout the site. These results were presented under separate cover (see Section 3.7.5).

The soil sampling activities include the advancement of 11 soil borings throughout the site to depths of approximately 15 feet bgs. Four of these borings were advanced to deeper depths where a temporary well casing was installed. Groundwater samples were collected and laboratory results indicated elevated concentrations of petroleum hydrocarbons; verifying the conclusions of Ardent that groundwater beneath the site was impacted from the off-site refinery.

Selected soil and groundwater samples were also analyzed for nitrates, possibly associated with the historical land use as a dairy. Laboratory results indicated typical fertile soil concentrations and no significant concentrations were noted in groundwater.

Based on the review of the Ardent soil gas investigation and the results of the soil and groundwater activities, SCS concluded that (1) petroleum hydrocarbon impacted groundwater exists beneath the site from the off-site refinery, (2) that these contaminants do not pose a possible vapor intrusion issue to future buildings, and (3) that nitrate levels in soil and groundwater were not elevated. Based on these conclusions, SCS recommended no further investigations.

3.7.5 Methane Gas Assessment Report by SCS, dated May 2015

Following the soil and groundwater investigation described above, soil vapor monitoring points were installed within 10 of the soil borings at depths of approximately 5 and 15 feet bgs. These sample points were scattered throughout the site. SCS began monitoring activities utilizing field instruments to measure methane and fixed gases from each sample point. In general, low concentrations of methane gas were detected in all but one sample point, designated B8 at 15 feet. In this sample, SCS

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reported concentrations of methane gas at 99.9% by volume in ambient air. Taking into account the other constituents measured by SCS in this sample point, such as carbon dioxide at 4.4% by volume in ambient air and oxygen at 14.3% by volume in ambient air, the concentration of methane was not physically possible (i.e. the combined percentage of fixed gases in ambient air cannot exceed 100%). Taking this into account, Ardent requested that SCS collect a discrete sample from B8 at 15 feet and analyze the sample for methane gas at a laboratory to further assess the true concentrations.

On April 13, 2015, SCS collected an air sample from B8 and submitted the sample for chemical analyses. Laboratory results indicated concentrations of methane, gasoline, benzene, toluene, xylenes, and styrene all well below their respective LEL values. Table 1 in Appendix C presents the results of this sampling event and depicts the LEL values of each compound detected. Although the data did not suggest elevated concentrations, SCS concluded that a possible methane gas issue was present.

3.7.6 Conversations with the SFSFD

Based on its findings, SCS indicated that a methane gas issue was present at the site and that the SFSFD will likely require a methane gas barrier be installed beneath new buildings. To further assess these conditions, Ardent presented the data to Mr. Brian Reparuk, Deputy Fire Marshal with the SFSFD. According to Deputy Reparuk, the SFSFD would assess site conditions following City Ordinance 955 for methane gas. Although this Ordinance is written for properties located within the Methane Zone of the Santa Fe Springs Oil Field, located approximately 2 miles north of the site, it's the only guideline the City has to evaluate methane gas issues (Reparuk, 2015).

The LEL for methane gas is 50,000 parts per million per volume (ppmv). The City Ordinance considers methane gas elevated when concentrations exceed 25% of the LEL (i.e. 12,500 ppmv). Since SCS' data indicated only a concentration of methane at 8.2% of the LEL (i.e. 4,100 ppmv), the SFSFD concluded that this concentration

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would not be considered elevated and there was no justification to require a methane gas barrier beneath proposed buildings.

SCS argued that the cumulative concentrations of all constituents detected in this sample would result in a value that would equal 27% of the LEL, and therefore, would require a methane gas barrier. The SFSFD did not agree with these calculations and would not consider a cumulative value in its evaluation of site conditions (Reparuk, 2015). In addition, the cumulative value of this single, worse case sample point was still well below the LEL value for methane.

Taking into account the number of sample points monitored at the site by Ardent and SCS (a total of 36 sample points) and the fact that only one sample point contained slightly higher concentrations of methane and other constituents, there is a low likelihood, in our opinion, that elevated concentrations of methane gas or other constituents are present at the site that would result in an explosion hazard. Based on these findings, the SFSFD concurred with these conclusions. Following our meeting, Ardent prepared an email outlining the conclusions of our discussions and presented it to the SFSFD for concurrence. A copy of this email, with Deputy Reparuk's agreement is presented in Appendix C.

It should be noted that prior to redevelopment, the SFSFD will require another methane gas evaluation due to the site being formerly used as a dairy. These activities are completed during the planning stages of development once construction plans are submitted to the City for review and approval. Based on the results of the preliminary investigations described above, there is a low likelihood that the SFSFD will require methane gas or VOC mitigation measure during construction of the planned buildings.

4 PHYSICAL SETTING

The following sections include discussions of topographic, geologic, and hydrogeologic conditions in the vicinity of the site, based upon our document review and our visual reconnaissance of the site and adjacent areas.

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4.1 Site Topography

Based on the review of the United States Geological Survey (USGS) 7.5 Minute Series, Whittier, California, Topographic Quadrangle Map dated 1965 and photorevised in 1981, the site has an approximate elevation of 84 feet above mean sea level (msl).

4.2 Geology

The site is located on the northeastern margin of the Central Plain of the Los Angeles Basin, bounded by the Puente Hills to the northeast. Strata beneath the site consist of recent age alluvium derived primarily from stream channels and flood plain deposits of the ancestral San Gabriel fluvial system. The alluvium is underlain by the Miocene-age Puente Formation.

4.3 Oil and Gas Maps

Based on a review of the Division of Oil, Gas, and Geothermal Resources (DOGGR) online Regional Wildcat Map W1-5 and DOGGR on-line well finder information system, the site does not lie within an active oil field and no oil or natural gas wells have been drilled on-site or in the immediate site vicinity.

4.4 Site Hydrology

The following sections discuss the site hydrology in terms of both surface waters and groundwater.

4.4.1 Surface Waters

No natural water bodies or streams are located on the site.

4.4.2 Groundwater

Ardent obtained groundwater information from the State Water Resources Control Board (SWRCB) GeoTracker website. According to the GeoTracker website, Golden West formerly operated a larger refinery located approximately 0.4-mile northeast of the site. The refinery has since been razed and the property has been redeveloped. Petroleum hydrocarbon-impacted groundwater associated with the refinery is currently being monitored in the site vicinity.

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According to Golden West, three groundwater wells (designated "B-15," B-16," and "MYTNN") are located along the eastern boundary of the site and two groundwater wells (designated "AO-19" and "PO-17") are located along the northern property line. Based on our site visit, Ardent observed four groundwater monitoring wells along the eastern property line and no wells along the northern property line (Figure 2). The City of Santa Fe Springs maintains a utility easement around most city Streets that measures approximately 8 feet from the curb. This easement has been noted in ALTA survey's provided by Ardent since the Vanderham Phase I ESA (Appendix C). Based on this information, three of the four groundwater monitoring wells are located on the site; the remaining well, designated B-16, is located off-site within the city easement. The current owner of the site is unaware of any access agreements signed by Golden West Refinery.

During completion of the Vanderham Phase I ESA, Ardent measured free product in the four wells along the eastern boundary of the site, ranging between 0.25- to 0.75-inch thick. Groundwater was measured at a depth of approximately 25 feet bgs, and according to Golden West, flows in a southwesterly direction. Based on our observations, groundwater beneath the site is impacted by petroleum hydrocarbons from the Golden West release. As noted above, SCS completed an on-site groundwater investigation that verified these assumptions.

5 HISTORICAL LAND USE

Ardent conducted a historical record search for both the site and surrounding areas. This included a review of one or more of the following sources that were found to be both reasonably ascertainable and useful for the purposes of this Phase I ESA: historical aerial photographs, historical fire insurance maps, historical city directories, building permits and plans, topographic maps, property tax records, zoning/land use records, and a review of prior environmental assessment reports regarding the site. Copies of historical data are attached in the appendices of Ardent's Vanderham Phase I ESA in Appendix C.

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5.1 Summary of Historical Land Use of the Property

The site and site vicinity was used for agricultural and residential purposes from at least 1928 through 1947. From at least 1952 through 1963, the site was used as a dairy, with a Milk Barn and a residence in the southern portion, corrals in the mid-portion, and vacant land in the northern portion. In 1981 through the present, the northern portion of the site was used as a trucking facility. By 2005, some of the mid-portion of the site began to be used to store industrial valves and machinery. The southern portion of the site remained as a dairy through 2011. At the time of this report, the northern portion of the site was being used by a trucking company to store commercial trucks and shipping containers and the mid-portion of the site was being used to store industrial valves and machinery. The southwest portion of the site contained a vacant Milk Barn and a mobile home and the southeast portion contained a vacant residence and detached garage.

5.2 Summary of Historical Land Use of Adjoining Properties

The site vicinity was mainly used for agricultural and residential purposes from at least 1928 through 1947. An increase in commercial and residential land use began in the 1950s.

5.3 Fire Insurance Rate Maps

During completion of the Vanderham Phase I ESA, historical Sanborn Fire Insurance Rate Maps (Sanborn maps) were requested from Environmental Data Resources Inc. (EDR) of Milford, Connecticut. According to EDR, there were no Sanborn maps available for the site.

5.4 Historical Aerial Photographs

Historical aerial photographs for selected years between 1928 and 2012 were provided by EDR. Additional aerial photographs were obtained from Google Earth, from 2003 through 2013. The following presents a summary of our review.

- **1928, 1938, and 1947** – The site and surrounding properties appeared to be used for agricultural and residential purposes. The site appeared to have a rural residence on the central portion.
- **1952 and 1963** – The southern portion of the site appeared to be developed with the current dairy building and residence. The central portion appeared to have corrals for livestock and the north portion appeared to be vacant. The previous rural residence was no longer present. The adjacent east property appears to also be a dairy. The adjacent

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south properties across Rosecrans Avenue appeared to be developed as residences. The I-5 Freeway was noted approximately 0.5-mile west of the site. By 1963, the north adjacent property was developed into a school (John H. Glenn High School).

- **1970 and 1972**– A metal roof barn was observed on the central west boundary of the site. The adjacent west properties appeared to be commercial and industrial properties. The vicinity to the north, east and west appeared to primarily be commercial and industrial sites with the vicinity to the south being primarily residences.
- **1981, 1989 and 1994** – The north portion of the site appears to be used for a trucking operation as observed during the site reconnaissance. The adjacent east property was developed into commercial and industrial type properties. The vicinity to the south appeared to gradually increase in residences and the vicinities to the north, east and west appeared to gradually increase in commercial and industrial properties.
- **2005, 2009 and 2010** – The center portion of the site appears to be used for storage of machinery or metal equipment. The adjacent sites and vicinity appeared to remain as observed in the previous 1994 aerial photograph.
- **2012** – The site appeared to no longer be used as a dairy with increased storage of machinery or metal equipment on the center-east portions where the corrals used to be. The adjacent east and west properties appeared to be fully developed as commercial and industrial properties, the south adjacent properties as residences and John H. Glenn High School to the north as observed during the site reconnaissance. The surrounding areas appeared primarily be residences to the south and commercial and industrial properties to the north, east and west as observed during the site reconnaissance.

5.5 Building Department

During completion of the Vanderham Phase I ESA, Ardent reviewed building permits for the existing site address at the City of Santa Fe Springs Building Department (SFSBD). Based on our review, some of the existing buildings were constructed in 1945. A Milk Barn was later added in 1959. The residence on the southeast portion was constructed in 1955. A permit was issued in 1995 for a mobile home, located on the southwest portion of the site. Other miscellaneous permits noted in the file included electrical and plumbing permits associated with the construction of the dairy and residence. These permits were dated 1945 through 1995. As stated herein, no improvements or redevelopment of the site has taken place since the Vanderham Phase I ESA, and therefore, there was no need to review City files regarding the site.

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5.6 City Directories

During completion of the Vanderham Phase I ESA, city directories were obtained from EDR for the site and immediate site vicinity. Selected city directories between the years 1920 and 2013 were provided. Based on our review, the site was listed as Norwalk Dairy as early as 1954 until 2003 for the site address of 13101 Rosecrans Avenue. The site was also listed as Vanderham, John as early as 1950 until 2003 for the site address of 13123 Rosecrans Avenue.

5.7 Historical Topographic Maps

During completion of the Vanderham Phase I ESA, historical topographic maps were provided by EDR for review. The maps were dated 1896, 1900, 1901, 1902, 1925, 1945, 1947, 1951, 1953, 1965, 1972, and 1981. The 1896, 1900, 1901, 1902, 1925, 1945, and 1947 maps had large scales and did not show site specific details. The 1951 and 1953 maps show the site with the Milk Barn structure on the southern portion and vacant land on the northern portion. The adjacent properties are also shown as vacant land. The 1965, 1972 and 1981 maps do not show small structures such as the residences or Milk Barn.

5.8 Interviews

Key site personnel (e.g., past and present owners, operators, and/or occupants) were available for interviews with Ardent at the time of the Phase I ESA.

5.8.1 Interview with Owner

During completion of the Vanderham Phase I ESA, Ardent interviewed Mr. Ray Hoogsteen who is part owner of the property through inheritance, along with several family members. Mr. Hoogsteen indicated the property has been used as a milking dairy since the mid-1940s. Mr. Hoogsteen was not aware of the use of USTs at the property. He indicated the property has not operated as a dairy for approximately 3 or 4 years. Mr. Hoogsteen indicated the former dairy store is currently used as a thrift store and the middle portion of the property is leased out for the storage of salvaged industrial petroleum pipe valves and other equipment. The north portion is leased for as trucking operation where commercial trucks are temporarily stored. Mr. Hoogsteen stated that the wells on the eastern boundary of the property were part

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of an investigation for aviation fuel contamination of the groundwater by the former Golden West Refinery. Mr. Hoogsteen did not have other knowledge or documentation regarding the wells.

5.8.2 Interview with Site Manager

No site manager was available for interview at the time of the Phase I ESA.

5.8.3 Interviews with Occupant

No occupants were available to interview during the site reconnaissance.

5.8.4 Interviews with Local Government Officials

Representatives of local regulatory agencies were interviewed during completion of this report. The information obtained is presented throughout this report.

5.8.5 Interviews with Others

No other interviews were conducted during this Phase I ESA.

5.9 Previous Reports and Documents

Previous environmental reports are discussed in Section 3.7.

6 SITE RECONNAISSANCE

The site and site vicinity reconnaissance was performed by Ardent on August 12, 2015. The site reconnaissance involved a walking tour of the site and visual observations of adjoining properties. At the time of the site reconnaissance, the weather was clear and sunny. Selected photographs taken during these activities are included in Appendix A.

At the time of the site reconnaissance, the site was occupied by the former Norwalk Dairy Milk Barn and a mobile home on the southwest portion. The dairy has an address of 13101 Rosecrans Avenue. The dairy is currently vacant and has been inactive for approximately 3 or 4 years. The former dairy consisted of a milking area in the northern portion of the Milk Barn used to process milk. The southern portion of this building was used as a retail store for sales of various dairy products and is currently used as a thrift store for second hand toys and collectibles. It was not known if the mobile home was occupied. A clarifier was observed on the west portion of

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the Milk Barn building and appeared to be constructed of concrete. An agricultural well is located on the adjacent east side of the Milk Barn building. An approximate 5,000-gallon steel AST associated with the agricultural well is located north of the well and was used to store pumped water.

The site is also occupied by a residence and detached garage on the southeast corner. The residence has an address of 13123 Rosecrans Avenue. According to Mr. Hoogsteen, the residence has been vacant for a few years. There is also a large wood-frame shed near the residence, which is apparently occupied by a family member of the owners. Mr. Hoogsteen stated that the site frequently has squatters occupying some areas between the dairy and the residence. A cow, a bull, a goat and several chickens are housed in make shift corrals adjacent west of the residence. Several abandoned farm vehicles and equipment are located throughout the former dairy corrals. Other miscellaneous trash and debris including tires, wood debris, furniture, etc., were also observed scattered throughout the former dairy and residence areas.

The central portion of the site is currently leased for the storage of industrial valves and equipment salvaged from industrial sites. The northern portion of the site is currently used as a trucking operation where commercial semi-trucks and trailers are temporarily stored. Various containers of waste oil were observed scattered throughout the trucking operation area including several 5-gallon buckets, gallon and quart sized containers. It appears that oil changes occur at the trucking operation, however, no other truck or vehicle repair equipment was observed indicating no heavy repair or servicing occurs at the site. No significant staining or spills were noted and no evidence of petroleum ASTs, USTs or fueling was observed at the site.

6.1 Use and Storage of Hazardous Substances and Petroleum Products

At the time of the site reconnaissance, Ardent observed various containers of waste oil scattered throughout the trucking operation area, including 5-gallon buckets, and 1-gallon and quart sized containers. During completion of the Vanderham Phase I ESA, Ardent also noted sporadic 5-gallon buckets and 55-gallon drums of new grease, gear oil and hydraulic oil in the central portion of the site. These containers were not observed during this site visit, although, these materials may still be present but may have been moved. No significant stains, leaks or spills were observed.

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6.2 Storage and Disposal of Hazardous Wastes

At the time of the site reconnaissance, Ardent did not observe the storage and disposal of hazardous wastes, except as noted above.

6.3 Unidentified Substance Containers

Numerous unidentified substance containers were observed on site during the site reconnaissance.

6.4 ASTs and Underground Storage Tanks (USTs)

No ASTs or USTs were observed during the site reconnaissance.

6.5 Evidence of Releases

No evidence of a release was noted throughout the site.

6.6 Polychlorinated Biphenyls (PCBs)

Historically, PCBs (a group of hazardous substances and suspected human carcinogens) were widely used as an additive in cooling oils for electrical components. Typical sources of PCBs can include electrical transformers. No electrical transformers were observed on the site.

6.7 Suspect Asbestos-Containing Building Materials (ACMs)

The manufacture of most ACMs was phased out in the 1970s, ending in 1980. Previously manufactured ACMs that were in stock continued to be used through approximately 1981. Some non-friable ACMs are still manufactured (e.g. roofing mastics). In general, buildings constructed after 1981 have a negligible potential to contain friable ACMs and a low potential for most non-friable ACMs, with the exception of roofing materials.

In 2008, an ACM and LBP survey was completed by others at the site. ACM and LBP were identified during the survey, however, the quantities of these materials were not provided and therefore, use of the information for obtaining costs for removal would be difficult. In 2014, Ardent completed a visual inspection and quantification of the materials identified during the previous work (Ardent, 2014c).

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Transite (asbestos) pipelines may also be present based on the historical agricultural use of the site. Since the planned use of the site will include demolition activities, Ardent recommends that the ACM be removed and the LBP stabilized prior to demolition activities.

6.8 Lead Based Paint (LBP)

As noted above, a previous investigation has identified LBP at the site.

6.9 Indications of Water Damage or Mold Growth

No visual indications of water damage or visible mold growth were present.

6.10 Wastewater Systems

A concrete clarifier approximately 4-feet wide by 8-feet long and 4-feet deep is located adjacent west of the former dairy Milk Barn. The clarifier was exposed and filled with minor scattered trash and debris. No odors or stains were noted in the vicinity of the clarifier. Clarifiers are typically installed at dairies to segregate manure and other animal wastes prior to wastewater discharge to the municipal sewer. Based on the use of this clarifier (separation of animal wastes), this feature would not be considered an environmental concern to the site.

6.11 Stormwater Systems

Wastewater systems were not observed during the site reconnaissance.

6.12 Wells

An agricultural well was observed adjacent east of the former dairy Milk Barn. The well does not appear to be active. Four groundwater monitoring wells were observed along the eastern boundary of the site along Maryton Avenue. The wells were observed outside of a chain-link along Maryton Avenue northeast, central-east and southeast portions of the site (Figure 2). Two of the wells were 4-inch diameter PVC wells and labeled "B15" and "B-16." Two wells were 6.5-inch diameter with one labeled as "MYTNN" and the other was unmarked. Groundwater levels at these wells were measured between 24.41 to 24.61 feet bgs and free product was observed in all the wells. The free product thickness in the wells

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ranged between 0.25 to 0.75 inch. According to information obtained from the GeoTracker website, these wells are currently monitored by Golden West (Site ID #SL373412444) previously located at 13539 Foster Road, approximately 0.4-mile northeast and upgradient from the site.

6.13 Other Subsurface Structures

Other than noted above, no other subsurface structures (e.g., sumps, vaults, oil/water separators, and other surface impoundments) were noted during the site reconnaissance.

6.14 Other Issues

No other on- or off-site issues of environmental concern were noted.

7 ENVIRONMENTAL DATABASE SEARCH

A computerized environmental information database search was performed by EDR for this Phase I ESA on August 12, 2015. The database search included federal, state, local, and tribal databases. A summary of the environmental databases searched, their corresponding search radii, and number of noted facilities of environmental concern is presented in Appendix D. In addition, a description of the assumptions and approach to the database search is provided in Appendix D. The review was conducted to evaluate whether the site or properties within the vicinity of the site have been reported as having experienced significant unauthorized releases of hazardous substances or other events with potentially adverse environmental effects.

Eight unmapped properties, due to poor or inadequate address information, were identified in the database report. However, based on the information provided for these properties, and/or the types of databases on which the properties are listed, there is a low likelihood that the environmental integrity of the site has been adversely impacted by these off-site sources.

The following paragraphs describe the databases that contain noted properties of environmental concern, and include a discussion of the regulatory status of the facilities and potential environmental impact to the subject site.

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7.1 Federal National Priorities List (NPL): Distance Searched – 1 mile

The NPL is the USEPA's database of uncontrolled or abandoned hazardous waste properties identified for priority remedial actions under the Superfund program. This database includes proposed NPL listings.

Neither the site nor properties located within a 1-mile radius from the site were listed on this database.

7.2 Federal Delisted NPL: Distance Searched – 0.5 mile

This database contains delisted NPL properties under the Superfund program. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the USEPA uses to delete properties from the NPL. In accordance with 40 Code of Federal Regulations (CFR) 300.425. (e), properties may be deleted from the NPL where no further response is appropriate.

Neither the site nor properties located within a 0.5-mile radius from the site were listed on this database.

7.3 Federal Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) List: Distance Searched – 0.5 mile

The CERCLIS database contains properties which are either proposed or on the NPL and properties which are in the screening and assessment phase for possible inclusion on the NPL. This database also includes properties listed as No Further Remedial Action Planned (NFRAP).

The site was not listed on this database. One facility, Stankevich #1 Norwalk, located 0.17-mile and crossgradient from the site was listed on the NFRAP database. Based on the no further action status, distance, and direction, this listing does not represent a significant environmental concern to the site.

7.4 Federal Corrective Action Report (CORRACTS): Distance Searched – 1 mile

The USEPA maintains this database of Resource Conservation and Recovery Act (RCRA) facilities that are undergoing corrective action. A corrective action order is issued when

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there has been a release of hazardous waste or constituents into the environment from a RCRA facility.

One facility was listed on this database within a 1-mile radius from the site. The facility was located approximately 0.75-mile east-southeast and potentially crossgradient from the site. Based on the distance and direction of this facility, this facility would not be considered an environmental concern to the site.

7.5 Federal Resource Conservation and Recovery Act (RCRA) Treatment, Storage, and Disposal (TSD) Facilities List: Distance Searched – 0.5 mile

The RCRA TSD database (non-CORRACTS) is a compilation by the EPA of facilities that report generation, storage, transportation, treatment, or disposal of hazardous waste.

Neither the site nor properties located within a 0.5-mile radius from the site were listed on this database.

7.6 Federal RCRA Generators List: Distance Searched – Site and Adjoining Properties

This list identifies sites that generate hazardous waste as defined by RCRA. Inclusion on this list is for permitting purposes and is not indicative of a release.

The site was not listed on this database. Two adjoining facilities, located at 13139 Rosecrans Avenue and 13903 Maryton Avenue, were listed as a small quantity generators of hazardous waste. No violations were reported. Listings on this database are not indicative of a release.

7.7 Federal Institutional Control/Engineering Control Registries: Distance Searched – Site

These lists identify properties with engineering and/or institutional controls. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or affect human health. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post

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remediation care requirements intended to prevent exposure to contaminants remaining on the site. Deed restrictions are generally required as part of the institutional controls.

The site was not listed on this database.

7.8 Federal Emergency Response Notification System (ERNS) List: Distance Searched – Site

The ERNS database, maintained by the USEPA, contains information on reported releases of oil and hazardous substances.

The site was not listed on this database.

7.9 Federal Brownfield List: Distance Searched – 0.5 mile

The USEPA Brownfield database, entitled Targeted Brownfield's Assessments (TBA), lists properties for which the USEPA is providing funding and/or technical support for environmental assessments and investigations. The objective of the TBA is to promote cleanup and redevelopment of undesirable properties with environmental issues.

Neither the site nor properties located within a 0.5-mile radius from the site were listed on this database.

7.10 State Calsites Database (Calsites) or State-Equivalent CERCLIS: Distance Searched – 1 mile

The Calsites database, also known as the State-equivalent CERCLIS, is maintained by the Cal-EPA DTSC. This database contains information on AWP and both known and potentially contaminated properties. Two-thirds of these properties have been classified, based on available information, as needing no further action (NFA) by the DTSC. The remaining properties are in various stages of review and remediation to determine if a problem exists. These properties are presented by EDR on the EnviroStor databases.

The site is not listed. Twenty-two facilities located with the search radius were listed. Twenty of the listed facilities were located greater than 0.13-mile cross- to downgradient from the site, and therefore, would not be considered an environmental concern to the site. The Golden West Refinery was listed upgradient from the site. As discussed herein, petroleum

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hydrocarbon free product is located in four groundwater monitoring wells located in the up-gradient location from the site. Based on this information, Golden West has impacted groundwater beneath the site with petroleum hydrocarbons.

7.11 State Solid Waste Landfill Sites (SWLF): Distance Searched – 0.5 mile

The SWLF database consists of open and closed solid waste disposal facilities and transfer stations. The data comes from the Integrated Waste Management Board's Solid Waste Information System (SWIS) and the SWRCB Waste Management Unit Database (WMUD) database.

Neither the site nor properties located within a 0.5-mile radius from the site were listed on this database.

7.12 State Leaking Underground Storage Tank (LUST) Lists: Distance Searched – 0.5 mile

The LUST information system is obtained from by the SWRCB and the RWQCB.

The site was not listed on this database. Two adjacent facilities located at 13139 Rosecrans Avenue and 14006 Gracebee Avenue had a regulatory status of "case closed" and were located crossgradient from the site and would not be considered an environmental concern.

Fifteen additional facilities located within the 0.5-mile search radius were listed on this database. Twelve of the fifteen had a regulatory status of "case closed" and would not be considered an environmental concern to the site. The remaining active facilities were located at least 0.41-mile away from and crossgradient of the site. Based on the distance from the site and direction, these facilities are not considered an environmental concern to the site.

7.13 State Underground Storage Tank (UST) and Aboveground Storage Tank (AST) Registration List: Distance Searched – Site and Adjoining Properties

UST and AST databases are provided by the SWRCB. Inclusion on these lists is for permitting purposes and is not indicative of a release.

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The site was not listed on this database. One adjacent facility located at 14006 Gracebee Avenue was listed on this database. Listing on this database is not indicative of a release.

7.14 State Voluntary Cleanup Programs (VCPs): Distance Searched – 0.5 mile

The State VCP database lists low threat level properties with either confirmed or unconfirmed releases. Project proponents have requested that the DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Neither the site nor properties located within a 0.5-mile radius from the site were listed on this database.

7.15 Indian Reservations: Distance Searched – 1 mile

This list depicts Indian administered lands of the United States that have an area equal to or greater than 640 acres. No Indian Reservations were listed within a 1-mile radius from the site. Due to the lack of Indian Reservations within 1-mile of the site, other tribal database listings required by ASTM and AAI were deemed not applicable. These listings would include tribal-equivalent NPL, CERCLIS, Landfill and/or Solid Waste Disposal, LUST, UST and AST Registrations, Institutional Control/Engineering Control Registries, VCPs, and Brownfields.

7.16 Other Non-ASTM and AAI Database: Distance Searched – Site

Other databases were included in the EDR Report, but are not required by ASTM or AAI. Based on our review of these databases, the site was not listed on these databases.

8 VAPOR ENCROACHMENT CONDITION (VEC)

Ardent completed a VEC study for the site using Tier 1 criteria as recommended by ASTM E 2600-10. The Tier 1 screening identifies surrounding facilities that pose a possible vapor intrusion source to the site based on the results of the Phase I ESA investigations and certain criteria outlined by ASTM. These criteria include a certain distance from the target site (referred to by ASTM as within the "area of concern"); the types of chemicals used (referred to by ASTM as the "chemicals of concern"); and a plume test to determine if the plume associated with a

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source of contamination is close enough to the site to impact indoor air quality. Based on our review of regulatory records, files, databases, client furnished data, and site reconnaissance activities, the site would be considered a potential risk for vapor intrusion.

Based on the known free product beneath the site and the historical use of the site as a dairy, there is a possibility of vapor intrusion of either VOCs due to the petroleum hydrocarbons and/or methane gas due to the organic breakdown of manure and petroleum hydrocarbons associated with the Golden West release and former land use as a dairy. However, subsequent soil gas sampling completed in 2014 by Ardent indicated no detectable concentrations of VOCs and no methane gas. An independent investigation completed by a potential purchaser also showed no elevated concentrations of methane, well below the LEL. Based on this information, there is a low likelihood that elevated concentrations of VOCs are present in soil gas that would pose a potential human health risk through vapor intrusion. In addition, there is a low likelihood that elevated concentrations of methane gas are present. It should be noted that the SFSFD will require a methane gas survey be completed in accordance with its City Ordinance No. 955 during the planning stages of redevelopment.

9 REGULATORY RECORDS REVIEW

The Los Angeles County Sanitation District (LACSD), South Coast Air Quality Management District (SCAQMD), RWQCB, SFSFD, and the DTSC are the lead regulatory agencies for permitting and regulating USTs, ASTs, LUST cases, and/or facilities that use, store, or generate hazardous waste or hazardous materials. During completion of the Vanderham Phase I ESA, Ardent requested information regarding possible files for the site using the current addresses. Since portions of the site have remained vacant or used for storage (trucks and oil valves) since completion of the Vanderham Phase I ESA, Ardent did not request a review of agency files. This task was deemed unnecessary based on continued site uses. The following presents the results of our file review presented in the Vanderham Phase I ESA.

9.1 Los Angeles County Department of Public Works (LACDPW)

LACDPW is the lead regulatory agency for permitting industrial wastewater systems. The LACDPW had no records regarding the site.

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9.2 Los Angeles County Sanitation District (LACSD)

The LACSD maintains industrial wastewater discharge and operation permits. During completion of the Vanderham Phase I ESA, Ardent requested to review available files regarding the site. At that time, a response had not yet been obtained.

Since completion of the Vanderham Phase I ESA, Ardent has received the LACSD file information. According to the LACSD, the Norwalk Dairy obtained an industrial wastewater discharge permit in 1978 associated with the newly installed clarifier for "grit removal." No other information was provided in the file.

9.1 South Coast Air Quality Management District (SCAQMD)

The SCAQMD maintains information pertaining to air quality measures and permits. Ardent reviewed the SCAQMD website using the facility name and site address. No records regarding the site were available.

9.2 Regional Water Quality Control Board, Los Angeles (RWQCB)

The RWQCB maintains information pertaining to spills and cleanups, stormwater, and USTs. Ardent searched the SWRCB GeoTracker website for possible files and also requested information from the RWQCB regarding the site. No files regarding the site were available for review on the GeoTracker website and no records were available from RWQCB.

As previously mentioned, four groundwater monitoring wells were observed along the eastern boundary of the site. Ardent searched available files on GeoTracker to obtain additional information regarding these wells. According to a Golden West Refining Company, First Quarter 2014 Report, Former Golden West Refinery, dated March 26, 2014, three of the wells were designated "B-16," "B15," and "MYTNN;" the fourth well was not shown on illustrations in the report. Two additional wells, designated AO-19 and PO-17, were noted along the northern property line. However, during our site reconnaissance, these wells were not observed on-site or immediately off-site on the adjacent school property.

The wells are part of a characterization of groundwater impact from the former Golden West Refinery located 0.4-mile northeast of the site. According to the report, two of the wells (B-

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16 and MYTNN) were monitored on a monthly basis during this monitoring event. The wells have been periodically monitored since January 2007 which has included removal of free product from both wells by hand bailing. Golden West plans to continue to monitor these wells. A copy of the report is included in Appendix C.

Based on a current ALTA survey map, three of the four wells are locate on-site (Appendix C). Ardent recommends that legal counsel review this information to assess whether access agreements need to be provided to Golden West prior to completion of additional monitoring.

9.3 City of Santa Fe Springs Fire Department (SFSFD)

The SFSFD Environmental Protection Division is a state designated Certified Unified Program Agency (CUPA) responsible for hazardous waste, USTs, ASTs, hazardous materials and accidental release programs. Available files regarding the site were reviewed by Ardent. A summary of pertinent information if provided below.

- An industrial wastewater discharge permit dated April 28, 1978 was issued for the former Norwalk Dairy. The discharged materials were reported as soap and water.
- Several notices of violations were issued to the Norwalk Dairy for not pumping the clarifier and not reporting accurate chemical inventory. Subsequent liquid waste hauler records indicated the clarifier was pumped as required. The notices of violations and waste hauler records were dated between 2001 and 2009.
- A Consolidated Contingency Plan dated December 12, 2003 indicated hazardous chemicals used at the site included heavy duty caustic soap, commercial acidic cleaner, teat, iodine and diesel.

As noted in Section 3.7, a previous potential buyer of the site retained SCS to complete its own soil and soil gas investigation at the site. Based on the results, low concentrations of methane gas were detected. To further assess the City's stance on these concentrations, Ardent met with Mr. Reparuk, Deputy Fire Marshal with the SFSFD. According to Deputy Reparuk, the SFSFD will become involved with future planned redevelopment activities as part of the planning stages. As part of these activities, the SFSFD will require a methane gas study to be completed to assess whether the proposed building will need to be constructed with engineering controls (i.e. a vapor barrier). This task will be required after

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submittal of the building plans. Based on the results of the preliminary VOC and methane gas sampling, there is a low likelihood that future engineering controls will be needed.

9.4 Department of Toxic Substances Control (DTSC)

The DTSC maintains hazardous waste and material related information. Ardent requested information from the DTSC and also searched the DTSC's EnviroStor website. No records regarding the site were available.

10 FINDINGS, OPINIONS AND CONCLUSIONS

Based upon the results of this Phase I ESA the following findings, opinions and conclusions are provided.

10.1 Findings and Opinions

The following presents a summary of findings and opinions associated with this Phase I ESA performed for the subject property, including known or suspect RECs, controlled RECs, and de minimus environmental conditions (i.e., conditions that generally do not present a material risk of harm to public health or the environment).

- The site and site vicinity was used for agricultural and residential purposes from at least 1928 through 1947. From at least 1952 through 1963, the site was used as a dairy, with a Milk Barn and a residence in the southern portion, corrals in the mid-portion, and vacant land in the northern portion. In 1981 through the present, the northern portion of the site was used as a trucking facility. By 2005, some of the mid-portion of the site began to be used to store industrial valves and machinery. The southern portion of the site remained as a dairy through 2011. At the time of this report, the northern portion of the site was being used by a trucking company to store commercial trucks and shipping containers and the mid-portion of the site was being used to store industrial valves and machinery. The southwest portion of the site contained a vacant Milk Barn and a mobile home and the southeast portion contained a residence and detached garage.
- Four groundwater monitoring wells, three located on-site and one located immediately adjacent to the property, were identified during the site reconnaissance. The wells are located along the eastern property line. Golden West Refinery was formerly located 0.4-mile northeast of the site and uses these wells as part of its regional groundwater monitoring and characterization of petroleum hydrocarbons in groundwater. During the Vanderham Phase I ESA, Ardent measured free product in the four wells which ranged between 0.25- to 0.75-inch thick. Groundwater was measured at a depth of approximately 25 feet bgs, and according to Golden West, flows in a southwesterly direction. The client has no information regarding ownership or access agreements with the responsi-

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ble parties. Based on the on-going monitoring activities by Golden West, it is our assumption that these wells are owned by the refinery. Based on our observations, groundwater beneath the site is impacted by petroleum hydrocarbons from the Golden West release. These assumptions were later verified by another consultant during an on-site groundwater investigation.

- There have been no indications in regulatory files that would suggest that USTs have been used at the site. The trucking facility is used to store commercial trucks and metal shipping containers, with minor truck repairing activities reported. During our site reconnaissance, many miscellaneous small containers of what appeared to be waste oil were noted throughout the northern portion of the site. No significant staining or evidence of a release was noted, however, a large portion of the site is covered with industrial valves, machinery, abandoned farm equipment, various trash and debris, commercial trucks and shipping containers, making visual assessment difficult. There has been no indication in regulatory files that would suggest that large quantities of petroleum hydrocarbons have been used, stored, or generated at the site. Therefore, based on the information obtained to-date, there is a low likelihood that the site has contributed to the local groundwater issues associated with Golden West.
- Based on the known free product beneath the site and the historical use of the site as a dairy, there is a possibility of vapor intrusion of either VOCs due to the petroleum hydrocarbons and/or methane gas due to the organic breakdown of manure and petroleum hydrocarbons associated with the Golden West release and former land use as a dairy. To further assess these possible conditions, Ardent complete a soil gas survey throughout the site. Laboratory results and field monitoring activities indicated no detectable concentrations of VOCs or elevated methane gas. Based on these findings, there is a low likelihood that a vapor intrusion issue or an explosion hazard is present at the site. These results were further verified by another consultant during a subsequent investigation. Due to the site being formerly used as a dairy, the SFSFD will require methane gas monitoring prior to redevelopment of the site. These activities are completed during the planning stages of development once construction plans are submitted to the City for review and approval. Based on the results of the preliminary investigations described above, there is a low likelihood that the SFSFD will require methane gas or VOC mitigation measures during construction of the planned buildings.
- One agricultural well and clarifier, used by the dairy, are also located on-site. Based on their uses (pumping groundwater and clarifying animal wastes and soap from discharged water), these features would not be considered an environmental concern to the site.
- In 2008, an asbestos and LBP survey was completed at the site by others and identified ACMs and LBP. The report did not quantify the materials. During the work described above, Ardent quantified these materials for further bidding and removal purposes. Transite pipelines were commonly used at historical agricultural properties for the transfer of water. Therefore, transite pipelines may be encountered during redevelopment activities.
- With the exception of Golden West, no other on- or off-site environmental concerns were noted.

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10.2 Conclusions

Ardent has performed this Phase I ESA in general conformance with the scope and limitations of the ASTM Practice E 1527-13, ASTM Practice E 2600-10, and the EPA Standards and Practices for AAI, Final Rule (40 CFR, Part 312), for the Norwalk Dairy located at 13101 and 13123 Rosecrans Avenue in the city of Santa Fe Springs, Los Angeles County, California. Any limitations or exceptions encountered during completion of this report are stated in Section 1.4. No evidence or indication of RECs, or conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the subject property has been revealed, with the exception of the impacted groundwater from the Golden West Refinery. Although not considered a REC in accordance with ASTM Standards, ACM and LBP have been identified at the site.

11 RECOMMENDATIONS

Based on the information obtained during this assessment, Ardent has the following recommendations.

- Golden West maintains four groundwater monitoring wells along the eastern property line. Three of the four groundwater monitoring wells are located on-site. An environmental attorney should be consulted to make sure the appropriate access agreements are in-place between Golden West and the site owners prior to additional groundwater monitoring or possible well relocation/abandonment activities.
- The agricultural well and clarifier should be abandoned by State-licensed contractors and in accordance with current regulatory guidelines.
- Following removal of the industrial valves, waste oil containers, machinery, abandoned farm vehicles, trash and debris, commercial trucks, and metal shipping containers from the site, soil sampling may be necessary in areas of staining if observed. All miscellaneous containers of waste oil and other chemicals should be consolidated and removed from the site by a licensed hazardous waste hauler.
- Prior to demolition of the on-site structures, the known ACMs should be removed and LBP should be stabilized. Work should be completed by a State-licensed asbestos abatement contractor.

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12 SELECTED REFERENCES

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13 QUALIFICATIONS STATEMENT AND SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

Mr. Paul Roberts states that the Phase I ESA was performed under his direct supervision, and that he has reviewed and approved the report, and the methods and procedures employed in the development of the report conform to the minimum industry standards. Mr. Roberts certifies that Ardent project personnel and subcontractors are properly licensed and/or certified to do the work described herein.

Pursuant to Paragraph 12.13 of the ASTM Standard E1527-13:

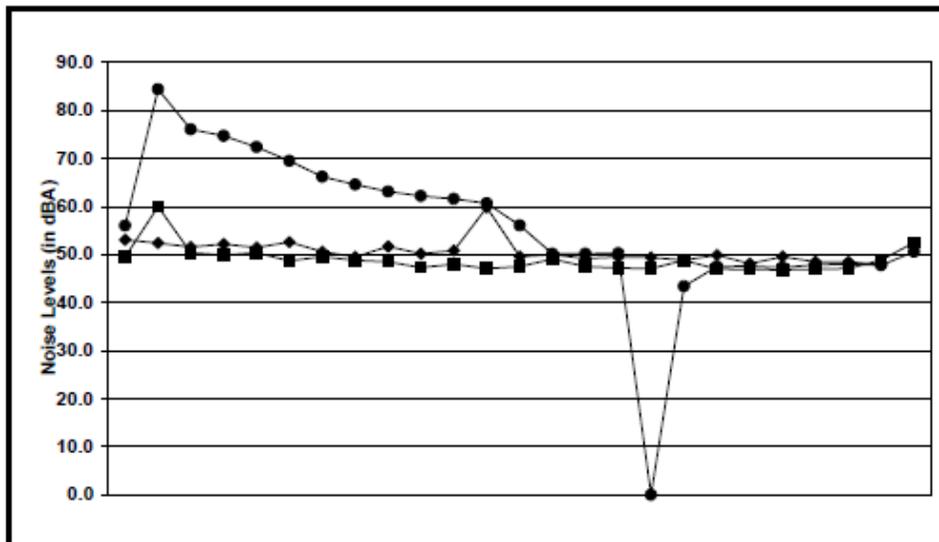
I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental professional* as defined in §312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Paul Roberts, P.G.
Principal Geologist

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Actual Noise Levels During Measurement				Noise Measurement Results in Leq%				
1-25	26-50	51-75	76-100	L%	1-25	26-50	51-75	76-100
57.9	53.1	49.5	56.0	L ₉₉	57.9	59.8	60.0	84.4
56.0	52.4	60.0	84.4		56.0	53.1	52.5	76.1
54.8	51.6	50.4	76.1	L ₉₀	54.8	52.6	50.4	74.7
53.6	52.2	49.9	74.7		53.6	52.4	50.4	72.4
52.8	51.5	50.4	72.4		52.8	52.2	49.9	69.5
52.1	52.6	48.7	69.5		52.6	51.7	49.6	66.2
51.8	50.6	49.6	66.2		52.2	51.6	49.5	64.6
51.4	49.5	48.8	64.6		52.2	51.5	49.1	63.1
51.1	51.7	48.5	63.1		52.1	50.8	48.9	62.2
50.6	50.2	47.3	62.2		51.8	50.6	48.8	61.6
50.5	50.8	48.0	61.6		51.7	50.2	48.8	60.7
50.3	59.8	47.1	60.7	L ₅₀	51.4	50.0	48.7	56.1
50.0	49.6	47.5	56.1		51.4	49.9	48.5	56.0
47.1	50.0	49.1	50.2		51.3	49.6	48.0	50.6
49.9	49.2	47.5	50.2		51.1	49.6	47.5	50.3
50.9	49.5	47.2	50.3		50.9	49.5	47.5	50.2
50.0	49.4	47.1	49.3		50.7	49.5	47.3	50.2
51.4	48.9	48.8	43.4		50.6	49.4	47.2	49.3
51.3	49.9	47.0	47.5		50.5	49.2	47.1	48.0
51.7	48.1	46.9	47.6	L ₂₅	50.4	48.9	47.1	47.9
52.6	49.6	46.8	47.3		50.3	48.6	47.1	47.8
50.7	48.5	47.0	47.9		50.0	48.5	47.0	47.6
52.2	48.5	47.1	48.0	L ₁₀	50.0	48.5	47.0	47.5
50.4	47.9	48.9	47.8		49.9	48.1	46.9	47.3
52.2	48.6	52.5	50.6		47.1	47.9	46.8	43.4

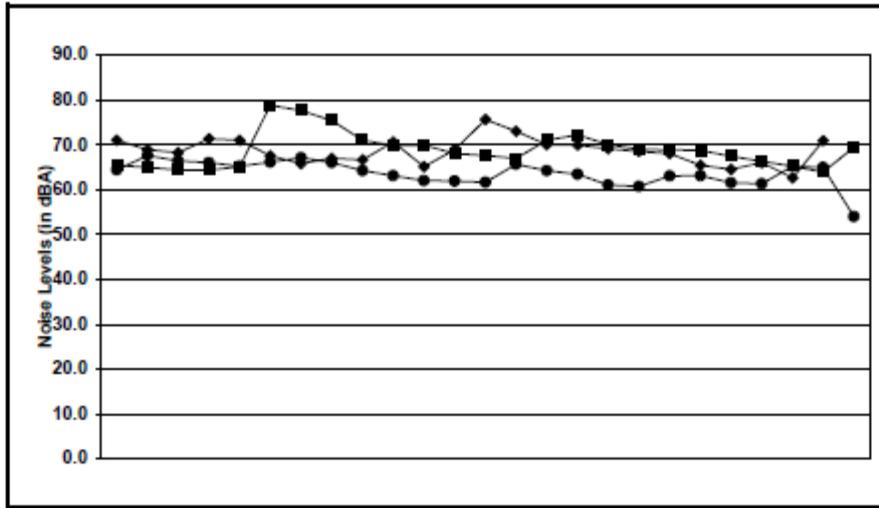


**Noise Measurements
 for Maryton Avenue**

Source: Blodgett/Baylosis Environmental Planning

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 (TPM 73880) • 13101 AND 13123 ROSECRANS AVE.

Actual Noise Levels During Measurement				Noise Measurement Results In Leq%				
1-25	26-50	51-75	76-100	L%	1-25	26-50	51-75	76-100
64.4	71.1	65.5	64.5	L ₉₉	76.7	75.7	78.9	67.7
67.2	69.0	65.0	67.7		74.6	73.1	77.7	67.2
65.2	68.3	64.5	66.5	L ₉₀	71.8	71.4	75.5	66.5
64.4	71.4	64.4	66.1		70.5	71.1	72.3	66.2
63.8	71.1	65.2	65.3		70.3	71.1	71.1	66.1
64.5	67.6	78.9	66.2		70.0	71.0	71.1	66.1
68.1	65.9	77.7	67.2		68.5	70.7	70.1	65.7
67.6	67.1	75.5	66.1		68.4	70.1	70.0	65.3
71.8	66.7	71.1	64.3		68.2	70.0	69.9	65.3
70.0	70.7	69.9	63.2		68.1	69.2	69.5	65.0
68.2	65.2	70.0	62.1		67.6	69.0	69.1	64.5
67.2	69.0	68.1	62.0	L ₅₀	67.2	69.0	69.0	64.3
76.7	75.7	67.7	61.7		67.2	68.6	68.8	64.3
70.5	73.1	67.0	65.7		67.0	68.3	68.1	63.5
68.5	70.1	71.1	64.3		66.6	68.1	67.7	63.2
66.6	70.0	72.3	63.5		66.3	67.6	67.5	63.2
66.3	69.2	70.1	61.1		66.0	67.1	67.0	63.1
65.0	68.6	69.1	60.8		65.2	66.7	66.4	62.1
62.5	68.1	69.0	63.1		65.0	66.1	65.5	62.0
63.5	65.5	68.8	63.2	L ₂₅	64.5	65.9	65.3	61.7
68.4	64.6	67.5	61.6		64.4	65.5	65.2	61.6
74.6	66.1	66.4	61.4		64.4	65.2	65.0	61.4
70.3	62.7	65.3	65.3	L ₁₀	63.8	64.7	64.5	61.1
67.0	71.0	64.0	65.0		63.5	64.6	64.4	60.8
66.0	64.7	69.5	54.1		62.5	62.7	64.0	54.1



**Noise Measurements
 for Rosecrans Avenue**

Source: Blodgett/Baylous Environmental Planning

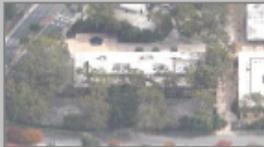
Traffic Impact Study

for

216,731-SF Industrial Warehouse “Bridge Point Santa Fe Springs” Project
NW Corner of Rosecrans Avenue & Maryton Avenue
in the
City of Santa Fe Springs, CA



PRESENTED TO:

	<p>City of Santa Fe Springs Public Works Department 11710 Telegraph Road Santa Fe Springs, CA 90670</p>	
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PRESENTED TO:

	<p>MINAGAR & ASSOCIATES, INC. Traffic Engineering – Transportation Planning – ITS Consultants 18862 MacArthur Blvd., Suite 435 Airport Business Center Irvine, CA 92612 Tel: (949)727-3399 • Fax: (949)553-0232 Web: www.minagarinc.com • E-mail: minagarf@minagarinc.com</p>	
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October 6, 2015

Traffic Impact Study for *Bridge Point Santa Fe Springs* Project
 Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
 City of Santa Fe Springs, CA



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Traffic Impact Study for *Bridge Point Santa Fe Springs* Project
 Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
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APPENDICES

- A Intersection Turning Movement Traffic Volume Counts
- B Intersection Capacity Utilization Level of Service (ICU LOS) Worksheets

Traffic Impact Study for *Bridge Point Santa Fe Springs* Project
Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
City of Santa Fe Springs, CA



Executive Summary

The project applicant for the *Bridge Point Santa Fe Springs Development* ("Project") is planning to develop a 216,731-square foot (building area) industrial warehousing facility on an existing vacant lot in the City of Santa Fe Springs. In order to be more conservative in the traffic analysis, for trip generation and potential traffic impact assessment purposes, the higher trip generation figure of 225,220 square foot of building area has been utilized.

The Project site is located on the north side of Rosecrans Avenue and west of Maryton Avenue, along a southerly city boundary with the neighboring City of Norwalk. The site is bounded by industrial use to the east, commercial retail to the west, residential to the south, and institutional (John Glen High School) to the north. The Project will generate both passenger vehicle and truck traffic during the weekday morning and afternoon peak hours, including 85 Passenger-Car-Equivalent (PCE) vehicle trips in the AM peak hour and 92 PCE vehicle trips in the PM peak hour. Only two of the six key intersections surrounding the project site—Rosecrans/Maryton and Rosecrans/Marquardt—are currently operating at satisfactory Levels of Service (i.e., LOS "D" or better during both peak hours) under the Existing Year 2015 conditions. The remaining four intersections are operating at deficient LOS "F" during the weekday AM/PM peak hours.

Year 2016 (without project) traffic conditions were developed by increasing the Existing Year 2015 traffic baseline volumes by a factor of one percent (1%) to account for any potential related projects not currently known in the area which could be completed and opened by the Year 2016, and which could generate additional traffic through the study intersections. With this assumed traffic growth, the analysis shows that each of the study area intersections would continue to operate at their current deficient Year 2015 Levels of Service during the AM and PM peak hours.

Year 2016 With Project conditions include the added traffic generation expected from the Project during the AM and PM peak hours. An analysis of this scenario revealed that the additional vehicle and truck trips generated by the Project would not cause any significant traffic impacts at any of the study intersections, except for the unsignalized stop at Maryton Avenue and Rosecrans Avenue. At this intersection, the added southbound left-turning traffic turning from Maryton Avenue onto Rosecrans Avenue will experience undue delays in attempting to cross the westbound travel lanes and central median area in order to proceed eastbound. Therefore, in order to mitigate this potential traffic impact, it is recommended that the applicant work with the City of Santa Fe Springs to implement the following off-site improvement measure:

- Intersection #1 - Rosecrans Avenue at Maryton Avenue.
Install a modified R33A(CA) sign facing southbound approaching traffic on Maryton Avenue. The sign shall depict No Left Turns during the 4-6 PM afternoon peak period from Monday to Friday.

Based on the remaining *less-than-significant* traffic impact results at the remaining five study locations with the development of the Project, it is determined that the Project is therefore feasible and can be developed as proposed in accordance with City of Santa Fe Springs' Transportation and Circulation Element, as well as the transportation and traffic requirements of the California Environmental Quality Act (CEQA). Supporting technical documents and worksheets for the traffic impact analyses are provided in the attached appendices.

Traffic Impact Study for *Bridge Point Santa Fe Springs* Project
Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
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1.0 INTRODUCTION

1.1 Project Summary and Purpose of Traffic Study

This report summarizes the findings and recommendation of a traffic impacts analysis performed by Minagar & Associates, Inc. for the 216,731 square foot (building area) Warehousing Project in the City of Santa Fe Springs. In order to be more conservative in the traffic analysis, for trip generation and potential traffic impact assessment purposes, the higher trip generation figure of 225,220 square foot of building area was utilized. The study serves to identify and evaluate the potential traffic impacts associated with the development of the proposed project, and determine if feasible mitigation measures are needed to reduce any of such impacts to less-than-significant levels in order to meet the requirements of the California Environmental Quality Act (CEQA). The proposed project is located at the northwest corner of Rosecrans Avenue and Maryton Avenue.

The analysis focuses on the potential traffic impacts to the surrounding roadway network near the Project site, and the identification of mitigation measures, as appropriate, at potentially impacted locations. Traffic conditions were analyzed for six (6) intersections in the City of Santa Fe Springs under Existing Year (2015) baseline conditions and for Opening Year (2016) conditions both without and with the Project. Five of the study intersections are currently signalized, while one intersection located at the southeast corner of the site is stop-controlled in the southbound direction.

Future conditions were estimated using industry standard traffic engineering methodologies and the guidelines, assumptions and criteria established by the City of Santa Fe Springs. Future traffic volumes and project trip distribution patterns were developed based on measurements and observations conducted by Minagar & Associates, Inc. at each of the study intersections, in addition to recent roadway machine counts collected by in 2014. The following sub-sections highlight the key findings of the traffic impact study.

1.2 Report and Study Guidelines

The traffic impact analysis was conducted in accordance with the goals, objectives, requirements, assumptions, policies and procedures of the following:

- City of Santa Fe Springs traffic impact study guidelines
- City of Santa Fe Springs General Plan and Circulation Element
- City of Santa Fe Springs Municipal Code; and the
- County of Los Angeles Congestion Management Program (CMP)

Traffic analysis and level of service (LOS) parameters, such as LOS and intersection performance metrics, significant impact thresholds, saturation flow rates for lane groups, and other factors were applied in accordance with the City's currently adopted methods for traffic studies.

1.3 Analysis Methodology

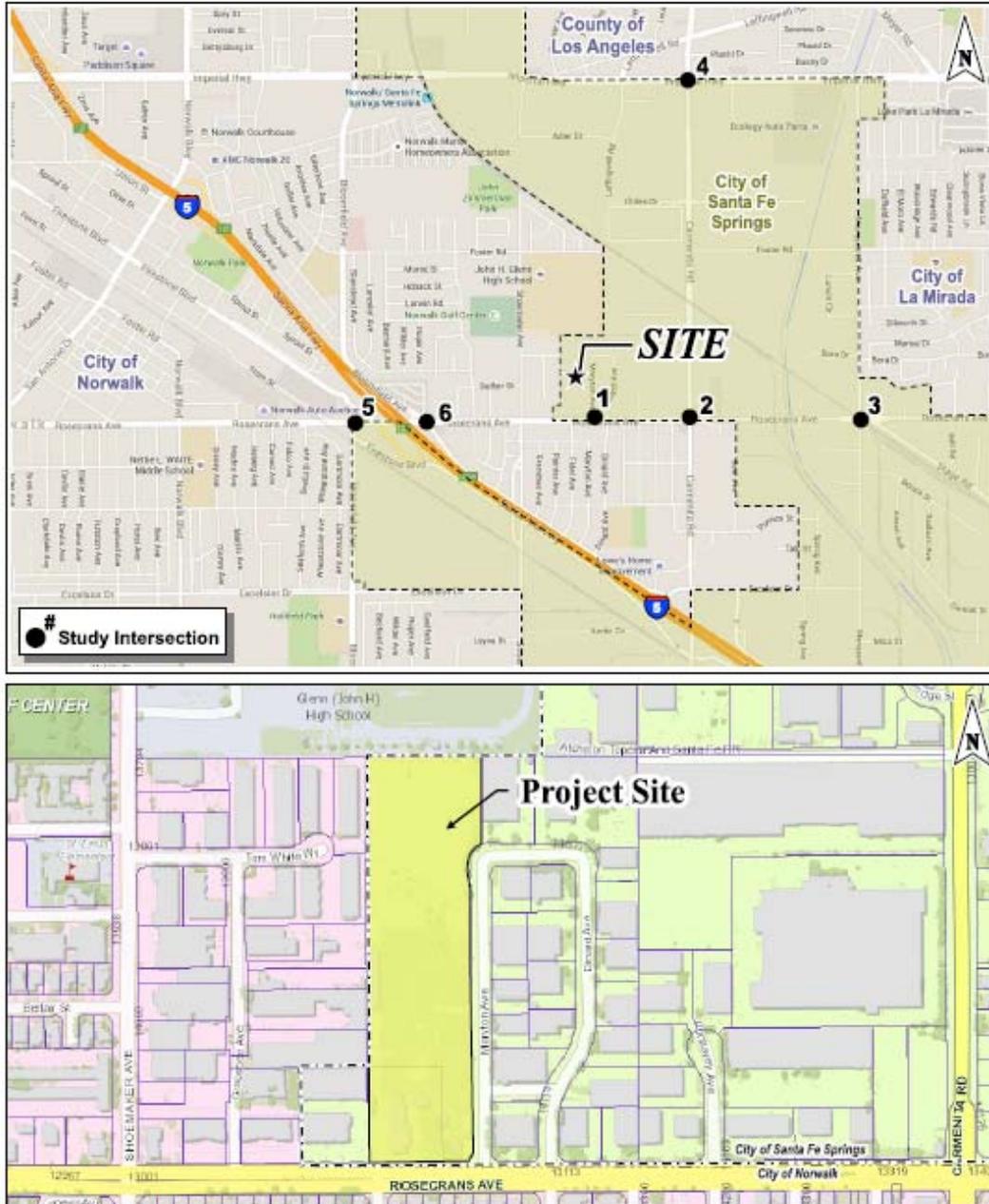
1.3.1 Study Area

Prior to conducting the traffic analysis Minagar & Associates, Inc. analyzed the general project vicinity with respect to the City of Santa Fe Springs' surrounding access and circulation system to define the study scope and area. *Figure 1-1* depicts the project site, project vicinity, and the location of the study intersections with respect to the local street system.

Traffic Impact Study for *Bridge Point Santa Fe Springs* Project
 Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
 City of Santa Fe Springs, CA



Figure 1-1. Vicinity Map, Project Location and Study Area Intersections



Source: Los Angeles County Office of the Assessor, online database search.

Traffic Impact Study for *Bridge Point Santa Fe Springs* Project
 Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
 City of Santa Fe Springs, CA



Table 1-1 lists the locations of the study intersections, and the AM/PM peak traffic hours identified from the traffic counts, which were subsequently used in the analysis.

Table 1-1. Study Intersections and Weekday Peak Traffic Hours

#	Location	Intersection Control	Peak Hour	
			AM Period	PM Period
1	Rosecrans Avenue at Maryton Avenue	Two-Way Stop Control	7:15 - 8:15am	5:00 - 6:00pm
2	Rosecrans Avenue at Carmenita Road	Signalized	7:15 - 8:15am	4:00 - 5:00pm
3	Rosecrans Avenue at Marquardt Road	Signalized	7:00 - 8:00am	5:00 - 6:00pm
4	Imperial Highway at Carmenita Road	Signalized	7:15 - 8:15am	4:15 - 5:15pm
5	Rosecrans Avenue at Bloomfield Avenue (west of I-5 undercrossing)	Signalized	7:00 - 8:00am	4:45 - 5:45pm
6	Rosecrans Avenue at Bloomfield Avenue/ Firestone Boulevard (east of I-5)	Signalized	7:15 - 8:15am	4:45 - 5:45pm

1.3.2 Traffic Data Collection

Minagar & Associates, Inc. field staff collected intersection turning movement traffic volume counts at each of the six study locations. Traffic counts were conducted during the morning and afternoon peak periods (7:00-9:00am, 4:00-6:00pm) during typical non-holiday weekdays in September 2015. Traffic count sheets are provided in *Appendix A*.

1.3.3 Analysis Scenarios

The following evaluation scenarios were considered in the traffic analysis:

- Existing Year 2015.
- Opening Year 2015, Without Project
- Opening Year 2016, With Project
- Opening Year + Project, With Mitigation (as necessary)

1.3.4 Level of Service (LOS) Criteria

The analysis methodology used in the TIS is based on the City of Santa Fe Springs' traffic study criteria, which is derived from the requirements and procedures established in the Los Angeles County Metropolitan Transportation Authority's Congestion Management Program (CMP). Intersection operating conditions are defined in terms of "Level of Service" (LOS), a grading scale used to represent the quality of traffic flow at an intersection. Level of Service ranges from LOS "A," representing free-flow conditions, to LOS "F," which indicates failing or severely congested traffic flow. Both the City of Santa Fe Springs and the County of Los Angeles CMP recognize LOS "D" as the minimum satisfactory Level of Service during peak hour conditions.

Traffic Impact Study for *Bridge Point Santa Fe Springs* Project
 Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
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Table 1-2
 City of Santa Fe Springs Intersection Level of Service (LOS) Criteria

Service	ICU	Description
A	< 0.61	At LOS A, there are no cycles that are fully loaded, and few are even close to loaded. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turning movements are easily made, and nearly all drivers find freedom of operation.
B	0.61 – 0.70	LOS B represents stable operation. An occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel somewhat restricted with platoons of vehicles.
C	0.71 – 0.80	In LOS C stable operation continues. Full signal cycle loading is still intermittent, but more frequent. Occasionally drivers may have to wait though more than one red signal indication, and back-ups may develop behind turning vehicles.
D	0.81 – 0.90	LOS D encompasses a zone of increasing restriction, approaching instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive back-ups.
E	0.91 – 1.00	LOS E represents the most vehicles that any particular intersection approach can accommodate. At capacity (V/C = 1.00) there may be long queues of vehicles waiting upstream of the intersection and delays may be great (up to several signal cycles).
F	> 1.00	LOS F represents jammed conditions. Back-ups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration; hence, volumes carried are not predictable, V/C values are highly variable, because full utilization of the approach may be prevented by outside conditions.

Source: "LOS for Arterial Intersections," L.A. County Congestion Management Program, 2010.

Traffic Impact Study for *Bridge Point Santa Fe Springs* Project
 Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
 City of Santa Fe Springs, CA



To determine the above peak-hour intersection LOS values for each intersection, the intersection capacity utilization (ICU) methodology was used. ICU methodology calculates the efficiency of an intersection to handle certain traffic conditions by summing the V/C of critical east/west and north/south conflicting movement combinations, which are determined from the volume and direction of entering traffic, and the capacity and configuration of the approach lanes serving this traffic. The resulting ICU is expressed in terms of the overall volume-to-capacity of the intersection, and adapted to a simplistic grading scale in terms of level of service (LOS), where LOS "A" represents free-flow activity and LOS "F" represents overcapacity operation.

For the unsignalized, two-way stop controlled intersection at Rosecrans Avenue and Maryton Avenue (southeast corner of the project site), the Highway Capacity Manual (HCM-2010) methods were used to evaluate peak hour vehicle delays, in seconds per vehicle (s/v). The HCM-2010 LOS criteria for unsignalized intersections are defined on a similar type of grading scale, as follows: LOS A ≤ 10 s/v; LOS B $>10-15$ s/v, LOS C $>15-25$ s/v, LOS D $>25-35$ s/v, LOS E $>35-50$ s/v, and LOS F >50 s/v.

1.3.5 Significant Impact Criteria

The impact significance criteria for intersections are based a sliding scale, as shown in *Table 1-3* below, which signifies the need for project mitigation where the anticipated project trips would trigger an increase in the V/C ratio of a study intersection by an amount equal to or greater than the values shown in the table.

Table 1-3. City of Santa Fe Springs Traffic Impact Significance Thresholds

Signalized Intersections		
Pre-Project V/C (Level of Service)		Project-Related increase in V/C
>0.70 to 0.80	(C)	+0.04 or more
>0.80 to 0.90	(D)	+0.02 or more
> 0.90	(E to F)	+0.01 or more
Unsignalized Intersections		
Pre-Project Level of Service		Project-Related increase in Average Total Delay
C or better		5 seconds/vehicle or more
D		4 seconds/vehicle or more
E or F		3 seconds/vehicle or more

Traffic Impact Study for *Bridge Point Santa Fe Springs* Project
Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
City of Santa Fe Springs, CA



2.0 EXISTING CONDITIONS

This section describes existing conditions regarding land use, existing roadway network, site access and parking, transit and pedestrian facilities, and the "Existing Year (2015)" intersection levels of service.

2.1 Local Setting and General Plan Context

As shown in *Figure 2-1*, the project site is located within an existing industrial zone (M1 - Light Manufacturing and M2 - Heavy Manufacturing) in the southerly part of the City. The surrounding properties are also industrial in nature within the City of Santa Fe Springs. There is an existing commercial retail strip to the west of the site in the neighboring City of Norwalk. On the south side of Rosecrans Avenue are several residential neighborhoods, also located within the City of Norwalk. The existing site is currently not in use, and therefore no trip credits were assigned to the proposed project trip generation (see Section 3.2.2).

2.2 Existing Intersection Conditions and LOS

Existing Year 2015 weekday peak hour intersection Levels of Service (LOS) were determined by developing a traffic model based on the prevailing lane configurations, intersection traffic signal and signage controls, and AM/PM peak hour traffic volumes observed and document from the field. The overall intersection volume-to-capacity (v/c) and LOS were determined using the ICU analysis module in Synchro-8.0, a traffic modeling, analysis and microsimulation computer program commonly used in regulatory traffic impact studies. Detailed LOS calculation worksheets are provided in *Appendix B*.

Figure 2-2 shows the locations of each study intersection with respect to the project site and study area, including the existing traffic controls and lane geometrics. Existing peak-hour traffic volumes (in Passenger Car Equivalent [PCE] volumes) at each intersection and approach are shown on *Figure 2-3*.

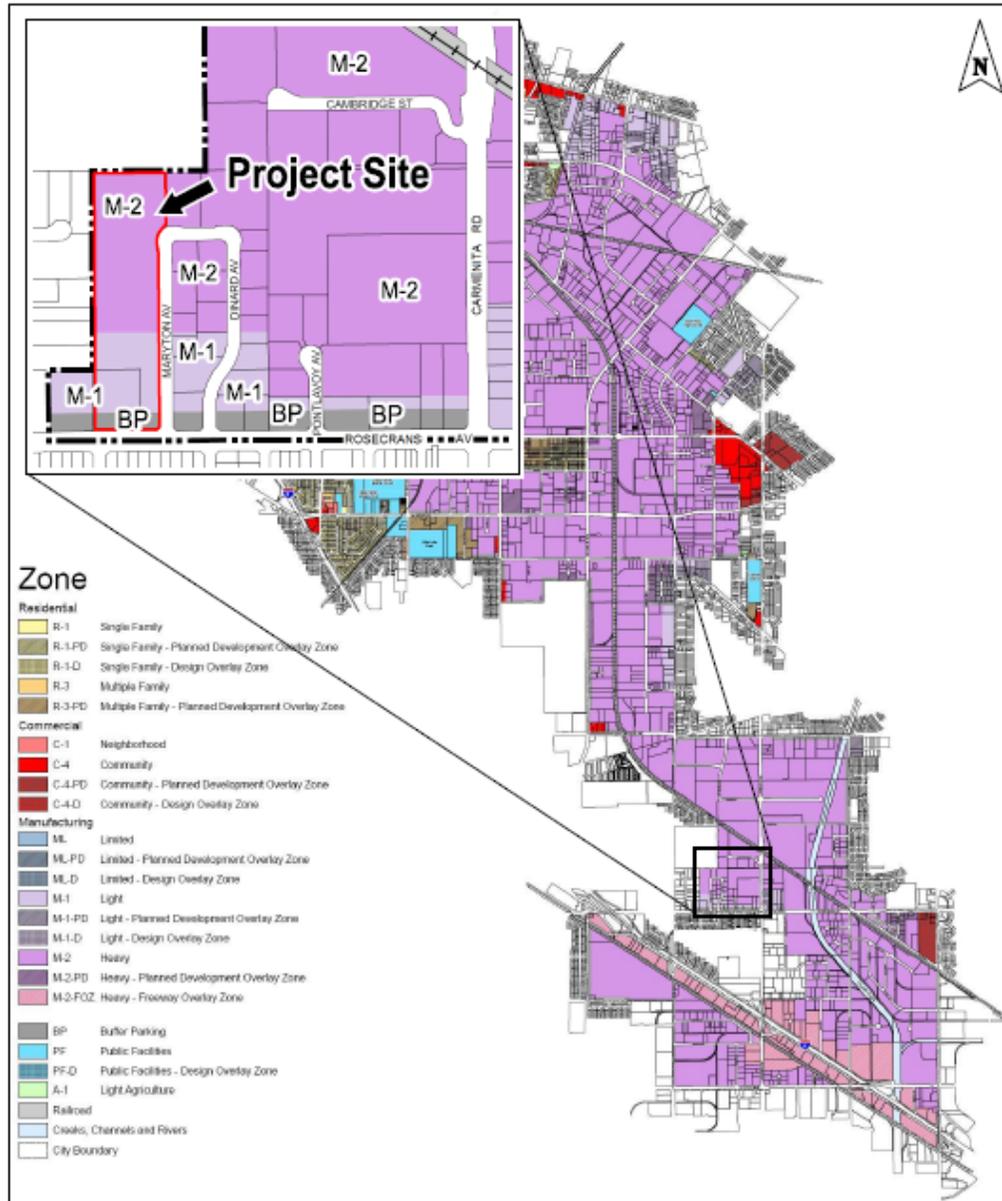
Table 2-1 below summarizes the results of the Existing Year 2015 intersection LOS analysis, completed using the methodologies described in Section 1.3.4. As shown *Table 2-1*, only the signalized intersection at Rosecrans Avenue and Marquardt Avenue, and the unsignalized intersection at Rosecrans Avenue and Maryton Avenue, are operating at acceptable Levels of Service (LOS "D" or better) under the existing Year 2015 conditions during the weekday AM and PM peak hours. The remaining study intersections are currently operating at deficient LOS "F" during the weekday peak hours.

It should be noted that Minagar & Associates, Inc. for the traffic data collection program, initially incorporated the following additional three (3) signalized intersections of Carmenita Rd. at Excelsior Dr./I-5 NB Ramps; Carmenita Rd. at Firestone Blvd. and Rosecrans Ave. at I-5 SB ramps on the traffic counts list. However due to the existing freeway construction activities, the collected data were very abnormal due to the on-going ramp closures and continuous detours plans. It was also revealed that the aforementioned activities will be going on until our subject project will enter the construction phase.

Traffic Impact Study for *Bridge Point Santa Fe Springs Project*
 Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
 City of Santa Fe Springs, CA



Figure 2-1. Existing Land Use



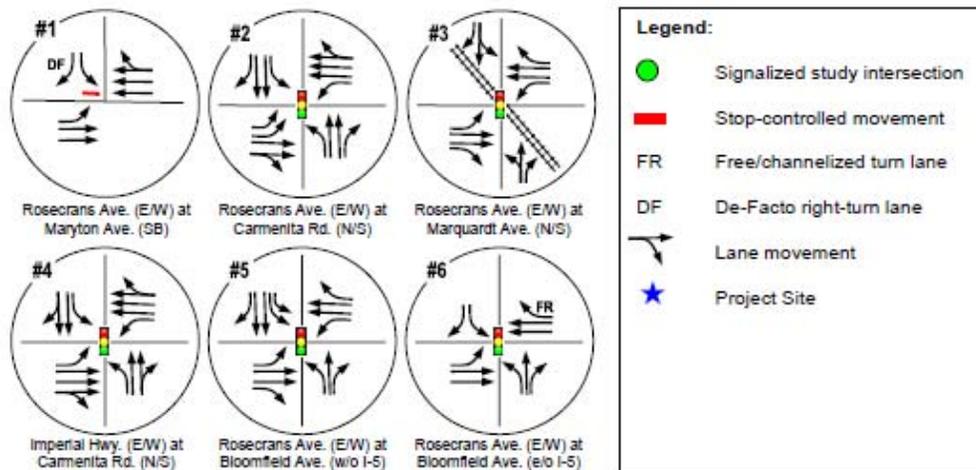
Source: City of Santa Fe Springs General Plan

CITY OF SANTA FE SPRINGS
 BRIDGE POINT SANTA FE SPRINGS • DEVELOPMENT PLAN APPROVAL (DPA 902, 903, AND 904) AND TENTATIVE PARCEL MAP
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 Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
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Figure 2-2. Existing Intersection Lane Configurations and Controls



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 (TPM 73880) • 13101 AND 13123 ROSECRANS AVE.

Traffic Impact Study for *Bridge Point Santa Fe Springs* Project
 Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
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Figure 2-3. Existing Year 2015 Traffic Volumes – Weekday AM/PM Peak Hours



Intersection	Northbound	Southbound	Eastbound	Westbound
1. Rosecrans Avenue & Maryton Avenue	8/22 74	4/9 2484/3206	40/12 2380/2929	
2. Rosecrans Avenue & Carmenita Road	304/381 1724/861 794/573	237/337 1292/1075 161/127	540/667 1537/1570 193/221	971/21 335/248 380/283
3. Rosecrans Avenue & Marquardt Avenue	107/128 80/88 83/85	78/168 1525/1454 19/2	67/124 843/1724 107/49	68/114 67/21 25/79
4. Imperial Highway & Carmenita Road	171/132 388 288	68/317 1549/1266 287/269	129/209 1475/1401 157/208	96/35 97/108 314/119
5. Rosecrans Avenue & Bloomfield Ave. (w/o I-5)	3/25/3 624/458 572	440/443 1708/1733 707/701	21/39 1771/1427 113/187	370/874 787/771 58/87
6. Rosecrans Avenue & Bloomfield Ave. (w/ I-5)	488/408 68/181	714/812 1674/1604	458/474 2453/2543	50/87 67/335 58/487

Legend:
 ● # Study Intersection
 ↑/↓/↔ AM / PM peak hour turning movement
 x/x traffic volume (in PCEs*)

* PCE: Passenger Car Equivalent

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 Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
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Table 2-1. Intersection Levels of Service - Existing Year (2015)

No.	Intersection	Peak Hour	Existing Year 2015	
			V/C or Delay ^[1]	LOS ^[2]
1	Rosecrans Avenue at Maryton Avenue	AM	14.1 s/v	B
		PM	0.6 s/v	A
2	Rosecrans Avenue at Carmenita Road	AM	1.251	F
		PM	1.264	F
3	Rosecrans Avenue at Marquardt Avenue	AM	0.723	C
		PM	0.781	C
4	Imperial Highway at Carmenita Road	AM	1.289	F
		PM	1.368	F
5	Rosecrans Avenue at Bloomfield Avenue (west of I-5 undercrossing)	AM	1.507	F
		PM	1.485	F
6	Rosecrans Avenue at Bloomfield Avenue/ I-5 NB Off-ramp (east of I-5 undercrossing)	AM	1.241	F
		PM	1.115	F

^[1] V/C: Intersection volume-to-capacity ratio, *Intersection Capacity Utilization* (ICU2003) method
 Control Delay measured in seconds per vehicle (s/v), *Highway Capacity Manual* (HCM) method
^[2] LOS: Level of Service.

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3.0 FUTURE CONDITIONS

Analysis of future traffic conditions compares the anticipated traffic levels at each study intersection before and after the Project is developed, in order to identify locations where the added Project traffic could potentially cause significant impacts on the surrounding street network.

3.1 Opening Year 2016 Baseline Conditions (Without Project)

The Opening Year 2016 baseline scenario represents local traffic conditions anticipated just prior to the opening of the Project. Based on the Project information provided by the City and developer, the warehouse facility would be constructed and occupied with approved building permits sometime late in the Year 2016.

3.1.1 Annual Background Traffic Growth

The Opening Year 2016 baseline traffic volumes were developed by first identifying an annual ambient traffic growth factor. Minagar & Associates, Inc. collected average daily traffic (ADT) volume machine counts on various street segments in the City of Santa Fe Springs in 2009 and 2014, and subsequently compiled a report summarizing the changes in traffic volumes and patterns over this five-year period. The results of the 2014 report showed that on average, citywide traffic volumes decreased by an average of -0.10% per year over the previous five years.

This historical traffic volume data would suggest that volumes for the Opening Year 2016 scenario should be adjusted downwards from the Existing Year 2015 conditions; however, it was conservatively decided that a negative adjustment factor would not be applied. Rather, for the purposes of this evaluation, the traffic analysis has assumed that the annual change in ambient traffic would be negligible between the existing conditions and the targeted project opening year.

3.1.2 Traffic From Other Nearby Related Projects

At this time, no known major development projects in the vicinity have been found or are expected to be built leading up to the Opening Year 2016 which would generate additional traffic not reflected by the Existing Year 2015 baseline traffic volume counts. In order to account for unforeseen potential cumulative developments in the area occurring within the City of Santa Fe Springs, the neighboring Cities of Norwalk and La Mirada, or unincorporated Los Angeles County, the existing traffic volume base was conservatively increased by +1.0% for the Opening Year 2016 baseline conditions.

3.1.3 Year 2016 Baseline Intersection LOS

Peak hour traffic operations at each study intersection were evaluated for the Opening Year 2016 baseline conditions (without the Project) based on the above traffic volume adjustments. As shown in *Table 3-1*, all of the study area intersections would continue to operate at their existing levels of service (LOS) during the weekday peak hours in the Year 2016.

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Table 3-1. Intersection Levels of Service - Opening Year (2016) Conditions Without Project

No.	Intersection	Peak Hour	Opening Year 2016 Baseline (Without Project)	
			V/C or Delay ^[1]	LOS ^[2]
1	Rosecrans Avenue at Maryton Avenue	AM	14.1 s/v	B
		PM	0.6 s/v	A
2	Rosecrans Avenue at Carmenita Road	AM	1.263	F
		PM	1.276	F
3	Rosecrans Avenue at Marquardt Avenue	AM	0.729	C
		PM	0.787	C
4	Imperial Highway at Carmenita Road	AM	1.300	F
		PM	1.381	F
5	Rosecrans Avenue at Bloomfield Avenue (west of I-5 undercrossing)	AM	1.521	F
		PM	1.499	F
6	Rosecrans Avenue at Bloomfield Avenue/ I-5 NB Off-ramp (east of I-5 undercrossing)	AM	1.252	F
		PM	1.125	F

^[1] V/C: Intersection volume-to-capacity ratio, *Intersection Capacity Utilization* (ICU2003) method
 Control Delay measured in seconds per vehicle (s/v), *Highway Capacity Manual* (HCM) method
^[2] LOS: Level of Service.

3.2 Opening Year 2016 Project Conditions, With Project

3.2.1 Project Description

The Bridge Point Santa Fe Springs Development Project consists of a proposed 216,731 square foot (building area) warehouse facility comprised of three detached buildings on the north side of Rosecrans Avenue, west of Maryton Avenue. Primary vehicular access will be provided from three, 30-40 foot wide driveways for each building along the west side of Maryton Avenue. A 26-foot wide driveway will also be provided on Rosecrans Avenue at the southwestern corner of the site, across from Fidel Avenue. Trucks entering from Maryton Avenue will pass through a 30-40 foot wide gate spaced at between 100' to 400' from the property line. In order to be more conservative in the traffic analysis, for trip generation and potential traffic impact assessment purposes, the higher trip generation figure of 225,220 square foot of building area has been utilized.

Between six and eight dock-high loading doors will be provided for each building for semi-trailers to back into the loading areas along the northerly wall of each building. As shown in the Site Plan, each building will also be provided with sufficient parking for passenger cars and delivery truck access in front of and behind the mechanical gates.

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CONCEPTUAL SITE PLAN



A SITE PLAN
SCALE: 1" = 40'

PROJECT INFORMATION - SCHEME 9		9/18/2015
30 FT CLEAR		
SITE AREA (NET)	0.08 AC	421,773 SF
SITE AREA - BLDG. 1		155,510 SF
SITE AREA - BLDG. 2		138,831 SF
SITE AREA - BLDG. 3		127,812 SF
BUILDING AREA		
TOTAL BUILDING AREA:		236,731 SF
TOTAL WAREHOUSE AREA:		236,731 SF
TOTAL OFFICE AREA:		0 SF
BUILDING 1		82,382 SF
WAREHOUSE	77,862 SF	
MEZZAURE	5,000 SF	
OFFICE	0 SF	
BUILDING 2		75,334 SF
WAREHOUSE	70,331 SF	
MEZZAURE	5,000 SF	
OFFICE	0 SF	
BUILDING 3		74,088 SF
WAREHOUSE	69,088 SF	
MEZZAURE	5,000 SF	
OFFICE	0 SF	
NET COVERAGE		51.99%
PARKING REQUIRED		
WAREHOUSE @ 1/1000 - 0 to 20%		
WAREHOUSE @ 1/750 - 20.00% to 300%		
OFFICE FALLS UNDER WAREHOUSE CALCULATION, AS LONG AS		
15% MAX. OF BLDG.		
BLDG-1 REQUIRED STALLS		123 STALLS
BLDG-1 PROVIDED STALLS - INCLUDING ADA		126 STALLS
COMPACT 25% MAX.		31 STALLS
STANDARD		95 STALLS
BLDG-1 ADA STALLS PROVIDED		5 STALLS
BLDG-2 REQUIRED STALLS		114 STALLS
BLDG-2 PROVIDED STALLS - INCLUDING ADA		114 STALLS
COMPACT 25% MAX.		28 STALLS
STANDARD		81 STALLS
BLDG-2 ADA STALLS PROVIDED		5 STALLS
BLDG-3 REQUIRED STALLS		112 STALLS
BLDG-3 PROVIDED STALLS - INCLUDING ADA		112 STALLS
COMPACT 25% MAX.		27 STALLS
STANDARD		80 STALLS
BLDG-3 ADA STALLS PROVIDED		5 STALLS

B PROJECT INFORMATION
SCALE: NONE

**HERDMAN
RIERSON
architecture
+ design, inc.**

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A15-2001
08.10.2015

NORTH

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3.2.2 Project Trip Generation

Trip generation estimates for the project were developed using trip rates contained in the Institute of Transportation Engineers' (ITE) Trip Generation, 9th Edition based on the Warehousing land use category, ITE Code 150. Based on our understanding of the proposed site use, project traffic was assumed to consist of a mix of passenger car and heavy vehicle (truck) traffic. Passenger Car Equivalent (PCE) adjustment factors were applied to all traffic volumes throughout the traffic study, including for 2-axle, 3-axle and 4+ axle trucks comprising the project's trip generation. The net trip generation for the project, adjusted for trucks, will result in a daily trip generation of 1,006 PCE trips, 85 AM peak hour PCE trips (67 in, 18 out) and 92 PM peak hour PCE trips (23 in, 69 out). *Table 3-2* summarizes of the anticipated PCE-based AM/PM peak hour project trip generation.

Table 3-2. Project Trip Generation

TRIP GENERATION RATES										
ITE Land Use	ITE Code	Rate Unit	Daily Rate	AM Peak Hour Rate			PM Peak Hour Rate			
				In	Out	Total	In	Out	Total	
Warehousing	150	KSF	3.56	0.237	0.063	0.300	0.080	0.240	0.320	
PROJECT TRIP GENERATION										
Project Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips				
			In	Out	Total	In	Out	Total		
Warehousing	225,220 KSF	802	54	14	68	18	54	72		
Passenger Vehicles	80.0%	642	43	11	54	15	44	58		
Trucks	20.0%	160	11	3	14	4	11	14		
PROJECT TRIPS - PASSENGER CAR EQUIVALENTS (PCE)										
Vehicle Type	Veh. Mix	Daily Vehs.	PCE Factor	Daily PCE	AM Peak Hour PCE			PM Peak Hour PCE		
					In	Out	Total	In	Out	Total
Passenger Vehicles	80.0%	642	1.0	642	43	11	54	15	44	59
Lg. 2-Axle Trucks	9.0%	72	2.0	144	9	3	12	3	10	13
3-Axle Trucks										
4+ Axle Trucks	11.0%	88	2.5	220	15	4	19	5	15	20
Total Truck PCE Trips				364	24	7	31	8	25	33
Total Project PCE Trips				1,006	67	18	85	23	69	92

[1] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 9th Edition (2012)* Land Use Category 150
 KSF: 1,000 square feet of gross leasable building area

3.2.3 Project Trip Distribution

Project trips were distributed to the study area roadway network using patterns developed from existing peak hour traffic volumes, the latest project site plan, existing truck routes, and a study of travel routes between regional connectors and the project site. Based on this method, it was estimated that 50 percent of site traffic will access the site west on Rosecrans Avenue via I-5, Bloomfield Avenue and Firestone Boulevard; the remaining 50 percent of site traffic will access the site east on Rosecrans Avenue via Carmenita Road, Marquardt Avenue/Stage Road, and Imperial Highway to the north. AM and PM peak hour project trip generation estimates were then assigned to the surrounding street network, as shown in *Figures 3-2 and 3-3*, below.

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 Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
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Figure 3-2. Project Trip Distribution – Weekday AM/PM Peak Hours



 1. Rosecrans Avenue & Maryton Avenue	 2. Rosecrans Avenue & Carmenita Road	 3. Rosecrans Avenue & Marquardt Avenue	<p>Legend:</p> <p>● # Study Intersection</p> <p>↔ In/Out Project Distribution Percentage X(x)</p>
 4. Imperial Highway & Carmenita Road	 5. Rosecrans Avenue & Bloomfield Ave. (w/o I-5)	 6. Rosecrans Avenue & Bloomfield Ave. (w I-5)	

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Figure 3-3. Project Trip Assignment, Weekday AM/PM Peak Hour – Passenger Car Equivalents (PCE)



Study Intersection	AM/PM Peak Hour Project Trips (in PCE)								
1. Rosecrans Avenue & Maryton Avenue	<table border="1"> <tr> <td>17/7</td> <td>0/0</td> </tr> <tr> <td>0/0</td> <td>50/6</td> </tr> </table>	17/7	0/0	0/0	50/6				
17/7	0/0								
0/0	50/6								
2. Rosecrans Avenue & Carmenita Road	<table border="1"> <tr> <td>0/0</td> <td>2/1</td> </tr> <tr> <td>0/0</td> <td>3/14</td> </tr> <tr> <td>0/0</td> <td>6/18</td> </tr> <tr> <td>0/0</td> <td>0/1</td> </tr> </table>	0/0	2/1	0/0	3/14	0/0	6/18	0/0	0/1
0/0	2/1								
0/0	3/14								
0/0	6/18								
0/0	0/1								
3. Rosecrans Avenue & Marquardt Avenue	<table border="1"> <tr> <td>0/0</td> <td>0/0</td> </tr> <tr> <td>0/0</td> <td>1/2</td> </tr> <tr> <td>0/0</td> <td>4/17</td> </tr> <tr> <td>0/0</td> <td>0/0</td> </tr> </table>	0/0	0/0	0/0	1/2	0/0	4/17	0/0	0/0
0/0	0/0								
0/0	1/2								
0/0	4/17								
0/0	0/0								
4. Imperial Highway & Carmenita Road	<table border="1"> <tr> <td>0/0</td> <td>0/0</td> </tr> <tr> <td>0/0</td> <td>5/2</td> </tr> <tr> <td>0/0</td> <td>0/0</td> </tr> <tr> <td>0/0</td> <td>0/0</td> </tr> </table>	0/0	0/0	0/0	5/2	0/0	0/0	0/0	0/0
0/0	0/0								
0/0	5/2								
0/0	0/0								
0/0	0/0								
5. Rosecrans Avenue & Bloomfield Ave. (w/o I-5)	<table border="1"> <tr> <td>0/0</td> <td>0/0</td> </tr> <tr> <td>0/0</td> <td>4/1</td> </tr> <tr> <td>0/0</td> <td>0/0</td> </tr> <tr> <td>0/0</td> <td>0/0</td> </tr> </table>	0/0	0/0	0/0	4/1	0/0	0/0	0/0	0/0
0/0	0/0								
0/0	4/1								
0/0	0/0								
0/0	0/0								
6. Rosecrans Avenue & Bloomfield Ave. (e/o I-5)	<table border="1"> <tr> <td>0/0</td> <td>0/0</td> </tr> <tr> <td>0/0</td> <td>7/2</td> </tr> <tr> <td>0/0</td> <td>0/0</td> </tr> <tr> <td>0/0</td> <td>17/5</td> </tr> </table>	0/0	0/0	0/0	7/2	0/0	0/0	0/0	17/5
0/0	0/0								
0/0	7/2								
0/0	0/0								
0/0	17/5								

Legend:
 # Study Intersection
 AM/PM Peak Hour Project Trips (in PCE)
 X/X

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3.2.4 Opening Year 2016, With Project Intersection LOS

The Opening Year 2016 Plus Project analysis scenario represents the added AM and PM peak hour project traffic to the future roadway and traffic conditions. As shown in Table 3-3 below, based on the level of service analysis, all six study intersections will continue to operate at their pre-project LOS in the AM and PM peak hours during the typical weekdays. The only exception would be at the intersection of Rosecrans Avenue and Maryton Avenue, which would degrade from LOS B to LOS C during the AM peak hour, and from LOS A to LOS F in the PM peak hour. The remaining five signalized intersections will continue to operate under LOS F during the AM and PM weekday peak hours.

Table 3-3. Intersection Levels of Service - Opening Year (2016) Conditions With Project

No.	Intersection	Peak Hour	Opening Year 2016 With Project	
			V/C or Delay ^[1]	LOS ^[2]
1	Rosecrans Avenue at Maryton Avenue	AM PM	24.0 s/v 146.9 s/v	C F
2	Rosecrans Avenue at Carmenita Road	AM PM	1.264 1.281	F F
3	Rosecrans Avenue at Marquardt Avenue	AM PM	0.731 0.792	C C
4	Imperial Highway at Carmenita Road	AM PM	1.306 1.385	F F
5	Rosecrans Avenue at Bloomfield Avenue (west of I-5 undercrossing)	AM PM	1.525 1.503	F F
6	Rosecrans Avenue at Bloomfield Avenue/ I-5 NB Off-ramp (east of I-5 undercrossing)	AM PM	1.258 1.131	F F

^[1] V/C: Intersection volume-to-capacity ratio, *Intersection Capacity Utilization* (ICU2003) method
 Control Delay measured in seconds per vehicle (s/v), *Highway Capacity Manual* (HCM) method
^[2] LOS: Level of Service.

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4.0 TRAFFIC IMPACT ANALYSIS AND PROJECT MITIGATION

A comparison of "Pre-Project" and "With Project" traffic conditions was performed to assess the significance level of potential traffic impacts due to the project on the surrounding study area intersections. Using the significance thresholds established by the City of Santa Fe Springs, the Opening Year 2016 volume-to-capacity ratios and LOS were compared without and with the project conditions. The findings of this evaluation revealed that although most of the study intersections would continue to operate at deficient levels of service (LOS "E" or worse) during the peak hours of the day, none of the intersections would be significantly impacted by the addition of project trips from the Bridge Development Warehouse site.

Table 4-1 summarizes the above comparative analyses to illustrate the changes in ICU (Control Delay for the unsignalized intersection) and LOS at each study location, indicating that potential significant traffic impacts are not expected at any of the signalized study intersections. At a minimum, the relative increase in the peak hour intersection V/C ratio due to the anticipated addition of project trips was +0.001. At most, the greatest relative change in peak hour intersection V/C ratio was +0.006 (0.6%) at several intersections. The only anticipated significant traffic impact would occur during the PM peak hour at the intersection of Rosecrans Avenue and Maryton Avenue, in which the average vehicle delay would increase to 147 seconds due to southbound vehicles experiencing a significant lack of gaps to turn left and merge with eastbound traffic on Rosecrans Avenue. In order to address this anticipated project-related traffic impact, it is recommended that the applicant work with the City to implement the following off-site improvement:

- Intersection #1 - Rosecrans Avenue at Maryton Avenue.
Install a modified R33A(CA) sign facing southbound approaching traffic on Maryton Avenue. The sign shall depict No Left Turns during the 4-6 PM afternoon peak period from Monday to Friday.

5.0 CONGESTION MANAGEMENT PROGRAM (CMP) IMPACT SIGNIFICANCE

The County of Los Angeles is included in the Los Angeles County Congestion Management Program (CMP), which is prepared and maintained by the Los Angeles County Metropolitan Transportation Authority (Metro). The requirements of the CMP became effective with voter approval of Proposition 111. The purpose of the CMP is to link land use, transportation, and air quality decisions, to develop a partnership among transportation decision-makers in devising appropriate transportation solutions that include all modes of travel, and to propose transportation projects that are eligible to compete for State gas tax funds. The CMP also serves to consistently track trends during peak traffic hours at major intersections in the county and identify areas in great need of improvements where traffic congestion is worsening. The CMP requires that intersections which are designated as being officially monitored by the Program be analyzed under the County's CMP criteria if the proposed project is expected to generate 50 or more peak hour trips on a CMP-designated facility.

The CMP requires that intersections which are designated as under official monitoring by the Program be analyzed using CMP criteria, should the proposed project generate 50 or more peak hour trips on the subject intersection. The intersection of Imperial Highway at Carmenita Road is a CMP-monitored intersection. Since the Project will generate less than 50 peak hour intersection trips at this CMP location, a separate CMP analysis is therefore not required for this traffic impact study.

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Traffic Impact Study for *Bridge Development Project*
 216,731-sf Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
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Table 4-1. Comparison of Intersection LOS and Project Impact Significance

No.	Intersection	Peak Hour	Opening Year 2016					Change	Significant Impact?
			Without Project		With Project				
			V/C or Delay ^[1]	LOS ^[2]	V/C or Delay	LOS			
1.	Rosecrans Avenue at Maryton Avenue	AM	14.1 s/v	B	24.0 s/v	C	+9.9 s/v	No	
		PM	0.6 s/v	A	146.9 s/v	F	+146.3 s/v	Yes	
			With Mitigation:		8.0 s/v	A	-6.1 s/v	No	
2.	Rosecrans Avenue at Carmenita Road	AM	1.263	F	1.264	F	+0.001	No	
		PM	1.276	F	1.281	F	+0.005	No	
3.	Rosecrans Avenue at Marquardt Avenue	AM	0.729	C	0.731	C	+0.002	No	
		PM	0.787	C	0.792	C	+0.005	No	
4.	Imperial Highway at Carmenita Road	AM	1.300	F	1.306	F	+0.006	No	
		PM	1.381	F	1.385	F	+0.006	No	
5.	Rosecrans Avenue at Bloomfield Avenue (west of I-5 undercrossing)	AM	1.521	F	1.525	F	+0.004	No	
		PM	1.499	F	1.503	F	+0.004	No	
6.	Rosecrans Avenue at Bloomfield Avenue/ I-5 NB Off-ramp (east of I-5 undercrossing)	AM	1.252	F	1.258	F	+0.006	No	
		PM	1.125	F	1.131	F	+0.006	No	

^[1] V/C: Intersection volume-to-capacity ratio, based on Intersection Capacity Utilization (ICU2003) method
^[2] LOS: Level of Service

Traffic Impact Study for *Bridge Development Project*
216,731-sf Industrial Warehouse - NW Corner of Rosecrans Avenue and Maryton Avenue
City of Santa Fe Springs, CA



6.0 CONCLUSION

- The project owner, *Bridge Development Partners, LLC*, has proposed to build a 216,731-square foot (building area) warehousing project at the southeast corner of Rosecrans Avenue and Maryton Avenue in the City of Santa Fe Springs. In order to be more conservative in the traffic analysis, for trip generation and potential traffic impact assessment purposes, the higher trip generation figure of 225,220 square foot of building area has been utilized. The existing parcels comprising the proposed project site are currently vacant.
- The project site located within existing M-1 and M-2 (Light/Heavy Industrial) zones in the southern part of the City near the City of Norwalk limits.
- The project is estimated to generate 1,006 daily PCE trips, with 85 AM Peak Hour PCE trips (67 inbound, 18 outbound), and 92 PM Peak Hour PCE trips (23 inbound, 69 outbound).
- The traffic impact analysis evaluated typical weekday AM and PM peak hour intersections operations at five (5) signalized study intersections and one (1) unsignalized/two-way stop controlled study intersection in the vicinity of the proposed site.
- The results of the Existing Conditions analysis show that four of these six key study intersections are operating at deficient levels of service LOS "F" during the weekday morning and afternoon peak hours. The unsignalized intersection at Rosecrans/Maryton and the signalized intersection at Rosecrans/Marquardt are current operating at acceptable levels of service during the AM and PM peak hours.
- The anticipated Project Completion Year is 2016. While no related/nearby cumulative developments in the area have been documented by the City of Santa Fe Springs to be completed within this time frame, Minagar & Associates, Inc. applied a +1.0% annual growth factor to account for any potential unforeseen development-related traffic generation occurring before the arrival of the target year.
- Analysis of the Project Opening Year 2016 Without and With Project. Evaluation of this scenario and the anticipated traffic conditions revealed that while the intersection volume-to-capacity ratios and delays are expected to increase slightly, none of the five signalized intersections would be significantly impacted by project traffic during the AM and PM peak hours. The only anticipated significant traffic impact would occur during the PM peak hour at the intersection of Rosecrans Avenue and Maryton Avenue, in which southbound vehicles would experience significant delays due to the absence of adequate gaps to turn left and merge with eastbound traffic on Rosecrans Avenue.
In order to mitigate this anticipated project-related traffic impact, it is recommended that the applicant work with the City to install a modified R33A(CA) sign in the existing median facing southbound traffic on Maryton Avenue. The sign shall depict No Left Turns during the 4-6 PM afternoon peak period from Monday to Friday, and will result in the diversion of southbound left-turning trips to the right (west) during the critical afternoon hours of traffic congestion at this intersection.
- Since the remaining study intersections would not be impacted by the Project during the weekday AM and/or PM peak hours, it is therefore concluded that the proposed project satisfies the traffic/transportation impact requirements of the California Environmental Quality Act (CEQA) and can be accommodated within the Circulation Element of the City of Santa Fe Springs' General Plan.

INTRODUCTION TO UTILITY SCREENING TABLES

The following worksheets are used to evaluate the potential impacts of a project.

Table 1 Definition of Project

This Table is used to establish the proposed development parameters that are used in the calculation of utilities use. The independent variable to be entered is identified by shading. For residential development, the number of housing units should be entered in the shaded area. For non-residential development, the total floor area of development should be entered in the shaded area.

Tables 2 Summary of Project Impacts

consumption/generation rates. This table indicates the development's projected electrical consumption, natural gas consumption, water consumption, effluent generation, and solid waste generation. No modifications should be made to this area of the worksheet.

Tables 3 through 7 Calculation of Project Impacts

Table 3 through 7 indicate the results of the analysis.

Table 3 Electrical Consumption - This table calculates the projected electrical consumption for new development. Default generation rates provided in the shaded areas may be changed.

Table 4 Natural Gas Consumption - This table calculates the projected natural gas usage for new development. Default generation rates provided in the shaded areas may be changed.

Table 5 Water Consumption - This table calculates the projected water consumption rates for new development. Default generation rates provided in the shaded areas may be changed.

Table 6 Sewage Generation - This table calculates the projected effluent generation rates for new development. Default generation rates provided in the shaded areas may be changed.

Table 7 Solid Waste Generation - This table calculates the projected waste generation for new development. Default generation rates provided in the shaded areas may be changed.

Table 1: Bridge Point Development

Definition of Project Parameters - Enter independent variable (no. of units or floor area) in the shaded area. The independent variable to be entered is the number of units (for residential development) or the gross floor area (for non-residential development).

Land Use	Variable	Factor
Residential Uses		
	Variable	Total Units
Single-Family Residential	No. of Units	0
Medium Density Residential	No. of Units	0
Multiple-Family Residential	No. of Units	0
Mobile Home Park	No. of Units	0
Office Uses		
	Variable	Total Floor Area
Office	Square Feet	0
Medical Office Building	Square Feet	0
Office Park	Square Feet	0
Bank/Financial Services	Square Feet	0
Commercial Uses		
	Variable	Total Floor Area
Specialty Retail Commercial	Square Feet	0
Convenience Store	Square Feet	0
Movie Theater	Square Feet	0
Shopping Center	Square Feet	0
Sit-Down Restaurant	Square Feet	0
Fast-Food Restaurant	Square Feet	0
Manufacturing Uses		
	Variable	Total Floor Area
Industrial Park	Square Feet	0
Manufacturing	Square Feet	0
General Light Industry	Square Feet	0
Warehouse	Square Feet	216,731
Public/Institutional		
	Variable	Total Floor Area
Public/Institutional	Square Feet	0
Open Space	Square Feet	0

Table 2.: Projected Utility Consumption/Generation

Summary of Project Impacts - Results of analysis identified below. No modifications should be to this table.

Utilities Consumption and Generation	Factor	Rates
Electrical Consumption	kWh/day	2,850
Natural Gas Consumption	cubic feet/day	2,791
Water Consumption	gallons/day	30,342
Sewage Generation	gallons/day	23,840
Solid Waste Generation	pounds/day	1,300

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Table 3: Electrical Consumption			
Project Component	Units of Measure	Consumption Factors	Projected Consumption
Residential Uses			
	No. of Units	kWh/Unit/Year	kWh/Unit/Day
Single-Family Residential	0	7,554.00	0.0
Medium Density Residential	0	4,644.00	0.0
Multiple-Family Residential	0	4,644.00	0.0
Mobile Home Park	0	4,644.00	0.0
Office Uses			
	Square Feet	kWh/Sq. Ft./Year	kWh/Sq. Ft./Day
Office	0	20.80	0.0
Medical Office Building	0	14.20	0.0
Office Park	0	20.80	0.0
Bank/Financial Services	0	20.80	0.0
Commercial Uses			
	Square Feet	kWh/Sq. Ft./Year	kWh/Sq. Ft./Day
Specialty Retail Commercial	0	16.00	0.0
Convenience Store	0	16.00	0.0
Movie Theater	0	16.00	0.0
Shopping Center	0	35.90	0
Sit-Down Restaurant	0	49.10	0.0
Fast-Food Restaurant	0	49.10	0.0
Manufacturing Uses			
	Square Feet	kWh/Sq. Ft./Year	kWh/Sq. Ft./Day
Industrial Park	0	4.80	0.0
Manufacturing	0	4.80	0.0
General Light Industry	0	4.80	0.0
Warehouse	216,731	4.80	2,850.2
Public/Institutional			
	Square Feet	kWh/Sq. Ft./Year	kWh/Sq. Ft./Day
Public/Institutional	0	4.80	0.0
Open Space	0	0.00	0.0
Total Daily Electrical Consumption (kWh/day)			2,850.2
Source: Common Forecasting Methodology VII Demand Forms, 1989			
Table 4: Natural Gas Consumption			
Project Component	Units of Measure	Consumption Factors	Projected Consumption
Residential Uses			
	No. of Units	Cu. Ft./Mo./Unit	Cu. Ft./Day
Single-Family Residential	0	6,665.00	0.0
Medium Density Residential	0	4,011.50	0.0
Multiple-Family Residential	0	4,011.50	0.0
Mobile Home Park	0	4,011.50	0.0
Office Uses			
	Square Feet	Cu. Ft./Mo./Sq. Ft.	Cu. Ft./Day
Office	0	2.00	0.0
Medical Office Building	0	2.00	0.0
Office Park	0	2.00	0.0
Bank/Financial Services	0	2.00	0.0
Commercial Uses			
	Square Feet	Cu. Ft./Mo./Sq. Ft.	Cu. Ft./Day
Specialty Retail Commercial	0	2.90	0.0
Convenience Store	0	2.90	0.0
Movie Theater	0	2.90	0.0
Shopping Center	0	2.90	0.0
Sit-Down Restaurant	0	2.90	0.0
Fast-Food Restaurant	0	2.90	0.0
Manufacturing Uses			
	Square Feet	Cu. Ft./Mo./Sq. Ft.	Cu. Ft./Day
Industrial Park	0	4.70	0.0
Manufacturing	0	4.70	0.0
General Light Industry	0	4.70	0.0
Warehouse	216,731	4.70	2,790.8
Public/Institutional Use			
	Square Feet	Cu. Ft./Mo./Sq. Ft.	Cu. Ft./Day
Public/Institutional	0	2.90	0.0
Open Space	0	2.90	0.0
Total Daily Natural Gas Consumption (cubic feet/day)			2,790.8
Source: South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993			

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Table 5: Water Consumption			
Project Component	Units of Measure	Consumption Factors	Projected Consumption
Residential Uses			
	No. of Units	Gals./Day/Unit	Gals./Day
Single-Family Residential	0	250.00	0.0
Medium Density Residential	0	250.00	0.0
Multiple-Family Residential	0	250.00	0.0
Mobile Home Park	0	250.00	0.0
Office Uses			
	Square Feet	Gals./Day/Sq. Ft.	Gals./Day
Office	0	0.14	0.0
Medical Office Building	0	0.14	0.0
Office Park	0	0.14	0.0
Bank/Financial Services	0	0.14	0.0
Commercial Uses			
	Square Feet	Gals./Day/Sq. Ft.	Gals./Day
Specialty Retail Commercial	0	0.10	0.0
Convenience Store	0	0.10	0.0
Movie Theater	0	0.10	0.0
Shopping Center	0	0.10	0.0
Sit-Down Restaurant	0	0.11	0.0
Fast-Food Restaurant	0	0.11	0.0
Manufacturing Uses			
	Square Feet	Gals./Day/Sq. Ft.	Gals./Day
Industrial Park	0	0.14	0.0
Manufacturing	0	0.14	0.0
General Light Industry	0	0.14	0.0
Warehouse	216,731	0.14	30,342.3
Public/Institutional Use			
	Square Feet	Gals./Day/Sq. Ft.	Gals./Day
Public/Institutional	0	0.10	0.0
Open Space	0	0.10	0.0
Total Daily Water Consumption (gallons/day)			30,342.3
Source: Derived from Orange County Sanitation District rates.			
Table 6: Sewage Generation			
Project Component	Units of Measure	Consumption Factors	Projected Consumption
Residential Uses			
	No. of Units	Gals./Day/Unit	Gals./Day
Single-Family Residential	0	180.00	0.0
Medium Density Residential	0	180.00	0.0
Multiple-Family Residential	0	180.00	0.0
Mobile Home Park	0	180.00	0.0
Office Uses			
	Square Feet	Gals./Day/Sq. Ft.	Gals./Day
Office	0	0.11	0.0
Medical Office Building	0	0.11	0.0
Office Park	0	0.11	0.0
Bank/Financial Services	0	0.11	0.0
Commercial Uses			
	Square Feet	Gals./Day/Sq. Ft.	Gals./Day
Specialty Retail Commercial	0	0.08	0.0
Convenience Store	0	0.08	0.0
Movie Theater	0	0.08	0.0
Shopping Center	0	0.08	0.0
Sit-Down Restaurant	0	0.08	0.0
Fast-Food Restaurant	0	0.08	0.0
Manufacturing Uses			
	Square Feet	Gals./Day/Sq. Ft.	Gals./Day
Industrial Park	0	0.11	0.0
Manufacturing	0	0.11	0.0
General Light Industry	0	0.11	0.0
Warehouse	216,731	0.11	23,840.4
Public/Institutional Use			
	Square Feet	Gals./Day/Sq. Ft.	Gals./Day
Public/Institutional	0	0.08	0.0
Open Space	0	0.08	0.0
Total Daily Sewage Generation (gallons/day)			23,840
Source: Orange County Sanitation Districts, 1994			

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Table 7: Solid Waste Generation			
Project Component	Units of Measure	Generation Factors	Projected Generation
Residential Uses			
	No. of Units	Lbs./Day/Unit	Lbs./Day
Single-Family Residential	0	4.00	0.0
Medium Density Residential	0	4.00	0.0
Multiple-Family Residential	0	4.00	0.0
Mobile Home Park	0	4.00	0.0
Office Uses			
	Square Feet	Lbs./Day/1,000 Sq. Ft.	Lbs./Day
Office	0	6.00	0.0
Medical Office Building	0	6.00	0.0
Office Park	0	6.00	0.0
Bank/Financial Services	0	6.00	0.0
Commercial Uses			
	Square Feet	Lbs./Day/1,000 Sq. Ft.	Lbs./Day
Specialty Retail Commercial	0	42.00	0.0
Convenience Store	0	42.00	0.0
Movie Theater	0	6.00	0.0
Shopping Center	0	6.00	0.0
Sit-Down Restaurant	0	6.00	0.0
Fast-Food Restaurant	0	42.00	0.0
Manufacturing Uses			
	Square Feet	Lbs./Day/1,000 Sq. Ft.	Lbs./Day
Industrial Park	0	6.00	0.0
Manufacturing	0	6.00	0.0
General Light Industry	0	6.00	0.0
Warehouse	216,731	6.00	1,300.4
Public/Institutional Use			
	Square Feet	Lbs./Day/1,000 Sq. Ft.	Lbs./Day
Public/Institutional	0	4.00	0.0
Open Space	0	3.00	0.0
Total Daily Solid Waste Generation			1,300
Source: City of Los Angeles Average Solid Waste Generation Rates, April 1981			