



300 Studebaker Road Industrial Park Project

Initial Study – Mitigated Negative Declaration

prepared by

City of Long Beach

Planning Bureau, Department of Development Services
411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802
Contact: Maryanne Cronin, Planner

prepared with the assistance of

Rincon Consultants, Inc.

250 East 1st Street, Suite 1400
Los Angeles, California 90012

September 2019



RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers
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Initial Study

1. Project Title

300 Studebaker Road Industrial Park Project

2. Lead Agency Name and Address

City of Long Beach
411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802

3. Contact Person and Phone Number

Maryanne Cronin, Planner
(562) 570-5683

4. Project Sponsor's Name and Address

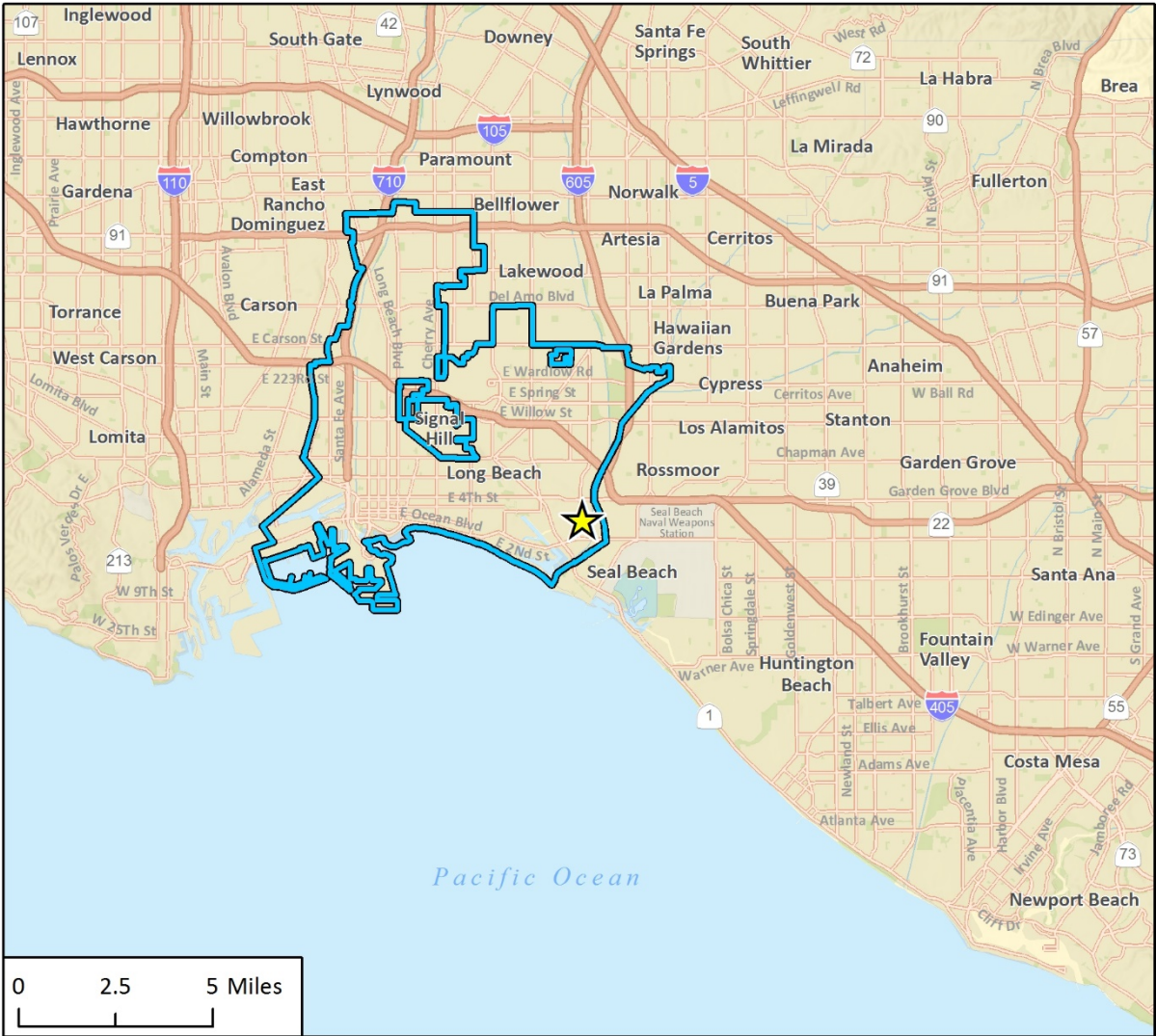
PDC LA/SD LPIV, LLC
20411 Southwest Birch Street, Suite 200
Newport Beach, California 92660

5. Project Location

The project site is located at 300 Studebaker Road in Long Beach, approximately 0.2 mile west of the San Gabriel River and 1.7 miles northeast of Alamitos Bay. The project site includes five parcels¹, which are identified as Assessor Parcel Numbers (APNs) 7237-017-007, 7237-017-008, 7237-017-009, 7237-018-001, and 7237-019-008. The project site encompasses 6.69 acres of land situated east of Studebaker Road ("eastern project area") and 1.81 acres at the northwest and southwest corners of Studebaker Road and Loynes Drive ("western project area"), totaling a project area of 8.5 acres. The western project area is partially situated within an appealable area of the Coastal Zone. The project site is bordered by the Cerritos Channel on the west; industrial/manufacturing properties to the north, south, and east; and the Los Cerritos Wetlands to the southwest. The nearest residential uses to the project site are single-family residences located across the Cerritos Channel, approximately 400 feet west of the western open space parcels, 630 feet from the eastern project area. Figure 1, Regional Location, shows the location of the project site in the regional context and Figure 2, Project Location, shows the site in its local context.

¹ For the purposes of the IS/MND the parcels described are assessor parcels for taxation purposes, however, as shown in the ALTA/NPSS Title the project site contains 2 legal parcels.

Figure 1 Regional Location



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- ★ Project Location
- City of Long Beach Boundary

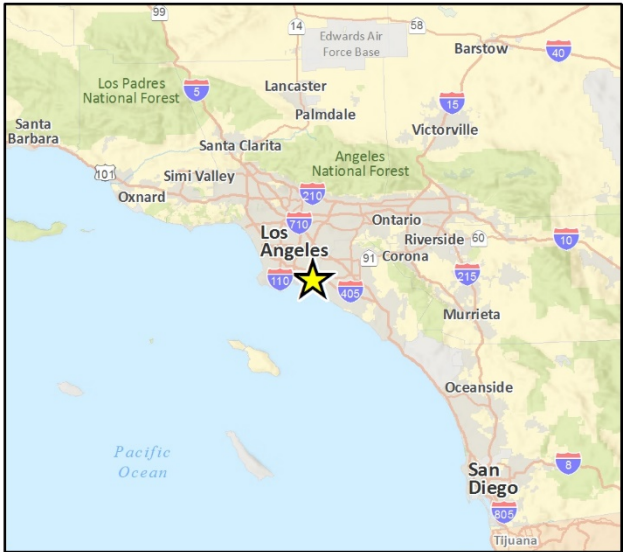


Fig 1 Regional Location

Figure 2 Project Location



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Additional data provided by County of Los Angeles 2018.

Fig. 2 Project Location

6. Existing Setting

The project site is currently vacant and includes five parcels in an industrial area of Long Beach. The eastern project area is occupied by 400 square feet (sf) of existing concrete (berm), on-site pipeline structures; and asphalt roadways along the northern and eastern borders, including the existing access driveway to the Alamitos Energy Center (owned by AES). Previously occupied by the Loynes Tank Farm, the eastern project area consisted of two aboveground storage tanks containing heavy fuel oil, which were removed in 2010. The western project area, dedicated as open space, are undeveloped and devoid of any paving or structures.

According to the Biological Resources Assessment Memorandum (see Appendix C), vegetation on the parcels west of Studebaker Road is sparse and scattered. Vegetation on these parcels includes Russian thistle, red-stemmed filaree, brome grasses and various mustards. Vegetation on the parcel east of Studebaker Road includes brome grasses, Russian thistle, and yellow star thistle. The Cerritos Channel is located directly adjacent to the proposed project site and is separated from the project site by a chain link fence. Figure 3, Views of the Project Site, includes photographs of the existing conditions at the project site.

7. General Plan Designation

- **Existing Land Use Element**
 - LUD No. 7 (Mixed-Use District) (APNs 7237-019-008, 7237-018-001, 7237-017-007, -008, -009)
- **Proposed Land Use Element Update**
 - Industrial (APN 7237-019-008)
 - Open Space (APNs 7237-018-001, 7237-017-007, -008, -009)

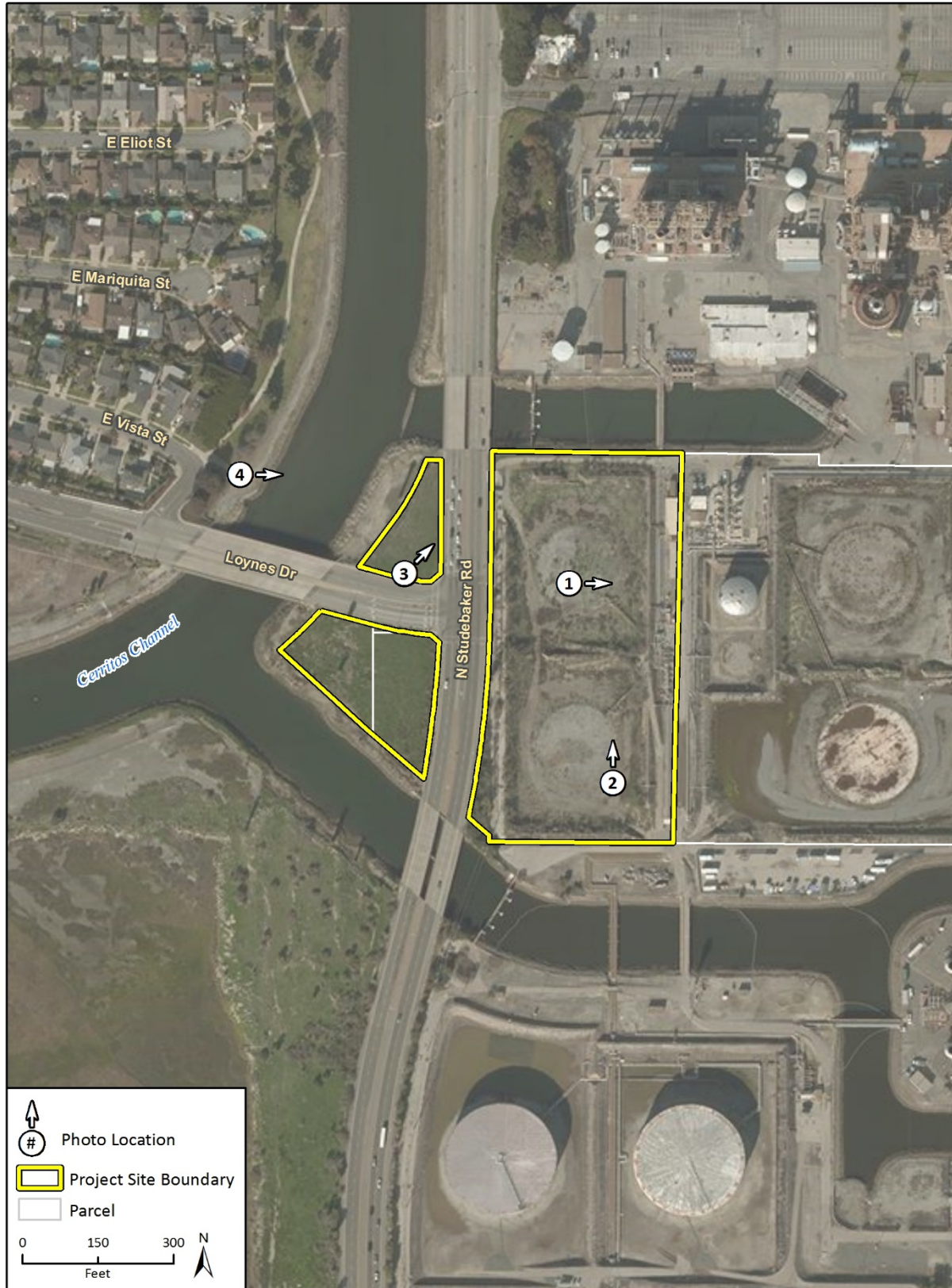
General Plan Land Use Designation

According to the existing General Plan Land Use Element, the five parcels within the project site are designated as LUD No. 7 (Mixed-Use District). However, the City of Long Beach is in the process of updating their General Plan, including the Land Use Element. Under the proposed Land Use Element, the eastern project area of the project site would be designated “Industrial” and the western project area would be designated “Open Space.”

8. Zoning

- **Southeast Area Development and Improvement Plan (SEADIP): PD-1**
 - Subarea 19 (APN 7237-019-008)
 - Subarea 24 (APNs 7237-018-001, 7237-017-007, -008, -009)
 - Repealed by the City of Long Beach and superseded by SEASP in May 2016

Figure 3 Views of the Project Site



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Additional data provided by County of Los Angeles 2018.

Fig. 3 Photo Location Map



Photograph 1. Overview of the project site, looking east at existing conditions, on-site pipeline structures, and offsite structures. The existing Alamitos Energy Center can be viewed in the background.



Photograph 2. Overview of the project site, looking north at existing conditions, on-site pipeline structures, and offsite structures. The existing Alamitos Energy Center can be viewed in the background.



Photograph 3. View of the project site and surrounding industrial uses looking northeast from the parcel on the north side of Loynes Drive. The existing Alamos Energy Center can be viewed across Studebaker Road to the northeast.



Photograph 4. Overview of the northern project site, and surrounding industrial uses looking east, across the Cerritos Channel. The existing Alamos Energy Center can be viewed in the background.

- Southeast Area Specific Plan (SEASP): SP-2 ²
 - Industrial (APN 7237-019-008)
 - Coastal Habitat, Wetlands, and Recreation (APNs 7237-018-001, 7237-017-007, -008, -009)

Zoning

The project site is located in the Southeast Area Development and Improvement Plan (SEADIP) area. According to the SEADIP, the eastern project area is slated for development in Subarea 19 while the western project area is in Subarea 24. The SEADIP designates Subarea 19 “Industrial” and designates Subarea 24 for restoration to native wetland habitat.

The City of Long Beach repealed the SEADIP and replaced it with the Southeast Area Specific Plan (SEASP) (PD-2) on May 1, 2016. However, the California Coastal Commission (CCC) continues to recognize the SEADIP as the existing, adopted Specific Plan, while the SEASP awaits approval from the state agency. Under the SEASP, the eastern project area of the project site is zoned Industrial and the western project area is zoned for Coastal Habitat, Wetlands, and Recreation. Therefore, this IS-MND analyzes the proposed project’s consistency with both the SEADIP and the SEASP. Figure 4, Southeast Area Development and Improvement Plan Boundary, and Figure 5, Southeast Area Specific Plan Boundary, depict the project site within the boundaries of SEADIP and SEASP, respectively.

9. Description of Project

The 300 Studebaker Road Project (“proposed project” or “project”) involves the demolition of 400 sf of existing concrete, on-site pipeline structures, and asphalt paving, and the development of two concrete tilt-up industrial buildings, situated on 6.69 acres of land east of Studebaker Road. Approximately 1.81 acres of vacant land at the northwest and southwest corners of Studebaker Road and Loynes Drive would be dedicated as open space as part of this project.

Industrial Development

Situated within the eastern project area, the two 35-foot high buildings would total 139,200 sf, including 21,000 sf office space. The individual building sizes would be 91,700 sf and 47,500 sf, respectively. Table 1, Project Summary, provides details of the proposed buildings while Figure 6 (Project Site Plan), Figure 7 (Project Elevations of the Proposed Buildings) and Figure 8 (Project Perspective – View Looking East) show the proposed site plan and building elevations and perspective, respectively. The project would support potential uses such light manufacturing, warehousing, assembly and distribution. The proposed facility would operate 24 hours a day. The building layout may be broken into six or more individual spaces depending upon final tenant demand. Office spaces would be provided in the interior frontage of each building to support the business operations. Office space would occupy a maximum of 25 percent of the gross floor area pursuant to Chapter 21.33 of the LBMC. Office space in Building 1 would total 14,000 sf and 7,000 sf in Building 2, which together represents 21,000 sf, or 15 percent of the gross floor area.

² The approval of SEASP requires an amendment to the City’s Certified Local Coastal Program (LCP). At the time of preparation of this Draft IS-MND, the applicable zoning is SEADIP. This IS-MND will analyze the project with regard to consistency with SEADIP and SEASP, as well as the existing and proposed land use element.

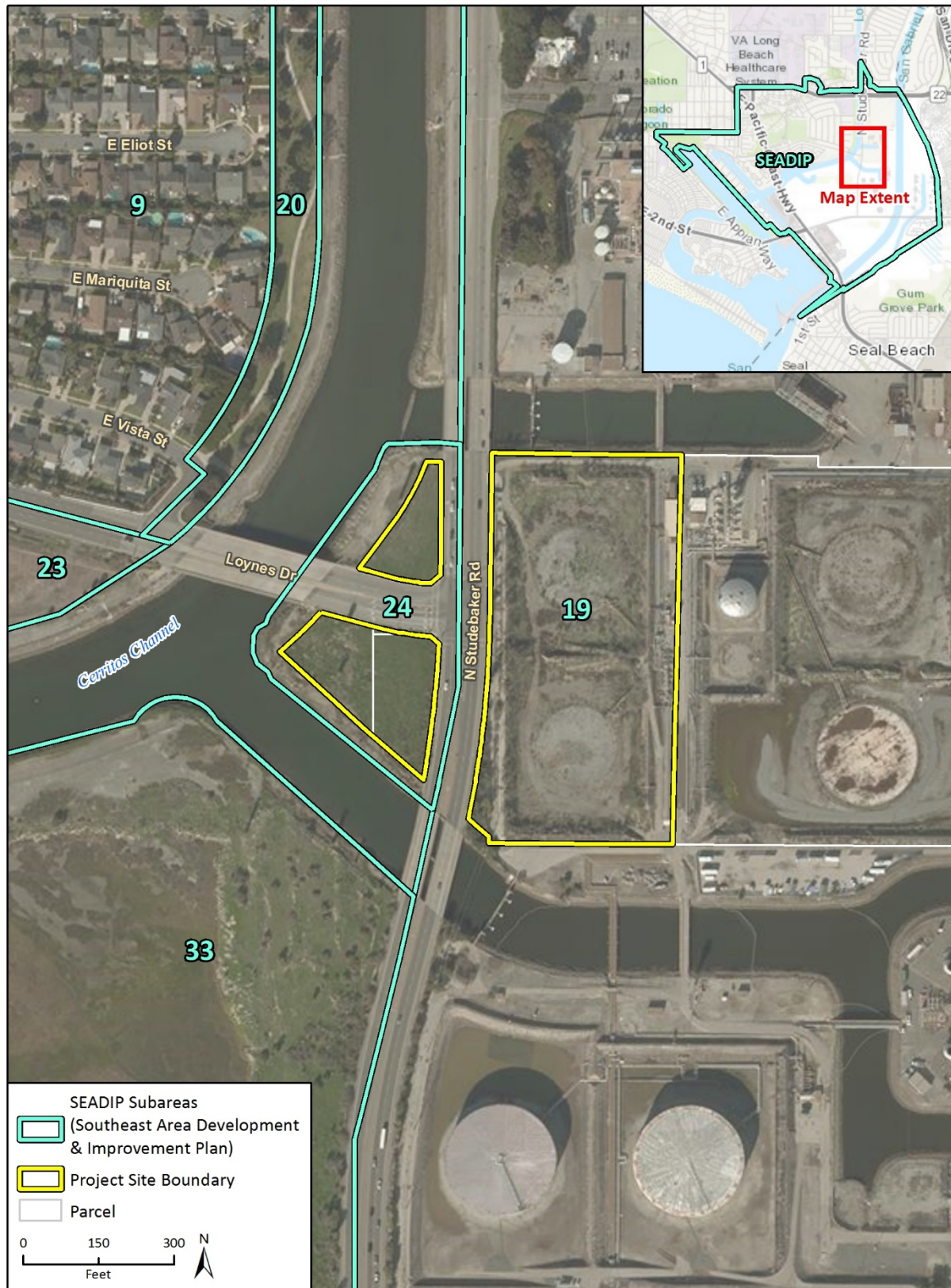
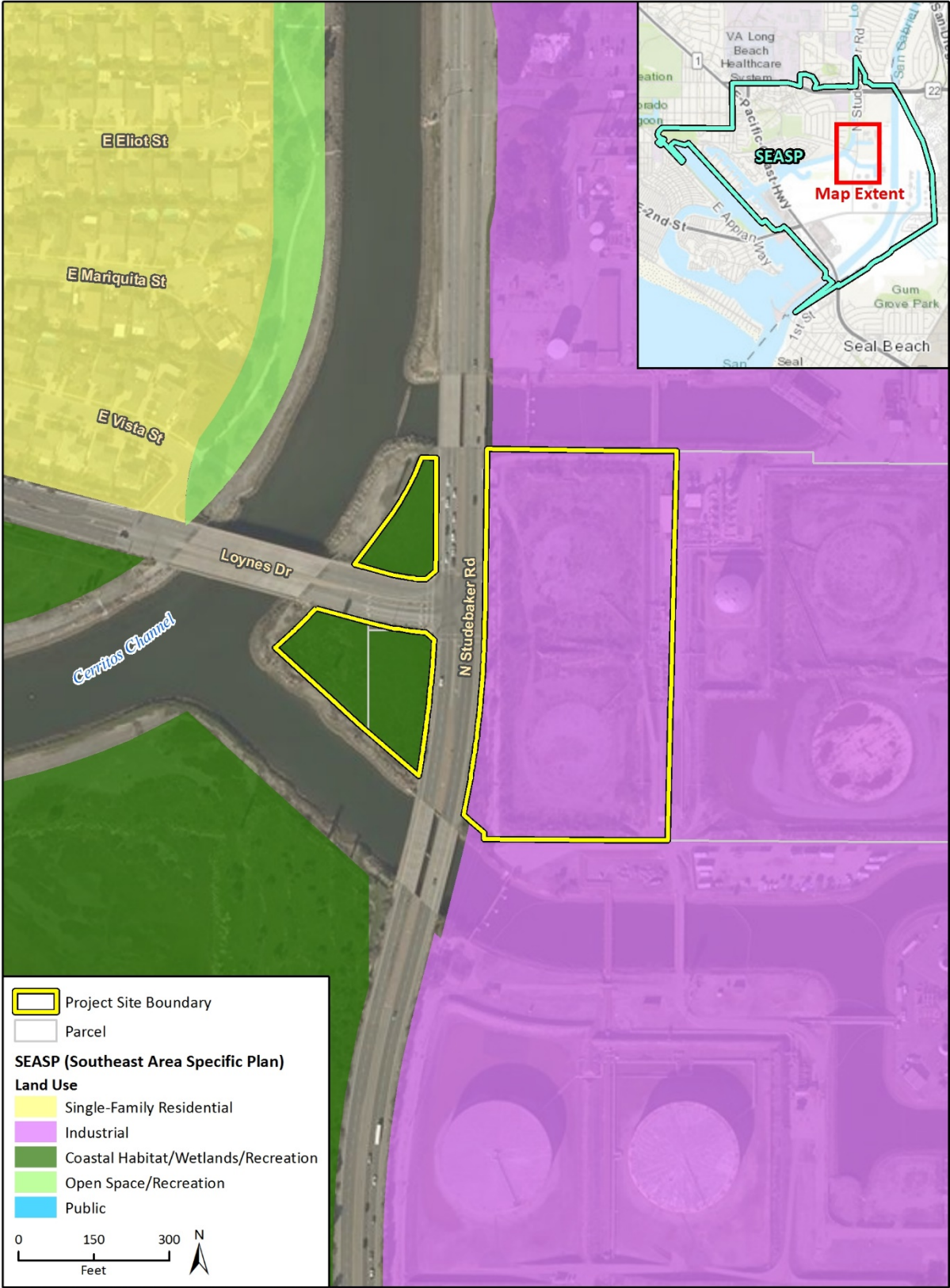
Figure 4 Southeast Area Development and Improvement Plan Boundary

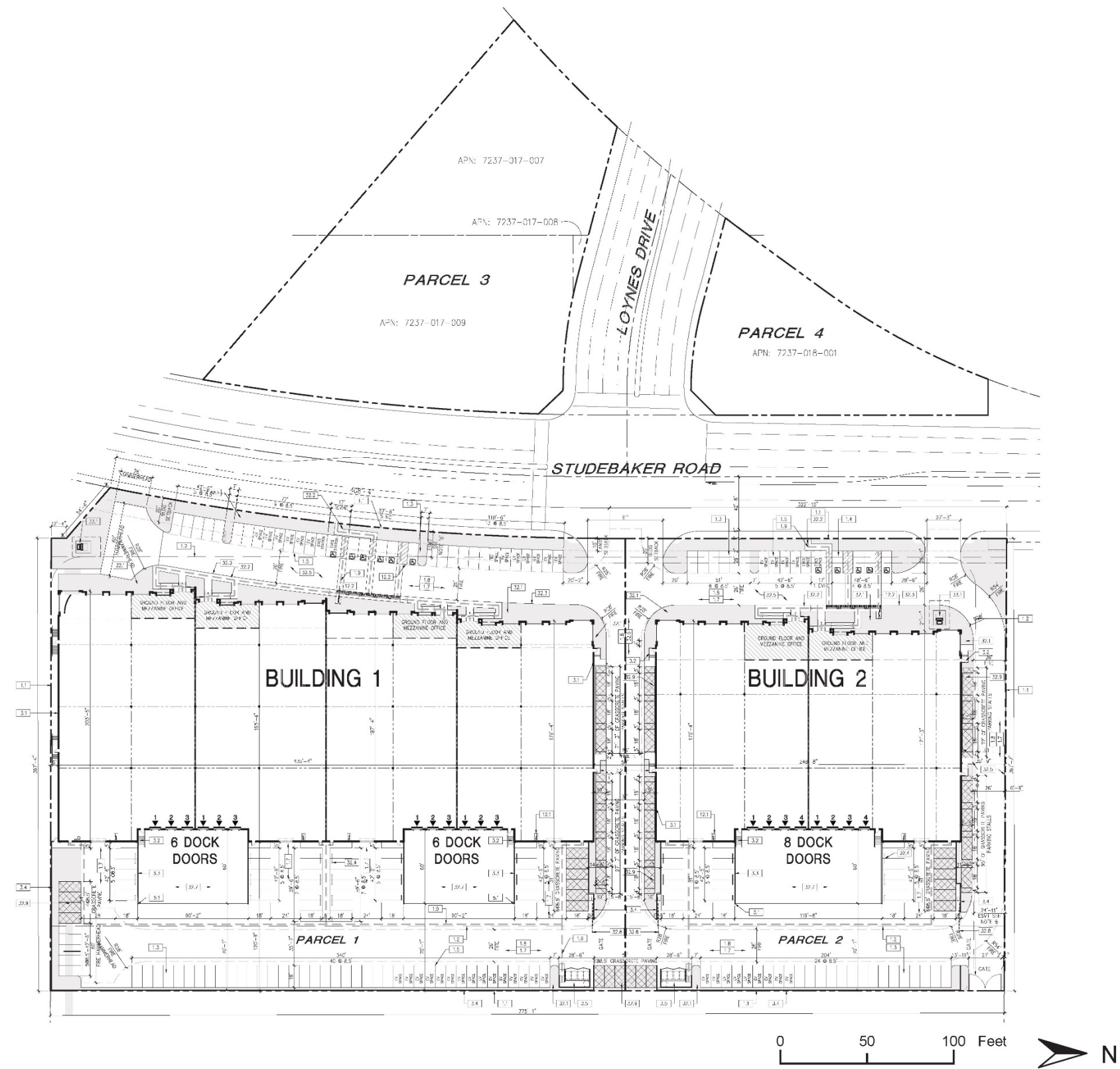
Figure 5 Southeast Area Specific Plan Boundary



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Additional data provided by City of Long Beach 2017.

Fig. 5 SEASP Project Site

Figure 6 Project Site Plan



Source: GAA Architects 2019.

Figure 7 Project Elevations of the Proposed Buildings



Source: GAA Architects 2019.

Figure 8 Project Perspective – View Looking East



Source: GAA Architects 2019.

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Table 1 Project Summary

Project Area	Square Feet	Acres			
Site Area (gross)	370,106	8.50			
Street Dedication	0	0.00			
Total Project Area	370,106	8.50			
Parcel Area	Parcel 1	Parcel 2	Parcel 3	Parcel 4	Total
Net Area (sf)	177,795	113,450	57,426	21,433	370,104
Net Acreage	4.08	2.60	1.32	0.49	8.50
Buildable	177,795	113,450	0.00	0.00	291,245
Buildable Acreage	4.08	2.60	0.00	0.00	6.69
Open Space Provided	17,810	14,510	57,426	21,433	111,179
	Building 1	Building 2	Total		
Building Area (sf)					
Warehouse	77,700	40,500			118,200
Office - Ground Floor	4,000	2,000			6,000
Total Building Footprint	81,700	42,500			124,200
Mezzanine Office	10,000	5,000			15,000
Total Building Area	91,700	47,500			139,200
Total Office Area	14,000	7,000			21,000
Parking					
Standard (9 ft x 18 ft)	79	38			117
Accessible Parking (9 ft x 18 ft)	5	4			9
EV Space	28	14			42
Total	112	56			168
Site Area and Coverage					
In square feet	177,995	113,450			370,104
In acres	4.08	2.60			8.50
Coverage	46.1%	37.5%			42.7%
FAR	51.7%	42.0%			47.9%
Truck Doors					
Dock Doors	12	8			20
Grade Doors	4	2			6
EV Charging Station	2	1			
Notes: sf = square feet; ft = feet					
Source: GAA Architects 2019					

Dedicated Open Space

The western project area (APNs 7237-018-001, 7237-017-007, -008, -009), situated west of Studebaker Road, are currently vacant and zoned Subarea 24 under SEADIP and “Coastal Habitat, Wetlands, and Recreation” under the SEASP³. These four parcels are proposed to be dedicated to the Los Cerritos Wetlands Authority (LCWA). The project would include planting of an assortment of native grasses and tree species consistent with the LCWA, including low growing grasses along street frontage. Figure 9, Landscape Plan, shows the conceptual landscape plan. As shown in the Landscape Plan, the restoration plans for these parcels, also identified as the “Wetlands Mitigation Area,” would require consultation with the LCWA.

Project Characteristics

The proposed building would incorporate non-glare glazing into the design by utilizing appropriate lighting fixtures. Landscaping or low walls would provide a barrier to lights from parked vehicles facing Studebaker Road, preventing any light spillage. Separate submeters or metering devices would be installed for outdoor potable water use, and the irrigation system would have weather or soil moisture-based automatic controllers. The project would comply with all standards set in California Building Code (CBC) Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation. In accordance to California Green Building Standards Code 5.303.3, the project’s plumbing fixtures (water closets and urinals) and fittings (faucets) would be 20% water-conserving. Furthermore, because the project involves construction of over 25,000 sf of nonresidential development, it would be required to implement transportation demand management (TDM) strategies pursuant to Section 21.64 of the LBMC. Such strategies include, but are not limited to, provision of preferential parking for vanpools, bicycle racks or other secure bicycle parking, and sidewalks or other designated pedestrian pathway connecting each building to the external pedestrian circulation system.

Infrastructure Improvements

As shown in Figure 10, Conceptual Utility Plan, the project includes a sewer line extension measuring roughly 1,000 linear feet (lf), along the public right of way of Loynes Drive. The sewer line installation would occur concurrently with the project construction. Storm drain lines and surface swales would convey drainage to two existing facilities located at the southeast and southwest portion of the property. Domestic water and fire flow would be taken from an existing 12-inch line in Studebaker Road. Dry utilities would be accessed in Studebaker Road. The proposed project would comply with current National Pollutant Discharge Elimination System (NPDES) and Los Angeles County MS4 permit regulations and would also include storm water Low Impact Development (LID) Best Management Practices (BMPs). Additionally, the project would comply with Chapter 18.74 of the Long Beach Municipal Code which regulates the implementation of the LIDs and BMPs for projects in the City of Long Beach.

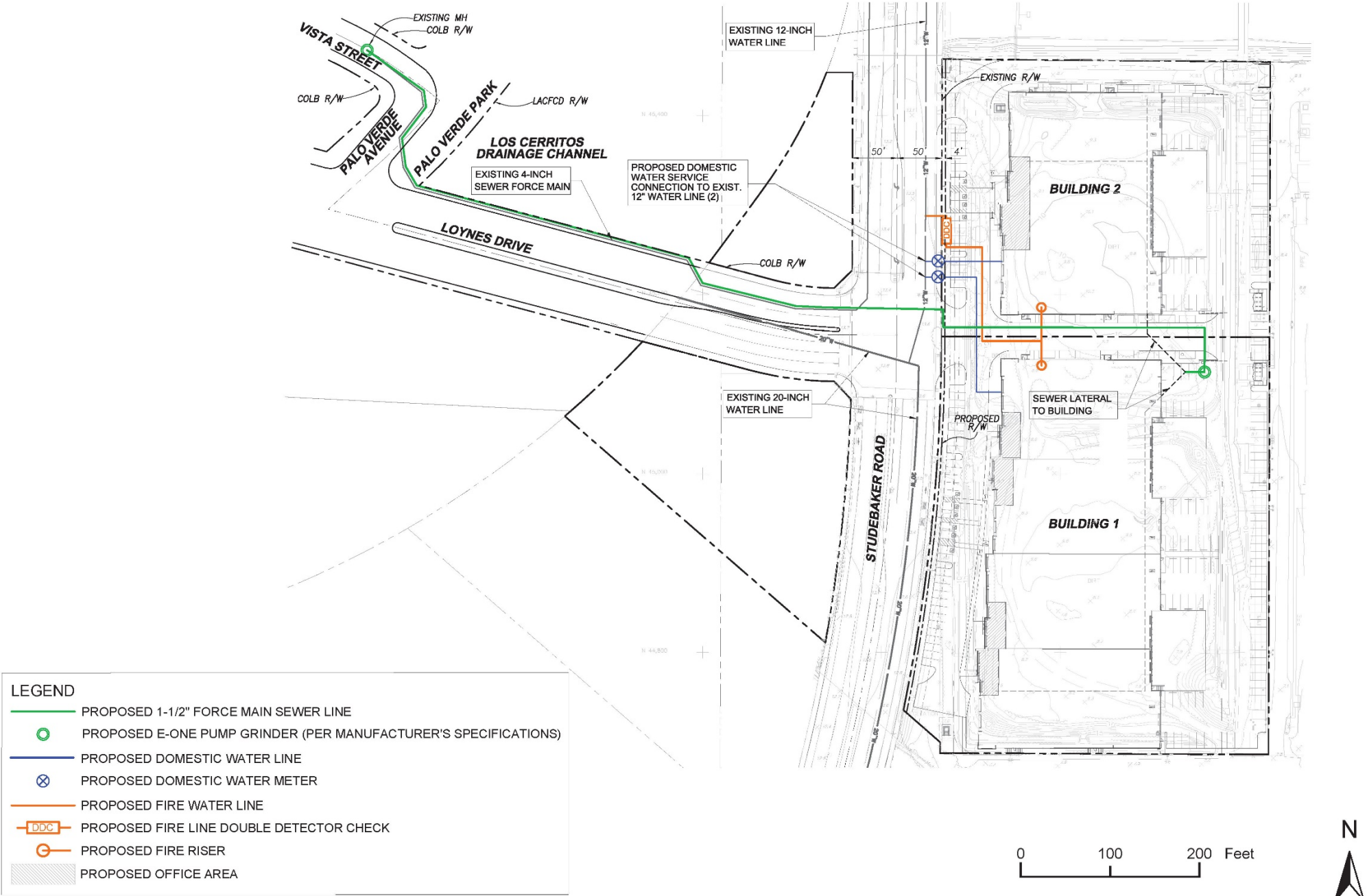
³ The City of Long Beach repealed the SEADIP and replaced it with the Southeast Area Specific Plan (SEASP) (PD-2) on May 1, 2016. However, the California Coastal Commission (CCC) continues to recognize the SEADIP as the existing, adopted Specific Plan, while the SEASP awaits approval from the agency.

Figure 9 Landscape Plan



Source: GAA Architects

Figure 10 Conceptual Utility Plan



Source: PROACTIVE, ENGINEERING CONSULTANTS, 2019

Access and Parking

Vehicles would access the project suite via a new 61-foot driveway, creating a fourth leg of the signalized intersection of Studebaker Road and Loynes Drive. A second access driveway would be provided near the northern limits of the project site along Studebaker Road that is right in and right out only. Truck access would be limited to Studebaker Road; trucks would not be allowed access on Loynes Drive. Furthermore, as a project design feature, a southbound left-turn pocket and left-turn lane on Studebaker Road would be constructed to allow access to the site. In addition, the inside eastbound right-turn lane on Loynes Drive would be converted to an eastbound through lane for vehicles entering the project site from Loynes Drive. Visitor parking would be in front of the buildings, facing Studebaker Road. Employee parking, truck access, and 20 loading bays would be to the rear of the buildings facing AES Power Plant away from Channel View Park. Loading docks would be placed approximately 700 feet east of Channel View Park and buffered by the two industrial buildings. The project includes 168 parking stalls; 42 of which would be designated as ‘clean air’ parking for carpools and fuel-efficient vehicles (i.e., electric vehicles), as well as nine stalls for accessible parking. Visitor bicycle racks would be provided within 200 feet of building entrances, for a minimum of 5 percent new visitor vehicular parking.

Construction

Construction of the project would begin in early 2020 and would open for operation at the end of year 2020. The construction process would not exceed 12 months. Construction would occur between the hours of 7 A.M. and 3 P.M. Construction phasing would entail site preparation and demolition; including the removal of earthen berms, which served as detention areas for two previously-removed above ground tanks; grading, building construction, asphalt paving and architectural coating. Graded soil would be utilized on-site for construction of the building pads and foundations. Approximately 2,095 cubic yards (cy) of soil would be imported to the project site. A construction waste management plan would enforce a minimum of 50% recycling and/or salvaging of non-hazardous construction waste and complying with CalGreen 2016 requirements.

10. Surrounding Land Uses and Setting

The project site is located in an urbanized area that is bounded by the Cerritos Channel on the west, the Los Cerritos Wetlands to the southwest, and industrial/manufacturing properties to the east, north, and south. The nearest residential uses to the project site are single-family residences located across the Cerritos Channel, approximately 400 feet west of the western project area (open space) and approximately 630 feet of the eastern project area (industrial). The project would be located immediately adjacent to the Studebaker-Loynes bus stop, which is served by the Orange County Transit Authority’s Bus Line 1, which connects Long Beach to San Clemente. Additionally, the project site is approximately 0.7 mile from existing Long Beach Transit stops at Bixby Village Drive/Loynes Drive and may be served by future Long Beach Transit stops planned along Studebaker Road. Figure 11, City Proposed Striping along Studebaker Road, depicts the restriping proposed by the City of Long Beach for the planned Long Beach Transit stops along Studebaker Road.

11. Project Benefits

Pursuant to Section 21082.4 of the CEQA Statute, “In describing and evaluating a project in an environmental review document prepared pursuant to this division, the lead agency may consider specific economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of a proposed project and the negative impacts of denying the project.” The proposed project would provide the following benefits:

- Dedication of open space parcels to the Los Cerritos Wetlands Authority (LCWA) at locations contiguous with the greater Los Cerritos Wetlands property boundaries.
- The creation of new industrial jobs at a previously vacant tank farm site.
- The co-location of industrial uses in an area which has base industrial uses (existing Alamitos Energy Center) and is adjacent to existing road infrastructure. Accessory office space is proposed for the purpose of supporting the working population within this portion of the City.

12. Required Approvals

Project entitlements from the City of Long Beach include:

- Site Plan Review
- Local Coastal Development Permit
- Standards Variance
- Lot Line Adjustment

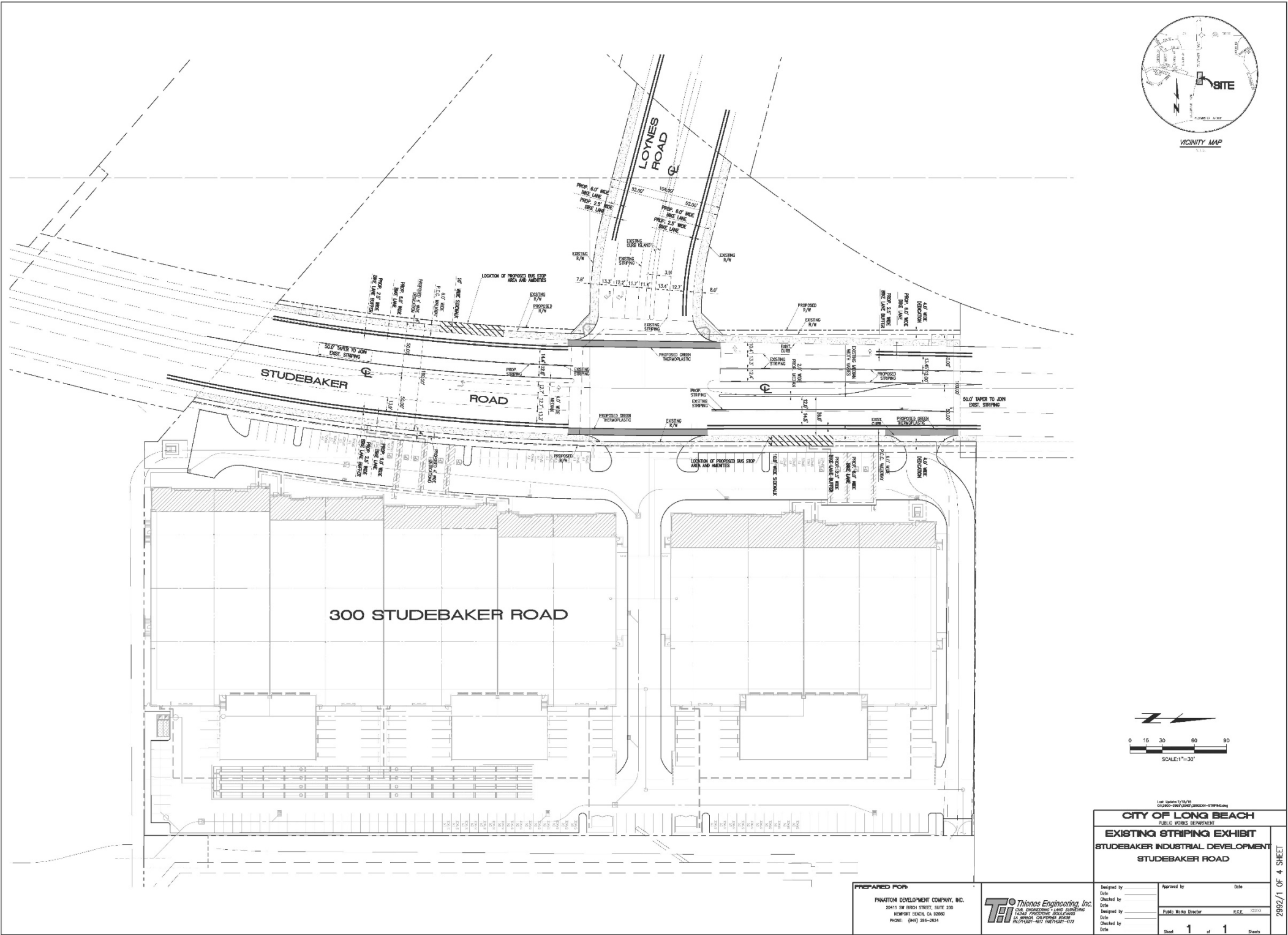
13. Other Public Agencies Whose Approval is Required

The City of Long Beach is the lead agency with responsibility for approving the proposed project. A review from the LCWA would be required for the western project area designated as open space. Approval from other public agencies is not required. There are no responsible or trustee agencies for the project.

14. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

The City of Long Beach Planning Bureau mailed consultation letters to Native American tribes requesting consultation under the provisions of Assembly Bill 52 (AB 52). The City received a request for consultation from one Tribe, the Gabrieleño Band of Mission Indians - Kizh Nation. The City held consultation with the Tribe on May 30, 2019 to answer questions about the project and to hear requests and recommendations for mitigation. The results of the City’s consultation with the Tribe have been included in this IS-MND.

Figure 11 City Proposed Striping Along Studebaker Road



Source: Thienes Engineering Inc.

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Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Less than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

Determination

Based on this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “less than significant with mitigation incorporated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

City of Long Beach
300 Studebaker Road Industrial Park Project

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

Maryanne Cronin
Signature

Maryanne Cronin
Printed Name

9-4-19
Date

Planner
Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
--	--------------------------------------	--	------------------------------------	-----------

Except as provided in Public Resources Code Section 21099, would the project:

a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. Would the project have a substantial adverse effect on a scenic vista?

The project site is in an industrial and manufacturing area in the City of Long Beach. The project would include the removal of 400 sf of pre-existing concrete (berm), on-site pipeline structures; and asphalt paving and the development of a warehouse/manufacturing facility, otherwise, the project site is vacant. The project site and surroundings area are generally flat. Views from the project site include industrial and manufacturing uses to the north, south, and east, as well as the Cerritos Channel and Los Cerritos Wetlands to the west and southwest, respectively.

Scenic vistas are viewpoints that provide expansive views of a highly valued landscape feature (e.g., a mountain range, lake, or coastline) or a significant historic or architectural feature. Scenic vistas within the project site and vicinity include the Cerritos Channel and Los Cerritos Wetlands to the west and southwest of the proposed project. However, public views of the Cerritos Channel and Los Cerritos Wetlands would not be adversely affected because the parcels west of Studebaker Road would be designated as open space. The project includes an assortment of native grasses and tree

species consistent with the LCWA, including low growing grasses along street frontage. In addition, development of the eastern project area would not adversely affect public views of the wetlands or the channel as the Alamitos Energy Center blocks potential public views of the wetlands or the channel looking southeast. As such, development of the proposed project would comply with policies in the existing Scenic Route Element, SEADIP, SEASP and therefore, with the City of Long Beach's Local Coastal Program. As discussed further in Section 5, *Cultural Resources*, a cultural resources records search identified four previously recorded cultural resources within a 0.5-mile radius of the project site (see Appendix E). These resources include a historic-era site refuse scatter, two historic-era structures: the Los Alamitos Channel and the Alamitos Energy Center Fuel Oil Tank Farm, and one historic-era building known as the Bixby Ranch Field Office. The cultural resources records search and field survey conducted for the proposed project identified one previously recorded historic period resource located partially within the project site: the Alamitos Energy Center Fuel Oil Tank Farm. This resource was constructed in the 1950s and consists of a large capacity petroleum storage yard, or tank farm, with six large capacity petroleum fuel oil tanks with pipelines leading to the tanks. However, as concluded Cultural Resources Study (see Appendix E) Tank 1 and Tank 2 of the Alamitos Energy Center Fuel Oil Tank Farm were demolished on the project site in 2010. Pipelines leading to the now demolished tanks remain on the project site. In addition, Tank 3, 4 and 6, which were located outside the project site boundary, have also been demolished. Tank 5, which is also located outside the project site boundary, remains and is visible from the project site looking east as shown in Figure 3, Photograph 3. While views of the Alamitos Energy Center Fuel Oil Tank Farm, would be limited by the proposed development along the public right-of-way directly in front of the project site, public views of this feature looking northeast and southeast along Studebaker Road, to the north and south of the project site, respectively, would remain. Overall, due to intervening development and distance, the proposed project would not adversely impact scenic views of cultural or historical resources within the project site vicinity. Additionally, as no historic resources are located onsite, development of the proposed project would not have a substantial adverse impact on scenic vistas. For these reasons no impacts to scenic views would occur.

NO IMPACT

- b. *Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

A review of the California Scenic Highway System indicates that no existing or proposed State scenic highways are located in the vicinity of the project site (Caltrans 2011). As concluded in Section 4, *Biological Resources* and Section 5, *Cultural Resources*, the project site is devoid of scenic features such as protected trees, rock outcroppings and historic resources. As concluded in checklist question 1(a), development of the project would not result in the obstruction of public views of cultural or historical, or scenic resources on the project site or in the project site vicinity, including the Los Cerritos Wetlands and Cerritos Channel, as the western project area would be designated as open space and development on the eastern project area would be located to the east of Studebaker Road. Furthermore, the western project area would undergo landscape restoration consistent with the LCWA. The project would not result in substantial damage to scenic resources in a state scenic highway and no impact would occur.

NO IMPACT

- c. *Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

As shown in Figure 2, Project Location, the project site is in an urbanized area. As discussed further in Section 11, *Land Use*, according to the SEADIP, the eastern project area is slated for development in Subarea 19 while the western project area is in Subarea 24. In the SEADIP, Subarea 19 is identified as industrial. As such, development of the proposed project, which includes industrial buildings, in Subarea 19 would comply with the SEADIP. Subarea 24 is designated for restoration to native wetland habitat. Under the proposed project, the western project area would be restored to native wetland habitat and donated to the LCWA. Restoration plans would be prepared in consultation with LCWA and in compliance with requirements of the SEADIP. As such, development of the proposed project in Subarea 24 would comply with the SEADIP, and therefore also with the City of Long Beach's Local Coastal Program.

In 2016, the City Council repealed SEADIP and approved SEASP (SP-2).⁴ The project site is also designated by the City of Long Beach's SEASP as SP-2 and zoned Industrial and Coastal Habitat, Wetlands, and Recreation. As shown in Table 18, General Industrial District Development Standards, in Section 11, *Land Use and Planning*, development of the proposed project would be consistent with the current SEASP land use designation and development would comply with City zoning standards for Industrial Districts, including maximum height limits and setbacks.

Implementation of the project would change the visual character of the project site by converting an undeveloped vacant lot into a new development with two industrial/manufacturing buildings; however, the proposed development would be similar to the existing industrial and manufacturing uses that currently surround the project site to the north, south and east. Furthermore, the western project area proposed as open space dedicated to the LCWA, indicating that no new development would occur on these parcels. Furthermore, as discussed in checklist items 1(a) and 1(b) above, while the project site is adjacent to the Cerritos Channel and wetlands, existing public views of these features in the project site vicinity would not be adversely affected.

Development of the proposed project would comply with the City's General Plan, LCP, and SEADIP and SEASP zoning. For these reasons, the proposed project would be consistent with the City's envisioned visual character and quality of the project site. As the proposed project would not conflict with applicable zoning and other regulations governing scenic quality impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- d. *Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?*

The project site is currently absent of development and as such, no existing sources of light or glare are present on the project site. Existing sources of light and glare in the project site vicinity are associated with manufacturing and industrial uses located to the north, south and east of the

⁴ The approval of SEASP requires an amendment to the City's Certified Local Coastal Program (LCP). At the time of preparation of this Draft IS-MND, the applicable zoning is SEADIP. This IS-MND will analyze the project with regard to consistency with SEADIP and SEASP, as well as the existing and proposed land use element.

project site. These sources primarily include exterior building and storage yard security lighting, building windows, and vehicle and truck windshields and headlights, streetlamps and light signals. However, due to the proximity of the residential community, across the Cerritos Channel, and Los Cerritos Wetlands to the southwest of the project site, which provide habitat to wildlife and nesting birds, as described in Section 4, *Biological Resources*, the project may pose light and glare concerns to these sensitive areas from potential excessive night-time light emittance levels.

City of Long Beach Municipal Code

The City of Long Beach Municipal Code (LBMC) identifies land use categories, development standards, and other general provisions that ensure consistency between the General Plan and proposed development projects. The following provisions the Municipal Code help minimize visual and light and glare impacts associated with new development projects, including the proposed project:

- **Section 21.41.259 Parking Areas—Lighting:** All parking lots and garages are required to be illuminated with lights directed and shielded to prevent light and glare from intruding onto adjacent sites. The light standards shall not exceed the height of the principal use structure or 1 foot for each 2 feet of distance between the light standard and the nearest property line, whichever is greater.
- **Section 21.44.855 Light and Glare Intrusion Prevention:** All electronic message center signs shall be adequately shielded and properly oriented and aimed as to prevent the intrusion of light and glare upon residential land uses, including those in mixed-use districts.
- **Section 21.44.600 (E) (3) Prohibited Signs, Unlawful Illumination:** Floodlights that are not hooded or shielded so that the light source is not visible from public right-of-way, adjacent property, or residential dwelling unit are prohibited.
- **Section 21.33.090(e) Light and Glare Standards:** All lighting, reflective surfaces, or any other source of illumination shall not produce adverse effects on public streets or on any other parcel. Lights shall be shielded at lot lines so as not to be directly visible from any adjoining residential district.

SEADIP/SEASP

The proposed project would be required to comply with SEADIP (PD-1), which requires all lighting to be directed downward and designed not to project off site or onto adjacent uses. In addition, the SEASP regulates the placement and intensity of outdoor lighting for land within the Coastal Habitat, Wetlands and Recreation land use. Exposure of nocturnal animals to artificial lighting during the night may reduce normal activity patterns and increase their exposure to predators. (City of Long Beach 2017c) Therefore, an impact may occur if light spill occurs on sensitive habitat, such as the Los Cerritos Wetlands located to the southwest of the Project Site, which results in artificial light at levels exceeding the intensity of moonlight, or approximately 0.5 foot-candles (City of Long Beach 2017a).

Illumination Survey Results

Rincon Consultants, Inc. performed an illumination survey along the project site boundary and at nearby offsite locations to document existing lighting conditions and determine whether the proposed project would result in excessive night-time light levels. The illumination survey was conducted between 8:59 p.m. and 9:43 p.m. on Friday, March 25, 2019. Illumination readings were

taken from the project site, two locations along Studebaker Road to the south of the project site, a location along Loynes Drive to the west of the project site, and a location along the bike path at Channel View Park, which is west of the project site across the Cerritos Channel. Figure 12, Illumination Survey Readings, shows the approximate location of the illumination survey and its results.

As shown in Table 2, Illumination Survey Readings, readings indicate that existing levels of illumination on the project site range from 0.01 foot candles (fc) to 1.46 fc. Readings from the location points to the west of the project site, across the Cerritos Channel range from 0.35 fc to 0.59 fc. Additionally, the location points to the south of the project site along Studebaker Road were both recorded at 0.01 fc. The highest readings ranged from 1.43 to 1.46 (Reading No. 8 and 9), which were taken from the east side of the intersection of Loynes Drive and Studebaker Road. These higher readings can be attributed to the streetlamps directly overhead and signalized intersection. The lowest readings ranged from 0.01 to 0.02 (Reading No. 6, 11 and 13 through 16), which were taken from the north and south borders of the project site. Light is limited at these locations due to the distance from the industrial development in the project site vicinity and undeveloped wetlands to the southwest.

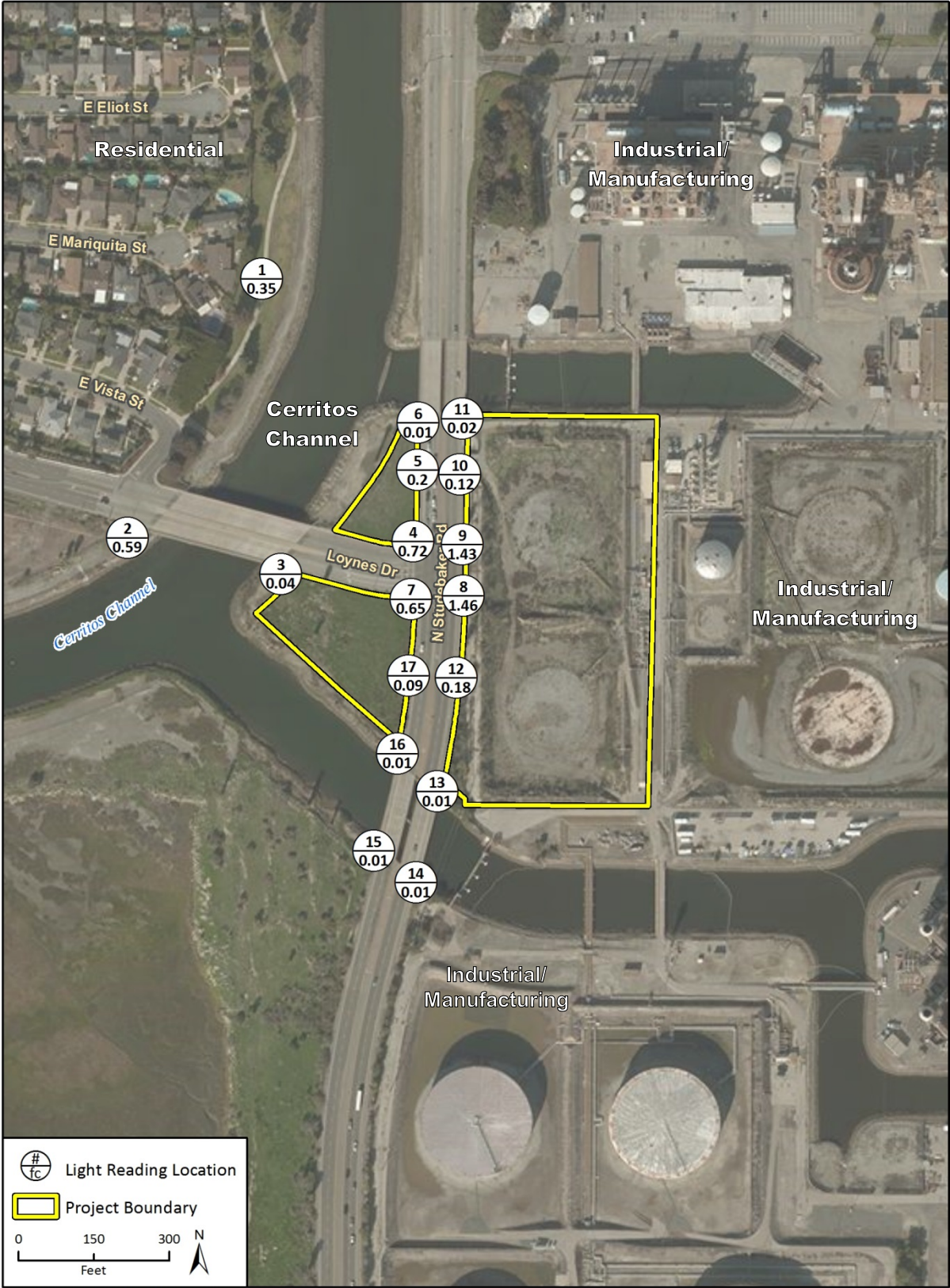
Table 2 Illumination Survey Readings

Reading No.	Location	Time	Reading (fc) ^[1]
1	West of the Project site, across the Cerritos Channel	8:59 PM	0.35
2	West of the Project site, across the Cerritos Channel	9:03 PM	0.59
3	Public right-of-way along Loynes Drive	9:06 PM	0.04
4	Public right-of-way along Studebaker Road	9:09 PM	0.72
5	Public right-of-way along Studebaker Road	9:11 PM	0.20
6	Public right-of-way along Studebaker Road	9:13 PM	0.01
7	Public right-of-way along Studebaker Road	9:18 PM	0.65
8	Public right-of-way along Studebaker Road	9:23 PM	1.46
9	Public right-of-way along Studebaker Road	9:24 PM	1.43
10	Public right-of-way along Studebaker Road	9:25 PM	0.12
11	Public right-of-way along Studebaker Road	9:26 PM	0.02
12	Public right-of-way along Studebaker Road	9:30 PM	0.18
13	Public right-of-way along Studebaker Road	9:33 PM	0.01
14	Public right-of-way along Studebaker Road (south of Project site)	9:35 PM	0.01
15	Public right-of-way along Studebaker Road (south of Project site)	9:38 PM	0.01
16	Public right-of-way along Studebaker Road	9:40 PM	0.01
17	Public right-of-way along Studebaker Road	9:43 PM	0.09

Foot Candles = (fc)

¹ The illumination survey was conducted between 8:59 p.m. and 9:43 p.m. on Friday, March 25, 2019.

Figure 12 Illumination Survey Readings



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Fig 7 Light Reading Locations

Construction

Construction of the project would introduce construction vehicles and equipment during daytime hours that could potentially create glare for surrounding land uses. However, pursuant to the City of Long Beach Municipal Code (LBMC), Section 8.80.202, construction activity is limited to the hours of 7:00 a.m. to 7:00 p.m. during the weekdays and federal holidays and 9:00 a.m. to 6:00 p.m. on Saturdays. Construction activities are not permitted on Sundays. These hours would reduce impacts from vehicle headlamps and any associated impacts to nighttime views. Since proposed construction would be required to adhere to the timing restrictions laid out in the LBMC, no construction would occur at night when lighting would potentially be required. In addition, any light or glare generated during construction would be temporary in duration.

Operation

The project site is in an urban area that is surrounded by manufacturing and industrial facilities to the north, south and east. Operation of the proposed project would include the use of nighttime security lighting, and general lighting associated with industrial uses. Although the proposed facility would operate 24 hours a day, pursuant to the requirements of the LBMC and SEADIP, the project would incorporate non-glare glazing into the design of the building and lighting fixtures would be aimed downward to prevent light spillage onto the residential community across the Cerritos Channel and Los Cerritos Wetlands to the southwest of the project site. Landscaping or low walls would also provide a barrier to lights from parked vehicles facing Studebaker Road, preventing any spillage onto the roadway.

Based on the results of the illumination survey, operation of the proposed project would not substantially increase lighting and glare in the surrounding area relative to existing levels as the project site. No development is proposed in the western project area (west of Studebaker Road), which would be designated as open space and restored in consultation with the LCWA.

However, because of the project site's proximity to the Los Cerritos Wetlands to the Southwest, operation of the project during nighttime hours may result in the exposure of nocturnal wildlife to artificial lighting exceeding the intensity of moonlight, or approximately 0.5 foot-candles. Therefore, implementation of Mitigation Measure AES-1, Outdoor Lighting Plan, would be required to ensure that any exterior lighting would not result in excessive light spillage onto to the adjacent Los Cerritos Wetlands. With implementation of mitigation AES-1 and incorporation of regulatory code pursuant to the LBMC, the project would not generate substantial sources of light or glare and impacts would be reduced to a less than significant.

Mitigation Measure

AES-1 Outdoor Lighting Plan

Prior to issuance of building permits for the project, the project Applicant shall submit a photometric plan to the Department of Development Services demonstrating that the project will be designed and shielded so that the project's contribution of nighttime lighting shall be no greater than 0.10 foot-candles at the edge of the Los Cerritos Wetlands.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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2 Agriculture and Forestry Resources

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

- a. *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

The California Department of Conservation's 2018 map of Los Angeles County Important Farmland shows that the project site is not located in an area consisting of farmland (California Department of Conservation 2018). Therefore, the project would not have an impact on designated farmland.

NO IMPACT

- b. *Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?*

The project site and surrounding industrial properties are located in an urbanized area. The project falls under the City of Long Beach's Local Coastal Program (City of Long Beach 1980) and, under it, is located in the SEADIP area (City of Long Beach 2006). In addition, the project site is designated by the City's SEASP (SP-2), and zoned Industrial and Coastal Habitat, Wetlands, and Recreation. The project site is not zoned for agricultural use or under any Williamson Act contract (DOC 2015-2016). The project would not involve the conversion of farmland to non-agricultural uses, therefore, the proposed project would have no impact with respect to agricultural zoning or other conversion of farmland to non-agricultural use.

NO IMPACT

- c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*
- d. *Result in the loss of forest land or conversion of forest land to non-forest use?*

The project site and the surrounding area is developed with industrial uses and is not zoned for forest land or timberland. Accordingly, the project would not conflict with forest land or timberland zoning. Additionally, the project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impact would occur.

NO IMPACT

- e. *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

The proposed project would redevelop an existing industrial site for continued industrial use and does not include the conversion of farmland to non-agricultural uses. Therefore, the proposed project would have no impact with respect to agricultural zoning or other conversion of farmland to non-agricultural use.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project-specific air quality analysis is based on the Air Quality/Greenhouse Gas Modeling Results estimated using CalEEMod.2016.3.2 (Rincon Consultants, Inc. 2019) (Appendix A).

Air Quality Standards and Attainment

The project site is in the South Coast Air Basin (SCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). As the local air quality management agency, the SCAQMD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards.

Depending on whether the standards are met or exceeded, the SCAB is classified as being in "attainment" or "nonattainment." Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The SCAQMD is in nonattainment for the federal standards for ozone and PM_{2.5} and the state standards for ozone, PM₁₀, and PM_{2.5}. Areas of the SCAB located in Los Angeles County are also in nonattainment for lead. The SCAB is designated unclassifiable or in attainment for all other federal and state standards. Characteristics of O₃, CO, NO₂, SO₂, and suspended particulate matter are described in Table 3, Health Effects Associated with Criteria Pollutants.

Table 3 Health Effects Associated with Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: pulmonary function decrements and localized lung edema in humans and animals, risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Carbon monoxide (CO)	Reduces oxygen delivery leading to: (1) Aggravation of chest pain (angina pectoris) and other aspects of coronary heart disease; (2) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (3) impairment of central nervous system functions; and (4) possible increased risk to fetuses.
Nitrogen dioxide (NO ₂)	(1) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (2) risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (3) contribution to atmospheric discoloration.
Sulfur dioxide (SO ₂)	(1) Bronchoconstriction accompanied by symptoms that may include wheezing, shortness of breath, and chest tightness during exercise or physical activity in persons with asthma.
Suspended particulate matter (PM ₁₀)	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma). ^a
Suspended particulate matter (PM _{2.5})	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma. ¹

¹ More detailed discussion on the health effects associated with exposure to suspended particulate matter can be found in the following documents: Office of Environmental Health Hazard Assessment, *Particulate Matter Health Effects and Standard Recommendations*, www.oehha.ca.gov/air/toxic_contaminants/PM10notice.html#may, May 9, 2002; and EPA, *Air Quality Criteria for Particulate Matter*, October 2004.

Source: U.S. EPA 2018

Air Quality Management

Under state law, the SCAQMD is required to prepare a plan for air quality improvement for pollutants for which the District is in non-compliance. The latest *Air Quality Management Plan* (AQMP) from 2016 was adopted on March 3, 2017 (SCAQMD 2017a). It incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2012 AQMP, including the approval of the new federal 8-hour ozone standard of 0.070 ppm that was finalized in 2015. The Final 2016 AQMP addresses several state and federal planning requirements and incorporates new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and meteorological air quality models. The Southern California Association of Government's (SCAG) projections for socio-economic data (e.g., population, housing, employment by industry) and transportation activities from the *2016 Regional Transportation Plan/Sustainable Communities Strategy* (2016 RTP/SCS) are integrated into the 2016 AQMP (SCAQMD 2017a). This

Plan builds upon the approaches taken in the 2012 AQMP for the attainment of federal PM and ozone standards and highlights the significant amount of reductions to be achieved. It emphasizes the need for interagency planning to identify additional strategies to achieve reductions within the timeframes allowed under the federal Clean Air Act, especially in the area of mobile sources. The 2016 AQMP also includes a discussion of emerging issues and opportunities, such as fugitive toxic particulate emissions, zero-emission mobile source control strategies, and the interacting dynamics among climate, energy, and air pollution. The Plan also demonstrates strategies for attainment of the new federal eight-hour ozone standard and vehicle miles travelled (VMT) emissions offsets, pursuant to recent United States Environmental Protection Act (USEPA) requirements.

Air Emission Thresholds

The SCAQMD recommends quantitative regional significance thresholds for temporary construction activities and long-term project operation in the SCAB, shown in Table 4, Air Quality Thresholds of Significance.

Table 4 Air Quality Thresholds of Significance

Construction Thresholds	Operational Thresholds
75 pounds per day of ROG	55 pounds per day of ROG
100 pounds per day of NO _x	55 pounds per day of NO _x
550 pounds per day of CO	550 pounds per day of CO
150 pounds per day of SO _x	150 pounds per day of SO _x
150 pounds per day of PM ₁₀	150 pounds per day of PM ₁₀
55 pounds per day of PM _{2.5}	55 pounds per day of PM _{2.5}

Source: SCAQMD 2015

Localized Significance Thresholds

In addition to the above regional thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the *CEQA Air Quality Handbook* (1993). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for NO_x, CO, PM₁₀, and PM_{2.5}. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), distance to the sensitive receptor, and project size. LSTs have been developed for emissions within construction areas up to five acres in size. However, LSTs only apply to emissions in a fixed stationary location and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2008). As such, LSTs are typically applied only to construction emissions because the majority of operational emissions are associated with project-generated vehicle trips. Therefore, operational LSTs are not discussed further below.

LSTs have been developed for emissions in construction areas up to five acres in size. The SCAQMD provides lookup tables for project sites that measure one, two, or five acres. The proposed industrial

project would be developed on a 6.69-acre project site.⁵ As it is unlikely that more than five acres of the site would be under construction on any given day, LSTs for a five-acre project site were used to provide a more conservative estimate. LSTs are provided for receptors at distances of 82 feet, 164 feet, 328 feet, 656 feet, and 1,640 feet. Construction activity would occur approximately 475 feet east from the closest sensitive receptor, which is Channel View Park. Therefore, the analysis below uses the LST values for 328 feet.

The project site is located in SRA-4 (South Coastal Los Angeles County). LSTs for construction in SRA-4 on a 5-acre site with a receptor 328 feet away are shown in Table 5, SCAQMD LSTs for Construction Emissions.

Table 5 SCAQMD LSTs for Construction Emissions

Pollutant	Allowable Emissions (lbs) from a 5-acre Site in SRA-4 for a Receptor 328 Feet Away
Gradual conversion of NO _x to NO ₂	126
CO	2,613
PM ₁₀	58
PM _{2.5}	5

Source: SCAQMD 2008b

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding forecasts used in the development of the AQMP. The 2016 AQMP, the most recent AQMP adopted by the SCAQMD, incorporates local city general plans and the SCAG's 2016 RTP/SCS socioeconomic forecast projections of regional population, housing, and employment growth (SCAG 2016).

The growth projections used by the SCAQMD to develop the AQMP emissions budgets are based on the population, vehicle trends, and land use plans developed in general plans and used by SCAG in the development of the regional transportation plan and sustainable communities strategy. As such, projects that propose development that is consistent with the growth anticipated by SCAG's growth projections and/or the General Plan would not conflict with the SCAQMD AQMP. In the event that a project would propose development that is less dense than anticipated by the growth projections, the project would likewise be consistent with the AQMP. In the event a project proposes development that is greater than anticipated in the growth projections, further analysis would be warranted to determine if the project would exceed the growth projections used in the AQMP for the specific subregional area.

As discussed further in Section 11, *Land Use*, according to the SEADIP, the eastern project area slated for development is in Subarea 19 (identified as industrial) while the western project area is in Subarea 24 (designated for restoration to native wetland habitat). Under the proposed project, the eastern project area would be developed with industrial warehouses and the western project area would be restored to native wetland habitat and donated to the LCWA. As such, development of the

⁵ The proposed project would designate the 1.81 acres of land situated at the northwest and southwest corners of the intersection of Studebaker Road and Loynes Drive as open space. Improvements to these properties would include wetland restoration in consultation with the Los Cerritos Wetland Authority. No physical development is proposed on these parcels.

proposed project would comply with the SEADIP, and therefore also with the City of Long Beach's Local Coastal Program. The project site is also designated Industrial and Coastal Habitat, Wetlands, and Recreation in the SEASP. The project is an industrial project and would be consistent with the land use type identified in the Specific Plan. Therefore, the project is consistent with the existing land use designation and the project would not generate emissions that are not already accounted for in the AQMP. Thus, the project would not obstruct or conflict with implementation of the AQMP. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Consistent with CEQA Guidelines Section 15064(h)(3), the SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and state Clean Air Acts. If the mass regional emissions calculated for a project exceed the applicable SCAQMD daily significance thresholds that are designed to assist the region in attaining the applicable state and national ambient air quality standards, that project can be considered cumulatively considerable.

Construction Emissions

Project construction would generate temporary air pollutant emissions. These emissions are associated with fugitive dust and exhaust emissions from heavy-duty construction vehicles, as well as reactive organic gases (ROG) released during the application of architectural coatings. Grading, excavation, hauling, and site preparation would involve the greatest use of heavy-duty equipment and generation of fugitive dust.

Table 6, Project Construction Emissions, summarizes the estimated maximum daily emissions (lbs) of pollutants associated with construction of the project. Emissions modeling assumes compliance with applicable SCAQMD regulations, such as SCAQMD Rule 1113 requiring use of low-ROG paints and architectural coatings, Rule 403 requiring fugitive dust suppression, and Rule 402 prohibiting the generation of dust that creates a nuisance off-site. As shown below, ROG, NO_x, CO, SO₂, PM₁₀, and PM_{2.5} emissions would not exceed SCAQMD regional thresholds or LSTs. Because the project would not exceed SCAQMD's regional construction thresholds or LSTs, project construction would not result in a cumulatively considerable net increase of a criteria pollutant, and project construction activities would have a less than significant impact.

Table 6 Project Construction Emissions

	Maximum Emissions (lbs/day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Construction Year 2020	20.7	46.7	48.4	0.1	10.6	6.6
SCAQMD Regional Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Maximum On-site Emissions	–	54.2	29.0	–	10.8	6.9
SCAQMD Localized Significance Thresholds (LSTs)	N/A	126	2,613	N/A	58	18
Threshold Exceeded?	N/A	No	No	N/A	No	No

Notes: Emissions modeling was completed using CalEEMod Version CalEEMod.2016.3.2. See Appendix A for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from “mitigated” results. For this analysis, “mitigated” results are representative of air quality emissions that only factor in project compliance with existing SCAQMD regulations, such as SCAQMD Rule 1113 (Architectural Coatings) and Rule 403 (Fugitive Dust), which reduce emissions. In addition, SCAQMD Rule 402 (Nuisance) prohibits the generation of dust that creates a nuisance off-site. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources such as heavy construction equipment and architectural coatings and excludes off-site emissions from sources such as construction worker vehicle trips and haul truck trips.

Source: Air Quality/Greenhouse Gas Modeling Results (Rincon Consultants, Inc. 2019) (Appendix A)

Operational Emissions

Table 7, Project Operational Emissions, summarizes the project’s operational emissions by emission source (area, energy, or mobile). As shown below, the emissions generated by operation of the project would not exceed SCAQMD regional thresholds for criteria pollutants. Therefore, the project would not contribute substantially to an existing or projected air quality violation and would have a less than significant impact. In addition, because criteria pollutant emissions and regional thresholds are cumulative in nature, the project would not result in a cumulatively considerable net increase of criteria pollutants.

Table 7 Project Operational Emissions

Emission Source	Maximum Daily Emissions (lbs/day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	3.0	< 0.1	< 0.1	0.0	< 0.1	< 0.1
Energy	0.1	0.7	0.6	< 0.1	0.1	0.1
Mobile	1.0	14.3	12.4	0.1	4.0	1.1
Total Project Emissions	4.0	15.0	13.0	0.1	4.0	1.2
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Notes: Emissions modeling was completed using CalEEMod Version CalEEMod.2016.3.2. For this analysis, “mitigated” results are representative of air quality emissions that only factor in project compliance with existing SCAQMD regulations, such as SCAQMD Rule 1113 (Architectural Coatings) and Rule (Fugitive Dust), which reduce emissions. , which account for compliance with regulations and project design features. In addition, SCAQMD Rule 402 (Nuisance) requires implementation of dust from creating a nuisance off-site.

Source: Air Quality/Greenhouse Gas Modeling Results (Rincon Consultants, Inc. 2019) (Appendix A)

LESS THAN SIGNIFICANT IMPACT

c. *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Localized Significance Thresholds

LSTs were developed by SCAQMD in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance for nearby sensitive receptors, the SCAQMD adopted construction LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. Local sensitive receptors include single-family residences in the University Park Estates neighborhood west of the Los Cerritos Channel (as close as 630 feet west of the project site), the former Rosie the Riveter Charter High School (located at 690 North Studebaker Road, approximately 730 feet north of the project site), and Charles F. Kettering Elementary School (located at 550 Silvera Avenue, approximately 1,530 feet northwest of the project site). As shown in Table 6, Project Construction Emissions, project construction generated emissions would not exceed localized significance thresholds. Therefore, the project would not expose local sensitive receptors to substantial pollutant concentrations from on-site activities during construction. Impacts would be less than significant

CO Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal one-hour standard of 35.0 parts per million (ppm) or the federal and state eight-hour standard of 9.0 ppm (California Air Resources Board [CARB] 2016).

The entire SCAB is in conformance with state and federal CO standards, and most air quality monitoring stations no longer report CO levels. No stations within the vicinity of the project site have monitored CO in the last four years. In 2012, the Long Beach-2425 Webster Street monitoring station detected an eight-hour maximum CO concentration of 2.6 ppm, which is substantially below the state and federal standard of 9.0 ppm (ARB 2016; 2017). As shown in Table 6, Project Construction Emissions, construction of the project would generate maximum daily CO emissions of approximately 41 pounds, which is well below the SCAQMD regional threshold of 550 pounds and the maximum daily on-site CO emissions are approximately 29 pounds, which is well below the LST threshold of 2,613 pounds. Additionally, as shown in Table 7, Project Operational Emissions, combined CO emissions from area, energy, and mobile emissions sources combined would be approximately 13 pounds per day, which is well below the SCAQMD regional threshold of 550 pounds. Both the SCAQMD's regional thresholds and LSTs are designed to be protective of public health. Based on the low background level of CO in the project area, ever-improving vehicle emissions standards for new cars in accordance with state and federal regulations, and the project's low level of operational CO emissions, the project would not create new hotspots or contribute substantially to existing hotspots. Localized air quality impacts related to CO hotspots would not occur.

Toxic Air Contaminants – Diesel Particulate Matter

Fine particulates are generally associated with combustion processes and form in the atmosphere as a secondary pollutant through chemical reactions. Diesel engine fuel combustion forms an important fraction of the particulate matter emission inventory, as particulates in diesel emissions are very small and readily respirable. The particles have hundreds of chemicals adsorbed onto their surfaces, including many known or suspected mutagens and carcinogens. Diesel particulate matter (PM) emissions are estimated to be responsible for about 70 percent of the total ambient air toxics risk. In addition to these general risks, diesel PM can also be responsible for elevated localized or near-source exposures ("hot-spots").

The California Air Resources Board's (CARB) *Air Quality and Land Use Handbook: A Community Health Perspective* notes that distribution centers or warehouses can be a source of toxic air contaminants (TACs) due to the operation of diesel engines associated with trucks, trailers, shipping containers or other equipment (CARB 2005). While CARB recommends a separation of 1,000 feet between distribution centers and sensitive receptors to substantially reduce TAC concentrations and public exposure downwind of such facilities, it also acknowledges that exposure to TACs associated with distribution centers is dependent on a number of site-specific parameters, including project design and configuration, truck trip generation and distribution, and meteorological conditions.

SCAQMD has health risk criteria for cancer risk and non-cancer risk (i.e., chronic and acute risk). Cancer risk is expressed as the incremental excess cancer risk, or the maximum number of new cancer cases projected to occur in a population of one million people due to exposure to a cancer-causing substance. Potential acute health risks include severe symptoms that develop rapidly and lead quickly to a health crisis due to exposure to a harmful substance, whereas chronic health risks include health crises, such as lung inflammation, immune suppression, and immune sensitization, which develop due to exposure to low levels of a harmful substance over a long period of time.

According to SCAQMD's significance thresholds for the emissions of TACs, a project would result in a potentially significant impact if it would generate an incremental excess cancer risk of 10 in one million (1×10^{-6}) or a cancer burden of 0.5 excess cancer cases in areas exceeding one in one million risk. Additionally, non-carcinogenic health risks are assessed in terms of a hazard index. A project

would result in a potentially significant impact if it would result in a chronic and acute hazard index greater than 1.0 (SCAQMD 2015).

To characterize potential health risks associated with operation of the proposed industrial warehouses on nearby sensitive receptors, a *Health Risk Assessment (HRA)* (Rincon Consultants, Inc. 2019) was prepared using the United States Environmental Protection Agency's (U.S. EPA) AMS/EPA Regulatory Model (AERMOD) and CARB's Hotspots Analysis and Reporting Program (HARP 2) (Appendix B, Health Risk Assessment). In compliance with applicable laws and guidelines, the HRA analyzes health risks at nearby residences to the west and north of the project site and schools to the north. Specifically, potential health risks were modeled at the eastern edge of single-family residential property lines in the University Park Estates neighborhood west of the Los Cerritos Channel (as close as 630 feet west of the project site), the former Rosie the Riveter Charter High School⁶ (located at 690 North Studebaker Road, approximately 730 feet north of the project site), and Charles F. Kettering Elementary School (located at 550 Silvera Avenue, approximately 1,530 feet northwest of the project site). Though not considered sensitive receptors, potential health risks were also modeled at off-site occupational (worker) receptors at the surrounding manufacturing/industrial land uses immediately to the north, east, and south.

The project involves construction of 139,200 sf industrial warehouse space across two buildings, including 20 loading docks along the eastern edge of the proposed warehouses. The primary source of diesel exhaust particulates associated with the project would be trucks idling at loading docks, circulating on-site, and accessing and leaving the project site via area roadways (i.e., Studebaker Road). In addition to diesel exhaust particulates from truck operation, the HRA also examined five other vehicle exhaust pollutants of concern that are emitted from diesel-fueled vehicles: acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. The HRA determined TAC emissions based on truck trip generation estimates included in the traffic impact analysis (TIA) prepared for the project and CARB's EMFAC2014 emission model, which provides emissions factors for various pollutants by vehicle class.

Table 8, Maximum Residential, Worker, and Student Cancer Risk, shows the incremental excess cancer risk for the Maximum Exposed Individual Resident (MEIR) and the Maximum Exposed Individual Worker (MEIW) based on the results of site-specific dispersion modeling conducted as part of the HRA. The MEIR would be located approximately 820 feet northwest of the center of the project site in the University Park Estates neighborhood. The MEIW would be located on the adjacent industrial/manufacturing land use at the project site's eastern boundary. The maximum exposed student receptor would be located approximately 730 feet north of the project site at the former Rosie the Riveter Charter High School; modeled health risks at Charles F. Kettering Elementary School are less than those reported for the maximum exposed student receptor at Rosie the Riveter Charter High School. As demonstrated in Table 8, incremental excess cancer risks would not exceed SCAQMD's threshold of 10 in one million for either the MEIR, MEIW, or nearby student receptors. Because the incremental excess cancer risk does not exceed one in one million for any of the receptors, calculation of the project's cancer burden is not necessary, pursuant to SCAQMD's Risk Assessment Procedures for Rules 1401, 1401.1, and 212 (SCAQMD 2017b).

⁶ While currently closed, the Rosie the Riveter Charter High School was evaluated as a sensitive receptor in the event the school may reopen in the future or a similar educational use would occupy the site.

Table 8 Maximum Residential, Worker, and Student Cancer Risk

	Maximum Exposed Individual Resident (MEIR) ¹	Maximum Exposed Individual Worker (MEIW) ²	Maximum Exposed Student Receptor ¹	Charles F. Kettering Elementary School ¹
Incremental Excess Cancer Risk	0.6 in one million	0.4 in one million	1.0 in one million	0.3 in one million
Threshold	10 in one million	10 in one million	10 in one million	10 in one million
Threshold Exceeded?	No	No	No	No

¹ Based on 30-year resident exposure.

² Based on 25-year worker exposure.

Source: Health Risk Assessment for the 300 Studebaker Road Industrial Park Project (Rincon Consultants, Inc. 2019)(Appendix B)

In addition to incremental excess cancer risks, the HRA evaluates potential non-carcinogenic chronic and acute risks associated with operation of the project. Table 9, Maximum Residential, Worker, and Student Non-Carcinogenic Health Impacts, summarizes chronic and acute hazard indices for the MEIR, MEIW, and maximum exposed student receptor. As demonstrated in Table 9, neither chronic nor acute hazard indices would exceed SCAQMD's threshold of 1.0 at the MEIR, MEIW, or nearby student receptors.

Table 9 Maximum Residential, Worker, and Student Non-Carcinogenic Health Impacts

	Maximum Exposed Individual Resident (MEIR) ¹	Maximum Exposed Individual Worker (MEIW) ²	Maximum Exposed Student Receptor ¹	Charles F. Kettering Elementary School ¹
Chronic Hazard Index	3.1×10^{-4}	3.3×10^{-3}	4.4×10^{-4}	1.5×10^{-4}
Acute Hazard Index	2.2×10^{-4}	1.5×10^{-3}	2.3×10^{-4}	1.0×10^{-4}
Threshold	1.0	1.0	1.0	1.0
Threshold Exceeded?	No	No	No	No

¹ Based on 30-year resident exposure.

² Based on 25-year worker exposure.

Source: Health Risk Assessment for the 300 Studebaker Road Industrial Park Project (Rincon Consultants, Inc. 2019) (Appendix B)

Although the project would emit TACs in the form of diesel PM and other diesel-related contaminants, such emissions would not result in health impacts at nearby residential, school, and off-site worker receptors in excess of applicable SCAQMD thresholds. Therefore, this impact would be less than significant.

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- d. *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

The potential for an odor impact is dependent on several variables including the nature of the odor source, distance between the receptor and odor source, and local meteorological conditions. Potential odors associated with the proposed project may result from construction equipment diesel exhaust and the application of asphalt and architectural coatings during construction activities. However, construction odor emissions would be temporary, intermittent in nature, and would cease upon completion of the project. In addition, the project would be required to comply with SCAQMD Rule 402, which prohibits the discharge of air contaminants that would cause injury, detriment, nuisance, or annoyance to the public. In addition, SCAQMD Rule 402 requires implementation of dust from creating a nuisance off-site. Therefore, the odors from generated by project construction would result in less than significant impacts.

According to SCAQMD's *CEQA Air Quality Handbook* (1993), land uses associated with odor complaints consist of agricultural uses, wastewater treatment plants, chemical and food processing plants, composting, refineries, landfills, dairies, and fiberglass molding. While these uses are prohibited in the SEADIP for the project site, the SEASP's industrial land use designation allows for oil and gas operations consistent with Title 12, *Oil and Gas Production*, of the LBMC and Section 30262, *Oil and Gas Development*, of the Coastal Act (City of Long Beach 2017). Nonetheless, the proposed project would not include any of these uses that are known to generate odors. In addition, solid waste generated by the proposed on-site uses would be collected by a contracted waste hauler, ensuring that odors resulting from on-site waste would be managed and collected in a manner to prevent the proliferation of odors. Therefore, the project would have a less than significant impact from operational odors.

LESS THAN SIGNIFICANT IMPACT

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4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This section assesses potential temporary and permanent impacts to biological resources associated with the proposed project. This analysis is based on a literature and database review and a site reconnaissance survey completed by Rincon Consultants on April 1, 2019, which included assessment of general site conditions, mapping of vegetation communities and land cover, an evaluation of potential presence of sensitive biological resources, and review of aerial photography. The full results of this analysis are presented in the Biological Resources Assessment Memorandum (BRAM) (Rincon Consultants, Inc. 2019) (Appendix C) and Jurisdictional Delineation Report (Rincon Consultants, Inc. 2019) (Appendix D) prepared for the project.

- 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?*

The project site is located in an industrial area adjacent to Cerritos Channel. The parcel east of Studebaker Road is proposed to contain two industrial buildings and concrete and asphalt paving with ornamental trees along Studebaker Road and Loynes Drive. The western project area is currently vacant, undeveloped land with sparse disturbed vegetation characterized by non-native species. A line of power poles is present along the east side of Studebaker Road.

The California Natural Diversity Database (CNDDDB)/California Native Plant Society (CNPS) query results include 32 special-status plant species within five miles of the project site (Appendix C). Special-status plant species typically have specialized habitat requirements, including plant community types, soils, elevational ranges. Based on a database search and a site survey, no suitable habitat is present within the survey area for any of these plant species and all are classified as having no potential to occur on-site. No special-status plant species were observed during the site reconnaissance survey.

The CNDDDB query results include 24 special-status wildlife species within five miles of the project site. The potential for special-status wildlife species to occur on the site was assessed based on known distribution, habitat requirements, and existing site conditions. No special-status wildlife species were determined to have potential to occur on-site (Appendix C) and, similarly, none were detected within or immediately surrounding the survey area during the site reconnaissance survey. The lack of potential for special-status wildlife species occurrence is based on low habitat quality in disturbed and developed areas of the site, lack of native vegetation, isolation from other suitable habitat due to developed land uses surrounding the site, and high levels of human disturbance.

Migratory or other common nesting birds, while not designated as special-status species, are protected by the California Fish and Game Code (CFGF) and Migratory Bird Treaty Act (MBTA) and may nest on the power pole structures along Studebaker Road or in ornamental trees on-site. Therefore, construction of the project has the potential to directly (by destroying a nest) or indirectly (construction noise, dust, and other human disturbances that may cause a nest to fail) impact nesting birds protected under the CFGF and MBTA. Implementation of Mitigation Measure BIO-1 would ensure compliance with the CFGF Section 3503 and the MBTA with respect to nesting birds by reducing the impact through pre-construction nesting bird surveys and avoidance of active nests. Given the absence of special-status species and incorporation of mitigation for nesting birds, no impacts to special-status species or nesting birds would occur and impacts would be less than significant.

Mitigation Measures

BIO-1 Pre-construction Nesting Bird Surveys and Avoidance

- If initial clearing activities prior to the start of construction take place during the bird nesting season (generally February 1 through August 31, but variable based on seasonal and annual climatic conditions), a nesting bird survey should be performed by a qualified biologist within seven days of such activities to determine the presence/absence, location, and status of any active nests on-site or within 100 feet of the site. The findings of the survey should be summarized in a report to be submitted to the City of Long Beach prior to undertaking construction activities at the site.
- If nesting birds are found on-site, a construction buffer of 500 feet for nesting raptors or threatened or endangered species and 100 feet of all other nesting birds should be implemented around the active nests and demarcated with fencing or flagging. Nests should be monitored at a minimum of once per week by the qualified biologist until it has been determined that the nest is no longer being used by either the young or adults. No ground disturbance should occur within this buffer until the qualified biologist confirms that the breeding/nesting is completed and all the young have fledged. If project activities must occur within the buffer, they should be conducted at the discretion of the qualified biologist.
- If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.

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- 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, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, including sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in CNDDDB. Riparian habitats typically exist to a very limited extent along streams and flood channels where disturbance is (City of Long Beach 1973). The only habitat present on the project site is disturbed and previously developed. The Cerritos Channel is located within 100 feet of the project site but is separated from the project site by a chain link fence. It is confined, fenced, and bounded completely by paved surfaces with no riparian habitat or sensitive vegetation communities. As further discussed in Section 10, *Hydrology*, the proposed project would comply with current National Pollutant Discharge Elimination System (NPDES) and Los Angeles County MS4 permit regulations and would also include storm water Low Impact Development (LID) Best Management Practices (BMPs). Additionally, the project would comply with Chapter 18.74 of the Long Beach Municipal Code which regulates the implementation of the LIDs and BMPs for projects in the City of Long Beach. Therefore, impacts to riparian habitat or sensitive vegetation communities would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

As analyzed in the Jurisdictional Delineation Report prepared for the project (Appendix D), the Cerritos Channel and an associated cold-water intake for AES are within the survey area. However, these waters were not formally delineated because they are channelized and sufficiently separated from the project site that they would not be impacted by the proposed project.

Indirect impacts to jurisdictional resources would be avoided through project design and implementation. As discussed above and in Section 10, *Hydrology*, the proposed project would be required comply with current regulations for pollutants and storm water discharge. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- 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 wildlife corridors, or impede the use of native wildlife nursery sites?*

Wildlife corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as between foraging and denning areas, or they may be regional in nature, allowing movement across the landscape. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Examples of barriers or impediments to movement include housing and other urban development, roads, fencing, unsuitable habitat, or open areas with little vegetative cover. Regional and local wildlife movements are expected to be concentrated near topographic features that allow convenient passage, including roads, drainages, and ridgelines.

The project site is encompassed by developed industrial and residential properties and established transportation corridors. The project site is located adjacent to the Los Cerritos Wetlands; however, it has been previously disturbed. The site is currently fenced and does not connect areas of habitat that wildlife would be migrating through. Therefore, it does not serve as a migratory wildlife corridor and the proposed project would not interfere substantially with the movement of any native wildlife species. The adjacent Cerritos Channel and Los Cerritos Wetlands do however, provide habitat for the general use and movement of wildlife and measures should be taken to reduce impacts to these areas. Due to the proximity of the project site to the Cerritos Channel and Los Cerritos Wetlands, the project would be designed in such a way to protect nocturnal wildlife movement, through implementation of Mitigation Measure AES-1 (see Section 4.1, *Aesthetics*), which regulates the placement and intensity of outdoor lighting within the Coastal Habitat, Wetlands and Recreation land use. In addition, noise reduction measures during construction (see Section 4.13, *Noise*) would be implemented to reduce noise impacts to wildlife. Therefore, impacts to wildlife movement or corridors would be less than significant with incorporation of mitigation.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The LBMC Section 14.28 states that tree trimming and removal of any City-owned street tree will be conducted by the Public Works Department following submittal of an application for a no-fee permit (City of Long Beach, 2006, 2013). No trees on or immediately adjacent to the property appear to be currently located directly in or along a public right-of-way. Therefore, the project would not conflict with Municipal Code Section 14.28.

The project is located in the California Coastal Zone and is subject to the policies pursuant to the California Coastal Commission (CCC). The project falls under the City of Long Beach's LCP (City of Long Beach 1980) and, under it, is located within the SEADIP (Long Beach 2006) area. According to the SEADIP, the eastern project area is slated for development in Subarea 19 while the western project area is are within Subarea 24.

In the SEADIP, Subarea 19 is identified as industrial and fully developed in accordance with the provisions of the zone. As such, development of the proposed project, which includes industrial buildings, in Subarea 19 would comply with the SEADIP. Subarea 24 is designated for restoration to native wetland habitat. Under the proposed project, the western project area would be restored to native wetland habitat and donated to the Los Cerritos Wetland Authority. Restoration plans would be prepared in consultation with LCWA and in compliance with requirements of the SEADIP and SEASP. As such, the proposed open space areas would comply with the SEADIP and SEASP, and therefore with the City of Long Beach's LCP.

Given that the project would not directly impact the Cerritos Channel and no Environmentally Sensitive Habitat Areas (ESHA) occur on or adjacent to the project site, the project would not conflict with SEASP Section 30240: Environmentally sensitive habitat areas: adjacent developments. Section 301240 protects ESHAs adjacent to development against any significant disruption of habitat values. For these reasons, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- 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?*

The project is not subject to any Habitat Conservation Plan, Natural Conservation Community Plan, or other local, regional, or state habitat conservation plan.

NO IMPACT

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5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The following analysis is based on the Cultural Resources Study for the 300 Studebaker Road Industrial Park Project (Rincon Consultants, Inc. 2019) (Appendix E). The letter report documents the results of the cultural resources tasks performed by Rincon, specifically: a cultural resources records search, Native American outreach, a cultural resources pedestrian field survey, and an analysis including archaeological evaluation of the project site.

- a. *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

The results of the cultural resources records search conducted at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The purpose of the records search was to identify previously recorded cultural resources, as well as previously conducted cultural resources studies of the project site and a 0.5-mile radius surrounding it. The search also included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the Archaeological Determination of Eligibility (ADOE), the Historic Property Data File (HRI), and available historic maps and aerial photographs. The results of the SCCIC records search identified four previously recorded cultural resources within a 0.5-mile radius of the project site. One resource, the Alamitos Energy Center Fuel Oil Tank Farm (P-19-186880), is located partially within the project site. The records search results are included in Appendix E of this document.

Resource-19-186880 was originally recorded by Ivan H. Strudwick of LSA Associates, Inc. in 2004 as part of a cultural resource survey of the Alamitos Energy Center Fuel Oil Tank Farm (Strudwick 2004). The results of Strudwick's (2004) study indicate the oil tank farm was constructed in the 1950s and consists of a large capacity petroleum storage yard, or tank farm, with six large capacity petroleum fuel oil tanks with pipelines leading to the tanks. Strudwick's (2004) investigation of the project site identified these pipelines as asbestos-lined pipes leading to Tank 1 and Tank 2; however, these tanks no longer exist. In addition, tanks 3, 4 and 6, located outside the project boundary,

appear to be demolished. Tank 5, which is located east of the project site, remains. Resource P-19-186880 has previously been recommended ineligible for listing on the CRHR (Strudwick 2004).

Aerial photographs and topographic maps as early as 1950 depict the project site as undeveloped land with the Cerritos Channel located to the west (NETRonline 2019, USGS 1950). By 1963 aerial photographs depict two circular structures and associated pipelines of P-19-186880 on the project site east of North Studebaker Road. These circular structures are referred to as Tank 1 and Tank 2 of P-19-186880 (Strudwick's 2004). Tank 1 and Tank 2 remain on the project site until 2011, after which they appear to have been demolished, though pipelines leading to the tanks remain visible (NETRonline 2019, Google Earth Pro 2019).

A pedestrian survey of the project site was conducted on April 1, 2019. A visit to previously recorded resource P-19-186880 determined that the historic period pipelines leading to the now demolished Tank 1 and Tank 2 of the 1950s Alamitos Energy Center Fuel Oil Tank Farm remain on the project site. Strudwick's (2004) investigation of the project site indicates that the pipelines are not distinctive in design, not associated with events of significance, and not likely to yield important historic information, and therefore recommended as not important under CEQA and not eligible for listing on the CRHR. No other historic period resources were observed on the project site during the pedestrian survey. Therefore, the project would have no impact to historical resources.

NO IMPACT

- b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

As part of the background research process of identifying cultural resources for this project, Rincon requested a records search of the Sacred Lands File (SLF) from the Native American Heritage Commission (NAHC) to identify the potential for cultural resources within the project site and to obtain contact information for Native Americans groups or individuals who may have knowledge of resources within the project site. The SLF search was returned with negative results. Rincon prepared and mailed outreach letters to six NAHC-listed Native American contacts to request information on potential cultural resources in the project vicinity that may be impacted by project development. This outreach was conducted independent from consultation under Assembly Bill 52 (AB 52) of 2014 and the Senate Bill 18 (SB 18) process. Any AB 52 or SB 18 consultation conducted separately by the lead agency, the City.

In response to Rincon's outreach letter, Brandy Salas (on behalf of Chairman Andrew Salas) of the Gabrieleño Band of Mission Indians – Kizh Nation reached out to Rincon inquiring if ground disturbance was planned for the project, and if so, their Tribal government would like to consult with the lead agency. Rincon followed up with Ms. Salas to inquire about the Tribe's knowledge of potential cultural resources that may be impacted by the project. No specific information regarding cultural resources was provided.

In addition, as discussed in Section 18, *Tribal Cultural Resources*, the City received a request for consultation from one Tribe, the Gabrieleño Band of Mission Indians - Kizh Nation. The City conducted a meeting with the Tribe on May 30, 2019 to answer questions about the project and to hear requests and recommendations for mitigation. The results of the City's consultation with the Tribe have been included in this IS-MND.

The cultural resources records search conducted at the SCCIC identified one previously recorded historic-period resource, the Alamitos Energy Center Fuel Oil Tank Farm on the project site. The

resource is discussed in detail in the section above. No other archaeological (prehistoric or historic) resources were identified on the project site during the record search.

On April 1, 2019, an archaeological field survey of the 8.5-acre project site was conducted. The project site has undergone extensive grading and ground disturbance. The remains of pipelines associated with the Generating Station Fuel Oil Tank Farm (P-19-186880) were visible. No other archaeological resources (prehistoric or historic) were observed on the project site during the pedestrian survey.

The cultural resources records search, Native American outreach, and field survey did not identify any archaeological resources within the project site. Although no archaeological resources were identified, there remains the potential to encounter unanticipated archaeological resources during ground-disturbing activities associated with project construction. Construction activities may result in the destruction, damage, or loss of undiscovered scientifically-important archaeological resources. Therefore, impacts to archaeological resources would be potentially significant. Mitigation Measure CR-1 provides for the unanticipated discovery of cultural resources. The measure stipulates that if unanticipated cultural resources are encountered during ground-disturbing activities, a qualified archaeologist will evaluate the find and determine if the resource requires evaluation for listing on the CRHR. If the find is determined to be CRHR-eligible, appropriate treatment measures would be developed and implemented to reduce any significant impacts to a less than significant level.

Mitigation Measures

CR-1 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work such as data recovery excavation and Native American consultation and archaeological monitoring may be warranted to mitigate any significant impacts to cultural resources.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

No known human remains have been documented within the project site or the immediate vicinity. While the project site is unlikely to contain human remains, the potential for the recovery of human remains is always a possibility during ground disturbing activities. However, based on the disturbed nature of the project site and the lack of previously unrecorded cultural resources within the study area, the potential to encounter human remains is considered low. If human remains are found, existing regulations outlined in the State of California Health and Safety Code Section 7050.5 state that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric or Native American in origin, the coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete the

300 Studebaker Road Industrial Park Project

inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner. For these reasons, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Electricity and Natural Gas

In 2017, California used 292,039 gigawatt-hours (GWh) of electricity, of which 29 percent were from renewable resources (CEC 2019a). California also consumed approximately 12,500 million U.S. therms (MMthm) of natural gas in 2017 (CEC 2017a). The project site would be provided electricity by Southern California Edison (SCE) and natural gas by the Long Beach Energy Resources Department. Table 10, Electricity Consumption in the SCE Service Area in 2017, and Table 11, Natural Gas Consumption in the Long Beach Energy Resources Service Area in 2017, show the electricity and natural gas consumption by sector and total for SCE and the Energy Resources Department. In 2017, SCE provided approximately 28.9 percent of the total electricity used in California. Also, in 2017, Long Beach Energy Resources Department provided approximately 0.7 percent of the total natural gas usage in California.

Table 10 Electricity Consumption in the SCE Service Area in 2017

Agriculture and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Streetlight	Total Usage
2,975.4	31,925.3	4,283.3	13,094	2,410.6	28,975.0	627.9	84,291.6

Notes: All usage expressed in GWh

Source: CEC 2017b

Table 11 Natural Gas Consumption in Long Beach Energy Resources Service Area in 2017

Agriculture and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Total Usage
0.1	22.4	6.4	7.4	8.5	44.5	89.3

Notes: All usage expressed in MMThm

Source: CEC 2017c

Petroleum

In 2015, the total amount of energy consumed by the transportation sector in California was equal to 23.2 billion gallons of gasoline, including 15.5 billion gallons of finished gasoline and 3.7 billion gallons of diesel (CEC 2017d). Though California's population and economy are expected to grow, gasoline demand is projected to decline from roughly 15.8 billion gallons in 2017 to between 12.3 billion and 12.7 billion gallons in 2030, a 20 percent to 22 percent reduction. This decline comes in response to both increasing vehicle electrification and higher fuel economy for new gasoline vehicles. Diesel demand continues to rise, increasing from around 3.7 billion diesel gallons in 2015 to about 4.7 billion in 2030. This occurs even as an increasing number of alternative fuel trucks and buses enter the market. (CEC 2017d)

- a. *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Construction Energy Demand

During project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles used to deliver materials to the site. The project would require site preparation and grading, including hauling material off-site; pavement and asphalt installation; building construction; architectural coating; and landscaping and hardscaping.

The total consumption of gasoline and diesel fuel during project construction was estimated using the assumptions and factors from CalEEMod.2016.3.2 used to estimate construction air emissions (Appendix A, Air Quality/Greenhouse Gas Modeling Results). Table 12, Estimated Fuel Consumption during Construction, presents the estimated construction phase energy consumption, indicating construction equipment, vendor trips, and worker trips would consume approximately 71,9123 gallons of fuel over the project construction period. Construction equipment would consume an estimated 41441 gallons of fuel; vendor and hauling trips would consume approximately 9,756 gallons of fuel; and worker trips would consume approximately 20,726 gallons of fuel over the combined phases of project construction.

The construction energy estimates represent a conservative estimate because the construction equipment used in each phase of construction was assumed to be operating every day of construction. Construction equipment would be maintained to applicable standards, and construction activity and associated fuel consumption and energy use would be temporary and typical for construction sites. Therefore, the project would not involve the inefficient, wasteful, and unnecessary use of energy during construction, and the construction-phase impact related to energy consumption would be less than significant.

Table 12 Estimated Fuel Consumption during Construction

Fuel Type	Gallons of Fuel	MMBtu ⁴
Diesel Fuel (Construction Equipment) ¹	41,441	5,282
Diesel Fuel (Hauling & Vendor Trips) ²	9,756	1,244
Other Petroleum Fuel (Worker Trips) ³	20,726	2,275
Total	71,923	8,801

¹ Fuel demand rate for construction equipment is derived from the total hours of operation, the equipment's horsepower, the equipment's load factor, and the equipment's fuel usage per horsepower per hour of operation, which are all taken from CalEEMod outputs (Appendix A, Air Quality/Greenhouse Gas Modeling Results), and from compression-ignition engine brake-specific fuel consumptions factors for engines between 0 to 100 horsepower and greater than 100 horsepower (U.S. EPA 2018). Fuel consumed for all construction equipment is assumed to be diesel fuel.

² Fuel demand rate for hauling and vendor trips is derived from hauling and vendor trip number, hauling and vendor trip length, and hauling and vendor vehicle class from "Trips and VMT" Table contained in Section 3.0, *Construction Detail*, of the CalEEMod results (Appendix A, Air Quality/Greenhouse Gas Modeling Results). The fuel economy for hauling and vendor trip vehicles is derived from the United States Department of Transportation (DOT 2018). Fuel consumed for all hauling trucks is assumed to be diesel fuel.

³ The fuel economy for worker trip vehicles is derived from the U.S. Department of Transportation National Transportation Statistics (24 mpg) (DOT 2018). Fuel consumed for all worker trips is assumed to be gasoline fuel.

⁴ CaRFG CA-GREET 2.0 fuel specification of 109,786 Btu/gallon used to identify conversion rate for fuel energy consumption for worker trips specified above (CARB 2015). Low-sulfur Diesel CA-GREET 2.0 fuel specification of 127,464 Btu/gallon used to identify conversion rate for fuel energy consumption for construction equipment specified above (CARB 2015). Totals may not add up due to rounding.

Source: Air Quality/Greenhouse Gas Modeling Results (Rincon Consultants, Inc. 2019) (Appendix A)

Operational Energy Demand

Operation of the project would increase area energy demand from greater electricity, natural gas, and gasoline consumption at a currently undeveloped site. Natural gas and electricity would be used for heating and cooling systems, lighting, appliances, water use, and the overall operation of the project. Gasoline consumption would be attributed to the trips generated from people employed by the proposed project during normal operations, and patrons accessing the site. The estimated number of average daily trips associated with the project is used to determine the energy consumption associated with fuel use from the operation of the project. The majority of the fuel consumption would be from motor vehicles traveling to and from the project site. According to CalEEMod calculations, the project would result in approximately 1.6 million annual VMT (Appendix A, Air Quality/Greenhouse Gas Modeling Results). This uses the most conservative estimate of daily trip generation determined in the Traffic Impact Analysis (TIA) (Appendix J). Table 13, Estimated Project Annual Transportation Energy Consumption, shows the estimated total annual fuel consumption of the project using the estimated trip generation and VMT with the assumed vehicle fleet mix. One gallon of gasoline is equivalent to approximately 109,786 Btu, while one gallon of diesel is equivalent to approximately 127,460 Btu (EIA 2019).

Table 13 Estimated Project Annual Transportation Energy Consumption

Vehicle Type ¹	Percent of Vehicle Trips ²	Annual Vehicle Miles Traveled ³	Average Fuel Economy (miles/gallon) ⁴	Total Annual Fuel Consumption (gallons)	Total Fuel Consumption (MMBtu) ⁶
Passenger Cars	55.1	890,289	24	37,095	4,073
Light/Medium Trucks	36.5	588,889	17.4	33,844	3,715
Heavy Trucks/Other	8.3	133,956	7.4	18,102	1,987
Motorcycles	0.1	1,492	43.9	34	3.7
Total	100.0	1,614,623	–	89,076	9,779

Notes: Totals may not add up due to rounding.

¹ Vehicle classes provided in CalEEMod do not correspond exactly to vehicle classes in DOT fuel consumption data, except for motorcycles. Therefore, it was assumed that passenger cars correspond to the light-duty, short-base vehicle class, light/medium trucks correspond to the light-duty long-base vehicle class, and heavy trucks/other correspond to the single unit, two-axle six-tire or more class.

² Percent of vehicle trips from Table 4.4 “Fleet Mix” in Air Quality and Greenhouse Gas Emissions Study, CalEEMod output (Appendix A, Air Quality/Greenhouse Gas Modeling Results).

³ Mitigated annual VMT found in Table 4.2 “Trip Summary Information” in Air Quality and Greenhouse Gas Emissions Study CalEEMod output (Appendix A, Air Quality/Greenhouse Gas Modeling Results).

⁴ Average Fuel Economy: U.S. Department of Energy, 2018.

⁵ U.S. Department of Transportation 2013

⁶ CarFG fuel specification of 109,786 Btu/gallon used to identify conversion rate for fuel energy consumption for vehicle classes specified above (CARB 2015).

Source: Air Quality/Greenhouse Gas Modeling Results (Rincon Consultants, Inc. 2019) (Appendix A)

As shown in Table 13, the project would consume approximately 89,076 gallons of fuel, or 9,779 MMBtu, each year for transportation uses from the operation under the most conservative estimate.

Operation of the project would consume approximately 1.3 GWh of electricity per year (electricity use provided in the CalEEMod output of Appendix A, Air Quality/Greenhouse Gas Modeling Results). The project’s electricity demand would be served by SCE, which provided 84,291 GWh of electricity in 2017. The project’s electricity demand would represent less than 0.01 percent of electricity provided by SCE. Therefore, SCE would have sufficient supplies for the project. Estimated natural gas consumption for the project would be 0.027 MMthm per year (natural gas use provided in the CalEEMod output of Appendix A, Air Quality/Greenhouse Gas Modeling Results). The project’s natural gas demand would be serviced by the Long Beach Energy Resources Department, which provided 89.3 MMthm per year in 2017. The project’s natural gas consumption would represent approximately 0.03 percent of natural gas provided by the Long Beach Energy Resources Department; therefore, the Energy Resources Department would have sufficient supplies for the project.

The project would comply with all standards set in California Building Code (CBC) Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation. California’s Green Building Standards Code (CALGreen; California Code of Regulations, Title 24, Part 11) requires implementation of energy efficient light fixtures and building materials into the design of new construction projects. Furthermore, the 2019 Building Energy Efficiency Standards (CBC Title 24, Part 6) requires newly constructed buildings to meet energy performance standards set by the Energy Commission. These standards are specifically crafted for new buildings

to result in energy efficient performance so that the buildings do not result in wasteful, inefficient, or unnecessary consumption of energy. The standards are updated every three years and each iteration is more energy efficient than the previous standards. For example, according to the CEC, nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades (CEC 2018). Furthermore, the project would continue to reduce its use of nonrenewable energy resources as the electricity generated by renewable resources provided by SCE continues to increase to comply with state requirements through Senate Bill (SB) 100, which requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

In conclusion, construction of the project would be temporary and typical of similar projects, and would not result in the wasteful, inefficient, or unnecessary consumption of energy. Operation of the project would increase the consumption of fuel, natural gas, and electricity from existing conditions of an undeveloped site; however, the increase would be in conformance with the latest version of California's Green Building Standards Code and the Building Energy Efficiency Standards. In addition, SCE and SCG have sufficient energy supplies to serve the project. Therefore, the project would have a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

- b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

As mentioned above, SB 100 mandates 100 percent clean electricity for California by 2045. Because the proposed project would be powered by the existing electricity grid, the project would eventually be powered by renewable energy mandated by SB 100 and would not conflict with this statewide plan. The City of Long Beach has not adopted any specific renewable energy or energy efficiency plans with which the project could comply; however, a Climate Action and Adaptation Plan (CAAP) is currently under development. This plan would provide framework for updating policies, programs, practices, and incentives for residents and business to reduce emissions and will likely include various energy efficiency measures to that end. As demonstrated further in checklist item 8, *Greenhouse Gas Emissions*, the proposed project is consistent with and would not conflict with or obstruct the state plan for renewable energy; therefore, no impact would occur.

NO IMPACT

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7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A Geotechnical Investigation (Southern California Geotechnical (SCG) 2019) was prepared for the project site (Appendix F). The investigation). SCG concludes that the proposed project is feasible from a geotechnical engineering standpoint provided that the recommendations presented in the report are adhered to during planning and construction of the project, to the satisfaction of the Department of Building and Safety. The following is based on the information and analysis contained in the project specific Geotechnical Investigation.

- a.1. Would the project directly or indirectly cause 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?*

The project site is located in a seismically active region of Southern California; however, there are no known faults on the project site (City of Long Beach 1988). The nearest known active fault is Newport-Inglewood Fault Zone which is approximately 0.4 mile away from the project site (California Department of Conservation 2018). The project site is not located in an Alquist-Priolo earthquake fault zone as defined by the State Geologist (DOC 2018). Furthermore, ground breakage has not been observed along the faults of the Newport-Inglewood Zone in historic times. The proposed project would comply with State of California standards for building design through the California Building Standards Code (California Code of Regulations, Title 24), which requires various measures of all construction in California to account for hazards from seismic shaking. Therefore, the proposed project would not directly or indirectly cause adverse impacts associated with surface fault rupture. No impact would occur.

NO IMPACT

- a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*

The project site is located in the highly seismic Southern California region where several fault systems are considered to be active or potentially active. The nearest active fault is the Newport-Inglewood-Rose Canyon Fault Zone, which is approximately 0.4 mile south of the project site (DOC 2018). The Newport-Inglewood fault zone could create substantial ground shaking if a seismic event occurred along that fault. Similarly, a strong seismic event on any other fault system in Southern California has the potential to create considerable levels of ground shaking throughout the City. Therefore, damage to structures may be unavoidable during large earthquakes. However, the California Building Code (CBC) requires structural design and construction methods which will be employed to minimize adverse effects of seismic ground shaking. Because the project would comply with the CBC, impacts related to seismically induced ground shaking would be less than significant and the proposed project would not exacerbate ground shaking conditions.

LESS THAN SIGNIFICANT IMPACT

- a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*

Liquefaction is a process whereby soil is temporarily transformed to fluid form during intense and prolonged ground shaking or because of a sudden shock or strain. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface and where the soils are composed of poorly consolidated fine to medium sand. According to the Long Beach Quadrangle, California 7.5 Minute Seismic Hazard Zone Map (DOC 1998), the project site is located in a

designated liquefaction hazard zone. Based on SCG's findings (Appendix F) the project site is underlain by potentially liquefiable soils at various depths (between 8 to 32± feet). Groundwater was encountered at depths of approximately 8 to 13 feet below existing grade. Design and construction of the proposed project would conform to the current seismic design provisions of the California Building Code (CBC). The 2016 CBC incorporates the latest seismic design standards for structural loads and materials, as well as provisions from the National Earthquake Hazards Reduction Program, to mitigate losses from an earthquake and provide for the latest in earthquake safety. While the project would be susceptible to seismic activity given its location within a seismically-active area, the project would be required to minimize this risk, to the extent feasible, through the incorporation of applicable CBC standards. Furthermore, Mitigation Measure GEO-1, provided as recommendations in the Geotechnical Investigation, would address the potentially significant impacts relating to liquefaction-induced dynamic settlements. Implementation of Mitigation Measure GEO-1 would reduce impacts by employing a deep foundation system, consisting of vibro-replacement stone columns (VRSC), designed to resist the effects of the anticipated differential settlements and prevent structures from failing. Furthermore, due to the nature of VRSC, dewatering would not be necessary and, therefore, would comply with the requirements of the Land Use Covenant. As a result, the potential effects of differential settlement as a result of liquefaction would be reduced to a less than significant level.

Mitigation Measures

GEO-1 Liquefiable Soils

Prior to the proposed ground improvement technique as recommended in the site-specific Geotechnical investigation (Appendix F), consisting of vibro-replacement stone columns, copies of the preliminary grading and foundation plans shall be provided to a geotechnical engineer for review. A deep foundation system shall be built from the medium dense to very dense, non-liquefiable soils present at depths between 32 and at least 51 ½ feet, to support the proposed structures. The deep foundation shall be embedded at least five feet within non-liquefiable, low compressibility, suitable bearing soils. The existing soils in the proposed building area shall be overexcavated to a depth of at least 1 foot below the proposed building pad subgrade elevation and to a depth of at least 1 foot below the existing grade, whichever is greater. The overexcavation areas shall be extend at least 5 feet beyond the building perimeters. Following completion of the overexcavation, the subgrade soils within the building area shall be evaluated by a geotechnical engineer to verify the suitability to serve as the structural fill subgrade.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Per the City of Long Beach Seismic Safety Element (1988), the City is relatively flat and characterized by slopes that are not high (less than 50 feet) or steep (generally sloping flatter than 1-1/2:1, horizontal to vertical). The State Seismic Hazard Zone map of the Long Beach Quadrangle indicates that earthquake-induced landslide hazard areas are not present on the project site (DOC 1998). Additionally, the project site and the surrounding area are flat. As such, there is no risk of landslides on the site.

NO IMPACT

b. Would the project result in substantial soil erosion or the loss of topsoil?

Ground-disturbing activities associated with the project implementation may result in the removal of some topsoil in order to construct the two proposed buildings. Standard construction best management practices (BMPs) would be implemented in order to avoid or minimize soil erosion associated with ground-disturbing activities. As discussed further in Section 10, *Hydrology and Water Quality*, implementation of erosion control measures stated in Chapter 98.02 of the LBMC, as well as adherence to requirements provided in the National Pollutant Discharge Elimination System (NPDES) permit for construction activities would avoid or minimize potential impacts. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

According to Plate 9, "Slope Stability Study Areas" of the Long Beach General Plan Seismic Safety Element, the project site is not located in an area of slope instability (City of Long Beach 1988). As discussed above under checklist item 7 (a.3), the project site is underlain by potentially liquefiable soils; however, with proper mitigation, the depths and thicknesses of the liquefiable soil layers make foundation bearing failure improbable in the event of liquefaction. Compliance with the recommendations of the geotechnical investigation would minimize impacts from geologic hazards such as landslides, lateral spreading, subsidence, liquefaction, and collapse if such hazards are present on the project site. In addition, implementation of Mitigation Measure GEO-1 would address the potentially significant impacts relating to liquefaction-induced dynamic settlements by requiring a deep foundation system designed to resist the effects of the anticipated differential settlements that would prevent structures from failing. Therefore, impacts would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Expansive soils are highly compressible, clay-based soils that tend to expand as they absorb water and shrink as water is drawn away. The soil profile of the project site is characterized by compressible soils underlying a layer of artificial fill within upper the 10 to 15 feet. Furthermore, raised grades and projected foundation loads at the project site have the potential to cause significant settlement due to the compressibility of the native soils. According to the Geotechnical Investigation, laboratory testing performed on representative samples of the near surface soils indicates that the project site's soils possess low to medium expansion potentials. Conventional overexcavation with recompaction of the excavated soils is not recommended since the compressible soils exceed depths beneath the static groundwater table. Mitigation Measure GEO-2 would address the potentially significant impacts relating to settlement from expansive soils. Despite the moderately compressible soils on the project site, implementation of Mitigation Measure GEO-2 would reduce impacts to a less than significant level by implementing foundation and floor slab design recommendations, which would limit the shrinking and swelling behavior caused by clay soil and preventing damage to building foundation.

Mitigation Measures

GEO-2 Expansive Soils

As referenced in the project specific Geotechnical Investigation (Appendix F), a structural engineer shall be retained to determine the floor slab reinforcement required for the proposed buildings based on the imposed slab loading and the potential liquefaction settlements. The minimum floor slab reinforcement shall consist of No. 3 rebars at 18-inches on center in both directions to account for the presence of low to medium expansive soils. Structural floor slab supported on the deep foundation system shall be at minimum five inches thick. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer. Bare soil within five feet of proposed structures shall be sloped at a minimum five percent gradient away from the structure (about three inches of fall in five feet), or the same area could be paved with a minimum surface gradient of one percent. Additional expansion index testing shall be conducted at the completion of rough grading to verify the expansion potential of the as-graded building pad. All soils shall be evaluated and tested by the Geotechnical Engineer

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

The proposed project would not include the installation of new septic tanks or alternative wastewater disposal systems. No impact would occur.

NO IMPACT

- f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

The paleontological sensitivity of the geologic units that underlie the project site was evaluated using the results of the paleontological locality search and review of existing information in the scientific literature concerning known fossils within those geologic units. Fossil collections records from the University of California Museum of Paleontology (UCMP) online database were reviewed. These contain known fossil localities in Los Angeles County (2019). In addition, a request for a list of known fossil localities from the project site and immediate vicinity (i.e., localities recorded on the United States Geological Survey (USGS) Los Alamos, 7.5-minute topographic quadrangle) was submitted to the Natural History Museum of Los Angeles County (NHMLAC).

Following the literature review and museum record search a paleontological sensitivity classification was assigned to the geologic units within the project site. The potential for impacts to significant paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units. The Society of Vertebrate Paleontology (SVP) (2010) has developed a system for assessing paleontological sensitivity and describes sedimentary rock units as having high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources. This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present.

According to geologic mapping by Jennings (1962) and Saucedo et al (2016), the project site is immediately underlain by Quaternary alluvium (Qa) of Holocene age and Recent artificial fill (af). Due to its variety of application, artificial fill varies in thickness and composition, but overlies intact geologic deposits at depths ranging from 4.5 to 6.5 feet within the project site (SCG 2016). The Quaternary alluvium consists of Holocene deposits derived from the nearby San Gabriel River and are composed of slightly to poorly consolidated and poorly sorted floodplain deposits comprised of clay, silt, and sand. A search of the paleontological locality records at the LACM resulted in no previously recorded fossil localities on the project site; however, several vertebrate localities have been recorded west-northwest of the project site within older Quaternary (Pleistocene) alluvium. Localities LACM 3757 and 6746 yielded several fossil specimens of eagle ray (*Myliobatis*), skate (Rhinobatoidea), white shark (*Carcharodon*), blue shark (*Prionace*), requiem shark (Carcharhinidae), surfperch (*Damalichthys* and *Rhacochilus*), croaker (*Genyonemus*), pond turtle (*Clemmys*), diving duck (*Chendytes*), loon (*Gavia*), dog (*Canis*), sea otter (*Enhydra*), horse (*Equus*), camel (*Hemiauchenia*), pocket gopher (*Thomomys*), and mammoth (*Mammuthus*). West-southwest of the project site, near the intersection of Grand Avenue and East Livingston Drive, LACM 2031 produced specimens of fossil bison (*Bison antiquus*) approximately 25 feet from the top of the bluff. Slightly northwest of the project site, near the intersection of Grand Avenue and Pacific Coast Highway, LACM 7393 yielded a fossil specimen of a camel (Camelidae) at a depth of 8.5 feet below ground surface (McLeod 2019).

Artificial fill consists of recently compacted fill related to prior development within the project site and as such, it has no paleontological resource potential. In addition, intact Holocene alluvial deposits underlying the project site are too young to preserve paleontological resources (SVP 2010). However, according to the LACM (2019), the Holocene sediments may grade into older deposits of late Pleistocene age that could preserve fossil remains at approximately 5 feet depth. As currently proposed, project ground disturbance will reach a maximum depth of 3 feet during excavation for the building pads. Therefore, impacts to paleontological resources are considered unlikely.

Further paleontological resources work is not recommended at this time; however, Mitigation Measure GEO-3 is recommended in the case of unanticipated fossil discoveries during excavation associated with building construction. The implementation of Mitigation Measure GEO-3 during all phases of project construction would ensure that potential impacts to paleontological resources would be less than significant by providing for the recovery, identification, and curation of previously unrecovered fossils.

Mitigation Measure

GEO-3 Unanticipated Discovery of Paleontological Resources

In the event an unanticipated fossil discovery is made during the course of project development, then in accordance with SVP (2010) guidelines, it is the responsibility of any worker who observes fossils within the project site to stop work in the immediate vicinity of the find and notify a qualified professional paleontologist who shall be retained to evaluate the discovery, determine its significance and if additional mitigation or treatment is warranted. Work in the area of the discovery will resume once the find is properly documented and authorization is given to resume construction work. Any significant paleontological resources found during construction monitoring will be prepared, identified, analyzed, and permanently curated in an approved regional museum repository.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of greenhouse gases (GHGs) that contribute to the "greenhouse effect," a natural occurrence that takes place in Earth's atmosphere to help regulate the temperature of the planet. The majority of radiation from the sun hits Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions. However, anthropogenic activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat. Emissions resulting from human activities thereby contribute to an average increase in Earth's temperature.

The majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15064[h][1]).

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the *California Global Warming Solutions Act of 2006*, signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires the California Air Resources Board (CARB) to prepare a Scoping Plan outlining the main state strategies for reducing GHGs to meet the 2020 deadline. On September 8, 2016, the governor signed Senate Bill 32 (SB 32) into law, extending AB 32 by requiring the state to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged).

In late 2015, the California Supreme Court's Newhall Ranch decision confirmed that there are multiple potential pathways for evaluating GHG emissions consistent with CEQA, depending on the circumstances of a given project (Center for Biological Diversity v. Department of Fish and Wildlife (2015) 62 Cal. 4th 204). Given the legislative attention and judicial action regarding post-2020 goals and the scientific evidence that additional GHG reductions are needed through the year 2050, the Association of Environmental Professionals' (AEP) Climate Change Committee published a white paper in October 2016 to provide guidance on defensible GHG thresholds for use in CEQA analyses and GHG reduction targets in climate action plans in light of the change in focus on the 2030 reduction target and questions raised in the Newhall Ranch case.

The AEP Climate Change Committee white paper identified seven thresholds for operational emissions. The following four methods described are the most widely used evaluation criteria.⁷

- (1) **Consistency with a Qualified GHG Reduction Plan.** For a project located within a jurisdiction that has adopted a qualified GHG reduction plan (as defined by CEQA Guidelines Section 15183.5), GHG emissions would be less than significant if the project is anticipated by the plan and fully consistent with the plan. However, projects with a horizon year beyond 2020 should not tier from a plan that is qualified up to 2020.
- (2) **Bright line Thresholds.** There are two types of bright line thresholds:
 - a. **Standalone Threshold.** Emissions exceeding standalone thresholds would be considered significant.
 - b. **Screening Threshold.** Emissions exceeding screening thresholds would require evaluation using a second tier threshold, such as an efficiency threshold or other threshold concept to determine whether project emissions would be considered significant.

However, projects with a horizon year beyond 2020 should take into account the type and amount of land use projects and their expected emissions out to the year 2030.
- (3) **Efficiency Thresholds.** Land use sector efficiency thresholds are currently based on AB 32 targets and should not be used for projects with a horizon year beyond 2020. Efficiency metrics should be adjusted for 2030 and include applicable land uses.
- (4) **Percent Below "Business as Usual" (BAU).** GHG emissions would be less than significant if the project reduces BAU emissions by the same amount as the statewide 2020 reductions. However, this method is no longer recommended following the Newhall Ranch ruling.

Operational emissions methods (1), (3), and (4) are not applicable. The City of Long Beach is currently drafting a Climate Action and Adaptation Plan (CAAP), which is expected to be released by the end of 2019. However, the CAAP has not yet been finalized or adopted by the City and cannot be used for project tiering. Additionally, to develop an efficiency threshold, the local planning area is first evaluated to determine emissions sectors that are present and will be directly affected by potential land-use changes.

⁷ The three other thresholds are best management practices (BMP)/best available mitigation (BAM), compliance with regulations, and a hybrid threshold concept: separate transportation and non-transportation threshold. The BMP/BAM concept would require creation and implementation of an approved list of BMPs to ensure compliance with statewide reduction targets. No such list has been created/approved to date. Compliance with existing regulations is not recommended until the state has developed its regulatory framework to meet 2030 GHG reduction targets. Finally, the hybrid transportation and non-transportation thresholds approach is generally reserved for residential and/or mixed-use projects qualifying for relief from analysis GHG emissions from cars and light-duty trucks. As such, none of these thresholds specifically apply to this project.

Efficiency thresholds are quantitative thresholds based on a measurement of GHG efficiency for a given project, regardless of the amount of mass emissions. These thresholds identify the emission level below which new development would not interfere with attainment of statewide GHG reduction targets. A project that attains such an efficiency target, with or without mitigation, would result in less than significant GHG emissions.

With the release of the 2017 Climate Change Scoping Plan Update, CARB recognized the need to balance population growth with emissions reductions and in doing so, provided a new local plan level methodology for target setting that provides consistency with state GHG reduction goals using per capita efficiency thresholds. A project-specific efficiency threshold can be calculated by dividing statewide GHG emissions by the sum of statewide jobs and residents. However, not all statewide emission sources are present in the project area (e.g., mining). Accordingly, consistent with the concerns raised in the Golden Door (2018) and Newhall Ranch (2015) decisions regarding the correlation between state and local conditions, the 2030 statewide inventory target was modified with substantial evidence provided to establish a locally-appropriate, evidence-based, residential project-specific threshold consistent with California's SB 32 targets. This option cannot be utilized, however, because the City does not have an existing community-wide baseline inventory that can be used to calculate the project-specific efficiency threshold.

Furthermore, BAU emissions are no longer recommended following the Newhall Ranch ruling. Therefore, the most appropriate threshold for the project is the bright line threshold of 3,000 MT of CO₂e recommended by SCAQMD.⁸ As such, the project would result in a significant impact if project-generated emissions exceed the bright line threshold recommended by the SCAQMD's GHG CEQA Significance Threshold Working Group in September 2010. Emissions associated with the project were estimated using CalEEMod, version 2016.3.2. Complete CalEEMod results and assumptions can be viewed in Appendix A, Air Quality/Greenhouse Gas Modeling Results.

- a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

Construction activities, energy use, daily operational activities, and mobile sources (traffic) due to the proposed project would generate GHG emissions. As discussed in Section 3, *Air Quality*, CalEEMod version 2016.3.2 was used to calculate emissions resulting from project construction and long-term operation. Emissions exceeding the 3,000 MT of CO₂e threshold would be considered significant.

Construction GHG Emissions

Although construction activity is addressed in this analysis, the California Air Pollution Control Officers Association (CAPCOA) does not discuss whether any of the suggested threshold approaches adequately address impacts from temporary construction activity. The CEQA and Climate Change white paper states that additional study is needed to make such an assessment or to develop separate thresholds for construction activity (CAPCOA 2008). Nevertheless, the SCAQMD has recommended amortizing construction-related emissions over a 30-year period in conjunction with the proposed project's operational emissions.

⁸ The SCAQMD 3,000 MT CO₂e/year bright line threshold is intended for commercial and residential projects. SCAQMD recommends a screening threshold of 10,000 MT CO₂e/year for industrial projects. However, this threshold is intended for industrial projects with permitted stationary source emissions. SCAQMD notes that the commercial and residential threshold may apply to industrial projects which primarily generate mobile source emissions.

Based on CalEEMod results, construction of the project would generate an estimated 603 MT of CO₂e, as shown in Table 14, Estimated Construction GHG Emissions. Amortized over 30 years, the proposed project would generate approximately 24 MT of CO₂e annually.

Table 14 Estimated Construction GHG Emissions

Year	Project Emissions (CO ₂ e) in metric tons
2020	710.3
Total Amortized over 30 Years	23.7

Source: Air Quality/Greenhouse Gas Modeling Results (Rincon Consultants, Inc. 2019) (Appendix A)

Operational GHG Emissions

The project's proposed operational activities, such as energy use and mobile sources (traffic), would generate GHG emissions. CalEEMod was used to calculate emissions resulting from long-term operation. As shown in Table 15, Combined Annual Emissions of Greenhouse Gases, the project's combined amortized construction and annual operational emissions would be approximately 2,004 MT of CO₂e, which would not exceed the SCAQMD emissions threshold of 3,000 MT of CO₂e per year.

Table 15 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (CO ₂ e) in metric tons
Construction	23.7
Operational	
Area	<0.1
Energy	569.4
Solid Waste	83.8
Water	187.8
Mobile	
CO ₂ and CH ₄	1,101.3
N ₂ O	34.4
Other	
Sewer Line Pump Grinder ¹	2.1
Total	2,002.5

¹ Emissions based on E-One Model DH502 Pump Grinder for light industrial uses and Southern California Edison GHG Emissions Factor.

Source: Air Quality/Greenhouse Gas Modeling Results (Rincon Consultants, Inc. 2019) (Appendix A)

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

There are numerous state plans, policies, and regulations adopted for the purpose of reducing GHG emissions. As described above, the principal overall state plan and policy is AB 32, *the California Global Warming Solutions Act of 2006*, and the follow up, SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020 and the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. Statewide plans and regulations such as GHG emissions standards for vehicles (AB 1493), the Low Carbon Fuel Standard, and regulations requiring an increasing fraction of electricity to be generated from renewable sources are being implemented at the statewide level; as such, compliance at a project level is not addressed. Therefore, the project does not conflict with statewide plans and regulations.

Senate Bill 375, signed in August 2008, directs each of the State's 18 major Metropolitan Planning Organizations (MPO) to prepare a Sustainable Communities Strategy (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). In April 2016, SCAG adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy. SCAG's RTP/SCS includes a commitment to reduce emissions from transportation sources by promoting compact and infill development to comply with SB 375. The City of Long Beach is developing its first Climate Action and Adaptation Plan (CAAP) which will provide a framework for creating or updating policies, programs, practices, and incentives for Long Beach residents and businesses to reduce the City's GHG footprint.

Table 16, Consistency with Applicable SCAG RTP/SCS GHG Emission Reduction Strategies, illustrates the project's consistency with relevant goals and strategies embodied in Chapter 5, The Road to Greater Mobility and Sustainable Growth, of the 2016 RTP/SCS (SCAG 2016). As shown in Table 16, the project is consistent with the applicable strategies in the 2016 RTP/SCS.

Table 16 Consistency with Applicable SCAG RTP/SCS GHG Emission Reduction Strategies

Strategy/Action	Project Consistency
Land Use and Transportation	
<i>Focus new growth around transit.</i> The 2016 RTP/SCS land use pattern reinforces the trend of focusing growth in the region's High Quality Transit Areas (HQTAs). Concentrating housing and transit in conjunction concentrates roadway repair investments, leverages transit and active transportation investments, reduces regional life cycle infrastructure costs, improves accessibility, avoids greenfield development, and has the potential to improve public health and housing affordability. HQTAs provide households with alternative modes of transport that can reduce VMT and GHG emissions.	Consistent. The project does not involve construction of housing. However, the project would be located immediately adjacent to the Studebaker-Loynes bus stop, which is served by the Orange County Transit Authority's 1 Bus Line connecting Long Beach to San Clemente. Additionally, the project site is approximately 0.7 mile from existing Long Beach Transit stops at Bixby Village Drive/Loynes Drive. Furthermore, as discussed under <i>Surrounding Land Uses and Setting</i> , the project and will be served by future Long Beach Transit stops planned along Studebaker Road (see Figure 11, City-Proposed Striping along Studebaker Road).
<i>Plan for growth around livable corridors.</i> The Livable Corridors strategy seeks to create neighborhood retail nodes that would be walking and biking destinations by integrating three different planning components: 1. Transit improvements 2. Active transportation improvements (i.e., improved safety for walking and biking) 3. Land use policies that include the development of	Consistent. The project would be immediately adjacent to the Studebaker-Loynes bus stop, 0.1 mile from the Long Beach Bikeway Route 10, and approximately 0.9 mile from a mixed-use retail corridor at Loynes Drive and the Pacific Coast Highway.

Strategy/Action	Project Consistency
<p>mixed-use retail centers at key nodes and better integrate different types of ritual uses.</p> <p><i>Provide more options for short trips.</i> 38 percent of all trips in the SCAG region are less than three miles. The 2016 RTP/SCS provides two strategies to promote the use of active transport for short trips. Neighborhood Mobility Areas are meant to reduce short trips in a suburban setting, while “complete communities” support the creation of mixed-use districts in strategic growth areas and are applicable to an urban setting.</p>	<p>Consistent. The project would be transit accessible via the Loynes-Studebaker bus stop. Furthermore, as discussed under <i>Surrounding Land Uses and Setting</i>, the project, and will be served by future Long Beach Transit stops planned along Studebaker Road (see Figure 11, City-Proposed Striping along Studebaker Road). Additionally, the project would be accessible via bicycle lanes along Studebaker Road, pedestrian sidewalks along Loynes Drive, and the Long Beach Bikeway Route 10. The project site is within 0.1 mile of residential neighborhoods west of the Los Cerritos Channel and within 0.9 mile of a mixed-use retail center at Loynes Drive and the Pacific Coast Highway. As such, the project would be accessible via short trips using active or alternative transportation.</p> <p>Furthermore, because the project involves construction of over 25,000 sf of nonresidential development, it would be required to implement transportation demand management (TDM) strategies pursuant to Section 21.64 of the LBMC. Such strategies include, but are not limited to, provision of preferential parking for vanpools, bicycle racks or other secure bicycle parking, and sidewalks or other designated pedestrian pathway connecting each building to the external pedestrian circulation system.</p>
<p><i>Protect Natural and Farm Lands.</i> Many natural and agricultural land areas near the edge of existing urbanized areas do not have plans for conservation and they are susceptible to the pressures of development. Many of these lands, such as riparian areas, have high per-acre habitat values and are host to some of the most diverse yet vulnerable species that play an important role in the overall ecosystem.</p>	<p>Consistent. The project is located in an urban area and does not contain any farmland. East of Studebaker Road, the project would construct industrial and office space on parcel zoned for industrial land uses. Parcels west of Studebaker Road are zoned Coastal Habitat, Wetlands, and Recreation. The project would restore and designate these parcels as open space. Therefore, the project would protect natural lands on the project site.</p>
Transit Initiatives	
<p>Develop first-mile/last-mile strategies on a local level to provide an incentive for making trips by transit, bicycling, walking, or neighborhood electric vehicle or other ZEV options.</p>	<p>Consistent. The project would be adjacent to the Loynes-Studebaker bus stop and accessible via bicycle lanes along Studebaker Road, pedestrian sidewalks along Loynes Drive, and the Long Beach Bikeway Route 10. Furthermore, as discussed under <i>Surrounding Land Uses and Setting</i>, the project and will be served by future Long Beach Transit stops planned along Studebaker Road (see Figure 11, City-Proposed Striping along Studebaker Road). This would incentivize greater use of alternative transportation.</p>
Other Initiatives	
<p>Reduce emissions resulting from a project through implementation of project features, project design, or other measures.</p> <p>Incorporate design measures to reduce energy consumption and increase use of renewable energy.</p>	<p>Consistent. The design and implementation of the proposed project would comply with CalGreen Building Standards, which includes measures to reduce emissions. Project design features include use of 20 percent water-conserving plumbing fixtures and weather or soil moisture-based automatic controllers for landscape irrigation systems. The project would also comply with SCAQMD Rule 1113 that limits ROG_s from building architectural coatings.</p>

Source: SCAG 2016

Based on the above, the project is consistent with state and local policies for reducing GHG emissions identified in SCAG's 2016 RTP/SCS. Therefore, the project would have a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

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9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site that 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Avocet Environmental, Inc. prepared a *Phase I Environmental Site Assessment* (ESA) for the project site on April 7, 2016 (Avocet Environmental 2016) (Appendix G).

- a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Project construction would involve the use of potentially hazardous materials such as vehicle fuels and fluids that could be released should an accidental leak or spill occur. However, standard construction best management practices for the use and handling of such materials would be implemented to avoid or reduce the potential for such conditions to occur. Any use of potentially hazardous materials utilized during construction of the proposed project would comply with all local, state, and federal regulations regarding the handling of potentially hazardous materials. Operation and maintenance of the proposed industrial project may involve the routine transport, use, or disposal of hazardous materials. Nevertheless, operation of the project would be conducted in accordance with all applicable State and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the California Code of Regulations, Title 22. The project site is located adjacent to the Cerritos Channel and Los Cerritos wetlands; however, construction would be limited to the project site and the right-of-way for the construction of the industrial park and offsite sewer line extension. Therefore, with adherence to all applicable laws, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

As described above, construction of the proposed project would involve the use of potentially hazardous materials such as vehicle fuels and fluids that could be released should an accidental leak or spill occur. However, standard construction best management practices for the use and handling of such materials would be implemented to avoid or reduce the potential for such conditions to occur. The transport, use, and storage of hazardous materials during the construction of the project would be conducted in accordance with all applicable State and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the California Code of Regulations, Title 22.

Avocet Environmental concluded that the proposed project is feasible from a health and safety engineering standpoint provided that the recommendations presented in the report are adhered to during planning and construction of the project. Loynes Beach Partners, LLC and the Department of Toxic Substances Control (DTSC) prepared a Land Use Covenant and Agreement for the project site on March 1, 2018. The following is based on the information and analysis contained in the Phase I ESA and Land Use Covenant and Agreement, which are provided as Appendix G and H, respectively.

Phase I Environmental Site Assessment

As discussed in the Phase I ESA (Appendix G), the property was vacant at the time of the site reconnaissance, but was occupied in the past by two large, aboveground storage tanks (ASTs) that held “Bunker C” or “No. 6 Fuel Oil” for the nearby Alamitos Energy Center. The Phase I ESA also assessed the vacant parcels on the west side of Studebaker Road that were to be acquired and then dedicated as wetlands or open space for mitigation purposes. Due to the undeveloped nature of the

western project area, these parcels were deemed devoid of any recognized environmental conditions (RECs).

The ASTs of the Loynes Tank Farm, which encompasses the 6.7 acres east of Studebaker Road, were used to store heavy fuel oil for the Alamitos Energy Center generating units and were reported to contain “Bunker C” or “No. 6 Fuel Oil”. Tanks 1 and 2 were located on the property, each containing approximately 9.4 million gallons of capacity. Although the Alamitos Energy Center began operations in 1956, the use of the fuels as described above was discontinued prior to the 1998 sale of the facility. The ASTs were removed in 2010; however, the earthen spill-containment berms remained in place at the time of the Phase I ESA field reconnaissance. Residual large-diameter pipelines that remained on the site at the time of the Phase I ESA field reconnaissance were coated with this insulating material, which likely contained asbestos. As a result, abatement of this material is recommended, as is removal of related material that may have become entrained in surrounding soils.

Since 1995, several environmental investigations were conducted at the Loynes Tank Farm portion of the Alamitos Energy Center. These investigations concluded that limited leakage of heated No. 6 fuel oil had occurred from Tanks 1 and 2, resulting in a relatively small downward migration of the oil into the underlying crushed-rock base. The investigations further concluded that the lateral and vertical contaminant migration was limited by the fine-grained nature of the soil. Additional soils contaminants included some volatile organic compounds (VOCs) and metals (Avocet Environmental 2016).

A Resource Conservation and Recovery Act (RCRA) Facility Investigation and Closure Report was prepared for the site by Waterstone Environmental, Inc., which was dated March 2015; this report was accompanied by a Human Health Risk Assessment (HHRA) for the site, which was also prepared by Waterstone. These documents indicated that cancer and noncancer risks were within acceptable limits for commercial and construction workers, but that a Land Use Covenant (LUC) would be required to limit future development of the site to commercial or industrial uses only. The lead agency regarding the cleanup of the site, the California Department of Toxic Substances Control (DTSC), was reported to have accepted the results of the HHRA.

The Phase I ESA also identifies six Other Environmental Features (OEFs), which do not meet the formal ASTM designation as RECs, but may warrant further investigation, evaluation or study:

- **OEF 7 – Arsenic in Berm Soil.** Previously identified arsenic concentrations warrant consideration during site grading activities.
- **OEF 8 – Methane in Soil Vapor.** Although elevated concentrations of methane were not previously detected in the Tanks No. 1 and 2 area, significantly elevated levels were detected at other nearby locations. .
- **OEF 9 – Compressible and/or Deleterious Materials.** Residual areas of solidified oil and peat in the subsurface soils may be compressible, and therefore warrant removal for geotechnical reasons.
- **OEF 10 – Abandoned Infrastructure.** Contingency plans should be in place to manage the removal and appropriate disposal of unanticipated subsurface infrastructure (such as oil-filled pipelines) that could be encountered during site grading activities.
- **OEF 11 – CACA, SMP, and LUC.** As appropriate, environmental agreements regarding land use should be recorded and/or rescinded, as agreed with by DTSC, based on the outcome of the recent environmental studies, and proposed future use of the property. A Soils Management

Plan (SMP) should be developed/updated to include current contact information and soils handling requirements.

- **OEF 12 – Imported Fill at Vacant Parcels.** Imported fill present on the four vacant parcels to the west of the former Loynes Tank Farm is reported to be from unknown sources, and may account for database listings suggesting that a waste disposal site formerly occupied this area.

Land Use Covenant

The Land Use Covenant and Agreement (LUC) (see Appendix H) was made by and between Loynes Beach Partners, LLC and the Department of Toxic Substances Control (DTSC). The DTSC determined that the LUC *“is reasonably necessary to protect present or future human health or safety or the environment as a result of the presence on the land of hazardous materials as defined in Health and Safety Code section 25260”*. The parcels east of Studebaker Road are subject to the LUC, which recognizes that a RCRA Facility Investigation (RFI) was performed on the property. The RFI identified five areas of concern (AOCs).

- AOC-1: Above ground storage tanks (ASTs) 1 and 2
- AOC-2: The earthen berms surrounding ASTs 1 and 2;
- Aboveground piping associated with and lying between AST 1 and AST 2;
- The westernmost area of the West Pipeline Corridor; and
- The Pig Launcher Area

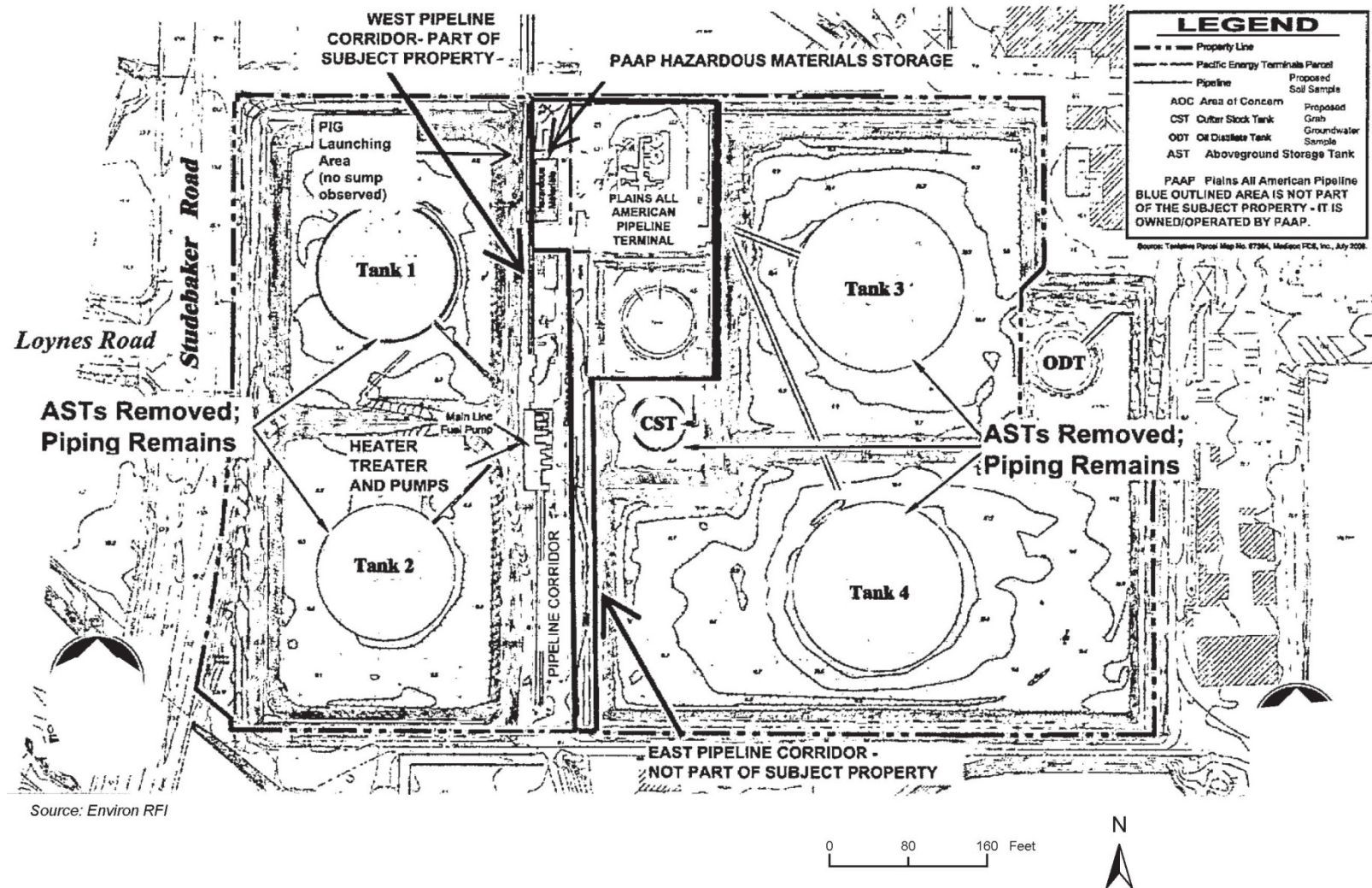
Figure 13, Areas of Concern, shows the identified five AOCs. Chemicals of Concern (COCs) in these AOCs included Heavy Range Hydrocarbons, Diesel Range Hydrocarbons, Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs), and Heavy Metals. The DTSC approved the RFI and associated Health Risk Assessment, and no remedial action was necessary in order to meet the industrial/commercial land use of the property (Loynes Beach Partners, LLC and DTSC 2018).

Furthermore, the LUC prohibits the following activities at the property:

- a) Drilling for water, oil or gas without prior written approval from DTSC
- b) Extraction or removal of groundwater without a Groundwater Management Plan that has been approved in advance by DTSC in writing
- c) Activity that may alter, interfere with, or otherwise affect the integrity or effectiveness of, or access to any investigative, remedial, monitoring, operation or maintenance system or activity required for the property without prior written approval by DTSC

Additional access requirements are specified, as are requirements for annual inspections of the property for verifying compliance with the LUC; annual reporting requirements are also specified. All disturbances of ACMs, and/or abatement operations, should be performed by a California Division of Occupational Safety and Health (Cal/OSHA-DOSH)-registered and California-licensed asbestos contractor in accordance with the Cal/OSHA requirements set forth in 8 CCR 1529. The LUC is specified to run with the land, and shall continue in effect in perpetuity, unless ended in accordance with specified requirements. In addition, the proposed ground improvement technique, consisting of vibro-replacement stone columns, would not require dewatering or extraction of groundwater and, therefore, would be in compliance with the LUC requirements. Implementation of Mitigation Measures HAZ-1 and HAZ-2 and regulatory code compliance, would address potentially significant

Figure 13 Areas of Concern



impacts pertaining to present RECs and OEFs on-site by removing residual on-site pipelines and related hazardous material that may have become entrained in surrounding soils, enforcing a Soil Management Plan approved by the DTSC and complying with the LUC requirements. Therefore, impacts would be less than significant with mitigation incorporated.

Mitigation Measures

HAZ-1 Existing Toxic/Hazardous Materials

Removal of residual large-diameter pipelines shall be performed on-site, as well as abatement of related material that may have become entrained in surrounding soils. If additional ACMs are found to be present, all asbestos removal operations shall be performed by a California Division of Occupational Safety and Health (Cal/OSHA-DOSH)-registered and California-licensed asbestos contractor. All disturbance of ACMs, and/or abatement operations, shall be performed under the surveillance of a third-party Cal/OSHA Certified Asbestos Consultant. All disturbances of ACMs, and/or abatement operations, shall be performed in accordance with the Cal/OSHA requirements set forth in 8 CCR 1529. Given the location of the project site, all asbestos abatement must also be performed in accordance with SCAQMD requirements set forth in Rule 1403 as well as all other applicable State and federal rules and regulations. In addition, methane sampling shall be implemented throughout the eastern project area of the project site, in order to account for the lack of specific information associated with the prior sampling. Contingency plans shall be in place to manage the removal and appropriate disposal of unanticipated subsurface infrastructure that could be encountered during site grading activities.

HAZ-2 Soil Management Plan

No ground-disturbing activities shall be allowed on the project site without a Soil Management Plan prepared by the project Applicant and approved by the Department of Toxic Substances Control. In order to mitigate any potentially significant impacts pertaining to RECs and OEFs present on-site, any soil brought to the surface by grading, excavation, trenching, or backfilling shall be managed in accordance with all applicable provisions of state and federal law. In order to verify compliance with the LUC, annual inspections and annual reporting requirements shall be enforced by the City.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

The nearest operating school to the project site is the Charles F Kettering Elementary, is approximately 0.5 miles to the northwest. (In addition, the former Rosie the Riveter Charter High School is located at 730 feet north of the project site). During construction of the proposed project, hazardous and potentially hazardous materials would be utilized for the transport and operation of vehicles and machinery. However, implementation of Mitigation Measures HAZ-1 and HAZ-2 would address the potentially significant impacts pertaining to hazardous emissions associated with construction and excavation. In addition, the transport, use, and storage of hazardous materials during the construction and operation of the project would be conducted in accordance with all applicable State and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the

California Code of Regulations, Title 22. For these reasons and because the school is more than 0.25 mile from the project site, no impact would occur.

NO IMPACT

- d. *Would the project be located on a site that 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?*

As part of the Phase I Environmental Assessment discussed above, a search of the Environmental Data Resources, Inc. was conducted, which encompasses 90 databases maintained by local, state, and federal government agencies. The following databases and listings compiled pursuant to Government Code Section 65962.5 were utilized to identify known hazardous materials contamination at the project site as well as locations within the immediate vicinity (Avocet Environmental 2016):

- **United States Environmental Protection Agency (USEPA)**
 - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)
 - Resource Conservation and Recovery Act (RCRA)
 - Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)
 - Large Quantity Generator (LQG) of hazardous waste
- **State Water Resources Control Board (SWRCB)**
 - GeoTracker search for leaking underground storage tanks (LUST) and other cleanup sites
 - Waste Management Unit Database (WMUDS/SWAT)
- **California Department of Toxic Substances Control (DTSC)**
 - EnviroStor database for hazardous waste facilities or known contamination sites
 - Cortese List of Hazardous Waste and Substances Sites

According to the Phase I ESA, the project site was previously occupied by two large, aboveground storage tanks (ASTs) that held fuel oil for the nearby Alamitos Energy Center. Alamitos Energy Center is listed in numerous databases under several different street addresses with various operators. Furthermore, database information suggests the release of substances including petroleum hydrocarbons and volatile organic compounds from several sites within 0.25 miles of the project site. However, there are no indications that near-surface soil beneath the project site has been impacted by operations at the Alamitos Energy Center. Regulatory database information identified the project site on the CA ENVIROSTOR database, which is consistent with other known details of the project site; including regulation by the DTSC. The ENVIROSTOR database does not suggest additional conditions than those that were already mentioned above. Since 1995, several environmental investigations have been conducted at the Loynes Tank Farm portion of the Alamitos Energy Center to address concerns regarding previously identified RECs, including multiple Phase I and Phase II investigations of soil and soil vapor, groundwater investigations, berm investigations, and a geohazards assessment (Avocet Environmental 2016).

Based on the aforementioned investigations, most of the listings of the project site on the associated databases are considered to be controlled recognized environmental conditions (CRECs) or historical recognized environmental conditions (HRECs). Additionally, implementation of

Mitigation Measures HAZ-1 and HAZ-2 would address potentially significant impacts pertaining to present RECs and OEFs on-site and reduce impacts to less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

The airport or airstrip nearest to the project site is Long Beach Airport, located approximately 4.5 miles northwest of the project site. The project site is not located within two miles of a public use airport and would not introduce associated hazards or excessive noise to people residing or working in the area. No impact would occur.

NO IMPACT

- f. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The proposed project would not involve the development of structures that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. In accordance with the Public Safety Element of the General Plan, emergency response and evacuation procedures would be developed through the City in coordination with the police and fire departments. The project includes asphalt roadways along the northern and eastern borders, including the existing AES access driveway. Vehicle access would be provided via a new 61-foot driveway, creating a fourth leg of the signalized intersection of Studebaker Road and Loynes Drive. A second access driveway would be provided near the northern limits of the project site along Studebaker Road that is right in and right out only. Furthermore, as a project design feature, a southbound left-turn pocket and left-turn lane on Studebaker Road would be constructed to allow access to the site. In addition, the inside eastbound right-turn lane on Loynes Drive would be converted to an eastbound through lane for vehicles entering the project site from Loynes Drive. However, the project does not propose any new roads or infrastructure that have the potential to interfere with or obstruct an adopted emergency response plan and would not impede access to the AES Fire Department. Implementation of the project would increase traffic to and from the project site; however, the project site is surrounded by major roadways, including Studebaker Road, which have sufficient capacity to provide access to and from the project site. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- g. *Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?*

The project site is not located in a wildland fire hazard area as defined by the Department of Forestry and Fire Protection (CalFire 2007). The project would not affect the potential for wildland fires to occur. No impact would occur.

NO IMPACT

10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

The project site is located adjacent to the Cerritos Channel and Los Cerritos wetlands; however, construction would be limited to the project site and the public right-of-way for the construction of the offsite sewer line extension. Construction and grading would include industrial and commercial buildings and parking areas on the eastern project area, as well as landscaping improvements on the western project area. Furthermore, project plans for the parcels on the west side of Studebaker Road abutting the main Cerritos Channel include native vegetation restoration in conjunction with the LCWA and will improve the condition of these parcels.

Based upon the findings of Rincon's Jurisdictional Delineation Memorandum (see Appendix D) the Cerritos Channel, and an associated cold-water intake for AES, are within the project site vicinity; however, these waters were not formally delineated because these waters are channelized and sufficiently separated from the project site that they will not be impacted by the proposed project. The Cerritos Channel is clearly separated from the project site by a chain link fence and a barren beach area bounded by rip-rap. The cold-water intake portion of the Cerritos Channel on the north side of the project site was constructed for AES in the 1950s. This channel is confined, fenced and bounded completely by paved surfaces. Because the Cerritos Channel and cold-water intake are clearly separated from the project site and direct impacts will be limited to the site, no direct impacts such as ground disturbance would occur to adjacent jurisdictional resources. Best Management Practices as described below and in checklist item 10 (c) will be employed to ensure that runoff from the site does not enter the Cerritos Channel or cold-water intake.

The proposed project would be subject to comply with applicable laws and regulations including; current National Pollutant Discharge Elimination System (NPDES), which regulates discharges into surface waters, and Los Angeles County MS4 permit regulations pertaining to the retention of erosion and detention of site runoff into storm drains and receiving waters and include storm water Low Impact Development (LID) Best Management Practices (BMPs). Nonstructural BMPs used in low impact development aim to lessen stormwater runoff impacts through sound site planning and design; including practices such as minimizing site disturbance, preserving important site features, reducing and disconnecting impervious cover, enforcing water conservation, implementing outdoor horticulture areas, and maintaining natural drainage features. Structural BMPs utilized to regulate and treat runoff are also considered LID-BMPs if they perform these functions close to the runoff's source. Furthermore, Structural LID-BMPs include various types of basins, filters, surfaces, and devices located on individual lots in a residential development or throughout a commercial, industrial, or institutional development site in areas not typically suited for larger, centralized structural facilities. Additionally, Chapter 18.74 of the LBMC regulates the implementation of the LIDs and BMPs for projects in the City. Further discussion regarding compliance with the LID is provided below in checklist item 10 (c). Adherence to requirements provided in the National Pollutant Discharge Elimination System (NPDES) permit for construction activities would avoid or minimize potential impacts. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

The major aquifers beneath Long Beach are known as the 400-foot Gravel, the 200-foot Sand, and the Gaspur Zone (Long Beach Conservation General Plan, 1973). These aquifers have a capacity for

storing approximately 30 million acre-feet of water. The proposed project ground disturbance would only reach a maximum depth of three feet during excavation for the building pads of the industrial park. . Water supply requirements associated with the project would not deplete local groundwater supplies and groundwater would not be pumped for the project. Therefore, no impact would occur.

NO IMPACT

- c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?*
- c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*
- c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*
- c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?*

The project would alter the existing drainage patterns on the eastern project site by introducing additional structures and pervious surfaces; however, implementation of the project would not alter the course of a stream or river. No development is proposed on western open space project area. As discussed in the Drainage Report prepared by Proactive Engineering Consultants, dated November 2018 (Appendix K) the site topography is relatively flat with site elevations ranging from approximately 7.5 feet to 18.3 feet above mean sea level. The project site is located within the tributary regional watershed of Nearshore Watershed Group. The Nearshore Watershed Group consists of approximately 14 square miles within the City of Long Beach that ultimately drains into the Pacific Ocean. Flow patterns begin at the northwest side of the project site and flow towards the southeasterly edge of the site and to an existing storm drain pipe. This existing storm drain pipe ultimately drains to the Pacific Ocean. The existing site conditions generate 11.3 cfs (50-year storm) while the proposed site conditions generate 9.8 cubic feet per second (cfs) (50-year storm). The proposed conditions reduce the runoff generated by the site by 1.5 cfs. Therefore, no impact to downstream facilities would occur and no detention facilities will be required for the proposed project (Proactive 2018, see Appendix K).

A Low Impact Development (LID) Plan was prepared by Proactive Engineering Consultants, dated November 2018 (Appendix L). The LID Plan was prepared to demonstrate compliance with the Los Angeles County Department of Public Works Low Impact Development Standards Manual (LID Standards Manual), dated February 2014. The LID Plan was performed in accordance with the LID Standards Manual. As discussed in the LID Plan, stormwater runoff will sheet flow into gutters and be collected by grated inlets which release the flow into Corrugated Metal Pipe (CMP) Underground Water Quality Basin, preventing any drainage from flowing offsite to adjacent channels. The CMP

Underground Water Quality Basins will convey water to a Modular Wetland System (MWS), a biotreatment type BMP. Runoff generated by the 0.75-inch storm would be captured and treated within the Underground Water Quality Basins and MWS unit. Stormwater runoff generated by storms, or rainfall that does not soak into the ground due to the presence of impervious surfaces (causing stream impairment in urban areas), greater than 0.75-inch storm would bypass the MWS unit and flow to a proposed pump. The proposed pump would convey runoff to the existing storm drain pipe located in the southeast corner of the project site. Prior to entering the Underground Water Quality Basin, runoff would receive pretreatment through the implementation of filter insert in grate inlets. The LID Standards Manual requires treatment of the stormwater runoff volume of the greater: 0.75-inch, 24-hour event or the 85th percentile, 24-hour rain event. Table 17, Stormwater Runoff Volumes, summarizes the stormwater runoff volumes of each subarea. Since the 85th percentile storm (0.45 in) is less than the 0.75-inch storm, the 0.75 inch storm is selected as the design storm size (Appendix L).

Table 17 Stormwater Runoff Volumes

Drainage Area	Underground Basin Dimensions W (ft) L(ft)	Perforated Pipe Diameter (in)	Required SWQDV (ft ³)	Storage Provided SWQDV (ft ³)	MWS Model (L-8-12) Treatment Capacity
1	22.0 249.0	60	14,657	14,746	15,109

Source: Low Impact Development Plan (Appendix L)

According to the LID Standards Manual, a project can either be classified as Designated or Non-Designated. All Designated Projects must retain 100 percent of the Stormwater Quality Design Volume Calculation (SWQDV) on-site through infiltration, evapotranspiration, stormwater runoff harvest and use, or a combination thereof unless it is demonstrated that it is technically infeasible to do so. Conversely, Non-Designated Projects refer to any development project that is not included in subsection A of Section 12.84.430, which expands upon the applicability of Low Impact Development Standards. The proposed project is identified as Designated since the following conditions is met: Industrial parks with 10,000 square feet or more of surface area. In addition, the proposed project would implement several non-structural and structural source control BMPs. Examples of project-specific non-structural source control BMPs include water conservation, disposal of green waste, and home and garden care activities. Examples of project-specific structural source control BMPs would consist of landscape irrigation practices, outdoor horticulture areas, and storm drain message and signage. Table 1 and 2 of the Low Impact Development Plan (Appendix L) summarize the non-structural and structural source control BMPs implemented for the proposed project. Source control fact sheets are included in Appendix D of the *Low Impact Development Plan* (Proactive Engineering Consultants 2018)(Appendix L).

Furthermore, the project would comply with Chapter 18.74 of the LBMC, which requires implementation of standard construction BMPs to avoid or minimize temporary adverse effects such as erosion and siltation. Compliance with the LBMC and LID requirements would reduce potential impacts to a less than significant level.

LESS THAN SIGNIFICANT IMPACT

- d. *In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?*

The project site is located 1.75 miles northeast from the Pacific Ocean, 0.2 mile west of the concrete-lined San Gabriel River channel and is adjacent to a tidally-influenced portion of the Cerritos Channel; however, it is not located in an inundation or tsunami zone (California Department of Conservation 2018). The dam closest to the project site is Sepulveda Dam, approximately 35 miles to the northwest. Additionally, the project site is not located near a body of water that would be subject to seiche and is not located on or near slopes subject to mudflow events. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the project site is not located in a 100-year flood zone (Map # 06037C1988F). The project site is situated in Zone X, which refers to an area with reduced flood risk due to levee (FEMA 2019). The project would not result risk release of pollutants due to project inundation. Therefore, no impact would occur.

NO IMPACT

- e. *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Potential water quality impacts associated with the proposed project are discussed under checklist 10 question a. and c. In September of 2014, the California Legislature enacted comprehensive legislation aimed at strengthening local control and management of groundwater basins throughout the state. Known as the Sustainable Groundwater Management Act (SGMA), the legislation provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for State intervention when necessary to protect the resource. The West Coast Subbasin of the Coastal Plain of the Los Angeles Central Groundwater Basin, which underlies the project site, is designated as a “very low priority” basin and is therefore not required per SGMA to be managed by a Groundwater Sustainability Agency through implementation of a Groundwater Sustainability Plan (California Department of Water Resources 2019). Furthermore, the LUC prohibits the extraction or removal of groundwater without a Groundwater Management Plan that has been approved in advance by DTSC in writing. Based on groundwater levels in the project site, it is not anticipated that construction activities would encounter groundwater. The project would not otherwise substantially degrade water quality. No impact would occur.

NO IMPACT

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11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Would the project physically divide an established community?

The proposed project would include the removal of 400 sf of existing concrete (berm), on-site pipeline structures; and asphalt paving, development of a warehouse/manufacturing facility with associated office support, as well as wetland restoration consistent with the LCWA, and offsite sewer line extension. The project site located in an urbanized area that is bounded by the Cerritos Channel and by single-family residential uses on the west and by industrial/manufacturing properties to the east, north, and south. The project contains asphalt roadways along the northern and eastern borders, including the existing AES access driveway. Vehicle access would be provided via a new 61-foot driveway, creating a fourth leg of the signalized intersection of Studebaker Road and Loynes Drive. A second access driveway would be provided near the northern limits of the project site along Studebaker Road that is right in and right out only. Furthermore, as a project design feature, a southbound left-turn pocket and left-turn lane on Studebaker Road would be constructed to allow access to the site. In addition, the inside eastbound right-turn lane on Loynes Drive would be converted to an eastbound through lane for vehicles entering the project site from Loynes Drive. However, the project does not include any new roads or infrastructure that has the potential to divide any established communities. As such, development of the proposed project would comply with the SEADIP and SEASP zoning, therefore, no impact would occur.

NO IMPACT

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Existing and Proposed General Plan Land Use Elements

According to the existing City of Long Beach General Plan Land Use Element, the five parcels within the project site are designated as LUD No. 7 (Mixed-Use District); however, the proposed update to the General Plan LUE designates the eastern project area as “industrial” and the western project area as “open space”. The Mixed-Use District designation is intended to combine different types of land uses to save time and energy in transportation and communications, simplify and shorten

transactions of goods and services, vitalize a site, and provide more importance in the urban structure of the City. The goal is for these various land uses to benefit from the synergistic effects of this blending (1998). The Industrial designation is reserved for practices and processes including; manufacturing, processing, construction and heavy equipment yards, warehousing of products, research and development. Preserved for the expansion of quality employment opportunities, industrially-developed lands are discouraged from converting to nonindustrial uses under the proposed Land Use Element. Long Beach intends to maintain its most viable and promising industrial areas to accommodate this basic employment sector and guide future industrial development to be more compatible with adjacent nonindustrial uses. The Industrial designation is also intended to guide reinvestment and reuse of industrial areas in a more sustainable manner. In addition, the Open Space designation aims to preserve land that has distinctive scenic, natural or cultural features; conservation of land, water, marine and wildlife habitats; historic or scenic purposes; or visual relief. East of Studebaker Road, the project would construct industrial and office space on parcels zoned for industrial land uses. Parcels west of Studebaker Road are zoned Coastal Habitat, Wetlands, and Recreation. The project would restore and designate these parcels as open space. Therefore, the project would protect natural lands on the project site. As such, development of the proposed project would comply with the existing and proposed General Plan Land Use Elements.

LCP and SEADIP

The proposed project would develop a previously existing industrial site for continued industrial use, as well as conduct wetland restoration prepared in consultation with the LCWA. The project is located within the California Coastal Zone and is subject to the policies pursuant to the California Coastal Commission (CCC). The project falls under the City of Long Beach's LCP (City of Long Beach 1980) and, under it, is located within the SEADIP area (Long Beach 2006). According to the SEADIP, the eastern project area project area is slated for development in Subarea 19 while the western project area is within Subarea 24. In the SEADIP, Subarea 19 is identified as industrial. As such, development of the proposed project, which includes industrial buildings, in Subarea 19 would comply with the SEADIP. Subarea 24 is designated for restoration to native wetland habitat. Under the proposed project, the western project area would be restored to native wetland habitat and donated to the LCWA. Restoration plans would be prepared in consultation with LCWA and in compliance with requirements of the SEADIP. As such, development of the proposed project in Subarea 24 would comply with the SEADIP and, therefore, with the City of Long Beach's Local Coastal Program.

SEASP

According to the City of Long Beach's SEASP (SP-2), the project site is zoned Industrial and Coastal Habitat, Wetlands, and Recreation. Properties located east of Studebaker Road retained their industrial classification because of the significant energy structures and facilities that were envisioned to continue for the lifespan of the SEASP, resulting in the vast majority of the land uses in the SEASP project area to remain unchanged. The Industrial designation is intended to regulate the predominantly energy-related uses that are located on the eastern half of the SEASP area. Industrial uses in the SEASP area must comply with LBMC Chapter 21.33, *Industrial Districts* (City of Long Beach 2017). According to the LBMC, the Industrial zone is intended to promote an "industrial sanctuary" where land is preserved for industry and manufacturing. Permitted uses in the IG zone may include manufacturing plants, rail yards, and parks and interpretive centers (City of Long Beach 1998, 2017). The western project area of the project site are zoned as Coastal Habitat, Wetlands,

and Recreation under SEASP. This area, intended for open space, provides for coastal restoration, access, visitor-serving recreation (i.e., kayaking and paddle boarding), and biological reserves. This designation permits ongoing oil operations and encourages the consolidation of wells, but must comply Title 12, *Oil and Gas Production*, of the LBMC and also Section 30262, *Oil and Gas Development*, of the Coastal Act (City of Long Beach 2017). As such, the proposed project would be consistent with the existing zoning and SEASP land uses designation. Table 18, General Industrial District Development Standards, summarizes of the development standards associated with the IG zone and the proposed project.

Table 18 General Industrial District Development Standards

Standard	Requirements	Proposed
Permitted Uses	Industrial/Manufacturing	Industrial/Manufacturing
Maximum Lot Coverage	80%	42.7%
Maximum Building Height	65 ft	35 ft
Maximum Accessory Office Space	25% of gross floor area	15% of gross floor area
Parking (warehouse: 1/1000 sf)	140 vehicle stalls	168 vehicle stalls
sf = square feet		
Source: City of Long beach Municipal Code, Chapter 21.33, Industrial Districts		

As shown in Table 18, General Industrial District Development Standards, the proposed project would comply with City zoning standards, including maximum height limits, lot coverage, and permitted uses. The proposed project would not conflict with any applicable land use plan, policy, or regulation. Additionally, as discussed in Section 3, *Air Quality*, Section 7, *Geology and Soils*, Section 13, *Noise* and Section 17, *Transportation*, the project would be consistent with the City's Air Quality, Noise, Seismic Safety and Mobility Element, respectively. Therefore, the project is consistent with the existing land use designation and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- 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?*
- 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?*

The project site and surrounding industrial properties are located in an urbanized area. According to the existing City of Long Beach General Plan Land Use Element, the five parcels within the project site are designated as LUD No. 7 (Mixed-Use District); however, the proposed update to the General Plan LUE designates the eastern project area as “industrial” and the western project area as “open space”. Under SEADIP (PD-1), the eastern project area is designated Subarea 19 “industrial,” while the western project area is designated Subarea 24 for restoration to native wetland habitat. The project site is also designated by the City of Long Beach’s SEASP (SP-2) and zoned Industrial and Coastal Habitat, Wetlands, and Recreation. Furthermore, the project falls under the City of Long Beach’s LCP (City of Long Beach 1980). The California Surface Mining and Reclamation Act of 1975 (SMARA) was enacted to promote conservation and protection of significant mineral deposits. According to the California Department of Conservation Mineral Land Classification Maps, the project site is located in an area with a Mineral Resource Zone-3 (MRZ-3) designation, indicating that the presence of significant mineral deposits on-site has not been evaluated (DOC 1994). Although the project site was occupied in the past by two large, aboveground storage tanks (ASTs) that held fuel oil for the nearby Alamitos Energy Center, these tanks have since been removed and the project site is now vacant (Appendix G, Avocet Environmental 2019). Despite the presence of nearby oil refineries and overall abundance of oil deposits in Long Beach, no oil extraction occurs on the project site (City of Long Beach 1973f). Furthermore, the LUC (see Appendix H) prohibits drilling for oil or gas on the project site without prior written approval from DTSC. Because there are no known mineral resources on the project site, the project would have no impact on the availability or recovery of mineral resources.

NO IMPACT

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13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Noise

The unit of measurement used to describe a noise level is the decibel (dB). However, the human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, a method called “A-weighting” is used to filter noise frequencies that are not audible to the human ear. A weighting approximates the frequency response of the average young ear when listening to most ordinary everyday sounds. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the “A-weighted” levels of those sounds. Therefore, the A-weighted noise scale is used for measurements and standards involving the human perception of noise. In this analysis, all noise levels are A-weighted and the abbreviation “dBA” is understood to identify the A-weighted decibel.

Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. A 10 dB increase represents a 10-fold increase in sound intensity, a 20 dB increase is a 100-fold intensity increase, a 30 dB increase is a 1,000-fold intensity increase, etc. Similarly, a doubling of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the source would result in a 3 dB decrease.

Human perception of noise has no simple correlation with acoustical energy. The perception of noise is not linear in terms of dBA or in terms of acoustical energy. Two equivalent noise sources combined do not sound twice as loud as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA (increase or decrease), that a change of 5 dBA is readily

perceptible, and that an increase or decrease of 10 dBA sounds twice or half, respectively, as loud (California Department of Transportation [Caltrans] 2013).

Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this analysis are the one-hour equivalent noise level (L_{eq}) and the community noise equivalent level (CNEL).

- The L_{eq} is the level of a steady sound that, in a specific time period and at a specific location, has the same A-weighted sound energy as the time-varying sound. For example, $L_{eq(1h)}$ is the equivalent noise level over a 1-hour period and $L_{eq(8h)}$ is the equivalent noise level over a 8-hour period. $L_{eq(1h)}$ is a common metric for limiting nuisance noise whereas $L_{eq(8h)}$ is a common metric for evaluating construction noise.
- The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies an additional 5 dBA penalty to noise occurring during evening hours (between 7:00 p.m. and 10:00 p.m.) and an additional 10 dBA penalty to noise occurring during the night, between 10:00 p.m. and 7:00 a.m. These increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night.

Propagation

Sound from a small, localized source (approximating a “point” source) radiates uniformly outward as it travels away from the source in a spherical pattern, known as geometric spreading. The sound level decreases or drops off at a rate of 6 dBA for each doubling of distance.

Traffic noise is not a single, stationary point source of sound. Over some time interval, the movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point. The drop-off rate for a line source is 3 dBA for each doubling of distance.

Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent structures. The number of cycles per second of oscillation makes up the vibration frequency, described in terms of hertz (Hz). The frequency of a vibrating object describes how rapidly it oscillates. The normal frequency range of most groundborne vibration that can be felt by the human body is from a low of less than 1 Hz up to a high of about 200 Hz (Crocker 2007).

While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise. Groundborne noise may result in adverse effects, such as building damage, when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hz). Vibration may also damage infrastructure when foundations or utilities, such as sewer and water pipes, physically connect the structure and the vibration source (Federal Transit Administration [FTA] 2018). Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from

vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses.

Descriptors

Vibration amplitudes are usually expressed in peak particle velocity (PPV) or RMS vibration velocity. Particle velocity is the velocity at which the ground moves. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the greatest magnitude of particle velocity associated with a vibration event. PPV is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings (Caltrans 2013).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2018). Vibration significance ranges from approximately 50 VdB (the typical background vibration-velocity level) to 100 VdB, the general threshold where minor damage can occur in fragile buildings (FTA 2018). The general human response to different levels of groundborne vibration velocity levels is described in Table 19.

Table 19 Human Response to Different Levels of Groundborne Vibration

Vibration Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception for many people
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable
85 VdB	Vibration acceptable only if there are an infrequent number of events per day
Source: FTA 2018	

Propagation

Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source. Variability in the soil strata can also cause diffractions or channeling effects that affect the propagation of vibration over long distances (Caltrans 2013). When a building is impacted by vibration, a ground-to-foundation coupling loss (the loss that occurs when energy is transferred from one medium to another) will usually reduce the overall vibration level. However, under rare circumstances, the ground-to-foundation coupling may amplify the vibration level due to structural resonances of the floors and walls.

Project Area Noise Conditions

The primary off-site noise source in the project area under existing conditions are motor vehicles (e.g., automobiles, buses, and trucks) along Studebaker Road and Loynes Drive. The project area is also exposed to machinery noise from industrial/manufacturing uses east, north, and south of the project site.

To determine ambient noise levels in the project area, three 10-minute sound level measurements were taken using an Extech ANSI Type II sound level meter with an A-weighted slow response setting. The meter was placed five feet above ground level. Measurements were conducted during the afternoon peak traffic hour between 5:30 PM and 6:20 PM on March 25, 2019 (refer to

Appendix I for sound measurement data). Measurement locations (Figure 14, Sound Level Measurement and Noise-Sensitive Receiver Locations) were selected to capture ambient noise at the site, at adjacent residences, and at the nearest arterial roadways that would capture the most project-generated vehicle trips. Table 20 displays the sound level measurement results.

Table 20 Sound Level Measurement Results

Measurement Location	Primary Source(s) of Noise	Distance to Roadway Centerline (feet)	Sample Time	Leq[10] (dBA) ¹
1 Loynes Drive, adjacent to Bixby View Golf Course and single-family residences in the University Park Estates neighborhood	Vehicles on Loynes Drive	40	5:28 PM – 5:38 PM	66.2
2 Adjacent to Channel View Park and single-family residences in the University Park Estates neighborhood	Vehicles on Loynes Drive	150	5:50 PM – 6:00 PM	59.3
3 Studebaker Road, north corner of western project area	Vehicles on Studebaker Road	50	6:07 PM – 6:17 PM	73.0

See Figure 14, Sound Level Measurement and Noise-Sensitive Receiver Locations, for a map of sound level measurement locations. See Noise Measurement and Analyses Data (Appendix I) for noise monitoring data.

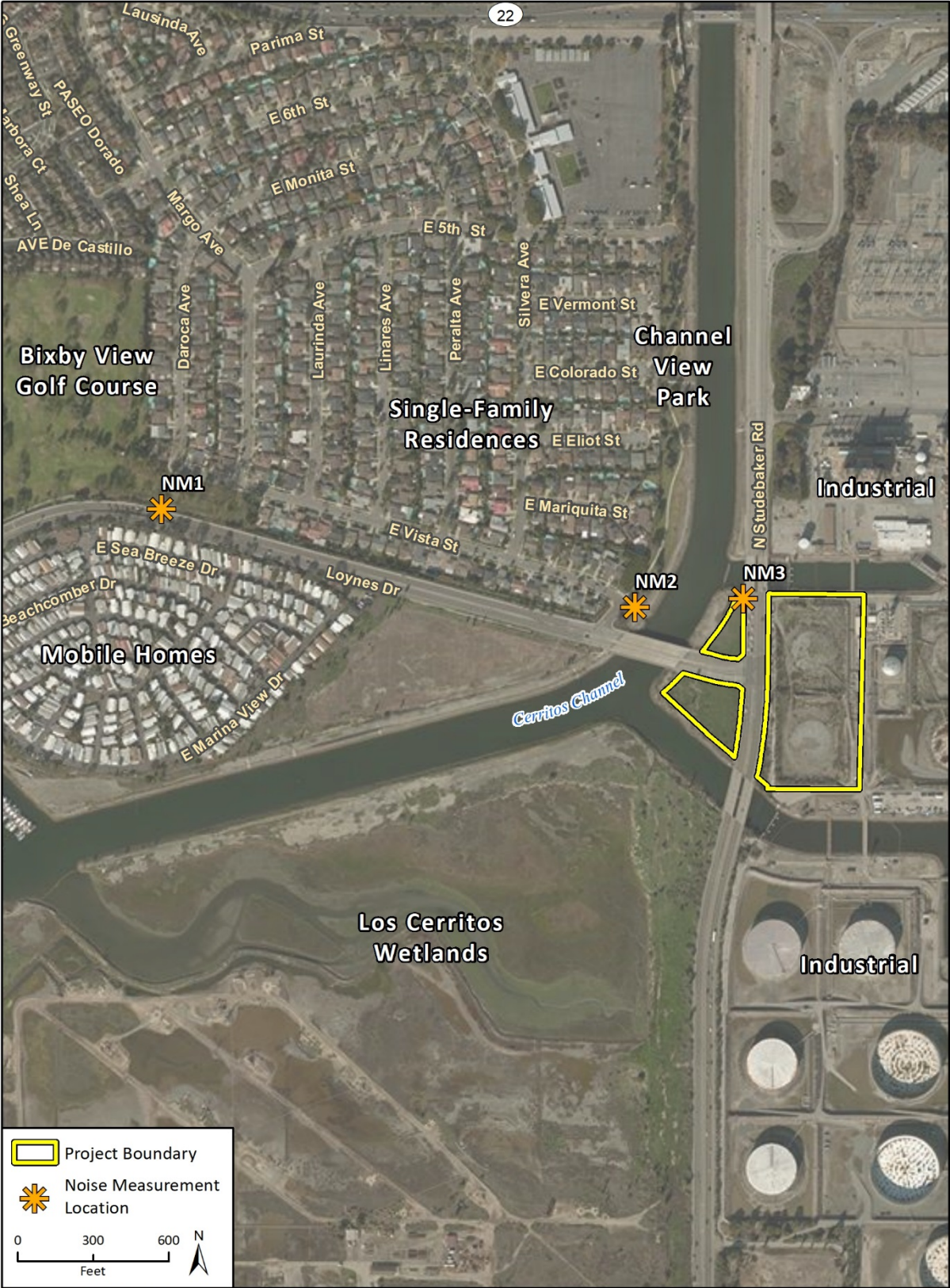
¹The equivalent noise level (Leq) is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). For this measurement, the Leq was over a 10-minute period (Leq[1]).

Source: Rincon Consultants, field measurements on March 25, 2019 using ANSI Type II Integrating sound level meter

Sensitive Receivers

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. According to the Noise Element of the *Long Beach General Plan (1975)*, noise-sensitive land uses include, but are not limited to, residences, schools, hospitals, and libraries. The project site is bordered by the Cerritos Channel on the west; industrial/manufacturing properties to the north, south, and east; and the Los Cerritos Wetlands to the southwest. As discussed in Section 4, *Biological Resources*, the adjacent Cerritos Channel and Los Cerritos Wetlands provide habitat for the general use and movement of wildlife and measures should be taken to reduce impacts to these areas. Therefore, the nearest noise-sensitive receivers consist of the Cerritos Channel, Los Cerritos Wetlands, Channel View Park, and single-family residences located approximately 75 feet, 175 feet, 300 feet, and 400 feet, respectively, from the western project area. In addition, the former Rosie the Riveter Charter High School is located at 730 feet north of the project site, and Charles F. Kettering Elementary School is located approximately 1,530 feet northwest of the project site. However, these schools are not included in the analysis as nearby receivers due to their respective distances from the project site. Figure 14, Sound Level Measurement and Noise-Sensitive Receiver Locations, shows the location of the nearest noise-sensitive receivers.

Figure 14 Sound Level Measurement and Noise-Sensitive Receiver Locations



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Fig. X Noise Measurement Locations

Regulatory Setting

City of Long Beach Municipal Code

The City of Long Beach Municipal Code (LBMC) contains the City's adopted Noise Ordinance (LBMC Chapter 8.80), which sets exterior and interior noise standards. As outlined in LBMC Section 8.80.150, maximum exterior noise levels are based on land use districts identified for the City. According to the Noise District Map in LBMC Section 8.80.160, the project area is comprised of Districts One and Four. The project site and surrounding industrial/manufacturing and warehousing uses north, west, south of the site are in District Four, which is defined as "predominantly industrial with other land use types also present". The remainder of the project area, consisting of residential and commercial uses, is in District One, which is defined as "predominantly residential with other land use types also present". Table 21, Exterior Noise Limits – Districts One and Four, summarizes the City's exterior noise limits for Districts One and Four.

Table 21 Exterior Noise Limits – Districts One and Four

Receiving Land Use District	Night (10:00 PM to 7:00 AM)	Day (7:00 AM to 10:00 PM)	Anytime
One	45 dBA	50 dBA	–
Four	–	–	70 dBA

Source: LBMC Section 8.80.160

LBMC Section 8.80.160 states that "no person shall operate or cause to be operated any source of sound at any location within the incorporated limits of the city or allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which causes the noise level when measured from any other property, either incorporated or unincorporated, to exceed:

1. The noise standard for that land use district for a cumulative period of more than thirty minutes in any hour; or
2. The noise standard plus five decibels for a cumulative period of more than fifteen minutes in any hour; or
3. The noise standard plus ten decibels for a cumulative period of more than five minutes in any hour; or
4. The noise standard plus fifteen decibels for a cumulative period of more than one minute in any hour; or
5. The noise standard plus twenty decibels or the maximum measured ambient, for any period of time."

Furthermore, "if the measured ambient level exceeds that permissible within [the first four of the above categories], the allowable noise exposure standard shall be increased in five decibels increments in each category as appropriate to encompass or reflect the ambient noise level. In the event the ambient noise level exceeds the fifth [category listed above], the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level."

LBMC Section 8.80.170 establishes standards for interior noise in various land use districts. Table 22, Interior Noise Limits, summarizes interior noise limits for general noise-sensitive land uses.

Table 22 Interior Noise Limits

Receiving Land Use District	Source Land Use	Time Period	Noise Level
All	Residential	10:00 PM to 7:00 AM	35 dBA
		7:00 AM to 10:00 PM	45 dBA
All	School	7:00 AM to 10:00 PM (while school is in session)	45 dBA
All	Hospital; Designated quiet zones and noise-sensitive zones	Anytime	40 dBA

Source: LBMC Section 8.80.170

Section 8.80.200 regulates noise disturbances, including vibration. A violation of the noise ordinance would occur if the operation of any device that creates vibration above the “vibration perception threshold” of an individual cannot occur at or beyond the property boundary of the source on private property or at 150 feet from the source on public space or right-of-way. “Vibration perception threshold” is defined as the “minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration [through] touch or visual observation of moving objects.” The perception threshold is .001 g’s⁹ in the 0–30 hertz frequency range and .003 g’s in the 30–100 hertz frequency range. Additional noise disturbances include:

- Creating or causing the creation of any sound within any noise-sensitive zone, so as to exceed the specified land use noise standards set forth in Sections 8.80.150 and 8.80.170; or
- Creating or causing the creation of any sound within or adjacent to any noise-sensitive zone containing a hospital, nursing home, school, court or other designated use so as to interfere with the functions of such activity or annoy the patients or participants of such activity.

LBMC Sections 8.80.202A. through 8.80.202C. establish construction activity-noise regulations for weekdays, federal holidays, Saturdays, and Sundays. Construction activities are prohibited between the hours of 7:00 PM and 7:00 AM the following day on weekdays and federal holidays. In addition, construction activities are prohibited between the hours of 7:00 PM on Friday and 9:00 AM on Saturday and after 6:00 PM on Saturday. No construction activities may occur on Sunday unless a permit is issued from the noise control officer and is limited to the hours of 9:00 AM and 6:00 PM.

SEASP

The City of Long Beach SEASP includes noise reduction measures to reduce construction-related noise impacts to wildlife. According to the SEASP, the following is required prior to the start of construction activities of any project within the SEASP:

Prior to the issuance of grading permits for any development, the project applicant shall include noise reduction measures to reduce noise impacts to wildlife. A note shall be provided on development plans indicating that throughout grading, demolition, and construction, the

⁹ Vibration can be expressed in metric units (m/s²) or units of gravitational constant “g,” where 1 g = 9.81 m/s² (National Instruments, 2019).

property owner/developer shall be responsible for requiring contractors to implement the following measures to limit construction-related noise.

- During all excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.
 - The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors (wildlife) nearest the project site.
 - The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors (wildlife) during all project construction.
 - No construction shall occur within 500 feet of nesting raptors or threatened or endangered species and 100 feet of all other nesting birds protected by the federal Migratory Bird Treaty Act.
- a. *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

The proposed project involves the development of two industrial buildings with associated office space that would support potential uses such light manufacturing, warehousing, assembly and distribution. The immediate surrounding area, consisting of other industrial uses, may be subject to both temporary construction noise and long-term operational noise (i.e., on-site industrial machinery and vehicle circulation), including off-site traffic noise, associated with implementation of the proposed project. The following discussion addresses each noise source separately.

Construction Noise

Temporary noise levels caused by construction activity would be a function of the noise generated by construction equipment, the location and sensitivity of nearby land uses, and the timing and duration of noise-generating activities. For the purpose of the construction noise analysis, Cerritos Channel and the Los Cerritos Wetlands are considered noise-sensitive receivers for consistency with the City's SEASP, which includes noise reduction measures to reduce construction-related noise impacts to wildlife. Construction noise was estimated using the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) Version 1.1 as an industry standard. To determine construction noise impacts, noise was modeled at the property lines of the nearest noise-sensitive receivers, which include the Cerritos Channel, Los Cerritos Wetlands, Channel View Park, and single-family residences located approximately 75 feet, 175 feet, 300 feet, and 375 feet, respectively, from the western project area. The remainder of the project area consists of industrial/manufacturing uses to the north, east, and south of the site, which are not considered noise-sensitive receivers are not included in this analysis.

The demolition, site preparation, and grading phases of construction tend to create the highest temporary noise levels because of the operation of heavy equipment, which commonly include tractors, bulldozers, excavators, front-end loaders, graders, and stationary equipment, such as compressors and generators. Building construction would also use Vibro Replacement Stone Columns (VRSC), which is a ground improvement technique that constructs dense aggregate columns (stone columns) by means of a crane-suspended downhole vibrator, to reinforce all soils and densify granular soils. For assessment purposes, the loudest phases have been used for this

assessment (i.e., demolition, grading, and building construction), and have been modeled under the conservative assumption that a dozer, an excavator, a loader, and a pile-driver¹⁰ operating simultaneously. It is assumed that diesel engines would power all construction equipment. However, wetland restoration and landscaping activities proposed on the western project area would not include use of heavy construction equipment. Rather, construction of the proposed industrial buildings on the site east of Studebaker Road would generate the most construction noise. Therefore, construction noise associated with the proposed project was modeled under the assumption that equipment would operate on the east site.

Table 23, Construction Noise Levels, shows the pieces of equipment assumed to generate the highest noise levels (dBA, L_{eq}) during construction at distances of 475 feet for Cerritos Channel, 575 feet for Los Cerritos Wetlands, 700 feet for Channel View Park, and 775 feet for single-family residences. These distances represent the distances from the center of the site (i.e., center of on-site construction activity) to the nearest noise-sensitive receivers.

Table 23 Construction Noise Levels

Construction Equipment	Approximate L_{eq} , dBA ¹			
	475 Feet	575 Feet	700 Feet	775 Feet
Dozer, Excavator, Loader, Pile-Driver	75	73	71	70

See Noise Measurement and Analyses Data (Rincon Consultants, Inc. 2019) (Appendix I) for RCNM data sheets and assumptions.

¹ Modeled distances for adjacent Cerritos Channel (475 feet), Los Cerritos Wetlands (575 feet), Channel View Park (700 feet), and single-family residences (775 feet).

While the City does not have specific noise level criteria for assessing construction noise impacts, the FTA has developed guidance for determining whether construction of a project would result in a substantial temporary increase in noise levels (FTA 2018). Based on FTA guidance, a significant impact would occur if project-generated construction noise exceeds a 1-hour 80 dBA L_{eq} noise limit at the nearest residences. Similarly, the FTA recommends that in urban environments construction should not exceed the ambient noise level by more than 10 dBA.

As shown in Table 19, Exterior Noise Limits – Districts One and Four, construction of the project would generate noise levels up to an estimated 75 dBA L_{eq} at Cerritos Channel, 73 dBA L_{eq} at Los Cerritos Wetlands, 71 dBA L_{eq} at Channel View Park, and 70 dBA L_{eq} at nearby single-family residences. By conservatively applying the FTA residential noise limit to the nearest receiver (i.e., Cerritos Channel), construction of the proposed project would not generate noise levels exceeding 80 dBA L_{eq} .

Furthermore, LBMC Sections 8.80.202A. through 80.202C. prohibit construction activities between the hours of 7:00 PM and 7:00 AM on weekdays and Federal holidays, between the hours of 7:00 PM on Friday and 9:00 AM on Saturday and after 6:00 PM on Saturday, and any time on Sunday. Nonetheless, according to project construction plans, construction activities under the proposed project would be limited to weekday hours between 7:00 AM and 3:00 PM. Therefore, construction noise would not occur during nighttime sleep hours nor disturb noise-sensitive residential receivers.

¹⁰ Machinery informed by the equipment list assumed by CalEEMod for analysis of the proposed project (Appendix A, Air Quality/Greenhouse Gas Modeling Results). A pile driver was used as a conservative estimate for VRSC construction noise levels.

Instantaneous construction noise would likely exceed ambient noise levels, particularly along Cerritos Channel where the ambient noise ranges between 59.3 dBA Leq and 73.0 dBA Leq (see Table 20, Sound Level Measurement Results, and measurement locations 2 and 3 shown in Figure 13, Sound Level Measurement and Noise-Sensitive Receiver Locations). However, implementation of Mitigation Measure NOI-1 would provide project consistency with the SEASP noise reduction measures (see *Regulatory Setting* of this section) to reduce construction noise impacts to noise-sensitive receivers, including wildlife. While construction noise would cease after completion of the proposed project, temporary impacts from construction noise would be less than significant with mitigation incorporated.

Mitigation Measure

NOI-1 Construction Noise Reduction

Prior to Grading Permit issuance, the Applicant shall demonstrate, to the satisfaction of the City of Long Beach City Engineer, that the project complies with the following measures to reduce construction-related noise.

- Property owners and occupants located within 100 feet of the project boundary shall be sent a notice, at least 15 days prior to commencement of construction of each phase, regarding the construction schedule of the proposed project. A sign, legible at a distance of 50 feet shall also be posted at the project construction site. All notices and signs shall be reviewed and approved by the City of Long Beach Development Services Department, prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide a contact name and telephone number where residents can inquire about the construction process and register complaints.
- Prior to the issuance of any Grading or Building Permit, the contractor shall provide evidence that a construction staff member will be designated as a Noise Disturbance Coordinator and will be present during on-site construction activities. The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a noise complaint is received, the Noise Disturbance Coordinator shall notify the City within 24-hours of the complaint and determine the cause of the noise complaint and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the City of Long Beach City Engineer. All notices that are sent to residential units immediately surrounding the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator.
- Prior to the issuance of any Grading or Building Permit, the project applicant shall demonstrate to the satisfaction of the City of Long Beach City Engineer that construction noise reduction methods shall be used where feasible. These reduction methods include shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and electric air compressors and similar power tools.
- During all excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.
- The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receivers (e.g., residences and wildlife) nearest to the project site.

- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers (e.g., residences and wildlife) during all project construction.
- No construction shall occur within 500 feet of nesting raptors or threatened or endangered species and 100 feet of all other nesting birds protected by the federal Migratory Bird Treaty Act.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

On-Site Operational Noise

The primary on-site noise sources associated with operation of the proposed project would include loading dock noise from medium- and heavy-duty trucks, and heating, ventilation, and air conditioning (HVAC) equipment.

On-site loading docks would be located on the eastern façade of the proposed industrial buildings, as shown in Figure 4, facing other industrial uses east of the site (Alamitos Energy Center). Loading docks would be placed approximately 700 feet east of Channel View Park. Based on a loading dock noise level of 67.5 dBA $L_{eq}(0.5)$ at 50 feet (see Appendix I for noise level calculations), the hourly noise level of a loading dock would be 65 L_{eq} at 50 ft. This analysis assumes that all 20 loading docks have a dock-width of 10 feet and are positioned consecutively along Building 2's eastern façade since it is closest to Channel View Park rather than being distributed between both buildings, as shown in Figure 14, Sound Level Measurement and Noise-Sensitive Receiver Locations. Under this assumption the average distance of all loading docks is 795 feet from Channel View Park. If all 20 docks are fully active during the same hour, operation of all loading docks would result in a total hourly noise level of 54 dBA L_{eq} at 700 feet from the nearest loading dock. The proposed building would block all line-of-sight between the loading docks and nearest noise-sensitive receivers, and is 35-feet high, which results in 20-25 dBA shielding. Therefore, at a distance of 700 feet to Channel View, the resultant noise level would be 27 dBA L_{eq} . See Appendix I for a calculation spreadsheet. Assuming the ambient is 59.3 dBA L_{eq} at Channel View Park (Table 20, Sound Level Measurement Results), the project loading docks would not result in a substantial increase in ambient noise levels at noise-sensitive receivers west of the project site.

The project would include HVAC equipment, which would likely be roof-mounted. Typically, HVAC equipment is provided at a rate of 1-ton of nominal cooling/heating per 600 square feet. As shown in Table 1, Building 1 would be 91,900 square feet and Building 2 would be 42,600 square feet. At these building sizes, Building 1 would require approximately 153 tons of HVAC and Building 2 would require approximately 71 tons of HVAC. Based on a review of Trane HVAC equipment specifications (see Appendix I) and assuming that multiple HVAC equipment systems would be dispersed on rooftops to satisfy building requirements, 40-75-ton roof-mounted HVAC systems would generate a sound power level of 102 dBA, or a noise level of 92 dBA at three feet. As the nearest noise-sensitive receiver, Channel View Park would be located approximately 525 feet from Building 2. Based on a proposed building height of 35 feet for Building 2, rooftop HVAC equipment would be located a minimum of 530 feet from Channel View Park. At this distance, HVAC equipment noise from Building 2 would attenuate from 92 dBA at three feet to 47 dBA at 530 feet. Based on an ambient noise level is 59 dBA L_{eq} at Channel View Park (Table 20, Sound Level Measurement Results), HVAC equipment would not result in an increase in noise above the ambient noise level. In addition, HVAC for the proposed industrial buildings would produce similar noise to the existing industrial uses north, east, and south of the project site.

Overall, operation of the proposed project would not generate sources of noise that are new to the existing area considering the existing industrial uses north, east, and south of the project site. On-site operational noise generated by the project would not exceed the City's noise standards shown in Table 21 and Table 22, and impacts would be less than significant.

Off-site Traffic Noise

The dominant source of noise in the project area is traffic on nearby roadways, including Studebaker Road and Loynes Drive. The proposed project would generate an increase off-site traffic noise on area roadways. However, existing industrial uses located north and south of the site along Studebaker Road are not noise-sensitive receivers. Therefore, this analysis focuses only on the roadway segment of Loynes Drive west of Studebaker Road, which runs parallel to Bixby View Golf Course, single-family residences, and a mobile home park, which are all noise-sensitive receivers.

According to the Traffic Impact Analysis (TIA) prepared by LSA (see Appendix J), the proposed project would generate 206 daily trips, 20 AM peak hour trips, and 22 PM peak hour trips (LSA 2019). To assess the effect of additional project traffic on existing roadway noise, Loynes Drive was modeled under Existing, Existing plus Project, Cumulative, and Cumulative plus Project conditions based on actual traffic volumes derived from the TIA. See Appendix J for tables showing the actual AM peak hour and PM peak hour traffic volumes at studied intersections. However, based on observations during the March 25, 2019 site visit, no vehicles over three tons are allowed on Loynes Drive. This analysis conservatively assumes that all project-generated trips, except for heavy-duty trucks (i.e., trucks with 3 or more axles), would travel on Loynes Drive.

Traffic noise associated with existing and future traffic was estimated using the United States Department of Housing and Urban Development (HUD) Day/Night Noise Level (DNL) Calculator (HUD 2018). Traffic noise model data is provided in Appendix I. Because the City does not have a threshold for transportation noise, this analysis uses recommendations in the FTA's *Transit Noise and Vibration Impact Assessment Manual* (2018) as guidance to determine whether a change in traffic would expose existing noise-sensitive receivers to a substantial permanent increase in roadway noise. Using the FTA criteria, a significant noise exposure increase is 1 CNEL where the existing ambient noise level is between 65 and 70 CNEL (FTA 2018). Table 24, Comparison of Existing and Existing plus Project Traffic Noise, compares project-generated traffic noise to existing conditions and Table 25, Comparison of Year 2020 Cumulative and Cumulative plus Project Traffic Noise, compares project-generated traffic noise to cumulative conditions.

Table 24 Comparison of Existing and Existing plus Project Traffic Noise

Roadway Segment	Sensitive Receivers	Noise Level (dBA, CNEL)			Significance Threshold ¹ (dBA, CNEL)	Significant Increase?
		Existing [1]	Existing Plus Project [2]	Change in Noise Level [2] – [1]		
Loynes Drive west of Studebaker Road	Bixby View Golf Course, mobile home park, single-family residences	68	68	0	3	No

See Appendix I for HUD DNL Calculator results. Results are rounded to the nearest decimal.

¹ See Table 4-6 in the Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, 2018.

As shown in Table 24, Comparison of Existing and Existing plus Project Traffic Noise, the addition of project-generated vehicle and medium-truck trips would not generate a measurable increase in traffic noise at noise along Loynes Drive. Therefore, the project's impact from off-site traffic noise increases would be less than significant under existing plus project conditions. Table 25, Comparison of Year 2020 Cumulative and Cumulative plus Project Traffic Noise, compares cumulative and cumulative plus project traffic noise under year 2020 conditions.

Table 25 Comparison of Year 2020 Cumulative and Cumulative plus Project Traffic Noise

Roadway Segment	Sensitive Receivers	Noise Level (dBA, CNEL)					Significance Threshold ¹ (dBA, CNEL)	Significant Increase?
		Existing [1]	Cumulative [2]	Cumulative Plus Project [3]	Change in Noise Level [3] – [1]	Project Specific Change in Noise Level [3] – [2]		
Loynes Drive west of Studebaker Road	Bixby View Golf Course, mobile home park, single-family residences	68	68	68	<1	0	>1	No

See Appendix I for HUD DNL Calculator results. Results are rounded to the nearest decimal.

¹ See Table 4-6 in the Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, 2018.

As shown in Table 25, Comparison of Year 2020 Cumulative and Cumulative plus Project Traffic Noise, the addition of project-generated vehicle and truck trips would not generate a significant off-site traffic noise level increase along Loynes. Similar to existing plus project conditions, the project's cumulative off-site traffic noise levels would be less than significant and not cumulatively considerable.

Based on the preceding analysis of noise generated during construction and operation the project would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established by applicable standards.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Ground-borne vibration levels from project operation would mostly consist of vibration generated by on-site circulation of medium- and heavy-duty trucks since any other machinery would be locating within the proposed industrial buildings. However, the project site is surrounded by other industrial uses to the north, east, and south, which currently operate heavy machinery, including trucks. Therefore, the proposed project would not generate operational vibration that would be new to the project area.

Construction activities utilize heavy equipment that can also generate considerable ground-borne vibration, such as rollers and bulldozers. While LBMC Section 8.80.200 contains a "vibration perception threshold" for the operation of any device. However, construction vibration would be a

temporary source of ground borne vibration that would not expose surrounding properties to daily vibration beyond completion of the project. Therefore, this analysis uses the FTA criteria to determine the significance of construction vibration as it relates to the structural integrity of off-site buildings. Based on the vibration criteria in the FTA *Transit Noise and Vibration Assessment Manual* (2018), construction vibration impacts would be significant if vibration levels exceed 100 VdB and cause structural damage to typical buildings.

To determine ground-borne vibration impacts from project construction, vibration was modeled using the distances from the project site boundary to the nearest off-site habitable structures (whereas construction noise was modeled using the distances from the center of the site to the property line of the nearest noise-sensitive receivers).

As discussed under impact *a.* of this section, wetland restoration and landscaping activities proposed on Parcels 3 and 4 would not include use of heavy construction equipment. Rather, construction of the proposed industrial buildings on the site east of Studebaker Road would generate the most construction noise. Therefore, construction vibration associated with the proposed project was modeled under the assumption that equipment would operate on this east site. Based on the location of the project site, the nearest off-site structures include an industrial building located 175 feet north of the site and single-family residences located 575 feet west of the site. Table 26, Vibration Levels for Construction Equipment, identifies various ground-borne vibration levels at 175 feet and 575 feet for types of construction equipment that are likely to operate at the project site during construction. Construction would also use Vibro Replacement Stone Columns (VRSC). FTA vibration levels associated with an impact pile driver were used as a conservative estimate of vibration levels from VRSC.

Table 26 Vibration Levels for Construction Equipment

Equipment	Approximate VdB ¹	
	175 Feet	575 Feet
Impact Pile Driver (Upper Range)	86	71
Vibratory Roller	69	54
Large Bulldozer	62	46
Loaded Truck	60	45

See Appendix I for vibration modeling data sheets.

¹ Modeled distances for industrial building to the north (175 feet) and residences to the west (575 feet).

As shown in Table 26, Vibration Levels for Construction Equipment, use of a roller, dozer, loading truck, and VRSC would generate peak vibration levels of approximately 86 VdB at the nearest off-site building. According to FTA vibration criteria, ground-borne construction vibration would not reach levels that could cause damage (100 VdB) to structures near the project site. In addition, according to LBMC Sections 8.80.202A., through 80.202C., construction activities are prohibited between the hours of 7:00 PM and 7:00 AM on weekdays and Federal holidays, between the hours of 7:00 PM on Friday and 9:00 AM on Saturday and after 6:00 PM on Saturday, and any time on Sunday. Nonetheless, according to project construction plans, construction activities under the proposed project would be limited to weekday hours between 7:00 AM and 3:00 PM. Therefore, noise-sensitive residential receivers would not be disturbed by construction vibration during nighttime

hours. Project construction would not result in excessive groundborne vibration or groundborne noise levels and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. *For a project located within the vicinity of a private airstrip or 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?*

As discussed in Section 8, *Hazards and Hazardous Materials*, the nearest aircraft facilities to the project site are the Joint Forces Training Base Los Alamitos military airfield located approximately 2.5 miles east of the project site and Long Beach Airport located approximately 3.25 miles northwest of the project site. In addition, according to the Los Angeles County Airport Land Use Commission (ALUC) and Orange County ALUC, the project site is outside the noise contours of both airports (ALUC 1991; ALUC 2017). Although the project site would potentially be subject to occasional aircraft overflight noise, such occurrences would be intermittent and temporary and would not result in exposure of people working at the project site and its vicinity to excessive noise levels. Impacts would not occur.

NO IMPACT

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14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

According to the California Department of Finance (DOF), the City of Long Beach has an estimated population of 478,561 with an average household size of 2.83 persons (DOF 2018). The Southern California Association of Governments (SCAG) estimates a population increase to 484,500 by 2040 which is an increase of 1.24 percent or 5,939 persons (SCAG 2016). The project does not include residential development and, therefore, would not directly cause population growth. The project would create jobs that could indirectly cause population growth through employees that may relocate to the area. In addition, the Southern California Association of Governments (SCAG) estimates that the number of employees in the City of Long Beach will increase to 181,700 by 2040 which is an increase of 918.6 percent or 28,500 persons from 2008 (SCAG 2016). According to the SCAG 2001 Employment Density Study Summary Report, 139,200-sf of warehouse facilities would house approximately 92 employees (139,200 sf at 1,518 sf per employee) (SCAG 2001). However, it is anticipated that employees would mainly come from the local existing labor workforce and generally would not relocate to Long Beach. Therefore, the proposed project would not cause a substantial increase in population or induce unplanned population growth. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

Because the project site pertains to the development of industrial buildings within an Industrial designation the proposed project would not displace existing housing or people and would not necessitate the construction of replacement housing elsewhere. No impact would occur.

NO IMPACT

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15 Public Services

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1 Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4 Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5 Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Fire protection is provided by the Long Beach Fire Department (LBFD). The nearest fire stations to the project site are LBFD Station No. 8 and Station No. 14 located at 5365 E 2nd Street and 5200 E Elliot Street, respectively. Both stations are situated approximately 3.4 miles west-southwest of the project site. As identified in Chapter 18.48 of the LBMC, the City of Long Beach has adopted the California Fire Code (2016 edition). The Fire Code contains regulations related to construction, maintenance and design of buildings and land uses. The proposed project would be required to adhere to all Fire Code requirements.

The proposed project would increase development intensity on the project site, which would incrementally increase demand for fire protection services. However, the proposed project is an infill development in the existing service area of the LBFD. Additionally, the project site is not located in a Fire Hazard Severity Zone and thus would not be exposed to an increased risk of wildfires. (Cal Fire 2007). The proposed project would not place an unanticipated burden on fire protection services and would therefore not affect response times or service ratios such that new or

expanded fire facilities would be needed. Additionally, the LBFD would be required to review project activities and site plans prior to implementation of the portions project that are in their respective jurisdictions. Based on written communication with the LBDF Deputy Fire Marshal, LBFD has adequate capabilities to serve the proposed project (LBFD 2019). Therefore, the project would not create the need for new or expanded fire protection facilities. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Police protection services in Long Beach are provided by the Long Beach Police Department (LBPD). LBPD consists of approximately 800 sworn police officers and total staffing of over 1,200 employees (LBPD 2019). Based on a current total population of 478,561 (DOF 2019), the current officer to population ratio is 1.7 sworn officers per 1,000 residents. The Patrol Bureau includes one specialized Field Support Division and three geographical divisions: North, East and West. The project site is served by the LBPD East Division Station, located at 3800 E Willow Street, approximately 3.5 miles west of the project site. The proposed project would generate approximately 92 employees, some that may contribute to an increase of the City's population. According to the Long Beach Municipal Code (2019), the proposed project would be subject to a Police Facilities Impact Fee, which is determined by the gross floor area, type of use and location in a nonresidential development, and multiplying the same by the Police Facilities Impact Fee amount as established by the fee-setting resolution per square foot. The proposed project would not cause substantially delayed response times, degraded service ratios or necessitate construction of new facilities, due to the relatively small size of the development and the location in an already developed and well served area. Impacts would be less than significant.

NO IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The proposed project includes construction of two buildings associated with industrial and office uses. The proposed project does not include additional residences that would substantially increase the local population and necessitate new schools. The project site is served by Long Beach Unified School District (LBUSD). Because the proposed project would not generate additional students in the LBUSD or directly affect any schools, no impact would occur.

NO IMPACT

- a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?*

Recreational amenities in Long Beach include 170 parks and 26 community centers, providing more than 3,100 acres of developed for recreational space (City of Long Beach Department of Parks, Recreation and Marine 2018). Based on a population of 478,561 residents, the City's current parkland ratio is approximately 6.5 parkland acres per 1,000 residents. The desired standard stated in the 1975 Quimby Act is 3 acres of parkland per 1,000 residents. By this standard, the City of Long Beach has an adequate amount of open space on a per population basis.

The project site is located approximately 0.3 mile southeast of Channel View Park, which is a 5.28-acre park that includes a bicycle overpass. In addition, the El Dorado East Regional Park, located just two miles north of the project site, is a 388-acre park offering playgrounds, picnic areas, barbecue grills, fishing lakes, an archery range, and a nature center. The proposed warehouse/manufacturing project would not generate residents or increase the demands on existing parks in the City. Therefore, no impact would occur.

NO IMPACT

- a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?*

Operation of the project would not generate residents or increase the demand for usage of existing government facilities in the City. Therefore, no impact would occur.

NO IMPACT

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16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*
- b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

As discussed above under Section 14, *Population and Housing*, the project would not generate a direct increase in population growth on the project site; therefore, the proposed project would not directly affect any existing parks or increase demand for parks. Because the project would involve warehouse/manufacturing development that would not provide any recreational facilities on-site or generate demand for recreational facilities, no adverse impact related recreation would occur. In addition, the western project area of the project would be dedicated as open space to the LCWA. Furthermore, as mentioned in Section 15, *Public Services*, recreational amenities in the City of Long Beach include 170 parks and 26 community centers, providing more than 3,100 acres of developed for recreational space (DPRM 2018). Based on a population of 478,561 residents, the City's current parkland ratio is approximately 6.5 parkland acres per 1,000 residents. The desired standard stated in the 1975 Quimby Act is three acres of parkland per 1,000 residents. By this guideline standard, the City of Long Beach has an adequate amount of open space for recreational purposes, on a per population basis.

NO IMPACT

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17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a. *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Trip Generation

A Traffic Impact Analysis (TIA) was conducted by LSA on July 2019 for the proposed project (Appendix J). According to the TIA, trip generation estimates for the project site were based on trip generation rates from the Institute of Transportation Engineers (ITE), 10th Edition Trip Generation Manual (2017) for Warehousing (ITE Land Use Code 150) and General Office Building (ITE Land Use Code 710). The resulting project trips were converted to trucks and passenger vehicles based on the SCAQMD requirements for warehouse projects. The passenger car equivalent (PCE) factors have been applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). Consistent with standard traffic engineering practice in Southern California, PCE factors have been utilized due to the expected heavy truck component for the proposed project's land use. PCE factors allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, for the purposes of capacity and level of service analyses. A PCE factor of 1.5 has been applied to large 2-axle trucks, a factor of 2.0 for 3-axle trucks and a factor of 3.0 for 4+-axle trucks. Project-generated heavy trucks would not be distributed onto Loynes Drive since commercial vehicles over three tons are prohibited on Loynes Drive. Rather, inbound and outbound heavy trucks would utilize Studebaker Road, as shown in Figure 15, Inbound Truck Access, and Figure 16, Outbound Truck Access.

Trip generation rates used to estimate traffic generated by the project in terms of PCE and actual vehicles are shown in Table 27, Net Estimated Project Trip Generation. As shown on Table 27, the proposed project would generate a net total of approximately 538 PCE trip ends per day with 57 PCE

Figure 15 Inbound Truck Access

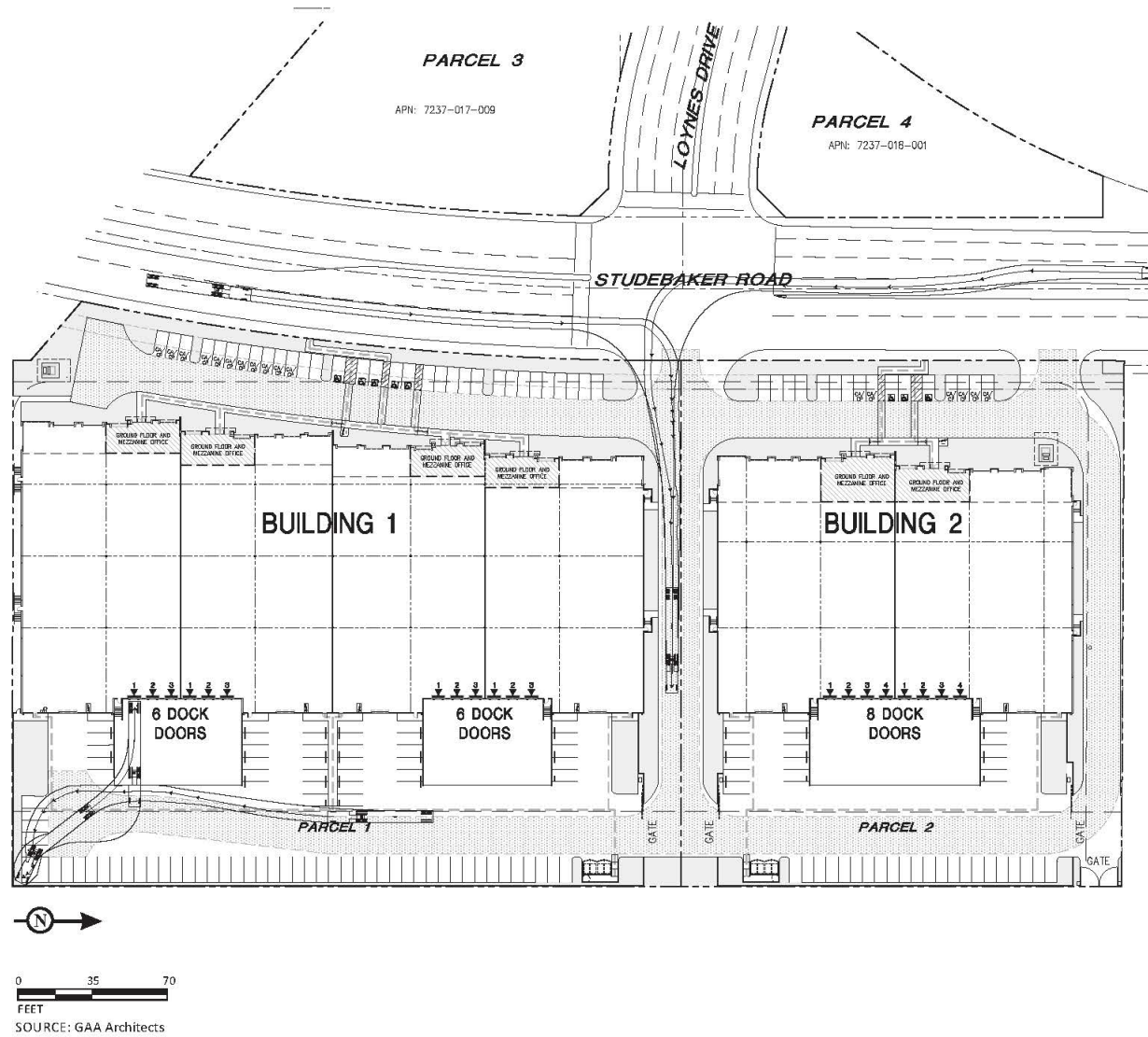
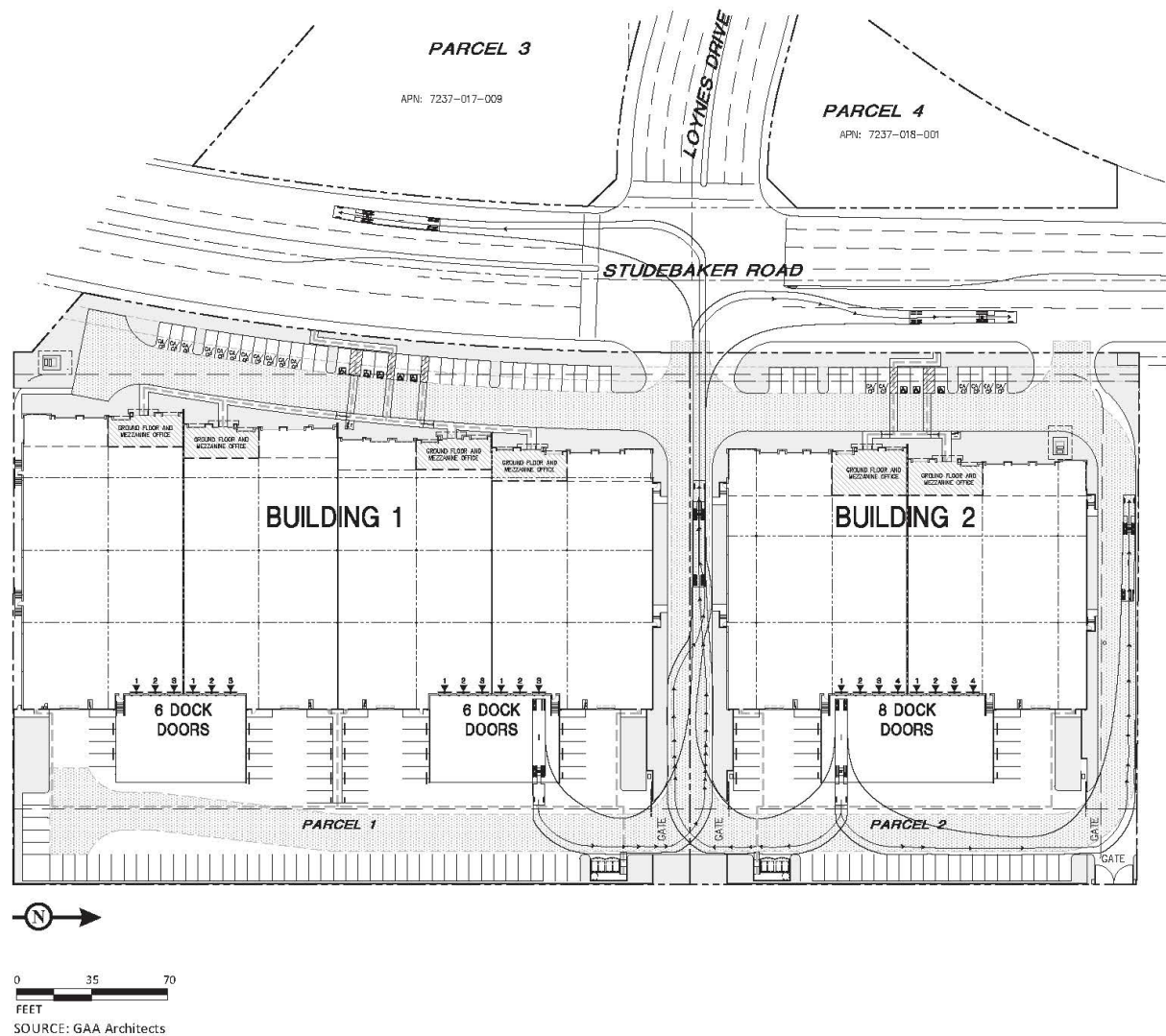


Figure 16 Outbound Truck Access



AM peak hour trips and 60 PCE PM peak hour trips. A summary of trip generation for the proposed project in terms of actual vehicles is also shown in Table 27, Net Estimated Project Trip Generation, which indicates the project would generate a net total of approximately 412 trips per day with 44 AM peak hour trips and 47 PM peak hour trips.

Table 27 Net Estimated Project Trip Generation

Land Use	Quantity	Units ¹	Morning Peak Hour			Afternoon Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Summary (Actual Vehicles)									
Warehouse	118	TSF							
Passenger Cars			9	3	12	3	11	14	124
Truck Trips									
2 axle			1	0	1	0	2	2	14
3 axle			1	1	2	1	1	2	19
4+ axle			4	1	5	1	4	5	50
Office	21	TSF							
Passenger Cars			21	3	24	4	20	24	205
Trip Total (Actual Vehicles)			36	8	44	9	38	47	412
Project Trip Generation Summary (PCE) ¹									
Warehouse	118	TSF							
Passenger Cars			9	3	12	3	11	14	124
Truck Trips									
2 axle			2	0	2	0	3	3	21
3 axle			2	2	4	2	2	4	38
4+ axle			12	3	15	3	12	15	150
Office	21	TSF							
Passenger Cars			21	3	24	4	20	24	205
Trip Total (PCE)			46	11	57	12	48	60	538

TSF = thousand square feet

Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

PCE factors: 1.5 for 2-axle, 2.0 for 3-axle, and 3.0 for 4+-axle

Source: *Traffic Impact Analysis*, LSA 2019. Appendix J

Analysis Methodology

The impact study area was defined in conformance with the methodologies set forth in the City of Long Beach TIA Guidelines, the 2010 Congestion Management Program for Los Angeles County, and applicable provisions of CEQA. Based on the City's guidelines, the study area should include intersections at which the project would contribute a total of 50 or more peak-hour trips. Therefore, through coordination with the City's Traffic Engineer, the following intersections, shown in Figure 1 of the TIA (Appendix J) were selected for the TIA:

1. Studebaker Road/Loynes Drive
2. Studebaker Road/Driveway Access 2

The two study intersections were selected for evaluation utilizing the Intersection Capacity Utilization (ICU) methodology for signalized intersections and the Highway Capacity Manual (HCM) for unsignalized intersections. The ICU methodology compares the volume of traffic using the intersection to the capacity of the intersection. The volume to capacity ratio is then correlated to a performance measure known as Level of Service (LOS) ranging from LOS A (free-flow conditions) to LOS F (extreme congestion and system failure). Similarly, the HCM methodology compares the volume of traffic using the intersection to the capacity of the intersection to calculate the delay associated with the traffic control at the intersection. The intersection delay is then correlated to a LOS performance measure, as shown in Table 28.

Table 28 Relationship between LOS and Delay (in seconds)

Level of Service	Signalized Intersection Delay (seconds)	Unsignalized Intersection Delay (seconds)
A	≤10.0	≤10.0
B	>10.0 and ≤20.0	>10.0 and ≤15.0
C	>20.0 and ≤35.0	>15.0 and ≤25.0
D	>35.0 and ≤55.0	>25.0 and ≤35.0
E	>55.0 and ≤80.0	>35.0 and ≤50.0
F	>80.0	>50.0

Source: *Traffic Impact Analysis*, LSA 2019 (Appendix J)

Significance Thresholds

Mitigation is required for any signalized intersection where project traffic causes the intersection to deteriorate from LOS D to LOS E or LOS F, or if the project traffic causes an increase in the volume to capacity (v/c) ratio of 0.02 or greater when the intersection is operating at LOS E or LOS F in the pre-project condition. Mitigation is required for any unsignalized intersection where the project traffic increases delay by two percent or greater when the entire intersection is operating at LOS E or LOS F in the pre-project condition.

Analysis Scenarios

The following scenarios were evaluated for the previously listed intersections:

- Existing (2019)
- Existing plus Project
- Project Build-Out Year (2020) Plus Cumulative Projects
- Project Build-Out Year (2020) Plus Cumulative Projects Plus Project

Existing and Existing plus Project Conditions

Existing plus Project peak hour traffic operations were evaluated for the study area intersections. The intersection analysis results are summarized in Table 29, Existing and Existing plus Project Conditions, which indicates the study area intersections would continue to operate at an acceptable LOS during the peak hours with the addition of project traffic. Existing plus project conditions are shown in Figure 11 of the TIA (See Appendix J). The intersection operations analysis worksheets for existing plus project conditions are included in Appendix E of the TIA. Impacts would be less than significant.

Table 29 Existing and Existing plus Project Conditions

Intersection	Existing		Existing plus Project	
	Morning	Afternoon	Morning	Afternoon
	ICU/Delay - LOS	ICU/Delay - LOS	ICU/Delay - LOS	ICU/Delay - LOS
Studebaker Road/Loynes Drive	0.68 - B	0.72 - C	0.71 - C	0.76 - C
HCM	10.8 - B	13.2 - B	18.2 - B	22.2 - C
Studebaker Road/Driveway Access 2	–	–	–	–
Unsignalized – HCM 2000	–	–	18.2 - C	20.1 - C

Source: *Traffic Impact Analysis* (LSA 2019) (Appendix J)

Project Build-Out (2020), Without and With Project Conditions

LOS calculations were conducted for the study intersections to evaluate their operations under the Project Build-Out (2020) without and with project conditions, with roadway and intersection geometrics. As shown in Table 30, Project Build-Out (2020) plus Project Conditions, the study area intersections are anticipated to continue to operate at an acceptable LOS during the peak hours. A summary of the peak hour intersection LOS for Project Build-Out plus Project conditions are shown in Figure 10 of the TIA (see Appendix J). Impacts would be less than significant.

Table 30 Project Build-Out (2020) plus Project Conditions

Intersection	2019 Cumulative		2019 Cumulative plus Project	
	Morning	Afternoon	Morning	Afternoon
	ICU/Delay - LOS	ICU/Delay - LOS	ICU/Delay - LOS	ICU/Delay - LOS
Studebaker Road/Loynes Drive	0.71 - C	0.76 - C	0.74 - C	0.80 - C
HCM	11.3 - B	13.8 - B	19.0 - B	24.4 - C
Studebaker Road/Driveway Access 2	–	–	–	–
Unsignalized – HCM 2000	–	–	19.1 - C	21.6 - C

Source: *Traffic Impact Analysis*, LSA 2018 (Appendix J)

Transit, Bicycle, and Pedestrian Facilities

As required by the 2010 Congestion Management Program (CMP) for Los Angeles County, LSA reviewed existing transit services within the project area. One Orange County Transportation Authority (OCTA) bus route (Route 1) currently exists along Studebaker Road adjacent to the western project area. OCTA operates Route 1 from Long Beach to San Clemente Based on the 2009 CMP Transit Monitoring Network, LSA also determined there are no CMP transit routes within the

project site. To estimate transit trip generation under project operation, the project trip generation (Table 27, Net Estimated Project Trip Generation,) was adjusted by the values set forth in the CMP (i.e., person trips equal 1.4 times vehicle trips, and transit trips equal 3.5 percent of total person trips). Based on this methodology, the proposed project is forecast to generate approximately 26 daily transit trips, 3 a.m. peak-hour transit trips (2 inbound and 1 outbound), and 3 p.m. peak-hour transit trips (1 inbound and 2 outbound). Therefore, LSA concluded that the existing transit services within the project area would be able to accommodate the project-generated transit trips (Appendix J, TIA).

According to the City's Bicycle Master Plan, Class II (i.e., one-way bicycle travel) Bicycle Lanes are located along Studebaker Road south of Loynes Drive and Loynes Drive west of Studebaker Road (City of Long Beach 2017b). Furthermore, sidewalks and pedestrian crosswalks with signalized intersections are provided along roadways in the project site area. However, the proposed project would not change existing bicycle lanes or sidewalks adjacent to the project frontage. Rather, the project would provide pedestrian/bicycle connectivity to/from the local circulation network. Overall, the project would not conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, and would not otherwise substantially reduce the performance or safety of such facilities. Impacts would be less than significant.

Construction Analysis

LBMC Sections 8.80.202A. through 80.202C. prohibit construction activities between the hours of 7:00 PM and 7:00 AM on weekdays and Federal holidays, between the hours of 7:00 PM on Friday and 9:00 AM on Saturday and after 6:00 PM on Saturday, and any time on Sunday. However, according to the Applicant, typical construction hours for the project would occur between 7:00 AM and 3:00 PM. Workers are expected to arrive at the site before 7:00 AM (outside of the AM peak hour) and depart from the site before 4:00 PM (outside of the PM peak hour). Because construction trips would occur outside of the morning and afternoon peak hours, construction of the proposed project would not conflict with the surrounding circulation system and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)??*

CEQA Guidelines Section 15064.3(b) identifies appropriate criteria for evaluating transportation impacts. It states that land use projects with VMT exceeding an applicable threshold of significance may indicate a significant impact, and that projects that decrease VMT compared to existing conditions should be presumed to have a less than significant transportation impact. Section 15064.3(c) states that the requirement to use these criteria only applies on and after July 1, 2020. The proposed project would be infill development, which generally generates lower VMT than "greenfield" development (new development in rural or agricultural areas on the periphery of communities, or lands otherwise not previously planned for development).

As discussed in Section 11, *Land Use and Planning*, the proposed project would be consistent with the existing zoning and land use designations of the City's SEADIP and SEASP by developing an industrial/manufacturing use on the parcel east of Studebaker Road and placing an assortment of native grasses and tree species on the parcel west of Studebaker Road. Therefore, the project would not implement vehicle-generating land uses that the City has not previously accounted for in its land use and planning documents. In addition, LSA reviewed existing transit services within the project

area as required by the 2010 Congestion Management Program for Los Angeles County. As discussed under impact a., Orange OCTA Route 1 exists along Studebaker Road. Furthermore, as discussed under *Surrounding Land Uses and Setting*, the project and will be served by future Long Beach Transit stops planned along Studebaker Road (see Figure 11, City-Proposed Striping along Studebaker Road). LSA determined that the project would generate approximately 110 daily transit trips, 12 a.m. peak-hour transit trips, and 13 p.m. peak-hour transit trips, and concluded that the existing transit services in the project area would be able to accommodate the project-generated transit trips. OCTA provides coastal fixed-route bus service in the project vicinity. A bus stop for Route 1 is located adjacent to the project site on Studebaker Road. OCTA operates Route 1 from Long Beach to San Clemente.

The proposed project would be expected to reduce per capita VMT by developing an industrial/manufacturing use in an existing urban area near public transit options. The location in an urban area would generally limit the travel distance needed for work-related trips and the adjacency of transit to the project site supports a reduction in VMT per employee as compared to a location not near transit. Furthermore, because the project involves construction of over 25,000 sf of nonresidential development, it would be required to implement transportation demand management (TDM) strategies pursuant to Section 21.64 of the LBMC. Such strategies include, but are not limited to, provision of preferential parking for vanpools, bicycle racks or other secure bicycle parking, and sidewalks or other designated pedestrian pathway connecting each building to the external pedestrian circulation system. For these reasons, the proposed project would not conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*

As indicated on the site plan (Figure 6), access to the project site is proposed at two locations (via full-access driveway on Studebaker Road/Loynes Drive) and a secondary right in and right out driveway (via Studebaker Road north of the project site). As a project design feature, a southbound left-turn pocket and left-turn lane on Studebaker Road would be constructed to allow access to the site. In addition, the inside eastbound right-turn lane on Loynes Drive would be converted to an eastbound through lane for vehicles entering the project site from Loynes Drive. As part of the TIA, a LOS analysis was conducted for each driveway. Based on the results of this analysis shown in Tables 26 and 27, all project driveways are forecast to operate at satisfactory LOS D or better for Existing Plus Project, Project Build-Out Year Plus Cumulative Projects, and Project Build-Out Year Plus Cumulative Projects Plus Project during both the a.m. and p.m. peak hours. Therefore, the project would not increase any hazards at these driveway intersections.

To determine the adequacy and ability for large trucks to circulate on-site, truck turning templates for large trucks (wheelbase 50 feet) were overlaid onto the project site plan. Based on the truck turning analysis, LSA concluded that trucks would be able to make safe turns in/out of the signalized access of Studebaker Road/Loynes Drive and navigate through the internal drive aisle to the loading docks at the rear of the project site. Therefore, the proposed design would not include sharp curves and operation of the drive aisle and delivery locations would not affect on-site access and circulation.

A sight distance analysis was also conducted along Studebaker Road and Loynes Drive at the proposed location of the main project driveway to ensure driver visibility and safety. In the project

vicinity, the speed limit along Studebaker Road is 45 miles per hour (mph) and along Loynes Drive is 35 mph. According to the Caltrans Highway Design Manual, the corner sight distance for a roadway with the speed limit of 45 mph is 495 ft and for a speed limit of 35 mph is 385 ft. There are no sight distance obstructions at the proposed project driveways. The sight distance at the main project driveway exceeds 495 feet in the south direction (left of the driveway), enabling a right turn on red without any visual obstruction. In the westward direction (straight out of the main driveway), the sight distance at the project driveway exceeds 385 feet. The sight distance at the right-in/right-out only driveway exceeds 495 feet in the south direction (left of the driveway), enabling a right turn at the stop without any visual obstruction. Therefore, the project driveways would meet the minimum sight distance requirements specified in the Caltrans Design Manual. The design of the proposed project would not increase safety hazards and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in inadequate emergency access?

The proposed project would not result in inadequate emergency access because it would be subject to the Long Beach Fire Department review and acceptance of site plans, and structures prior to occupancy to ensure that required fire protection safety features, including adequate driveway access to buildings and adequate emergency access are implemented. Impacts would be less than significant.

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18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a) (1) (A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.” Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

Under AB 52, Native American tribes have 30 days to respond and request further project information and request formal consultation. The City of Long Beach initiated AB 52 and Senate Bill (SB) 18 consultation on February 27, 2019 (see Appendix E). Under AB 52, Native American contacts have 30 days to respond and request further consultation and under SB 18 the contacts have 90 days to respond and thus, have until May 28, 2019 to respond to the City’s consultation request.

The City of Long Beach Planning Bureau received a request for consultation from one Tribe, the Gabrieleño Band of Mission Indians - Kizh Nation. The City and the Tribe held a consultation meeting on May 30, 2019 to answer questions about the project and to hear requests and recommendations for mitigation. The City received recommended mitigation measures from the Tribe and those measures have been incorporated below. As of July 18, 2019, consultation has been closed for this project.

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*
- b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?*

As part of the process of identifying cultural resources issues in or near the project site, Rincon contacted the Native American Heritage Commission (NAHC) to request a Sacred Lands File (SLF) search of the project area and a 0.5-mile buffer surrounding it. The request was submitted on March 15, 2019. The NAHC responded on March 27, 2019 stating negative results and provided a list of Native American contacts that are traditionally and culturally affiliated with the geographic area of the project.

Ground disturbance associated with the proposed project has the potential to unearth cultural resources of Native American origin that could be considered TCRs. The following mitigation measures were developed during the consultation efforts for this project. With implementation of mitigation, impacts would be less than significant.

Mitigation Measures

TCR-1 Retain a Native American Monitor/Consultant

The Project Applicant shall be required to retain and compensate for the services of a Tribal monitor/consultant who is both approved by the Gabrieleño Band of Mission Indians-Kizh Nation Tribal Government and is listed under the NAHC’s Tribal Contact list for the area of the project location. This list is provided by the NAHC. The monitor/consultant will only be present on-site during the construction phases that involve ground disturbing activities. Ground disturbing activities

are defined by the Gabrieleño Band of Mission Indians-Kizh Nation as activities that may include, but are not limited to, pavement removal, pot-holing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching, within the project area. The Tribal Monitor/consultant will complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when the project site grading and excavation activities are completed, or when the Tribal Representatives and monitor/consultant have indicated that the site has a low potential for impacting Tribal Cultural Resources.

TCR-2 Unanticipated Discovery of Tribal Cultural and Archaeological Resources

Upon discovery of any archaeological resources, cease construction activities in the immediate vicinity of the find until the find can be assessed. All archaeological resources unearthed by project construction activities shall be evaluated by the qualified archaeologist and tribal monitor/consultant approved by the Gabrieleño Band of Mission Indians-Kizh Nation. If the resources are Native American in origin, the Gabrieleño Band of Mission Indians-Kizh Nation shall coordinate with the landowner regarding treatment and curation of these resources. Typically, the Tribe will request reburial or preservation for educational purposes. Work may continue on other parts of the project while evaluation and, if necessary, mitigation takes place (CEQA Guidelines Section 15064.5 [f]). If a resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource", time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be available. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be offered to a local school or historical society in the area for educational purposes.

TCR-3 Unanticipated Discovery of Human Remains and Associated Funerary Objects

Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in PRC 5097.98, are also to be treated according to this statute. Health and Safety Code 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and excavation halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC) and PRC 5097.98 shall be followed.

TCR-4 Resource Assessment & Continuation of Work Protocol

Upon discovery, the tribal and/or archaeological monitor/consultant/consultant will immediately divert work at minimum of 150 feet and place an exclusion zone around the burial. The

monitor/consultant(s) will then notify the Tribe, the qualified lead archaeologist, and the construction manager who will call the coroner.

Work will continue to be diverted while the coroner determines whether the remains are Native American. The discovery is to be kept confidential and secure to prevent any further disturbance. If the finds are determined to be Native American, the coroner will notify the NAHC as mandated by state law who will then appoint a Most Likely Descendent (MLD).

TCR-5 Kizh- Gabrieleño Procedures for burials and funerary remains

If the Gabrieleño Band of Mission Indians – Kizh Nation is designated MLD, the following treatment measures shall be implemented. To the Tribe, the term “human remains” encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the burial of funerary objects with the deceased, and the ceremonial burning of human remains. These remains are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects.

TCR-6 Treatment Measures

Prior to the continuation of ground disturbing activities, the land owner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed. The Tribe will work closely with the qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be taken which includes at a minimum detailed descriptive notes and sketches. Additional types of documentation shall be approved by the Tribe for data recovery purposes. Cremations will either be removed in bulk or by means as necessary to ensure completely recovery of all material. If the discovery of human remains includes four or more burials, the location is considered a cemetery and a separate treatment plan shall be created. Once complete, a final report of all activities is to be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive diagnostics on human remains.

Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered. Professional Standards: Archaeological and Native American monitoring and excavation during construction projects will be consistent with current professional standards. All feasible care to avoid any unnecessary disturbance, physical modification, or separation of human remains and associated funerary objects shall be taken. Principal personnel must meet the Secretary of Interior standards

for archaeology and have a minimum of 10 years of experience as a principal investigator working with Native American archaeological sites in southern California. The Qualified Archaeologist shall ensure that all other personnel are appropriately trained and qualified.

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19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

Water

The Long Beach Water Department (LBWD) primarily relies upon groundwater extracted locally from the Central Basin to meet customer water demands. Additionally, LBWD purchases imported water from Metropolitan Water District (MWD) to make up the difference between demand and groundwater supplies. LBWD also provides recycled water to an increasing number of customers to

replace the use of potable water (LBWD 2015). The City of Long Beach's 2015 Urban Water Management Plan (UWMP) reports total citywide water demand for 2015 at 55,206 acre-feet. This is projected to increase by 3,900 acre-feet (or 7.1 percent) to 59,106 acre-feet in 2040. According to the Long Beach UWMP, the City expects to meet project demand needs for the next 25 years (LBWD 2015). The proposed project would demand an estimated 35.6 million gallons (109 acre-feet [AFY]) of water per year according to CalEEMod estimations (Appendix A, Air Quality/Greenhouse Gas Modeling Results). Project water demand would represent approximately three percent of the projected increase in water demand of 3,900 AFY for 2040. Therefore, the proposed project's projected water demand is within forecasted water supply and would not require the construction of new water supply facilities, or expansion of existing facilities. Impacts would be less than significant.

Wastewater

A majority of the City's wastewater is delivered to the Joint Water Pollution Control Plant (JWPCP) of the Los Angeles County Sanitation Districts (LACSD). The remaining portion is delivered to the Long Beach Water Reclamation Plant (LBWRP) of the LACSD. The JWPCP provides advanced primary and partial secondary treatment for 260 million gallons of wastewater per day (MGD), with a permitted capacity for 400 MGD of wastewater (LACSD 2018a), resulting in an available capacity of 140 MGD. The LBWRP provides primary, secondary, and tertiary treatment for 25 MGD of wastewater (LACSD 2018b).

Assuming that 100 percent of the proposed project's water use would be treated as wastewater, 35.6 million gallons per year (approximately 97,534 gallons per day or 0.1 MGD) represents approximately 0.07 percent of the remaining daily capacity of 140 MGD of wastewater at the JWPCP. The proposed project would not require the construction of new treatment facilities as the JWPCP would have adequate capacity to treat the wastewater produced by the proposed project. Impacts would be less than significant.

In addition, as discussed in the Will Serve Letter, prepared by the Long Beach Water Department, dated May 24, 2019 (Appendix M), the project includes a sewer line extension, measuring roughly 1,000 linear feet (lf), which would be located along the public right-of-way of Loynes Drive. See also Figure 10. Storm drain lines and surface swales would convey drainage to two existing facilities located at the south east and south west portions of the property. Domestic water and fire flow would be taken from an existing 12-inch line in Studebaker Road

Stormwater Drainage

As discussed in Section 10, *Hydrology and Water Quality*, the proposed project would comply with current NPDES and Los Angeles County MS4 permit regulations pertaining to the retention of stormwater and detention of site runoff into storm drains and receiving waters and include storm water Low Impact Development (LID) Best Management Practices (BMPs). Furthermore, Chapter 18.74 of the LBMC regulates the implementation of the LIDs and BMPs for projects in the City. Compliance with these requirements would reduce potential impacts to local stormwater drainage facilities to a less than significant level.

Electric Power, Natural Gas, Telecommunications

The project site is located in an existing developed area of the City of Long Beach, which has existing infrastructure for electric power, natural gas, and telecommunications services. The proposed project would be infill development consistent with long-range plans for the area (see Section 11,

Land Use and Planning). It would not cause substantial unplanned population growth (see Section 14, *Population and Housing*), would not result in wasteful or inefficient use of energy (see Section 6, *Energy*), and would not require or result in the construction of new electric power, natural gas, or telecommunication facilities or expansion of existing facilities. As such, although the proposed project would create an incremental increase in demand on these facilities, this impact would be less than significant.

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- b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

As shown in Table 31, Water Supply and Demand in Single and Multiple Dry Years (AF), LBWD projects that water supplies will be sufficient to meet all demands through the year 2040 during normal, single dry year, and multiple dry year hydrologic conditions. Although historical precedent has consistently proven that water demands decrease in dry years due to voluntary and mandatory water use restrictions and a general increase in public awareness of the need for water conservation, the 2015 UWMP takes a conservative approach to planning by assuming that water demand will remain steady rather than decrease during dry years. LBWD supplies are projected to significantly exceed demands through 2040 even in future dry years if customers do not reduce their demand as they have done in recent droughts (LBWD 2015).

The proposed project would demand an estimated 35.6 million gallons (109 AFY) of water per year according to CalEEMod estimations (Appendix A, Air Quality/Greenhouse Gas Modeling Results). As shown in Table 31, Water Supply and Demand in Single and Multiple Dry Years (AF), the LBWD projects a 15,154 AF surplus of water supply during normal, single and multiple dry year conditions for year 2040. The proposed project would represent 0.72 percent of the 15,154 AF surplus of water supply. Because sufficient water is available to serve the project during normal, single and multiple dry year conditions, new sources of water supply would be not required to meet project water needs. Impact would be less than significant.

Table 31 Water Supply and Demand in Single and Multiple Dry Years (AF)

Year-Type	2020	2025	2030	2035	2040
Normal Year					
Total Supplies	77,291	77,791	78,291	78,791	79,291
Total Demands	63,643	63,410	63,454	63,609	64,137
Surplus	13,648	14,381	14,836	15,182	15,154
Single Dry Year					
Total Supplies	77,291	77,791	78,291	78,791	79,291
Total Demands	63,643	63,410	63,454	63,609	64,137
Surplus	13,648	14,381	14,836	15,182	15,154
Multiple Dry Year 1st, 2nd, and 3rd Year Supply					
Total Supplies	77,291	77,791	78,291	78,791	79,291
Total Demands	63,643	63,410	63,454	63,609	64,137
Surplus	13,648	14,381	14,836	15,182	15,154

Units in acre-feet (AF)
Source: LBWD 2015

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

As discussed under impact discussion 19(a). of this section, the proposed project would create demand for an estimated 35.6 million gallons of wastewater per year according to CalEEMod estimations (Appendix A, Air Quality/Greenhouse Gas Modeling Results). Assuming that 100 percent of this water use would be treated as wastewater, 36.5 million gallons per year (approximately 97,534 gallons per day or 0.1 MGD) represents approximately 0.07 percent of the remaining daily capacity of 140 MGD of wastewater at the JWPCP. The proposed project would not require the construction of new treatment facilities as the JWPCP would have adequate capacity to treat the wastewater produced by the proposed project. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- d. *Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*
- e. *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

The Long Beach Environmental Services Bureau and private permitted waste haulers provide solid waste service for the City. Waste generated from the project site would be disposed at various facilities based on the contract made between a permitted waste hauler and the building occupant. One such facility is the Republic Services Bel Art Transfer station located approximately 12 miles north of the project site. Additionally, as reported in the County of Los Angeles 2016 Countywide Integrated Waste Management Plan, 47 percent of the waste received at the Southeast Resource Recovery Facility is generated by the City of Long Beach (DPW 2017). Materials leaving transfer stations could be transported to a variety of destinations. Savage Canyon (Class III) Landfill is the nearest to the project site, although this would not necessarily be the landfill accepting materials generated by the project site, as that would be determined in part by a contract with a waste hauler. The Savage Canyon landfill is located approximately 19 miles north east of the project site. The landfill has a 350 ton per day maximum permitted throughput capacity and receives approximately 293 tons per day. Additionally, the landfill has a remaining capacity of 4.89 million tons and an estimated remaining life of 39 years (DPW 2017).

According to CalEEMod (Appendix A, Air Quality/Greenhouse Gas Modeling Results), the proposed project would generate about 0.46 tons of solid waste per day. This estimate is conservative since it does not factor in any recycling or waste diversion programs. The 0.46 tons of solid waste generated by the project would be approximately 0.80 percent of the available daily capacity of 57 tons at the Savage Canyon landfill. In addition, the proposed project would comply with Mitigation Measures HAZ-2, Soil Management Plan, as discussed under Section 9, *Hazards and Hazardous Material*, so that any potentially significant impacts pertaining to RECs and OEFs present on-site, any soil brought to the surface by grading, excavation, trenching, or backfilling would be managed and disposed of in accordance with all applicable provisions of state and federal law. The proposed project would comply with federal, State, and local statutes and regulations related to solid waste and recycling, such as AB 939 and SB 1383, through participation in existing City waste diversion programs. As there is adequate remaining daily landfill capacity in the region to accommodate project-generated waste, impacts related to solid waste and waste facilities would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

The project site is located in an urban area of the City of Long Beach. Undeveloped wildland areas are not located in proximity to the project site. According CalFire the project site is not located in a "Fire Hazard Severity Zone" or "Very High Hazard Severity Zone" for wildland fires (CalFire 2007). Therefore, the project site is not located near a state responsibility area or classified as having a high fire hazard.

As discussed in Section 15, *Public Services*, the LBFD provides fire prevention, fire protection, and emergency response for the project site and the surrounding Long Beach area. According to the City's General Plan Public Safety Element, the Department of Emergency Preparedness has prepared and adopted citywide emergency procedures (City of Long Beach 1975). In order to comply with these procedures, all development in the City of Long Beach, including the proposed project, would account for existing emergency routes, response procedures and action plans. Construction of the

proposed project would maintain emergency access to the site and area roadways, and would not interfere with an emergency response plan or evacuation route as described in the Public Safety Element of the City's General Plan. No impact would occur.

NO IMPACT

- b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*
- d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

As discussed under impact discussion 20 (a). of this section, the project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. Long Beach is located directly east of the Palos Verdes Peninsula, and has a mostly south facing coastline along the Pacific Ocean. The city is largely characterized by flat topography with the Palos Verdes hills to the west that generally block strong west to east wind patterns. Prevailing winds in the city and at the project site are influenced mainly by hilly terrain to the west and the coastline to the south, resulting in wind mostly from the west from February through November and from the north from November through January. The project site and surrounding area is not at risk to high windspeeds or slopes that may exacerbate wildfire risk.

The project site is located west of San Gabriel River, adjacent to Cerritos Channel to the east, and near the Los Cerritos Wetlands to the southwest.; however, the project site and surrounding areas are not at high risk of downslope or downstream flooding or landslides. The project site is located in an urbanized area and is not located in a high fire hazard severity zone (CalFire 2007). Therefore, wildfire risks would not be exacerbated and risks to people or structures due to runoff, post-fire slope instability, or drainage changes would not occur. Residents and visitors of the project site would not be exposed to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. No impact would occur.

NO IMPACT

- c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

The project site is located in an urbanized area and is not located in or near a state responsibility area or land classified as a very high fire hazard severity zone (CalFire 2007). The project includes the development of a warehouse/manufacturing facility with associated office support and would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk. The project site would be adequately served by existing facilities and utilities. Therefore, the proposed project would not require additional roads, fuel breaks, emergency water sources, power lines or other utilities that would exacerbate fire risk and no temporary or ongoing impacts to the environment would occur.

NO IMPACT

21 Mandatory Findings of Significance

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

- a. *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

As discussed in Section 4, *Biological Resources*, with project implementation, the portion east of Studebaker Road would contain two industrial buildings and concrete and asphalt paving with ornamental trees along Studebaker Road and Lyones Drive. The portion west of Studebaker Road is currently vacant, undeveloped land with sparse disturbed vegetation characterized by non-native species. The western project area would be dedicated as open space. Migratory or other common nesting birds, while not designated as special-status species, are protected by the CFGC and MBTA and may nest on the power pole structures along Studebaker Road or in ornamental trees on-site.

Therefore, construction of the project has the potential to directly (by destroying a nest) or indirectly (construction noise, dust, and other human disturbances that may cause a nest to fail) impact nesting birds protected under the CFGC and MBTA, and implementation of Mitigation Measure BIO-1 would ensure compliance with the CFGC Section 3503 and the MBTA with respect to nesting birds.

Furthermore, as discussed in Section 5, *Cultural Resources*, Section 7, *Geology and Soils*, and Section 18, *Tribal Cultural Resources*, the proposed project would have a less than significant impact on unanticipated cultural resources, paleontological resources, and tribal cultural resources with implementation of Mitigation Measures CR-1 and GEO-2, which would require adherence to existing local, State and federal regulations and specific monitoring procedures related to the discovery of any unanticipated cultural resources, paleontological resources, and tribal cultural resources.

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- b. *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

As concluded in Sections 1 through 20, the project would have no impact, a less than significant impact, or a less than significant impact with mitigation incorporated, with respect to all environmental issues considered in this document. Cumulative impacts of several resource areas have been addressed in the individual resource sections, including Air Quality, Greenhouse Gases, Noise, and Transportation. As discussed in Section 1, *Air Quality*, the proposed project would result in less than significant impacts with respect to air quality emissions. As discussed in Section 8, *Greenhouse Gas Emissions*, the proposed project would result in less than significant impacts with respect to greenhouse gas emissions. Therefore, the project would not contribute to cumulative impacts related to these issues. Both the noise and traffic analyses (see Sections 13 and 17, respectively) consider cumulative increases in traffic under Existing plus Project conditions and conclude that impacts would be less than significant. Some of the other resource areas (agricultural and mineral) were determined to have no impact in comparison to existing conditions. As such, the project would not contribute to cumulative impacts related to these issues. Other issues (e.g., geology, hazards, and hazardous materials) are by their nature project specific and impacts at one location do not add to impacts at other locations or create additive impacts. As such, cumulative impacts would be less than significant (not cumulatively considerable).

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- c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As detailed in analyses for air quality, hazards and hazardous materials, and noise, the proposed project would not result, either directly or indirectly, in adverse hazards related to air quality, hazardous materials or noise. Compliance with applicable rules, regulations, and recommended mitigation measures, including HAZ-1, Existing Toxic/Hazardous Materials, HAZ-2, Soil Management Plan, and NOI-1 Construction Noise Reduction, as discussed in

Section 9, *Hazards and Hazardous Materials* and Section 13, *Noise*, respectively, would reduce potential impacts on human beings to a less than significant level.

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