DRAFT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

CSULB TECHNOLOGY PARK PHASE III

CITY OF LONG BEACH

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September 2017

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LIST OF ABBREVIATIONS AND ACRONYMS

AB	Assembly Bill
ACMs	asbestos containing materials
af	acre-feet
amsl	above mean sea level
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
ASTM	American Society for Testing and Materials
Basin	South Coast Air Basin
bgs	below ground surface
BMP	Best Management Practices
BTEX	benzene, toluene, ethylbenzene, xylenes
CAAQS	California Ambient Air Quality Standards
Cal/OSHA	California Department of Occupational Safety and Health Administration
California Register	California Register of Historical Resources
Caltrans	California Department of Transportation
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDMG	California Division of Mines and Geology
CEQA	California Environmental Quality Act
CFC	California Fire Code
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	methane
CHL	California Historical Landmarks
CHRIS	California Historical Resources Information System
City	City of Long Beach
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Corps	United States Army Corps of Engineers
County	County of Los Angeles
CSTMP	Construction Staging and Traffic Management Plan
CSULB	California State University Long Beach
CVC	Century Villages at Cabrillo

cy	cubic yard
dB	decibel(s)
dBA	A-weighted decibel(s)
DOC	California Department of Conservation
DPM	diesel particulate matter
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
ESCP	Erosion and Sediment Control Plan
ETWU	estimated total water usage
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
ft	foot/feet
FY	fiscal year
GCC	global climate change
GHG	greenhouse gases
GPA	General Plan Amendment
gpd	gallons per day
gpy	gallons per year
HCP	Habitat Conservation Plan
HFC	hydrofluorocarbons
HRA	health risk assessment
HVAC	heating, ventilation, and air conditioning
I-710	Interstate 710
ICU	intersection capacity utilization
in/sec	inch/inches per second
IS/MND	Initial Study/Mitigated Negative Declaration
JWPCP	Joint Water Pollution Control Plant
LACM	Natural History Museum of Los Angeles County
LACSD	Sanitation Districts of Los Angeles County
LBFD	Long Beach Fire Department
LBP	lead-based paint
LBPD	Long Beach Police Department
LBPL	Long Beach Public Library
LBPRM	Long Beach Parks, Recreation, and Marine Department
LBUSD	Long Beach Unified School District
LBWD	Long Beach Water Department
L_{dn}	day-night average noise level
LED	light-emitting diode
LEED	Leadership in Energy and Environmental Design

L_{eq}	equivalent continuous sound level
LID	Low Impact Development
LID Plan	Low Impact Development Plan
L_{max}	maximum instantaneous noise level
LOS	level of service
LUD	Land Use District
LUE	General Plan Land Use Element
LwA	sound power levels
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
mgd	million gallons per day
MLD	Most Likely Descendant
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MT	metric tons
MWD	Metropolitan Water District of Southern California
MWELO	Model Water Efficient Landscape Ordinance
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NCCP	Natural Communities Conservation Plan
NO_2	nitrogen dioxide
NPDES	National Pollution Discharge Elimination System
O&M	Operating & Maintenance Plan
O_3	ozone
OEHHA	Office of Environmental Health and Hazards Assessment
OPR	California Office of Planning and Research
PCB	polychlorinated biphenyls
PCH	Pacific Coast Highway
PD-31	Planned Development District 31
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
Ports	Ports of Los Angeles and Long Beach
POTWs	publicly owned treatment works
PPV	peak-particle velocity
PRC	Public Resources Code
PRIMP	Paleontological Resources Impact Mitigation Program
proposed project	CSULB Technology Park Phase III
PTSD	post-traumatic stress disorder

RCRA	Resource Conservation and Recovery Act
RECs	Recognized Environmental Concerns
RWQCB	Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SERRF	Southeast Resource Recovery Facility
sf	square feet
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act
SPHI	California Points of Historical Interest
SR-1	State Route 1
SR-103	State Route 103
SSMP	Sewer System Management Plan
SUSMP	Standard Urban Stormwater Mitigation Plan
SVP	Society of Vertebrate Paleontologists
SWPPP	Storm Water Pollution Prevention Program
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
TPH	total petroleum hydrocarbons
TPH-d	total petroleum hydrocarbons diesel-range
TPH-g	total petroleum hydrocarbons gasoline (petroleum)
TSCA	Toxic Substances Control Act
TSS	Total Suspended Solids
Unified Program	Long Beach Certified Unified Program Agency
USFWS	United States Fish and Wildlife Service
UWMP	Urban Water Management Plan
v/c	volume-to-capacity
VOCs	volatile organic compounds
WDRs	Waste Discharge Requirements
WRP	Water Reclamation Plant

1.0 INTRODUCTION

In accordance with the California Environmental Quality Act (CEQA) and the *State CEQA Guidelines*, this Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared for the proposed California State University Long Beach Technology Park Phase III Project (proposed project) in the City of Long Beach. Consistent with *State CEQA Guidelines* Section 15071, this IS/MND includes a description of the proposed project, an evaluation of the potential environmental impacts, and findings from the environmental analysis.

This IS/MND evaluates the potential environmental impacts that may result from development of the proposed project. The City is the Lead Agency under CEQA and is responsible for adoption of the IS/MND and approval of the project.

1.1 CONTACT PERSON

Any questions or comments regarding the preparation of this IS/MND, its assumptions, or its conclusions should be referred to:

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2.0 PROJECT DESCRIPTION

This section describes the proposed California State University, Long Beach (CSULB) Technology Park Phase III Project (proposed project) that is evaluated in this Initial Study/Mitigated Negative Declaration (IS/MND). A description of the proposed project's location and required approvals is provided.

2.1 PROJECT OVERVIEW

Prologis (the project Applicant) plans to construct the proposed project on an approximately 10-acre (ac) site on the north side of Pacific Coast Highway (PCH), also known as State Route 1 (SR-1), between Cota Avenue and Hayes Avenue in the City of Long Beach (City). The proposed project would include approximately 205,060 square feet (sf) of warehousing land use, including approximately 20,000 sf of office space. The proposed project is intended to meet growing demand for warehouse space in West Long Beach.

2.2 PROJECT LOCATION AND SITE DESCRIPTION

The project site is located in the western part of the City, which itself is located in the southeastern County of Los Angeles. The approximately 10-acre project site consists of Assessor's Parcel Numbers (APNs) 7402-021-020, 7402-021-021, 7402-021-029, 7402-021-031, 7402-021-032, 7402-021-033, 7402-021-044, and 7402-021-045. The project site is located at the northwest corner of PCH and Cota Avenue and is bounded by the CSULB Foundation's Research and Technology Center (the Technology Park) with local access provided by Technology Place to the west, 19th Street to the north, Cota Avenue to the east, and PCH to the south. Regional access to the project site is provided by the Terminal Island Freeway (State Route 103 [SR-103]) to the west, PCH to the south, and Interstate 710 (I-710) to the east.

The project site is on the east side of, and is part of, the Technology Park, which contains approximately 257,120 sf of building space. The Technology Park is bounded by the Terminal Island Freeway to the west, PCH to the south, Cota Avenue to the east, and 19th Street to the north. The project site is approximately 1 mile (mi) directly north of the Inner Harbor at the Port of Long Beach (Port) and 0.5 mile west of I-710, which runs along the west side of the currently channelized Los Angeles River. It is 3 miles west-southwest of Signal Hill and about 5 miles east-northeast of the Palos Verdes Peninsula. A regional depiction of the project site is presented on Figure 2.1, Regional Location, and a detailed project location map is shown on Figure 2.2, Project Site.

Land uses surrounding the project site include a McDonald's Restaurant and Long Beach Police Department West Substation directly to the east, motels and general industrial uses south of PCH, the Technology Park directly to the west, the Long Beach Job Corps Center directly to the north, and Century Villages at Cabrillo (CVC) approximately 500 feet to the northwest. The CVC is a 27-acre residential community providing transitional and permanent supportive housing for children, veterans suffering from post-traumatic stress disorder (PTSD), aging veterans, and other homeless persons with dual diagnosis, such as substance abuse and mental illness.

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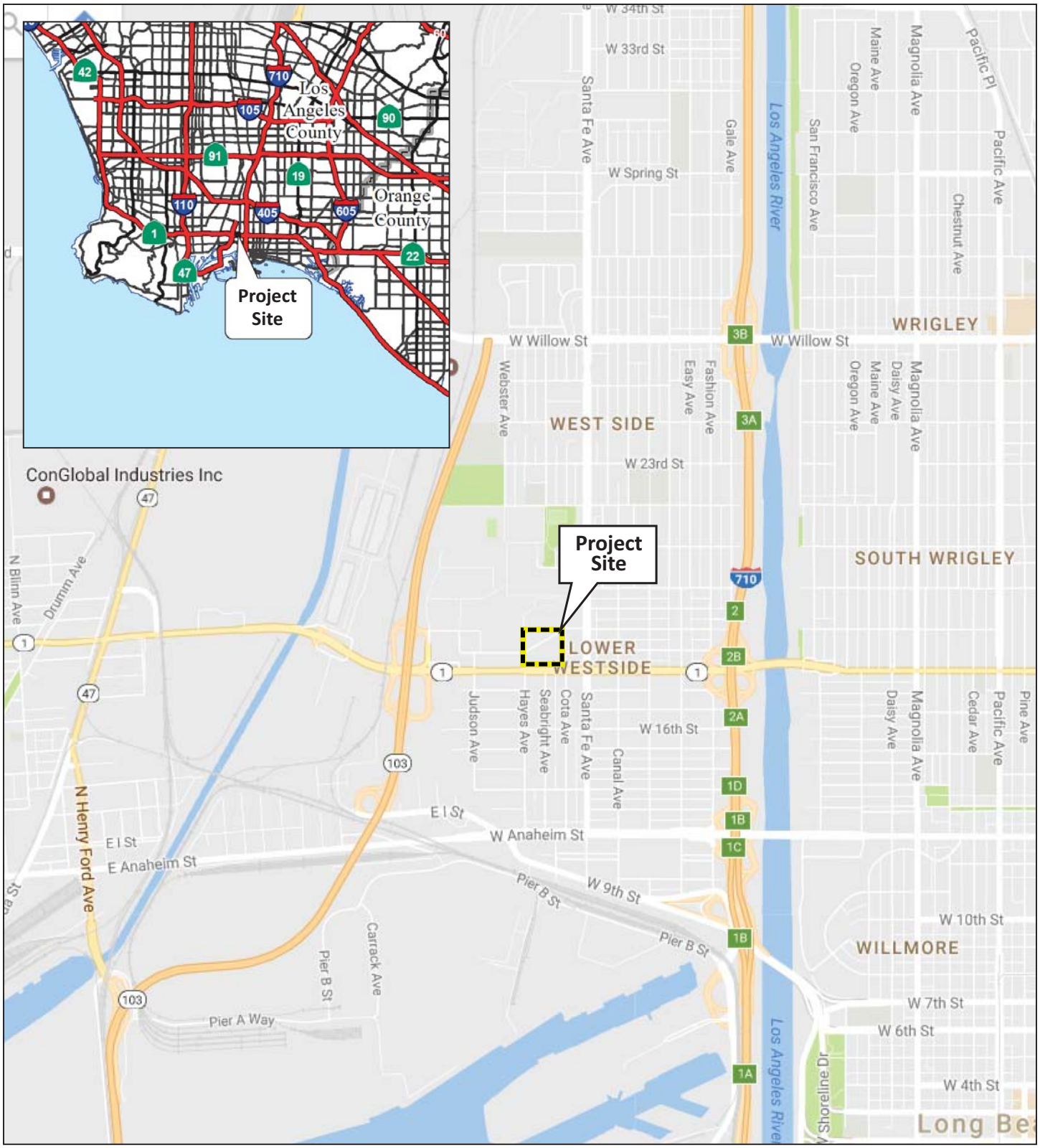

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LEGEND

- Project Site

N

0 750 1500

FEET

SOURCE: Google Maps, 2017

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FIGURE 2.1

CSULB Technology Park Phase III

Regional Location

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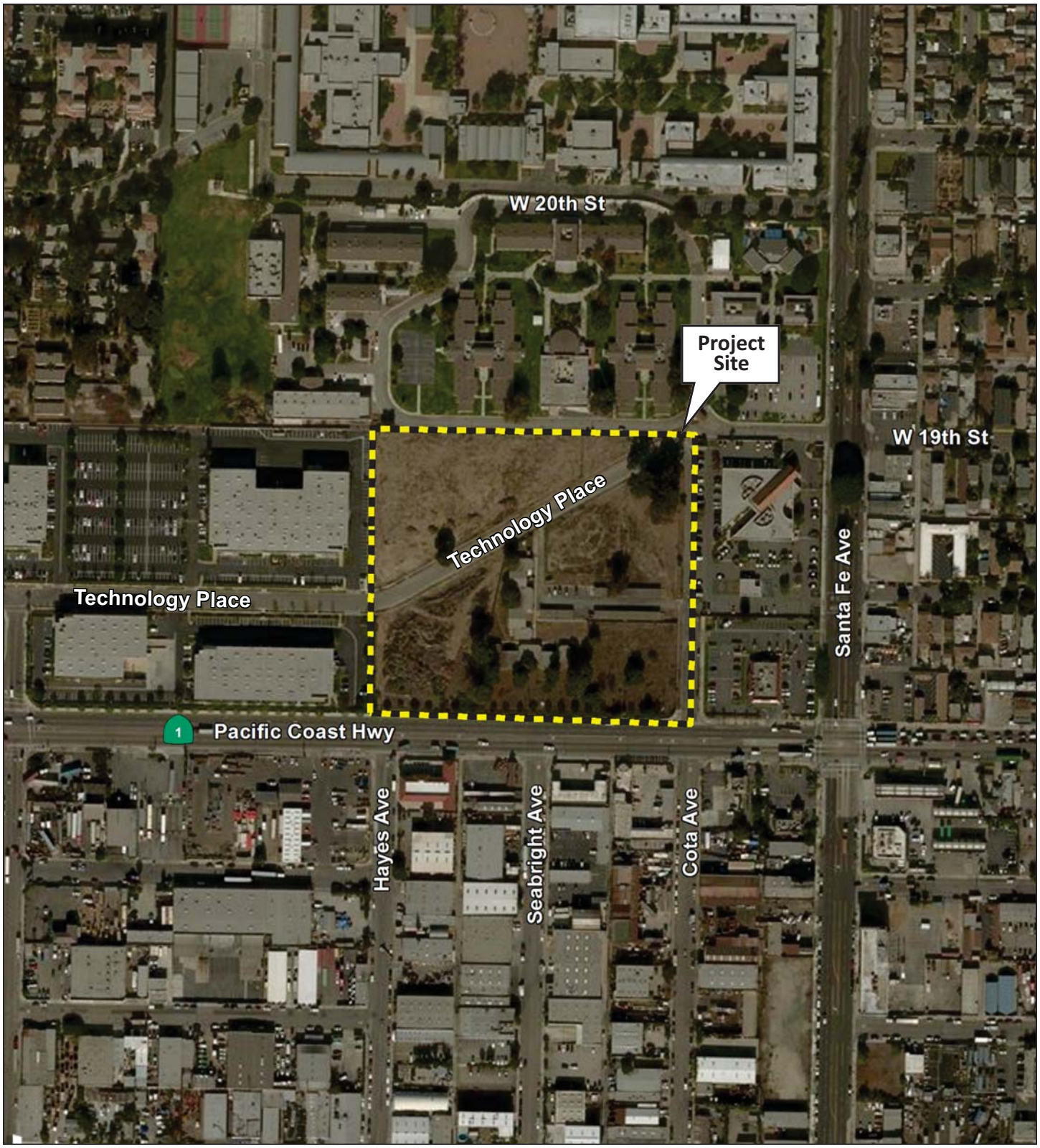

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FIGURE 2.2

LEGEND

- Project Site

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SOURCE: Bing Maps, 2017

CSULB Technology Park Phase III

Project Site

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The project site's elevation is approximately 8–10 feet (ft) above mean sea level (amsl) and is currently developed with three existing buildings and three carports totaling approximately 21,000 sf. Figure 2.3, Existing Site Map, illustrates the locations of the existing buildings and carports. The project is generally flat, with the exception of a 5–6 ft high soil stockpile located in the southwestern portion of the site. As shown in Figure 2.3, the existing Technology Place, a private street that provides access to the Technology Park, including the project site, is aligned diagonally through the site from the west side of the site to the northeast. The existing buildings are located southeast of Technology Place. Approximately 9,000 sf of the existing buildings have been converted to office space. All of the existing buildings on the project site are currently vacant.

Historically, the project site consisted of undeveloped land from at least 1899 until the mid-1940s, when the site was developed with approximately 28 small multitenant residential structures utilized as Naval Reserve Housing. The residential structures were removed and replaced with approximately 40 additional Naval Reserve Housing structures in the mid-1960s. The Naval Reserve Housing remained on site until the mid-1990s, when all but two centrally located housing structures, the existing three covered parking structures, and the existing gas meter structure were removed from the site. The two housing structures were renovated into the existing office condominium structures from 1996 through 1998. The project site has remained relatively unchanged from 1998 to the present.

2.3 CURRENT LAND USE AND ZONING DESIGNATIONS

According to the City's General Plan, the project site is located in the neighborhood area of the Upper Westside, has a land use designation of Mixed Use, and is within the CSULB Research and Technology Center/Villages at Cabrillo Long Beach Vets Planned Development District No. 31 (PD-31) Zoning Area (Subareas B and C). The intent of this unique planned development district is to permit the location of businesses and industries engaged primarily in research and light manufacturing, professional and administrative offices, service industries and laboratories, and University-related student, faculty, and social service uses. The project site's zoning and land use designations are discussed further in the Land Use/Planning section in Chapter 3.0 of this IS/MND.

2.4 PROJECT CHARACTERISTICS

The proposed project would include the demolition of the existing buildings and carports on the site and the construction of a 205,060 sf warehouse/office building.

The warehouse/office building would include approximately 20,000 sf of office space (including 10,000 sf of mezzanine office space), and 185,060 sf of warehouse space. Up to 50 percent of the project's warehouse space could be refrigerated. Figure 2.4, Conceptual Site Plan, provides the anticipated site plan for the proposed project. The proposed warehouse/office building would be located in the center of the site, with employee and visitor parking on the east, south, and west sides of the site. A paved truck yard designed to accommodate truck loading/ unloading activities and up to 45 parked semi-trailers would be located on the northern third of the project site. The warehouse/office building's northern façade would have 33 standard height loading docks and two grade-level drive-in doors.

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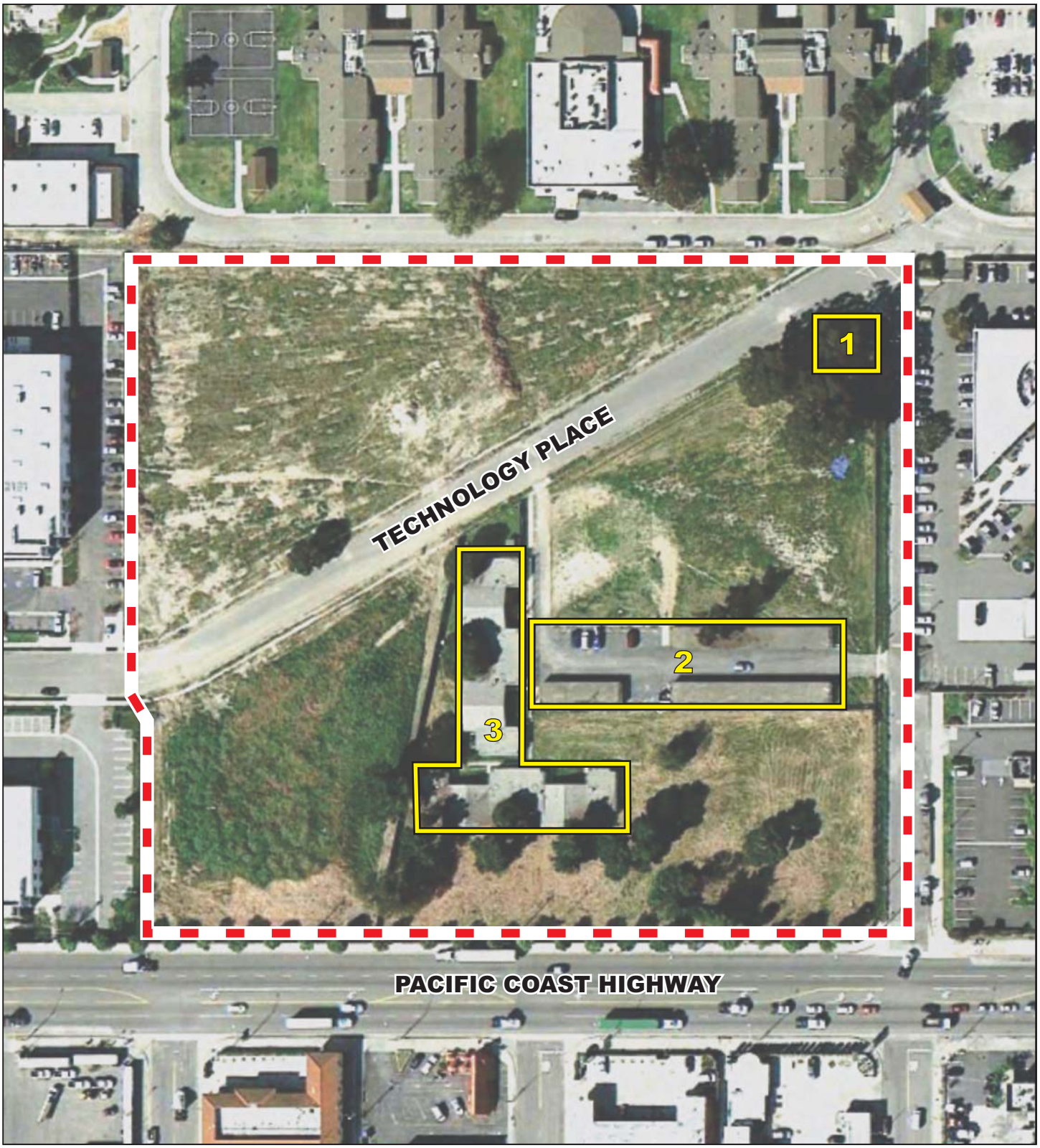

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FIGURE 2.3

LEGEND

-Project Site

1 -Former Gas Meter Building

2 -Carports/Parking

3 -Two Multi-unit Buildings

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0 75 125

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SOURCE: Google Earth

CSULB Technology Park Phase III

Existing Site Map

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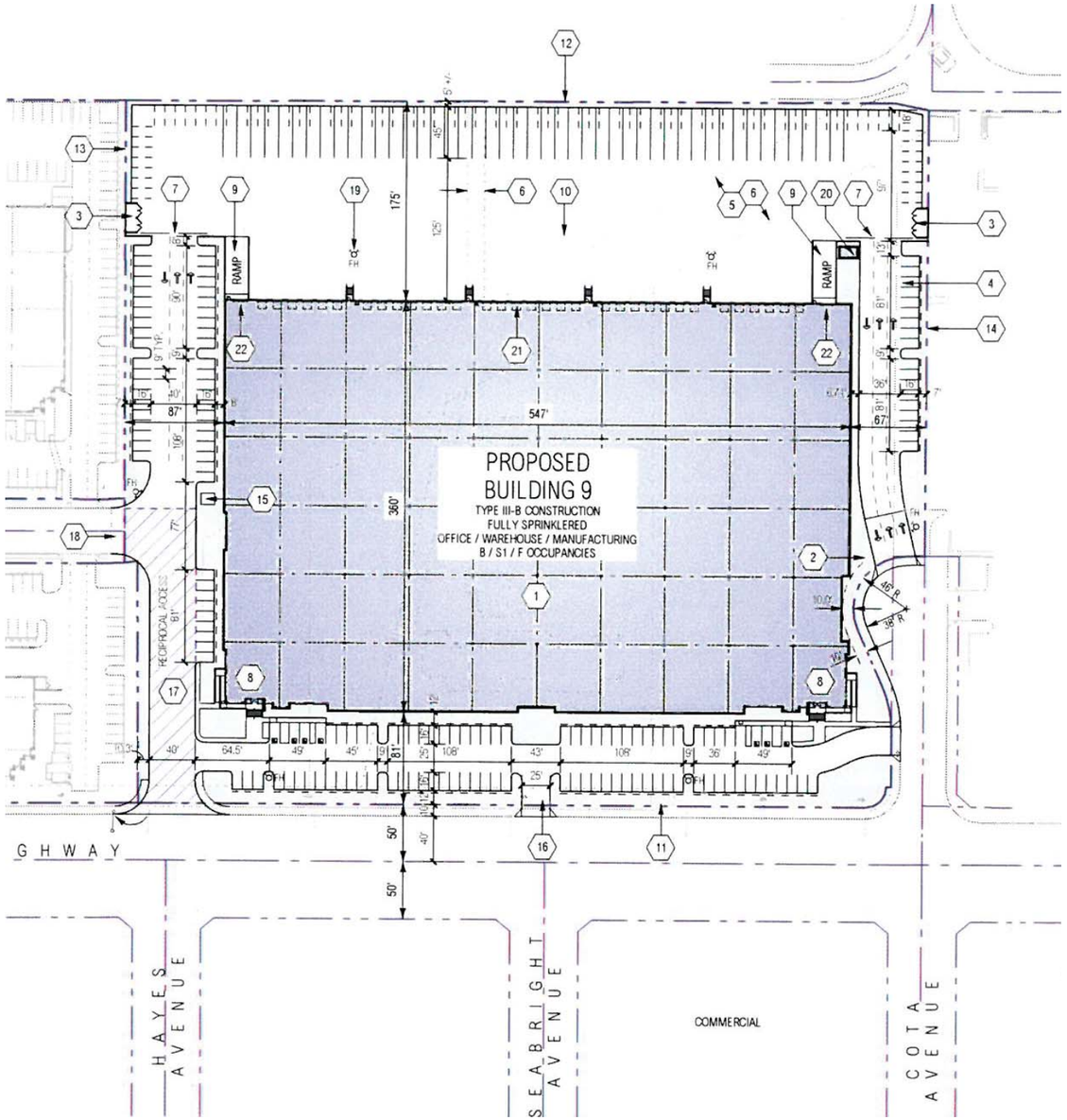

GENERAL NOTES

1. THE PROPOSED PROJECT SHALL COMPLY WITH THE PROVISIONS OF THE CITY OF LONG BEACH MUNICIPAL ZONING CODE PLANNED DEVELOPMENT DISTRICT PD-31 CALIFORNIA STATE UNIVERSITY RESEARCH AND TECHNOLOGY CENTER

2. OFF-STREET PARKING SHALL BE IN ACCORDANCE CHAPTER 21-41 OF THE LONG BEACH ZONING CODE

3. CIVIL ENGINEERING SHALL BE DESIGNED IN ACCORDANCE WITH BEST STANDARD PRACTICES TO INSURE COMPLIANCE WITH NPDES GUIDELINES.

4. A LANDSCAPING PLAN SHALL BE SUBMITTED TO THE PLANNING DEPARTMENT FOR APPROVAL PRIOR TO ISSUANCE OF BUILDING PERMITS AND SHALL BE IMPLEMENTED PRIOR TO OCCUPANCY.

5. THE PROJECT DOES NOT PROPOSE ANY TENANT SIGNAGE AT THIS TIME.

6. THERE ARE NO PROTECTED PLANTS ON SITE.

7. A LIGHT PLAN SHALL BE SUBMITTED SHOWING CONFORMANCE WITH ONE FOOT-CANDLE MINIMUM LEVELS IN PARKING AREAS AND CALGREEN CODE MAXIMUM FOOT-CANDLE LEVELS AT ADJACENT PROPERTY LINES.

8. ALL BUILDINGS SHALL BE ADDRESSED WITH 12" HIGH BUILDING NUMBERS AND ROOF-TOP PAINTED NUMBERS.

9. GRAFFITI RESISTANT PAINT SHALL BE USED ON ALL BUILDINGS AND SITE WALLS TO MIN. 12'-0" ABOVE ADJACENT GRADE.

10. ALL PROPOSED BUILDING AND SITE IMPROVEMENTS SHALL BE DESIGNED IN ACCORDANCE WITH CURRENT FEDERAL, STATE, AND LOCAL ACCESSIBILITY GUIDELINES.

11. CONTAINER STACKING IN THE YARD AREA WILL BE PROHIBITED AND THE APPROVAL CONDITIONS WILL REQUIRE A RECORDED COVENANT BE SIGNED BY THE APPLICANT.

KEYNOTES (000)

1. PAINTED CONCRETE TILT-UP WAREHOUSE / OFFICE FACILITY. MAXIMUM BUILDING HEIGHT OF 50'.

2. SHADED AREA: PROPOSED IRRIGATED LANDSCAPING PER GUIDELINES WITH MIN 6" CONCRETE CURBS AT ALL INTERIOR PERIMETERS.

3. PAINTED CONCRETE TRASH AND RECYCLE BIN ENCLOSURE MIN. 6'-0" HIGH. ONE BIN IS DEDICATED FOR TRASH, AND ONE BIN FOR RECYCLE PRODUCTS.

4. TYPICAL STANDARD PARKING STALL MIN. 9' X 18' (OR 16' + 2' OVERHANG) - STRIPE PER STANDARDS.

5. EXISTING PRIVATE STREET EASEMENT TO BE VACATED. SEE CIVIL DRAWINGS.

6. EXISTING UTILITY EASEMENT TO BE RELOCATED. SEE CIVIL DRAWINGS.

7. 10'-0" PAINTED CONCRETE SCREEN WALL WITH 8'-0" HIGH STEEL PICKET ROLLING GATE. TRUCK YARD ENTRY GATES WILL HAVE KNOX BOXES TO ALLOW FOR FIRE DEPARTMENT ACCESS. TRUCK YARD ENTRY GATES WILL INCORPORATE 70% OPACITY MESH PANELS TO RESTRICT VIEW INTO THE SECURE YARD AREA.

8. ACCESSIBLE BUILDING ENTRY WITH ADJACENT BICYCLE RACKS.

9. CONCRETE PAVED FORKLIFT RAMP.

10. PAVED TRUCK YARD.

11. REMOVE EXISTING WROUGHT IRON FENCE ALONG PCH FRONTAGE.

12. PROPOSED 14' HIGH CMU WALL ON NORTH PROPERTY LINE TO SCREEN YARD FROM NORTH SIDE NEIGHBORS.

13. PROPOSED 8' HIGH CHAIN LINK FENCE WITH GREEN INFILL SLATS OR MESH ON PARTIAL WEST PROPERTY LINE TO SECURE NEW BUILDING TRUCK YARD.

14. EXISTING CMU WALL ALONG PROPERTY LINE WITH POLICE DEPARTMENT TO REMAIN.

15. PROPOSED TRANSFORMER LOCATION WITH LANDSCAPE SCREENING.

16. NEW CURB CUT PER STANDARDS. SEE CIVIL DRAWINGS FOR REQUIRED STREET AND ROW MODIFICATIONS. PROVIDE STOP SIGNS AT ALL POINTS OF EGRESS ONTO PUBLIC STREETS.

17. CROSS HATCHED AREA IS NEW RECIPROCAL ACCESS AGREEMENT WITH EXISTING TECHNOLOGY PLACE PRIVATE STREET.

18. MODIFY EXISTING END OF PRIVATE STREET CONDITION. SEE CIVIL DRAWINGS.

19. PROPOSED ON-SITE FIRE HYDRANT.

20. PRE-MANUFACTURED GUARD HOUSE STRUCTURE PAINTED TO MATCH MAIN BUILDING.

21. DOCK HIGH TRUCK DOOR. SEE ELEVATIONS FOR ADDITIONAL INFO.

22. GRADE LEVEL RAMP DOOR. SEE ELEVATIONS FOR ADDITIONAL INFO.

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FIGURE 2.4

N

0 100 200
FEET

SOURCE: RGA Office of Architectural Design

CSULB Technology Park Phase III

Conceptual Site Plan

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A premanufactured 200 sf guard-house structure would be located at the northeast corner of the project site and would be staffed during hours of operation only. The guard house would be painted to match the main building exterior.

The existing masonry wall located along the project site's eastern boundary with the Police Substation would remain. With the proposed goal to visually and acoustically screen loading activities in the truck yard, the project Applicant plans to construct a 14 ft high decorative screening wall along the northern boundary of the site. A new 8 ft high landscaped wall or chain-link fence with green infill slats or mesh would be constructed along a portion of the western boundary of the project site to secure the truck yard. The existing wrought-iron fence along the PCH and Cota Avenue frontage would be removed. A 10 ft high painted concrete screen wall with an 8 ft high secured rolling gate would be installed at the eastern and western entrances to the truck yard. The truck yard entry gates would provide Knox boxes to allow for fire department access.

2.4.1 Operational Characteristics and Options

The proposed project is speculative in nature; however, it is anticipated that the warehouse/office building would be leased to one or two users whose businesses may be Port-related. Therefore, this IS/MND evaluates two potential options for the proposed project: Option A, which would involve a single user, and Option B, which would involve two users. Under Option B, a north/south division would be constructed in the warehouse/office building, with approximately 50 percent of the building assigned to each tenant. The building division would allow for the creation of separate and secure truck yards for each tenant.

The proposed project is anticipated to operate 24 hours per day, 7 days per week. Truck idling and the use of back-up beeping devices on trucks would be prohibited between the hours of 10:00 p.m. and 7:00 a.m.

2.4.2 Building Design

The warehouse/office building would be built using concrete tilt-up construction and would have a maximum building height of 50 ft. Figure 2.5, North and South Elevations, and Figure 2.6, East and West Elevations, provide all the warehouse/office building elevations.

To conform to the architecture and color palette of white and light grey used for the buildings in the Technology Park, the color palette for the building exterior would include white, light and dark greys, dark green, and blue glazing.

2.4.3 Circulation and Access

As mentioned above, two design options are being considered for the proposed project. Access to the site would vary depending on which option is implemented. Under Option A (single user), access to PCH would be provided via two driveways. Primary access would be provided via a driveway at the intersection of PCH and Hayes Avenue, with secondary access for cars only via a driveway near the center of the project site. Additional access would be provided to Technology Place and the Technology Park. Only outbound traffic would be permitted onto Cota Avenue.

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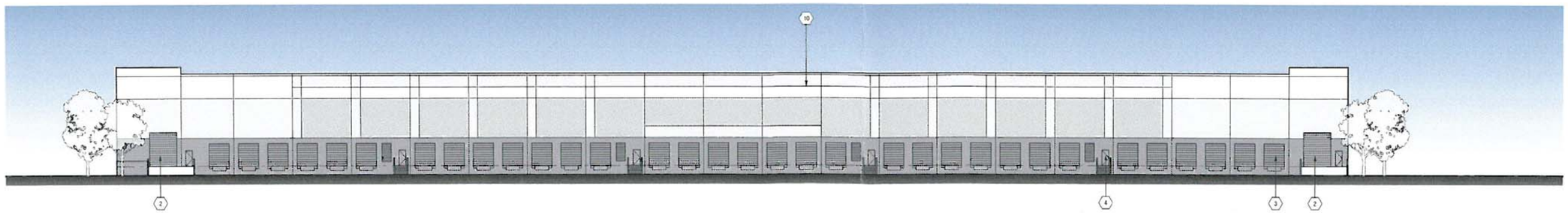
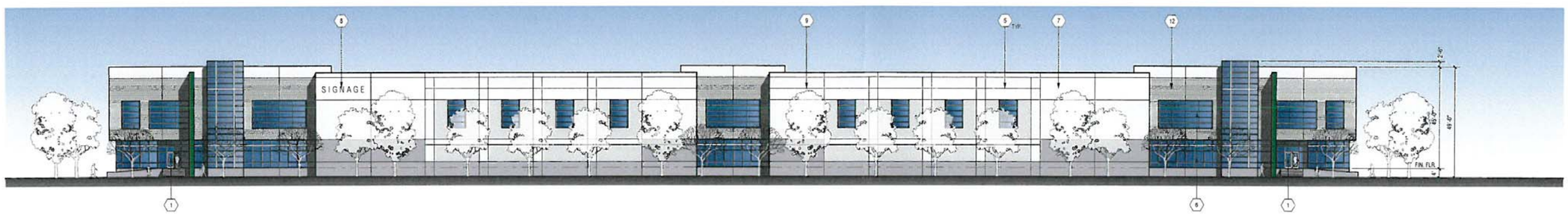


NORTH ELEVATION

SCALE: 1" = 20'-0"



SOUTH ELEVATION - PACIFIC COAST HIGHWAY

SCALE: 1" = 20'-0"

KEYNOTES (000)

1. PRIMARY ENTRANCE.
2. PAINTED 12' WIDE X 15' HIGH LEVEL VERTICAL LIFT TRUCK DOOR.
3. PAINTED 9' WIDE X 10' HIGH VERTICAL LIFT TRUCK DOOR.
4. 3' X 7' PAINTED METAL MAN DOOR.
5. 2" WIDE X 3/4" DEEP HORIZONTAL / VERTICAL REVEAL.
6. BLUE GLASS IN ANODIZED ALUMINUM STOREFRONT FRAME SYSTEM.
7. PAINTED CONCRETE TILT-UP EXTERIOR WALL CONSTRUCTION.
8. PROPOSED FUTURE TENANT SIGNAGE LOCATION 9TO BE APPROVED UNDER A SEPARATE PERMIT)
9. INTERNAL DOWNSPOUTS ALONG THE SOUTH STREET FRONTAGE ELEVATION.
10. DOWNSPOUTS ON THE NORTH ELEVATION SHALL BE EXTERNAL AND PAINTED TO MATCH THE BUILDING.
12. FORMLINER HORIZONTAL SCORED CONCRETE WALL PANEL.

LSA

FIGURE 2.5

N

0 100 200

FEET

SOURCE: RGA Office of Architectural Design

CSULB Technology Park Phase III

North & South Elevations

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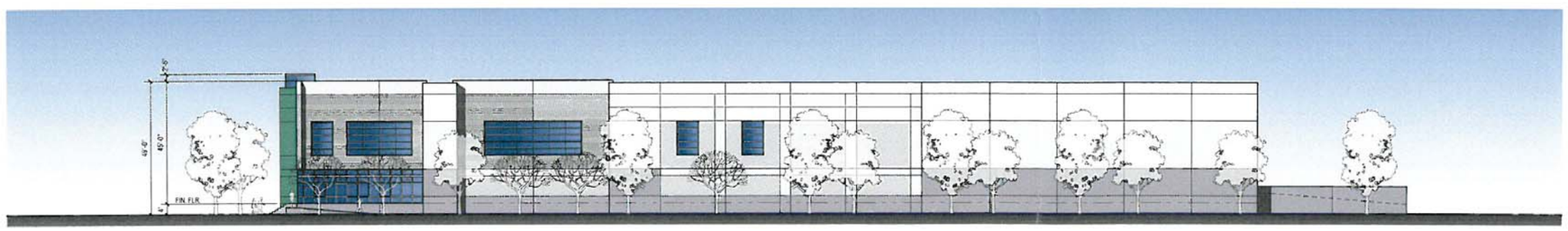
WEST ELEVATION

SCALE: 1" = 20'-0"



EAST ELEVATION

SCALE: 1" = 20'-0"

FINISH SCHEDULE

1. FIELD COLOR - PLD-9 PURE WHITE
2. ACCENT COLOR - PLD-6 SABLE
3. ACCENT COLOR - PLD-7 LIQUORICE TINT
4. BASE ACCENT COLOR - PLD-8 JAGUAR
5. ACCENT COLOR - PLD-5 NEW DARK GREEN
6. GLAZING - SEE KEYNOTE 5 - PPG VISTACOOL PACIFICA REFLECTIVE #2.
7. GLAZING - SEE KEYNOTE 5 - PPG SOLARCOOL PACIFICA REFLECTIVE #2.

LSA

FIGURE 2.6

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FEET

SOURCE: RGA Office of Architectural Design

CSULB Technology Park Phase III

East & West Elevations

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Under Option B (two users), the tenant occupying the eastern half of the project site would access the site via the intersection of PCH and Cota Avenue. The tenant occupying the western half of the project site would access the site via Technology Place and the driveway at the intersection of PCH and Hayes Avenue. Unlike Option A, full access would be provided to and from Cota Avenue and similar to Option A, secondary access for cars only would be provided via a driveway near the center of the project site.

Both options would require vacating the existing segment of Technology Place within the project site and the creation of a new cul-de-sac on Cota Avenue along the eastern boundary of the project site. Both options would also include a reciprocal access agreement with nearby property owners that would allow access between Technology Place and PCH via the driveway in the southwestern portion of the project site.

2.4.4 Parking

The proposed project would provide 247 parking spaces, including 161 standard stalls and an additional 86 stalls in the truck yard. The City Zoning Ordinance requires a minimum of 245 parking spaces[1] for the proposed project. Bicycle racks would be provided near the building entry on Cota Avenue.

2.4.5 Landscaping

The project site currently contains mature eucalyptus, pine, and other ornamental trees. The frontage along PCH is landscaped with mature 15–20 ft tall ornamental trees and small shrubberies. These trees are within the City right-of-way and would remain after construction; however, all existing trees and vegetation on the project site would be removed. After construction of the proposed project, the project Applicant would plant approximately 68 trees on the project site to supplement the 23 existing trees that would remain on the project site. New trees would be a minimum of 24 inches in box size or 15 gallons. In addition, assorted shrubs, accent plants, and ground cover would be planted. The projected landscape plan, including the proposed plant palette, is provided as Figure 2.7, Conceptual Landscape Plan.

2.4.6 Outdoor Lighting

Existing lighting on the project site includes exterior lighting of the two buildings and carports, as well as five street lights along Technology Place, which bisect the property. All of the existing lighting sources within the project site would be removed in order to construct the proposed project. The primary source of lighting would be freestanding parking lot fixtures and building-mounted light-emitting diode (LED) lighting that would be illuminated during the nighttime hours. As shown on Figure 2.8, Photometric Plan, lighting poles would be located along the perimeter of the parking lot at a maximum height of 28 ft. Building-mounted lights would have a maximum height of 30 ft.

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[1] The City of Long Beach's required parking ratio for office and warehouse space is one space per 1,000 sf of gross floor area and two spaces per 1,000 sf of gross floor area for manufacturing space.
20,000 sf of office space @ 1/1000 = 20 stalls; 40,000 sf of manufacturing space @ 2/1000 = 80 stalls; 145,060 sf of warehouse space @1/1000 = 145 stalls.

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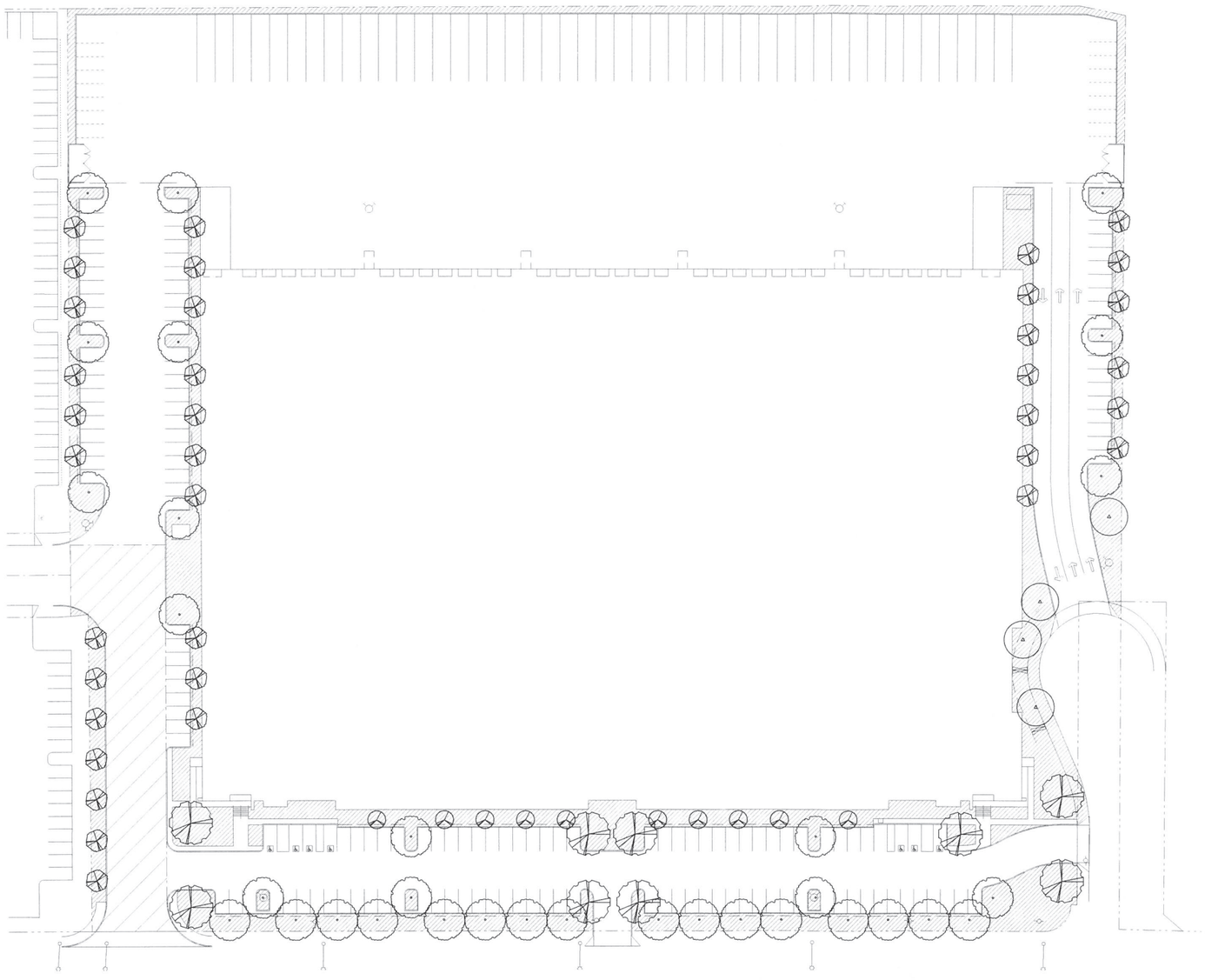

PLANTING LEGEND

TREES

SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	Cupaniopsis anacardioides Carrotwood	24" Box	0	M	Standard
	Koelreuteria bipinnata Chinese Flame Tree	36" Box	0	M	Multi
	Lagerstroemia i. 'Muskogee' Crape Myrtle	24" Box	0	M	Multi
	Pinus canariensis Canary Island Pine	24" Box	0	M	Standard
	Tristania conferta Brisbane Box	15 Gal	68	M	Standard

SHRUBS

SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	Buxus j. 'Green Beauty' Japanese Boxwood	5 Gal	0	M	Hedge
	Callistemon 'Little John' Dwarf Bottle Brush	5 Gal	0	M	
	Carissa macrocarpa 'Tuttle' Natal Plum	5 Gal	0	M	
	Dianella 'Little Rev' Dwarf Dianella	5 Gal	0	M	
	Dianella tasmanica Dianella	5 Gal	0	M	
	Dodonaea viscosa 'Purpurea' Hopseed Bush	5 Gal	0	M	
	Ligustrum j. Texanum Texas Privet	5 Gal	0	M	
	Pittosporum tobira 'Variegata' Variegated Mock Orange	5 Gal	0	M	Hedge
	Pittosporum t. 'Wheeleri' Wheeler's Dwarf	5 Gal	0	M	
	Rhaphiolepis i. 'Clara' Indian Hawthorn	5 Gal	0	M	Hedge
	Rhaphiolepis i. 'Springtime' Indian Hawthorn	5 Gal	0	M	Hedge
	Xylosma congestum Shiny Xylosma	5 Gal	0	M	Hedge

ACCENTS

SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	Agave 'Blue Flame' Blue Flame Agave	5 Gal	0	L	
	Agave 'Blue Glow' Blue Glow Agave	5 Gal	0	L	
	Agave desmetiana Smooth Agave	5 Gal	0	L	
	Agave victoria-reginae Agave	5 Gal	0	L	
	Agave vilmoriniana Agave	5 Gal	0	L	
	Aloe maculata Soap Aloe	5 Gal	0	L	
	Aloe striata Coral Aloe	1 Gal	0	L	
	Hesperaloe parviflora Red Yucca	5 Gal	0	L	
	Lantana 'Gold Mound' Yellow Lantana	5 Gal	0	L	

GROUNDCOVER

SYMBOL	BOTANICAL/COMMON NAME	SIZE	SPACING	WUCOLS	REMARKS
	Carex pansa California Meadow Sedge	4" Pots	12" O.C.	M	Grass
	Carex tumulicola Foothill Sedge	1 Gal	18" O.C.	M	Grass
	Festuca mairei Atlas Fescue	1 Gal	24" O.C.	M	Grass
	Festuca o. 'Glauca' Blue Fescue	1 Gal	12" O.C.	M	Grass
	Hemerocallis hybridus-Yellow Yellow Day Lily	1 Gal	24" O.C.	M	
	Lantana 'Gold Mound' Yellow Lantana	1 Gal	36" O.C.	L	
	Liriope gigantea Big Blue Lily Turf	1 Gal	24" O.C.	L	
	Lonicera j. 'Halliana' Hall's Honeysuckle	1 Gal	48" O.C.	L	
	Myoporum parvifolium Myoporum	1 Gal	36" O.C.	L	
	Pennisetum messiaeum Red Bunny Tails Fountain Grass	1 Gal	30" O.C.	L	Grass
	Pennisetum a. Little Bunny Little Bunny Fountain Grass	1 Gal	12" O.C.	L	Grass
	Pennisetum orientale Oriental Fountain Grass	1 Gal	30" O.C.	L	Grass
	Pennisetum rubrum Purple Fountain Grass	1 Gal	36" O.C.	L	Grass
	Rosa 'Flower Carpet'-Red Red Flower Carpet Rose	1 Gal	30" O.C.	L	
	Senecio mandraliscae Blue Fingers	4" Pots	12" O.C.	M	
	Sesleria autumnalis Moor Grass	1 Gal	18" O.C.	M	Grass
	Trachelospermum jasminoides Star Jasmine	1 Gal	24" O.C.	M	

LSA

FIGURE 2.7

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FEET

SOURCE: Hunter Landscape

CSULB Technology Park Phase III

Conceptual Landscape Plan

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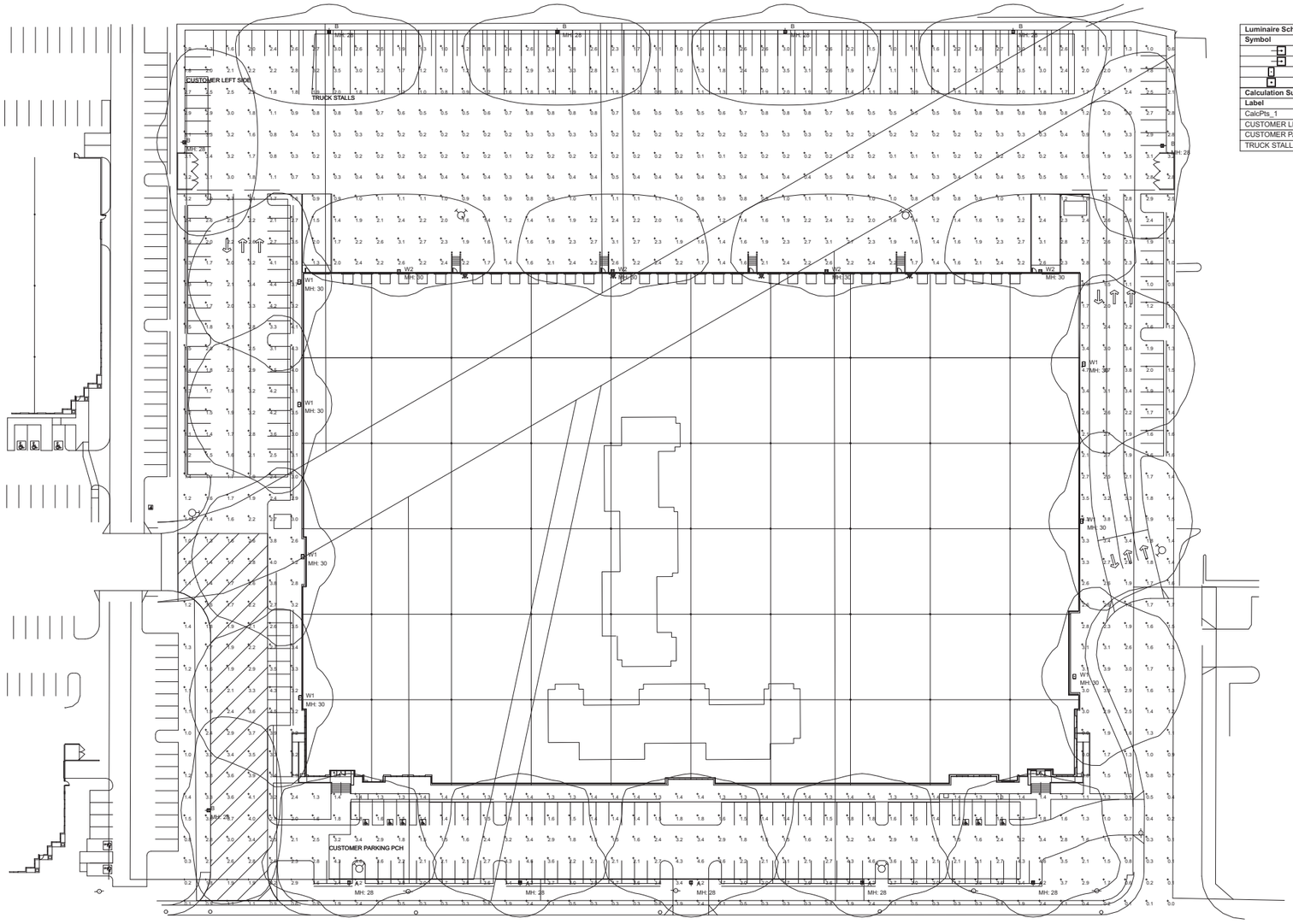


Luminaire Schedule							
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	BUG Rating
	5	A	SINGLE	0.912	EATON McGRAW EDISON-GLEON-AF-05-LED-E1-T4FT	279	B3-U0-G5
	7	B	SINGLE	0.912	EATON McGRAW EDISON-GLEON-AF-04-LED-E1-T3	225	B3-U0-G4
	7	W1	SINGLE	0.912	EATON McGRAW EDISON-GLEON-AF-05-LED-E1-T4FT	279	B3-U0-G5
	4	W2	SINGLE	0.912	EATON McGRAW EDISON-GLEON-AF-04-LED-E1-T3	225	B3-U0-G4

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	Illuminance	Fc	1.83	4.7	0.0	N.A.	N.A.
CUSTOMER LEFT SIDE	Illuminance	Fc	2.54	4.4	1.4	1.81	3.14
CUSTOMER PARKING PCH	Illuminance	Fc	2.30	4.6	1.4	1.64	3.29
TRUCK STALLS	Illuminance	Fc	1.94	3.5	0.8	2.43	4.38

McGraw-Edison

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

SPECIFICATION FEATURES

Construction
Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested and rated. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics
Patented, high-efficiency injection-molded AccuLED Optics technology. Optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT 70 CRI. Optional 3000K, 5000K and 6000K CCT.

Electrical
LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Standard with 0-10V dimming. Shipped standard with Eaton proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 600mA, 800mA and 1200mA drive currents (nominal).

Mounting
STANDARD ARM MOUNT: Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during mounting. When mounting two or more luminaires at 90° and 120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table. Round pole adapter included. For wall mounting, specify wall mount bracket option. QUICK MOUNT ARM: Adapter is bolted directly to the pole. Quick mount arm slide into place on the adapter and is secured via two screws, facilitating quick and easy installation. The versatile, patent pending, quick mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the quick mount arm enables wiring of the fixture without having to access the driver compartment. A knock-out enables round pole mounting.

Finish
Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard housing colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.

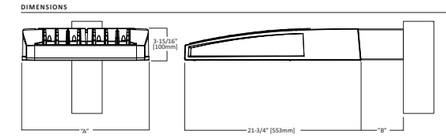
Warranty
Five-year warranty.

GLEON
GALLEON LED

1-10 Light Squares
Solid State LED

AREA/SITE LUMINAIRE

DIMENSIONS

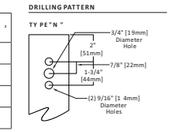


DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length 1	Weight with Arm (lbs.)	EPA with Arm 2 (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: **1.** Optional arm length to be used when mounting two fixtures at 90° on a single pole. **2.** EPA calculated with optional arm length.

DRILLING PATTERN



EATON
Powering Business Worldwide

*www.designlights.org

CERTIFICATION DATA
UL/cUL Wet Location Listed
ISO 9001
LM79 / LM80 Compliant
3G Vibration Rated
IP66 Rated
DesignLights Consortium™ Qualified

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V & 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)

T050020 2E N
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LSA

FIGURE 2.8

N

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SOURCE: Turtle & Hughes, Inc.

CSULB Technology Park Phase III

Photometric Plan

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The locations of the proposed exterior lights would comply with the City's safety standards. Lighting would be shielded, recessed, or directed downward to taper off toward the property lines and prevent glare, spillover onto adjacent properties, and lighting of the night sky.

2.4.7 Utilities and Drainage

Existing utilities on the project site include an 8-inch water line that runs parallel to Technology Place through the center of the site, a 10-inch sewer line that runs north/south through the center of the site, and an 8-inch sewer line that runs east/west along the southern boundary of the site. All existing utilities on the project site that are no longer in service would be capped and appropriately abandoned or removed, as necessary. Existing water and sewer lines at the project site would be removed and relocated around the warehouse/office building. The impacts associated with abandonment, removal, or relocation of utility lines are analyzed in this IS/MND.

A new 15-inch sewer trunk line would be installed along the northern and eastern edge of the project site. The new sewer line would then run beneath Cota Avenue before connecting with the existing 18-inch sewer main in PCH.

After project grading and construction, approximately 90 percent of the project site would consist of impervious surface area. In the proposed condition, runoff from 9.5 acres of the project site would flow to biofiltration planter boxes before being discharged into the proposed on-site storm drain system. The proposed on-site storm drain system consists of two 18-inch storm drains, which would collect stormwater runoff from the southern and northern portions of the project site, respectively. Both storm drains would connect to a proposed sump pump located near the middle of the western boundary of the project site. Stormwater runoff would then be conveyed west along Technology Place to the existing catch basins that outlet to a 3 ft x 7 ft reinforced concrete box, referred to as "Line A." Stormwater runoff from the remaining 0.2 acre would sheet flow off site to adjacent streets and eventually discharge into to an existing 54-inch storm drain line, which runs parallel to PCH. The project would also include a concrete storm drain channel along the easterly site boundary to collect and divert off-site runoff to the south and onto Cota Avenue via a proposed parkway drain.

Painted concrete trash and recycle bin enclosures approximately 6 ft in height would be located at the northeastern and northwestern edges of the project site. There would be one bin for trash and one bin for recycled products at each location.

2.4.8 Conservation and Sustainability Features

The proposed project would be designed to comply with the water efficiency and energy conservation requirements included in the California Building Standards Code (California Code of Regulations [CCR], Title 24).

The proposed project would be constructed with 10 percent recycled content, and 20 percent of the construction material would be sourced within the region (within 500 miles of the project site). In addition, the proposed project is anticipated to reduce construction waste by 75 percent.

2.4.9 Project Design Features

The following project design features would be incorporated into the proposed project to reduce potential environmental impacts.

Project Design Feature AQ-1: **Incentives for Cyclists and Low-Emissions Vehicles.** The proposed project would promote alternative transportation by providing secure bicycle racks and changing facilities for employees and preferred parking for low-emitting and fuel-efficient vehicles.

Project Design Feature AQ-2: **LEED Certification.** The proposed project would be enrolled in the Prologis Leadership in Energy and Environmental Design (LEED) Volume program under the LEED Core & Shell 2009 v3 (LEED CS v3) rating system.

2.5 PROJECT IMPLEMENTATION

Development of the proposed project would require demolition of the existing structures, carports, and roads on the site; excavation and grading of the site; delivery of materials and personnel; construction of the building area and parking lot; and landscaping of the project site. Construction of the proposed project is anticipated to take approximately 9 months.

Based on preliminary grading plans, approximately 15,000 cubic yards (cy) of fill material would be required for import to the project site. Demolition, grading, and building activities would involve the use of standard earthmoving equipment such as loaders, bulldozers, cranes, and other related equipment. Construction staging would occur at the north side of the project site where the proposed truck yard would be located.

Single-lane closures on PCH would be required to accommodate utility lateral installations during daytime working hours only. Closures would last up to 2 weeks. As will be discussed in the Traffic/ Transportation section in Chapter 3.0 of this IS/MND, flag persons would be provided during such closures to minimize impacts to traffic flow.

2.6 DISCRETIONARY ACTIONS, PERMITS, AND OTHER APPROVALS

In accordance with Sections 15050 and 15367 of the State of California Environmental Quality Act (CEQA) Guidelines, the City is the designated Lead Agency for the proposed project and has principal authority and jurisdiction for CEQA actions and project approval. Responsible Agencies are those agencies that have jurisdiction or authority over one or more aspects associated with the development of a proposed project and/or mitigation. Trustee Agencies are State agencies that have jurisdiction by law over natural resources affected by a proposed project.

The discretionary actions to be considered by the City as a part of the proposed project include:

- Approval and adoption of the IS/MND;

- Site Plan Review for new commercial buildings 1,000 sf or more in size;
- A Lot Merger and Lot Line Adjustment;
- Vacation of: (i) Technology Avenue and (ii) the westerly half of Cota Avenue within the project site; and
- Project approval.

Other nondiscretionary actions anticipated to be taken by the City and additional agencies at the staff level as part of the proposed project include, but are not limited to, the actions detailed in Table 2.A below.

Table 2.A: Non-Discretionary Permits/Approvals

Agency	Permit/Approval
City of Long Beach Public Works Department	Right-of-way permit and improvement plan for driveways, sidewalks, and other public improvements.
City of Long Beach Building Department	A comprehensive building permit that includes grading, building, plumbing, mechanical, and electrical permits.
Long Beach Fire Department	Emergency access, fire, and water supply review.
Los Angeles County Sanitation Districts (LACSD)	Wastewater connections.
California Department of Transportation (Caltrans)	Approval of the Construction Staging and Traffic Management Plan related to lane closures on PCH.
State Water Resources Control Board (SWRCB)	Notice of Intent to comply with the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit).
Los Angeles Regional Water Quality Control Board (RWQCB)	Notice of Intent to comply with the Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles County, if applicable.

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3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

DETERMINATION. On the basis of this initial evaluation:

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

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

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

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

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

Project Planner

9/8/17
Date

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EVALUATION OF ENVIRONMENTAL IMPACTS

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

8. This is only a suggested form, and Lead Agencies are free to use different formats; however, Lead Agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significant.

3.1 AESTHETICS

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

Impact Analysis:

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

No Impact. California State Government Code Section 65560(b)(3) stipulates that city and county General Plans address "…Open space for outdoor recreation, including but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakes shores, beaches, and rivers, and streams; and areas that serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors…"

A scenic vista is the view of an area that is visually or aesthetically pleasing from a certain vantage point. It is usually viewed from some distance away. Aesthetic components of a scenic vista include (1) scenic quality, (2) sensitivity level, and (3) view access. A scenic vista can be impacted in two ways: a development project can have visual impacts by either directly diminishing the scenic quality of the vista or by blocking the view corridors or "vista" of the scenic resource. Important factors in determining whether a proposed project would block scenic vistas include the project's proposed height, mass, and location relative to surrounding land uses and travel corridors.

The City of Long Beach (City) General Plan Scenic Routes Element (1975) identifies specific areas of importance for visual quality or scenic resources within the City, known as "scenic assets." These scenic assets include those with historical, cultural, recreation, industrial and aesthetic importance.

The project site is located along a scenic asset, the proposed Industrial-Education Scenic Route on Pacific Coast Highway (PCH; also known as State Route 1 [SR-1]), which is identified in the City's General Plan Scenic Routes Element. Refer to Response 3.1(b) below.

The City's proposed General Plan Urban Design Element, which would replace the currently adopted Scenic Routes Element, identifies existing scenic vistas in the City. Examples of these scenic vistas include the following: views along Alamitos south to Villa Riviera; El Dorado Park; 3rd Street to the Port of Long Beach cranes; Ocean Boulevard; Bluff Park to the Pacific Ocean and Belmont Pier; Queensway Bay and Shoreline Park to the Queen Mary and cruise ships; the Downtown; the marinas; and Los Coyotes Diagonal to the distant San Gabriel Mountains.

The project site is approximately 0.6 mile west of the Los Angeles River; however, the river cannot be seen from the project site as a result of intervening land uses, including the Interstate 710 (I-710) interchange with PCH. The project site is approximately 1.5 mile north of the Ports of Los Angeles and Long Beach (Ports) and is slightly further from the Pacific Ocean. The Ports and the ocean cannot be seen from the project site due to intervening land uses. As a result, the project site does not have views of scenic vistas in the area.

The proposed project would be located in a fully urbanized area of the City. The project site has previously been graded and the existing buildings and carports on the site are vacant. The project site is surrounded by a mix of low-rise commercial, industrial, and institutional structures. The proposed project includes the demolition of the existing structures on the project site and the construction of a proposed warehouse/office building with a maximum height of 50 feet (ft). The proposed project would not block views of scenic vistas because the surrounding views comprise a developed urban environment that is built out. Additionally, the proposed project would not be substantially taller than the existing uses surrounding the project site. Therefore, because the proposed project would redevelop a site in a built out area of the City and no scenic vistas have been identified near the project site, the proposed project does not have the potential to damage scenic vistas, and no mitigation would be required.

(b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

No Impact. The California Department of Transportation's (Caltrans) Landscape Architecture Program administers the Scenic Highway Program, contained in the Streets and Highways Code, Sections 260–263. State Highways are classified as either Officially Listed or Eligible. The portion of PCH (SR-1) that borders the southern portion of the project site is not identified as an eligible or State-designated scenic highway. Therefore, the proposed project does not have the potential to damage resources within a State-designated scenic highway.

In addition, no existing scenic resources are located on the project site or in the surrounding vicinity. No existing scenic rock outcroppings are located within the project site. The project site currently contains mature eucalyptus, pine, and other ornamental trees. The frontage along PCH is landscaped with mature 15–20 ft tall ornamental trees and small shrubberies within the City right-of-way. Although most of the street trees along PCH would remain after construction, some tree removal would be required to accommodate the construction of the new driveways along PCH. All existing trees and vegetation on the project site would be removed. None of the trees that would be removed to construct the project are considered scenic resources by the City's General Plan. After implementation of the proposed project, approximately 91 trees would be located on the project site, a net increase over existing conditions. As described in the

Historic Resources Assessment (LSA, June 2017), none of the existing structures on the project site are eligible for listing as historic resources. Therefore, the proposed project would not result in a significant impact to scenic resources. No mitigation is required. Refer to Section 3.4, Biological Resources, for additional discussion and analysis of potential impacts related to tree preservation.

City-Designated Scenic Route. While PCH, adjacent to the project site, is not a designated State Highway, the Scenic Routes Element of the City's General Plan has identified the portion of PCH adjacent to the project site as a scenic route associated with the Industrial-Educational Scenic Route. Implementation of the proposed project would modify the views to and from the project site by developing the proposed warehouse/office structure; however, the proposed project would not substantially alter the industrial character of the surrounding area. Motorists along PCH would continue to have views of a variety of industrial uses in an industrial park setting following implementation of the proposed project. Therefore, potential impacts of the proposed project on the Industrial-Educational Scenic Route would be less than significant, and no mitigation is required.

(c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The project site is located within a fully developed urban environment. The area is characterized by a variety of residential, commercial, institutional, and industrial uses, and major roadways/ highways (i.e., PCH to the south). The proposed project would include the demolition of the existing buildings and carports on the site and the construction of a 205,060 sf warehouse/office building, and a premanufactured 200 sf guard house structure, and 247 parking spaces. The existing masonry wall located along the project site's eastern boundary with the Police Substation would remain. To visually screen loading activities in the truck yard, the proposed project would construct a new 14 ft high decorative screening wall along the northern boundary of the site. A new 8 ft high chain-link fence with green infill slats or mesh would be constructed along a portion of the western boundary of the project site to secure the truck yard. The existing wrought-iron fence along the PCH and Cota Avenue frontage would be removed. A 10 ft high painted concrete screen wall with an 8 ft high secured rolling gate would be installed at the eastern and western entrances to the truck yard. Overall, the site's visual character would be improved because the abandoned structures on site would be replaced with new buildings and associated landscaping.

Construction.

Less than Significant with Mitigation Incorporated. Construction of the proposed project would involve on-site grading and construction activities that would be visible to travelers along PCH and other adjacent roadways. Construction activities for the proposed project would be short-term and construction staging would occur at the north side of the project site, where the proposed truck yard would be located. For travelers along PCH and other adjacent roadways, temporary fencing would be placed along the perimeter of the site to screen construction activities from the street level. It is recognized that construction fencing could serve as a target for graffiti if not appropriately monitored. Mitigation Measure AES-1 would require that

temporary barriers and walkways are maintained in a visually attractive manner throughout the construction period, and that any graffiti and trash would be removed in a timely manner. This mitigation requiring the maintenance of the project site fencing would ensure that impacts associated with unwanted debris and graffiti would be less than significant.

Mitigation Measure:

The following measure would reduce short-term, construction-related aesthetics impacts resulting from the proposed project to a less than significant level.

Measure AES-1: **Maintenance of Construction Barriers:** Prior to issuance of any construction permits, the City of Long Beach Development Services Director, or designee, shall verify that construction plans include the following note: During construction, the Construction Contractor shall ensure, through appropriate postings and daily visual inspections, that no unauthorized materials are posted on any temporary construction barriers or temporary pedestrian walkways, and that any such temporary barriers and walkways are maintained in a visually attractive manner. In the event that unauthorized materials or markings are discovered on any temporary construction barrier or temporary pedestrian walkway, the Construction Contractor shall remove such items within 48 hours.

Operation.

Less than Significant Impact. As described above, the visual character immediately surrounding the project site is representative of a fully built out urban area containing a mix of industrial, institutional, residential, and commercial uses. While there is no distinguishable or consistent architectural theme, to conform to the architecture and color palette of white and light grey used for the buildings in the Technology Park, the color palette for the building exterior would include white, light and dark greys, dark green, and blue glazing. The warehouse/office building would be built using concrete tilt-up construction and would have a maximum building height of 50 ft. Figures 2.5 and 2.6 located in Chapter 2, Project Description, provide illustrations of the warehouse/office building elevations. Additionally, existing trees along PCH shield most of the existing on-site structures from passing vehicles and pedestrians along PCH. As such, the proposed height of the building and massing associated with the proposed project would be visually consistent with the existing urban environment in this area.

The project site currently contains mature eucalyptus, pine, and other ornamental trees. The frontage along PCH is landscaped with mature 15–20 ft tall ornamental trees and small shrubberies. These trees are within the City right-of-way and would remain after construction; however, all existing trees and vegetation on the project site would be removed. After implementation of the proposed project, approximately 91 trees would be located on the project site. New trees would be a minimum of 24 inches in box size or 15 gallons. In addition, assorted shrubs, accent plants, and ground cover would be planted. Figure 2.7 located in Chapter 2, Project Description, provides a conceptual landscape plan, including the proposed plant palette.

Currently, the site is mostly undeveloped and contains numerous mature trees, areas of grass, and scattered bushes that, excluding the two buildings and associated carports, can be generally characterized as a vacant lot. As a result of implementation of the proposed project, the existing visual character of the project site would be changed from a mostly undeveloped property with two buildings and carports to a completely developed and landscaped 50 ft tall warehouse/ office building with an accompanying parking lot. Although the proposed development represents a substantial change from the existing condition, the existing condition of the site does not contain characteristics considered to be visually significant. Similar uses already exist in the vicinity of the project site. Consequently, the proposed project would not fundamentally alter the surrounding land use character. In addition, the proposed project would be similar to the height and mass of the surrounding development and the proposed architecture and color palette of for the building would be similar to Technology Park. Furthermore, the landscaping would be similar to, or an improvement to, the existing landscaping on the project site and the surrounding area. Therefore, because the proposed project is replacing an existing development in an already urban area and will be compatible with the surrounding development, the proposed project would not degrade the character or quality of the project site, nor would the proposed project contribute to an overall degradation of the visual character or quality of the surrounding area. Therefore, impacts related to the degradation of the visual character or quality of the site would be less than significant, and no mitigation would be required.

(d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant Impact. The impact of nighttime lighting depends upon the type of use affected, the proximity to the affected use, the intensity of specific lighting, and the background or ambient level of the combined nighttime lighting. Nighttime ambient light levels may vary considerably depending on the age, condition, and abundance of point-of-light sources present in a particular view. The use of exterior lighting for security and aesthetic illumination of architectural features may contribute to ambient nighttime lighting conditions.

The spillover of light onto adjacent properties has the potential to interfere with certain activities, including vision, sleep, privacy, and general enjoyment of the natural nighttime condition. Light-sensitive uses include residential, some commercial and institutional uses, and, in some situations, natural areas. Changes in nighttime lighting may become significant if a proposed project substantially increases ambient lighting conditions beyond its property line and project lighting routinely spills over into adjacent light-sensitive land use areas.

Reflective light (glare) is caused by sunlight or artificial light reflecting from finished surfaces (e.g., window glass) or other reflective materials. Glass and other materials can have many different reflectance characteristics. Buildings constructed of highly reflective materials from which the sun reflects at a low angle commonly cause adverse glare. Reflective light is common in urban areas. Glare generally does not result in the illumination of off-site locations but results in a visible source of light viewable from a distance.

Nighttime illumination impacts are evaluated in terms of the project's net change in ambient lighting conditions and proximity to light-sensitive land uses. The site is developed with two

vacant buildings and associated carports. The project site is surrounded by a variety of residential, commercial, institutional, and industrial uses. Sensitive receptors subject to potential light and glare impacts in the vicinity of the site include residential uses to the northwest. Other sources of light on and adjacent to the project site include exterior lighting from adjacent properties, street lights, and vehicle headlights.

Construction. Lighting required during the construction period could generate light spillover in the vicinity of the proposed project site. However, construction activities would occur only during daylight hours, and any construction-related illumination would be used for safety and security purposes only and would occur only for the duration required for the temporary construction process. Light resulting from construction activities would not substantially impact sensitive uses, substantially alter the character of off-site areas surrounding the construction area, or interfere with the performance of an off-site activity. Therefore, construction of the proposed project would not create a new source of substantial light that would adversely affect day or nighttime views in the area, and light impacts associated with construction would be less than significant.

Operation. Daytime glare can result from natural sunlight reflecting from a shiny surface that would interfere with the performance of an off-site activity, such as the operation of a motor vehicle. Reflective surfaces can be associated with window glass and polished surfaces. The finished facades of the proposed project's buildings are primarily concrete which would have low reflectivity, and low-reflective glass would be used in the proposed project's windows.

The proposed project would be located within a developed area of the City, which currently emits lighting that is typical for an urban area (i.e., residential and commercial uses). Existing lighting on the project site includes exterior lighting of the two buildings and carports, as well as five street lights along Technology Place, which bisect the property. All of the existing lighting sources within the project site would be removed in order to construct the proposed project.

Nighttime glare sources from the proposed project could include lighting from illuminated signage, parking lot lighting, and vehicle headlights. The primary source of lighting would be freestanding parking lot and building-mounted LED lighting that would be illuminated during the nighttime hours. Figure 2.8 located in Chapter 2, Project Description, indicates that light poles would be located along the perimeter of the parking lot at a maximum height of 28 ft. Building-mounted lights would have a maximum height of 30 ft. The locations of the proposed exterior lights would comply with the City's safety standards. Lighting would be shielded, recessed, or directed downward to taper off toward the property lines and prevent glare, spillover onto adjacent properties, and lighting of the night sky. To visually screen loading activities in the truck yard located on the northern portion of the site, the proposed project would construct a new 14 ft high decorative screening wall along the northern boundary of the site. A new 8 ft high landscaped wall or a chain-link fence with green infill slats or mesh would also be constructed along a portion of the western boundary of the project site. Additionally, similar to daytime glare, nighttime glare would be reduced due to the obstruction from the existing mature landscaping to remain as well as the proposed landscaping in the interior portions of the project site. The only signage proposed is located on the front of the building along PCH, not facing any

residential areas. Therefore, lighting provided as part of the proposed project would be largely consistent with the type and intensity of existing lighting in the project vicinity. The nighttime glare produced by the signage, exterior lighting, and vehicular headlights would be similar to the existing nighttime glare produced by the surrounding industrial and commercial uses and would not result in enough glare to be considered substantial or affect nighttime views. As such, the proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. No mitigation is required.

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3.2 AGRICULTURAL RESOURCES

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

Impact Analysis:

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

No Impact. The project site is not used for agricultural production and is not designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency.[1] The surrounding area is characterized by general industry, institutions/schools, and commercial uses. The proposed project would not convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or any other type of farmland to non-agricultural uses. Therefore, no impacts to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would occur, and no mitigation is required.

[1] California Department of Conservation. California Important Farmland Finder. Website: http://maps.conservation.ca.gov/ciff/ciff.html (accessed June 16, 2017).

(b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Land Use Element of the City of Long Beach General Plan designates the project site as Mixed Use.[1] The project site is not zoned or currently used for agricultural purposes, and there are no Williamson Act contracts in effect for the site. As a result, the proposed project would not conflict with existing zoning or Williamson Act contracts. No mitigation is required.

(c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code [PRC] Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. The project site is designated Mixed Use and zoned CSULB Research and Technology Center/Villages at Cabrillo Long Beach Vets Planned Development District No. 31 (PD-31). Neither the project site nor the surrounding area is zoned as forest land, timberland, or timberland production. As a result, no impacts would occur. No mitigation is required.

(d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The project site is located in a high-density urban setting. No forest or timberland exists on the project site or in the surrounding area. Therefore, the proposed project would not result in the loss of forest land or the conversion of forest land to nonforest use. As a result, no impacts would occur. No mitigation is required.

(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 nonagricultural use?

No Impact. The project site is largely vacant with the exception of a few existing buildings and carports, is currently not used for agricultural purposes, and is adjacent to non-agricultural uses (commercial, industrial, institutional, and residential). The proposed project would not result in the conversion of farmland on or off the project site to nonagricultural use because there are no agricultural uses on or in the immediate vicinity of the project site. As a result, the proposed project will not result in impacts related to the conversion of agricultural land to non-agricultural uses. No mitigation is required.

[1] City of Long Beach. 1989. Long Beach General Plan Land Use Element. City of Long Beach Department of Planning and Building. July 1989 (revised March 1990, revised and reprinted April 1997).

3.3 AIR QUALITY

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

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
(b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
(c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
(d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
(e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Discussion:

The following section is based on air quality modeling and analysis and the Health Risk Assessment completed by LSA (June 2017). The air quality modeling worksheets and Health Risk Assessment are provided in Appendix A.

Impact Analysis:

(a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The project site is located within the City of Long Beach, which is part of the South Coast Air Basin (Basin). The Basin includes all of Orange County and portions of Los Angeles, Riverside, and San Bernardino Counties. Air quality within the Basin is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD and the Southern California Association of Governments (SCAG) adopted the *2016 Air Quality Management Plan* (2016 AQMP) in March 2017.

The main purpose of an Air Quality Management Plan (AQMP) is to describe air pollution control strategies to be taken by a city, county, or region classified as a nonattainment area. A nonattainment area is considered to have worse air quality than the National Ambient Air Quality Standards (NAAQS) and/or the California Ambient Air Quality Standards (CAAQS), as

defined in the federal Clean Air Act. The Basin is in nonattainment for the federal and State standards for ozone (O_3), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). In addition, the Basin is in nonattainment for the State particulate matter less than 10 microns in diameter (PM_{10}) standard, and in attainment/maintenance for the federal PM_{10}, carbon monoxide (CO), and nitrogen dioxide (NO_2) standards.

Consistency with the 2016 AQMP for the Basin would be achieved if a project is consistent with the goals, objectives, and assumptions in the respective plan to achieve the federal and State air quality standards. Per the SCAQMD *CEQA Air Quality Handbook* (*April 1993*), there are two main indicators of a project's consistency with the applicable AQMP: (1) whether the project would increase the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the 2016 AQMP; and (2) whether the project would exceed the 2016 AQMP's assumptions for 2030 or yearly increments based on the year of project buildout and phasing. For the proposed project to be consistent with the AQMP, the pollutants emitted from the project should not exceed the SCAQMD daily threshold or cause a significant impact on air quality. Additionally, if feasible mitigation measures are implemented and are shown to reduce the impact level from significant to less than significant, a project may be deemed consistent with the AQMP.

The project site is designated as Mixed-Use Land Use District (LUD) No. 7. Mixed-Use LUD No. 7 is intended to provide employment centers (including retail, office, and medical facilities), high-density residential, visitor-serving facilities, personal and professional services, recreation facilities at large, and vital activity centers in the City. The proposed project includes the construction of a 205,060 sf warehouse/office building, which would contribute to the mix of office and industrial uses currently part of the area designated LUD No. 7, and is consistent with the existing General Plan land use designation for the project site. The proposed project would not require a General Plan Amendment and would be consistent with applicable goals and policies included in the City's General Plan with respect to LUD No.7. Therefore, the proposed project would be consistent with the General Plan, would not conflict with the 2016 AQMP. Furthermore, as discussed in Responses 3.3(b) through 3.3(e), emissions generated by the proposed project would be below emissions thresholds established in SCAQMD's *Air Quality Significance Thresholds* (March 2015) and would not be expected to result in significant air quality impacts. Therefore, the proposed project would not conflict with the AQMP and would not conflict with or obstruct implementation of the AQMP. No mitigation is required.

(b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact. The *State CEQA Guidelines* indicate that a significant impact would occur if the project would violate any air quality standard or contribute substantially to an existing or projected air quality violation. Specific criteria for determining whether the potential air quality impacts of a project are significant are set forth in SCAQMD's *Air Quality Significance Thresholds* (March 2015). The criteria include emission thresholds, compliance with State and national air quality standards, and conformity with the existing State Implementation Plan (SIP)

or consistency with the current AQMP. A summary of the specific criteria established by the SCAQMD is presented in Table 3.3.A below.

Table 3.3.A: SCAQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
ROCs	75 lbs/day	55 lbs/day
CO	550 lbs/day	550 lbs/day
NO_X	100 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day

Source: SCAQMD *Air Quality Significance Thresholds* (March 2015).

CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particular matter less than 2.5 microns in size
PM_{10} = particular matter less than 10 microns in size
ROCs = reactive organic compounds
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides

Projects in the Basin with emissions that exceed any of the mass daily emission thresholds are considered significant by the SCAQMD.

Construction Emissions. Air quality impacts could occur during demolition and construction of the proposed project due to soil disturbance and equipment exhaust. Major sources of emissions during demolition, grading, building construction and site work, building erection, paving and architectural coatings include (1) exhaust emissions from construction vehicles, (2) equipment and fugitive dust generated by vehicles and equipment traveling over exposed surfaces, and (3) sand disturbances from compacting and cement paving. The following summarizes construction emissions and associated impacts of the proposed project. Construction of the proposed project would include the following tasks: demolition, site preparation, grading, backbone infrastructure, concrete, building erection, building construction, and architectural coatings. The project phasing would generally start with the demolition of the existing buildings on the project site, and continue with the construction of the proposed project. Some construction activities such as concrete, building erection, building construction and architectural coatings would occur simultaneously. It is anticipated that construction activities would take approximately up to 9 months. Peak daily and annual emissions were analyzed using California Emission Estimator Model (CalEEMod Version 2016.3.1). Project-specific information provided by the project applicant was used where available, including building details, construction schedule, materials and earthwork requirements. It is anticipated that the following equipment will be utilized: scrapers, dozers, loaders, skip loaders, generators, compressors, backhoes, excavators, backhoe loaders, compactors, trenchers, lifts, light towers, laser screeds, finishing machines, and saws.

Fugitive dust emissions would be substantially reduced by compliance with SCAQMD Rules 402 and 403. Implementation of these rules, including measures such as on-site watering at least two times daily was accounted for in the project emission estimates.

Table 3.3.B presents the peak daily construction emissions based on the CalEEMod emission estimates. This table shows that construction equipment/vehicle emissions during construction periods would not exceed any of the SCAQMD daily emissions thresholds. Therefore, the air quality impacts would be less than significant. No mitigation is required.

Table 3.3.B: Peak Daily Construction Emissions (lbs/day)

Peak Construction Emissions	ROG	NO_X	CO	SO_2	PM_{10} (total)	$PM_{2.5}$ (total)
Demolition	4.3	44.5	24.3	0.0	2.9	2.2
Site Preparation	3.6	40.2	16.9	0.0	2.2	1.7
Earthwork	6.1	82.2	43.0	0.1	7.2	4.5
Backbone Infrastructure	2.1	16.8	16.5	0.0	1.8	1.2
Concrete	6.0	55.2	46.7	0.1	3.5	3.0
Building Erection	2.0	16.0	12.8	0.0	1.2	1.0
Building Construction	4.8	39.8	34.9	0.1	3.0	2.3
Architectural Coatings	56.8	4.2	5.6	0.0	0.7	0.4
Highest Peak Daily Emissions[1]	**62.0[1]**	**95.0[2]**	**82.0[2]**	**0.2[2]**	**7.0**	**5.0[2]**
SCAQMD Construction Emissions Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceed Significance?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (June 2017).
[1] From Overlap of Building Construction and Architectural Coatings phases
[2] From Overlap of Concrete and Building Construction phases
CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxide
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
PM_{10} = particulate matter less than 10 microns in diameter
ROG = reactive organic gases
SCAQMD = South Coast Air Quality Management District
SO_2 = sulfur dioxide

Operational Emissions. Long-term air emission impacts are those impacts associated with any change in permanent use of the project site by on-site stationary and off-site mobile sources that increase emissions. Stationary-source emissions include emissions associated with electricity consumption and natural gas usage. Mobile-source emissions result from vehicle trips associated with a project.

Based on the *CSULB Technology Park Phase III Building 9 Traffic Impact Analysis* (Kunzman 2017), the project would generate 208 truck trips and 730 total trips during project operations, and assuming the average haul truck round trip would be 16.66 miles, which is the default truck trip length in CalEEMod Version 2016.3.1, long-term operational emissions associated with the proposed project are shown in Table 3.3.C. Because off-road equipment (e.g., forklifts) is typically used in daily operations of warehouses, the CalEEMod modeling includes four forklifts. While these forklifts could be electric- or compressed natural gas-powered, because diesel-powered forklifts produce the worst emissions, to be conservative, this analysis includes four diesel-powered forklifts operating 8 hours per day. The project plans include the intent to incorporate features sufficient to achieve a Leadership in Energy and Environmental Design (LEED) rating. While the project plans have not yet been developed to identify specific project features that would support the LEED rating, adjustments were made to the CalEEMod modeling

Table 3.3.C: Peak Daily Operational Emissions (lbs/day)

Source	Pollutant Emissions (lbs/day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Sources	4.7	<0.01	0.1	0	<0.01	<0.01
Energy Sources	0.01	0.1	0.1	<0.01	<0.01	<0.01
Mobile Sources	1.5	14	22	0.1	6.4	1.8
Offroad Sources	0.6	5.7	4.8	<0.01	0.5	0.4
Total	**6.8**	**20.0**	**27.0**	**0.1**	**6.9**	**2.2**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Source: LSA Associates, Inc. (June 2016).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROCs = reactive organic compounds
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides

to represent that the project would comply with the 2016 California Building Standards Code (California Code of Regulations, Title 24).

Results shown in Table 3.3.C indicate that the increase of all criteria pollutants would not exceed the corresponding SCAQMD daily emission thresholds for any criteria pollutants. Therefore, project-related long-term air quality impacts would be less than significant, and no mitigation is required.

(c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less Than Significant Impact. The South Coast Air Basin is in nonattainment for the federal and State standards for O_3 and $PM_{2.5}$. In addition, the Basin is in nonattainment for the State PM_{10} standard, and is in attainment/maintenance for the federal PM_{10}, CO, and NO_2 standards. As discussed in Response 3.3(b) above, no exceedance of SCAQMD criteria pollutant emission thresholds would be anticipated for construction and operation of the proposed project. The projected emissions of criteria pollutants as a result of the proposed project are expected to be below the emissions thresholds established for the region. Cumulative emissions are part of the emission inventory included in the AQMP for the project area. Therefore, there would be no cumulatively considerable net increase of the criteria pollutants that are in nonattainment status in the Basin. No mitigation is required.

(d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. As described in Response 3.3(b), the proposed project would not significantly increase long-term emissions within the project area. Project implementation may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of

construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, construction contractors would be required to implement measures to reduce or eliminate emissions by following the SCAQMD's standard construction practices (Rules 402 and 403). Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Some of the applicable dust suppression techniques from Rule 403 are summarized as follows:

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

SCAQMD has issued guidance on applying CalEEMod results to localized impacts analyses.[1] Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. Table 3.3.D shows that the construction emission rates would not exceed the localized significance thresholds (LSTs) for the nearest sensitive receptors in the project area.

Table 3.3.D: Construction Localized Emissions (lbs/day)

Emissions Sources	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	86	74	5	5
LST	**119**	**1,620**	**20**	**8**
Significant Emissions?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (June 2017).
Note: Source Receptor Area – South Coastal Los Angeles County, 5 acres, receptors at 30 meters.
CO = carbon monoxide
lbs/day = pounds per day
LST = localized significance threshold
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Table 3.3.E shows that the operational emission rates would not exceed the LSTs for sensitive receptors in the project area. Therefore, the proposed operational activity would not result in a locally significant air quality impact.

[1] South Coast Air Quality Management District (SCAQMD). Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf (accessed May 2017).

Table 3.3.E: Operational Localized Emissions (lbs/day)

Emissions Sources	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	6	6	0.7	0.5
LST	**119**	**1,620**	**5.2**	**2.2**
Significant Emissions?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (June 2017).
Note: Source Receptor Area – South Coastal Los Angeles County, 5 acre, receptors at 30 meters.
CO = carbon monoxide
lbs/day = pounds per day
LST = local significance thresholds
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

The project's on-site emissions would be below the SCAQMD's localized significance thresholds for construction and operations. Therefore, sensitive receptors would not be expected to be exposed to substantial pollutant concentrations during construction and operations of the proposed project, and potential short-term impacts would be considered less than significant. No mitigation is required.

Health Risk Assessment

Less than Significant Impact. A Health Risk Assessment (HRA) was prepared in accordance with SCAQMD guidelines to produce conservative estimates of risk posed by exposure to diesel particulate matter (DPM) associated with the proposed project. An HRA is a process used to estimate the increased risk of health effects in people who are exposed to toxic air contaminants (TACs). An HRA combines the results of studies on the health effects of various animal and human exposures to TACs and the level of people's exposure at different distances from the sources of pollutants. The HRA examined the potential health effects from project-related emissions of TACs in the exhaust of diesel-powered delivery trucks on existing surrounding sensitive receptors, including residences and schools.

The HRA was conducted using three models: the ARB's California Emissions Factor Model, Version 2014 (EMFAC2014) for vehicle emissions factors and percentages of fuel type within the overall vehicle fleet, the United States Environmental Protection Agency's (EPA) AERMOD air dispersion model to determine how the TACs would move through the atmosphere after release from sources both on site and on surrounding roadways, and the ARB's Hotspots Analysis and Reporting Program (HARP2) model to translate the pollutant concentrations from AERMOD into individual health risks at any sensitive receptor locations surrounding the project site.

The Office of Environmental Health and Hazards Assessment (OEHHA) has determined that long-term exposure to DPM poses the highest cancer risk of any TAC it has evaluated. Short-term exposure to diesel exhaust can also have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, DPM made people with allergies more susceptible to the materials to which they are allergic (e.g., dust and pollen). Short-term exposure to diesel

exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks.

In recent years, the implementation of the ARB's Diesel Risk Reduction Plan (September 2000) has reduced emissions of these TACs. This plan has already resulted in a 75 percent reduction in particle emissions from diesel-powered trucks and other equipment (compared to 2000 levels), and by 2020, when fully implemented, the plan will result in an 85 percent reduction (OEHHA 2015). The Diesel Risk Reduction Plan calls for the use of cleaner-burning diesel fuel, retrofitting existing engines with particle-trapping filters, and the use in new diesel engines of advanced technologies that produce nearly 90 percent fewer particle emissions, as well as the use of alternative fuels. The ARB Truck and Bus Regulation (2014) requires the installation of exhaust after-treatment devices to reduce emissions of PM and NO_x from on-road diesel engines. As of January 2016, all heavy-duty diesel trucks must be equipped with diesel particulate filters and all pre-1996 engines must be replaced with newer engines. The most important improvement in EMFAC 2014 is the integration of the new data and methods to estimate emissions from diesel trucks and buses. The model includes the emissions benefits of the truck and bus rule and the previously adopted rules for other on-road diesel equipment. Finally, the impacts of the recession on emissions that were quantified as part of the truck and bus rulemaking are included.

Table 3.3.F presents the maximum health risks associated with operation of the proposed project. The residential land uses with the greatest potential exposure to project DPM source emissions are the multi-family residential units approximately 385 feet east of the project site across Santa Fe Avenue. The nearest school, the Head Start facility at the Long Beach Job Corps Center, is located 385 feet northeast of the project site. At the individual receptors that would be exposed to the most DPM source emissions from the proposed project, the maximum incremental cancer risk attributable to project DPM source emissions is estimated at 3.8 in 1 million for the Santa Fe Avenue residential receptor and 0.06 in 1 million for the Head Start facility receptor, which are each less than the threshold of 10 in 1 million. At the Santa Fe Avenue residential receptor location, maximum non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0.

Table 3.3.F: Maximum Health Risk Impact from Project Operation

Risk	Maximum Cancer Risk (risk per million)	Maximum Chronic Risk (Hazard Index[1])
SCAQMD Threshold	10.0	1.0
9-Year School Exposure	0.06	0.001
30-Year Residential Exposure	3.82	
Significant?	**No**	**No**

Source: Compiled by LSA (August 2017).

[1] The Hazard Index is the unitless ratio of the estimated long-term level of exposure to a toxic air contaminant for a potential maximum exposed individual to its reference exposure level.

SCAQMD = South Coast Air Quality Management District

Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations from operational emissions associated with the proposed project. Impacts related to exposure of sensitive receptors to substantial pollutant concentrations would be less than significant, and no mitigation is required.

(e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. SCAQMD's *CEQA Air Quality Handbook* (1993) identifies various secondary significance criteria related to odorous air contaminants. Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills, or heavy manufacturing uses. Pursuant to SCAQMD Rule 402, these sources shall include a quantitative assessment of potential odors and meteorological conditions. The project does not propose any such uses or activities that would result in potentially significant odor impacts. Some objectionable odors may emanate from the operation of diesel-powered construction equipment during construction of the proposed project. However, these odors would be limited to the construction period and would disperse quickly; therefore, these odors would not be considered a significant impact.

The proposed project is a warehouse project, which does not typically produce objectionable odors. Therefore, no significant impacts related to objectionable odors would result from the proposed project, and no mitigation is required.

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3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?	☐	☐	☒	☐
(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?	☐	☐	☐	☒
(c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
(f) Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan?	☐	☐	☐	☒

Discussion:

The following section is based on the *Biological Resources Assessment, California State University Long Beach Foundation Retail Project, City of Long Beach, County of Los Angeles, California* (Biological Resources Assessment) prepared by LSA Associates, Inc. (LSA) (April 2013; Appendix B).

Impact Analysis:

(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 (CDFW) or United States Fish and Wildlife Service (USFWS)?

Less Than Significant Impact. The project site is located in an urban area, and is developed with two vacant buildings and four accessory structures (three carports and a former gas meter building). The majority of the site contains nonnative ruderal grasslands with a few dispersed stands of mature nonnative trees, including eucalyptus and pine trees.

Project implementation would result in the grading of the approximately 10-acre site of vegetation. While all of the existing on-site landscaping would be removed as part of the proposed project, there is no native vegetation on the project site. Additionally, no special-status plant species were observed on site.

Although largely nonnative, the vegetation on the project site provides habitat for some native wildlife species. Birds of prey (including white-tailed kite, red-tailed hawk, and American kestrel) and other birds (i.e., passerines) were observed utilizing the habitat on the project site for hunting and foraging. Additionally, the site provides burrowing grounds for small mammals (especially Botta's pocket gopher), which also serve as prey for the raptors. The bird species known to be utilizing the site, including the white-tailed kite and Allen's humming bird, would be able to relocate to other hunting and foraging habitats once the project is implemented. These species are adapted to hunting and foraging in an urban environment, and the loss of the foraging habitat on site would not be considered significant.

The loss of disturbed, mostly nonnative habitat and the associated reduction of locally common wildlife populations are not considered significant impacts. The removal of on-site vegetation is not expected to have a significant adverse effect on candidate, sensitive, or special-status species, as defined by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS). Therefore, any impacts to sensitive or special-status species would be less than significant, and no mitigation is required.

(b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?

No Impact. As noted above, there is no native habitat. The project site does not contain any riparian habitat or sensitive natural communities identified in local or regional plans, policies, or regulations or by the CDFW or the USFWS. No impacts related to riparian habitat or other sensitive natural communities identified in local or regional plans would result from project implementation, and no mitigation is required.

(c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The project site is currently developed and is located in an urban area. The site has also been previously graded, and does not contain any natural hydrologic features or federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA). No impact would occur, and no mitigation is required.

(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?

Less Than Significant with Mitigation Incorporated. The project site is bordered on all sides by urban development. The entire project site appears to have been developed or disturbed in the past; there is no native habitat and very few native plant species on the project site. Because of the isolation of this site amid the surrounding urban development, the project site does not function as a wildlife movement corridor. However, vacant lots with ornamental trees and ruderal vegetation in disturbed areas can provide habitat for wildlife, particularly wildlife well adapted to urban environments. Those species present on site are either able to fly in, are able to navigate on the ground through long stretches of residential development, or have been able to sustain a small population in spite of the isolation.

Existing landscaping may, however, provide suitable habitat for nesting birds including those protected by the Migratory Bird Treaty Act (MBTA). While no nesting birds were observed on site during the time of the biological survey, and the likelihood of nesting birds occurring on site is very low considering the poor quality of the existing habitat, there are existing trees located on the project site that may provide habitat for nesting birds. Therefore, implementation of the proposed project would be subject to the provisions of the MBTA, which prohibits disturbing or destroying active nests. In addition, nests and eggs are protected under Fish and Game Code Section 3503. Project implementation must be accomplished in a manner that avoids impacts to active nests during the breeding season. As such, the proposed project is required to comply with the federal MBTA. As documented in Mitigation Measure BIO-1 (compliance with the MBTA), avoiding impacts can be accomplished through a variety of means, including restricting brush and tree removal to periods (August 15–February 15) outside the avian nesting season (February 15 - August 15) or through performance of nesting bird surveys prior to clearing when clearing occurs during the nesting season. With implementation of Mitigation Measure BIO-1, potentially significant impacts to nesting birds would be reduced to a less than significant level.

Mitigation Measure:

BIO-1: **Migratory Bird Treaty Act.** In the event that project construction or grading activities should occur within the active breeding season for birds (February 15–August 15), a nesting bird survey shall be conducted by the designated project biologist no more than three days prior to commencement of construction activities. If active nesting of birds is observed within 100 feet (ft) of the designated construction area prior to construction, the construction crew shall establish an appropriate buffer around the active nest. The designated project biologist shall determine the buffer distance

based on the specific nesting bird species and circumstances involved. Once the designated project biologist verifies that the birds have fledged from the nest, or the nest is otherwise inactive, the buffer may be removed. Prior to commencement of grading activities and issuance of any building permits, the City of Long Beach (City) Director of Development Services, or designee, shall verify that all project grading and construction plans include specific documentation regarding the requirements of the Migratory Bird Treaty Act (MBTA), that preconstruction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field with orange snow fencing.

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

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

(f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan?

No Impact. There is no adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other habitat conservation plan in the City of Long Beach; therefore, the project would not conflict with any such plans. The proposed project would not conflict with any local, regional, or state habitat conservation plan. No mitigation is required.

3.5 CULTURAL RESOURCES

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

Discussion:

The discussion and analysis provided in this section is based on the following reports, prepared for the proposed project and a previous site-specific project proposed for the project site:

- *Archaeological Survey of the 9.8-Acre California State University Long Beach Foundation Project, City of Long Beach, Los Angeles County, California (*Archaeological Resources Survey) (LSA, April 2013; Appendix C),
- *Paleontological Resources Assessment for the California State University Long Beach Foundation Project, City of Long Beach, Los Angeles County, California (*Paleontological Resources Survey) (LSA, June 2013; also included in Appendix C),
- *Historic Resources Assessment, California State University, Long Beach, Technology Park Phase III Project, Assessor's Parcel Numbers 7402-021-020, 7402-021-021, 7402-021-029, 7402-021-031, 7402-021-032, 7402-021-033, 7402-021-044, and 7402-021-045, City of Long Beach, Los Angeles, County, California* (Historic Resources Assessment) (LSA, June 2017; also included in Appendix C), and
- *Geotechnical Investigation for the proposed Commercial/Industrial Building, NWC Pacific Coast Highway and Cota Avenue, Long Beach California for Prologis* (Geotechnical Report) (Southern California Geotechnical, May 2016, Appendix D).

Impact Analysis:

(a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Less than Significant Impact. As part of the Historic Resources Assessment, LSA completed archival research and conducted an architectural field survey in order to identify potentially

historic structures on the project site. Archival research and surveys conducted in 2013 for the project site were also referenced to assess potential impacts.

Archival research was conducted during the months of February 2013 and June 2017. Results of the archival research indicated that the United States Department of the Navy (U.S. Navy) began constructing housing in the project area during the 1940s in response to World War II efforts. As part of this effort, the U.S. Navy developed 100 acres with the Cabrillo Family Housing facility in an area that encompasses the project site. The only building remaining on the project site from this period of Navy development is the former gas meter building, which was constructed in 1942 and is located in the northeastern portion of the project site. Other buildings on the site associated with the Cabrillo Family Housing facility date back to the mid- to late-1960s and are therefore associated with the postwar period. The majority of the associated buildings were demolished in 1965 and were replaced with newer, more adequate housing (including the two multi-unit buildings and their associated carports). After decommissioning of the U.S. Naval facilities in Long Beach in 1991, the Cabrillo Family Housing facility was first transferred to the City and then to the CSULB Foundation for development of the Villages at Cabrillo, the CSULB Technology Park, and the Jobs Training Center; -the latter two of which are located adjacent to the project site.

On February 18, 2013 and June 8, 2017, LSA Architectural Historian Elisa Bechtel conducted intensive-level architectural surveys on the project site. A brief reconnaissance survey of the immediate project vicinity was also conducted. Two buildings and four accessory structures were assessed during the field survey. These included two multi-unit buildings, a former gas meter building, and three carports. The two multi-unit buildings and associated carports date back to the late 1960s. Today, the majority of the project site is undeveloped and characterized by overgrown vegetation. The buildings are in poor condition and have been vandalized. The buildings also show signs of fire damage. The former gas meter building, which was constructed in 1942, is also in poor condition, but was determined to retain a high degree of integrity.

Significance Evaluation. The California Environmental Quality Act (CEQA) defines a "historical resource" as a resource that meets one or more of the following criteria: (1) listed in, or determined eligible for listing in, the California Register of Historical Resources (California Register); (2) listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k); (3) identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by a project's Lead Agency (PRC Section 21084.1 and *State CEQA Guidelines* Section 15064.5[a]).

The California Register defines a "historical resource" as a resource that meets one or more of the four criteria included in Table 3.5.A. In addition, the California Register requires that sufficient time has passed since a resource's period of significance to "obtain a scholarly perspective on the events or individuals associated with the resource." Fifty years is used as a general estimate of time needed to develop the perspective to understand the resource's significance (California Code of Regulations [CCR] 4852 [d][2]).

Table 3.5.A: Evaluation of Project Site Features using California Register Criteria

Criteria	Definition	Evaluation
Criterion 1	It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.	**Not Eligible.** The property is associated with the historic theme of WWII development. However, all buildings on the site that were developed during this period have been demolished, with the exception of the gas meter building, which is nondescript and is unable to convey its association with this period without the other buildings intact on the project site. The two multi-unit buildings, along with their associated carport structures, were constructed in the mid- to late-1960s. While these buildings were constructed in the post-WWII residential boom, they have lost their integrity of setting, feeling, and association when their associated housing tract was demolished, resulting in their inability to convey their association with the U.S. Naval facility's postwar period. Therefore, the property is not eligible for listing in the California Register under Criterion 1.
Criterion 2	Associated with the lives of persons important to local, California, or national history	**Not Eligible.** No evidence was found associating the project site with important people in history. Therefore, the property is not eligible for listing in the California Register under Criterion 2.
Criterion 3	Embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values	**Not Eligible.** The former gas meter building is most likely one of the few remaining gas meter buildings from the WWII era in this vicinity. However, having lost its integrity of setting and feeling and being of modest construction and design, it is not an important property type, is not representative of an architectural style, and does not convey its association with the military development of the 1940s. As previously stated, the two multi-unit buildings lost their integrity of setting, feeling, and association after the demolition of their associated housing track. These buildings are not representative of an architectural style, do not represent an important property type, nor are they the work of a master. Therefore, the property is not eligible for listing in the California Register under Criterion 3.

Table 3.5.A: Evaluation of Project Site Features using California Register Criteria

Criteria	Definition	Evaluation
Criterion 4	Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation	**Not Eligible.** The property does not have the potential to yield information on 20th century construction techniques. Therefore, the property is not eligible for listing in the California Register under Criterion 4.

California Register = California Register of Historical Resources
WW II = World War II

The California Register also requires that a resource possess integrity, which is defined as "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" (California Office of Historic Preservation 1999:2). To retain integrity, a resource should have its original location, design, setting, materials, workmanship, feeling, and association.

Table 3.5.A provides a summary of the California Register's criteria for defining a historic resource and compares the property and associated structures to these criteria.

As evidenced by the evaluation included in Table 3.5.A, buildings on the project site are not eligible for listing on the California Register based on applicable criteria established by the California Register for defining a historical resource.

In addition to CEQA and the California Register's criteria for defining a historical resource, the City of Long Beach's Heritage Commission Ordinance provides two historical significance designations: Landmark or Historic District. Table 3.5.B lists the City's Heritage Commission Ordinance criteria for designating a resource as a Landmark or Historic District and evaluates buildings on the project site for their potential as a historic Landmark or a contributing factor to a Historic District.

Based on the analysis included in Table 3.5.B, the property does not meet the criteria for listing in the California Register or for local designation as a Landmark or a Historic District. It is not a historical resource as defined by CEQA. Furthermore, according to the Historical Resources Assessment prepared for the proposed project, no historical resources as defined by CEQA were encountered during the historic resources evaluation of the project site. Therefore, the implementation of the proposed project would result in less than significant impacts with respect to historic resources, and no mitigation is required.

Table 3.5.B: Evaluation of Project Site Features using City of Long Beach Heritage Commission Ordinance Criteria

Criteria	Definition	Evaluation
Criteria A	It is associated with events that have made a significant contribution to the broad patterns of the City's history.	**Not Eligible.** The buildings on the project site are unable to convey their respective associations with the WWII and post-WWII period. Therefore, the property does not quality for designation as a local Landmark or as part of a Historic District under Criterion A.
Criteria B	It is associated with the lives of persons significant in the City's past.	**Not Eligible.** The property is not associated with the life of a person or persons significant to the community, city, region, or nation. Therefore, the property does not quality for designation as a local Landmark or part of a Historic District under Criterion B.
Criteria C	It embodies the distinctive characteristics of a type, period or method of construction, or it represents the work of a master or it possesses high artistic values.	**Not Eligible.** The former gas meter building is nondescript and does not convey any association with a particular era in history that might be characterized by a distinctive architectural style. While the two multi-unit buildings exhibit influences of the Mid-Century Modern style, they are by no means representative. None of the buildings on the property represent the work of a master. Therefore, the property does not quality for designation as a local Landmark or part of a Historic District under Criterion C.
Criteria D	It has yielded, or may be likely to yield, information important in prehistory or history.	**Not Eligible.** The property does not have the potential to yield information on 20th century construction techniques. Therefore, the property does not quality for designation as a local Landmark or as part of a Historic District under Criterion D.

WW II = World War II

(b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant with Mitigation Incorporated. As part of the Archaeological Resources Report, a records search was conducted on February 7, 2013, to identify previously recorded prehistoric and historic cultural resources and cultural resource surveys within 1 mile of the project site. The records search was conducted at South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS) at California State University, Fullerton. The records search included a review of all recorded historic and prehistoric archaeological sites within the 0.5-mile radius of the project site, as well as a review of known cultural resource survey and excavation reports. In addition, the California Historic Resources Inventory (HRI), which includes the National Register of Historic Places (National Register), California Historical Landmarks (CHL), California Points of Historical Interest (SPHI) and various local historical registers were also examined.

The records search showed that 38 studies have been conducted within 1 mile of the project site. One of these studies, a cultural resources survey, included the entire project site. None of the remaining 37 surveys included any portion of the project site. No cultural resources have

been recorded within the project site as a result of past studies. One archaeological site, Site CA-LAN-2788, was recorded along the west side of the Dominguez Channel 0.75 mile west-northwest of the project site. Although 24 above-ground historic resources have been recorded within 1 mile of the project site, none are within the project site. Additionally, no properties within 1 mile of the project site are listed on the SPHI, or the National Register as a Los Angeles Historic-Cultural Monument, or as a CHL.

On February 18, 2013, LSA archaeologist Ivan Strudwick conducted a pedestrian survey of the project site. Ground visibility during this survey ranged from a low of 20 to 30 percent to a high of 80 to 90 percent. No prehistoric resources were identified on the project site during the pedestrian survey, likely because the project site has been significantly altered from its original undeveloped condition. The archaeological survey concluded there is little potential for the proposed project to impact prehistoric resources due to significant prior disturbance from past grading and development activities.

However, as required by Mitigation Measure CUL-1, in the unlikely event archaeological resources are discovered at any time during grading and construction activities, work in the area would be halted and deposits would be treated in accordance with federal, State, and local guidelines, including those set forth in California PRC Section 21083.2. More specifically, in the event that archaeological materials are encountered during construction, work in the vicinity of the find should be halted until the find can be assessed for significance by a qualified archaeologist to determine the appropriate treatment and documentation of the discovery (CCR, Title 14, Chapter 3, Section 15064.5(f). Compliance with existing regulations (as required by Mitigation Measure CUL-1), would reduce any potential impacts to previously undiscovered archaeological resources to a less than significant level.

At the completion of project construction, the proposed project would not result in further disturbance of native soils on the project site. Therefore, operation of the proposed project would not result in a substantial adverse change in the significance of an archeological resource as defined in Section 15064.5 of the *State CEQA Guidelines*. No mitigation is required for operational activities.

Mitigation Measure:

CUL-1: **Unknown Archeological Resources.** In the event that archaeological resources are discovered during excavation, grading, or construction activities, work shall cease within 50 feet of the find until a qualified archaeologist from the Los Angeles County List of Qualified Archaeologists and a Native American Monitor have evaluated the find in accordance with federal, State, and local guidelines to determine whether the find constitutes a “unique archaeological resource,” as defined in Section 21083.2(g) of the California Public Resources Code (PRC). Personnel of the proposed project shall not collect or move any archaeological materials and associated materials. Construction activity may continue unimpeded on other portions of the project site.

The found deposits shall be treated in accordance with federal, State, and local guidelines, including those set forth in PRC Section 21083.2. In the event that the resources are determined to be Native American in origin, an appropriate Native American tribal representative(s) shall be notified so the respective tribe(s) can coordinate with the landowner regarding the treatment and curation of these resources. If the resources are determined by the qualified archaeologist to constitute a "historical resource" pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15064.5(a) or is a "unique archaeological resource" pursuant to PRC Section 21083.2(g), the qualified archaeologist shall coordinate with the Applicant and the City of Long Beach (City) to develop a treatment plan that would serve to reduce impacts. The treatment plan established for the resources shall be in accordance with *State CEQA Guidelines* Section 15064.5(f) for historical resources and PRC Section 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 donated to a local school or historical society in the area for educational purposes.

Prior to commencement of grading activities, the Director of the City of Long Beach Development Services Department, or designee, shall verify that all project grading and construction plans include specific requirements regarding California PRC (Section 21083.2) and the treatment of archaeological resources as specified above.

(c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with Mitigation Incorporated. As part of the Paleontological Resources Survey prepared for the California State University Long Beach Foundation Project (June 2013), a locality search was conducted through the Natural History Museum of Los Angeles County (LACM), and geological and paleontological records maintained by LSA were examined in order to determine the status and extent of previously recorded paleontological resources within and surrounding the project site. The search included a review of the area geology and any known paleontological resources recovered from the surrounding area, as well as the geologic units that would likely be encountered during excavation activities associated with project construction.

Results of the literature review indicate that the project site is located at the northern end of

the Peninsular Ranges Geomorphic Province, a 900-mile long northwest-southeast-trending structural block that extends from the Transverse Ranges in the north to the tip of Baja California in the south and includes the Los Angeles Basin. The project site was also determined to be within the Los Angeles Basin, which is a broad alluvial plain bound on the north and north east by hills and mountains of the Northern Peninsular and Transverse Ranges and on the south and west by the Pacific Ocean.

Geologic mapping of the project area indicates that the project site contains Young Alluvial Fan and Valley Deposits, Undivided (11,700 years ago to present). In addition, the Geotechnical Report (Southern California Geotechnical, May 2016) for the project indicates that the project site is underlain by up to 4 ft of Artificial Fill and also consists of Native Alluvium at the ground surface and beneath the soils extending to at least 50 ft below ground surface. Artificial Fill consists of sediments that have been removed from one location and transported to another location and, therefore, have no paleontological sensitivity. Although Native Alluvium deposits can contain remains of plants and animals, only those from the middle to early Holocene (4,200 to 11,700 years ago) are considered scientifically important. Moreover, scientifically important fossils from middle to early Holocene deposits are not very common. Older Pleistocene deposits that may be reached below a depth of approximately 5 to 10 ft below ground surface have produced scientifically important fossils elsewhere in the County and region. However, given the location of the project site within the floodplain of the Los Angeles River, these older sediments are likely at least 10 ft beneath the surface. As such, there is a potential to encounter scientifically important resources in the older sediments of this geologic unit at a depth of approximately 10 ft. Therefore, these deposits have a low paleontological sensitivity at depths up to 10 ft and a high sensitivity below 10 ft.

According to the locality search conducted by the LACM, there are no known fossil localities on the project site. The locality search also confirmed that the younger Quaternary Alluvium that is exposed on the surface of the project site has a low potential to impact paleontological resources within its uppermost layers. However, the LACM states that beneath the surface of the project site there are older Quaternary Alluvium sediments that have produced fossil localities in other areas. The closest of these localities is located approximately 1.5 miles to the southwest, where a fossil bison was found at a depth of 5 ft beneath the surface in an area mapped with Old Alluvial Flood Plain Deposits on the surface. Another locality was found approximately 1.5 miles to the northwest, also in Old Alluvial Flood Plain Deposits, where another bison was found at an unknown depth.

Based on the findings of the Fossil Locality Search, LACM believes any substantial excavations on the project site should be closely monitored to quickly and professionally collect specimens, and so that recovered fossils can be deposited into collections of an accredited and permanent scientific institution for the benefit of current and future generations.

As part of the Paleontological Resources Survey for the California State University Long Beach Foundation Project (June 2013), LSA conducted a field survey on the project site. The findings from this field survey indicate that the entire project site exhibits major disturbance and has been highly altered from its original state. In addition, the soil on the property was found to be

highly disturbed with quantities of gravel road base and was determined to be primarily of a sandy loam with some areas of silt and clay. No paleontological resources were encountered during this survey.

The potential for paleontological resources on the project site is considered low because the site contains Artificial Fill (which has no paleontological sensitivity) and Young Alluvial Fan Deposits (which have low paleontological sensitivity from the surface to a depth of 10 ft and a high sensitivity below that mark). Ground-disturbing activities on the site are not anticipated to extend deeper than 5 ft. However, in the unlikely event that fossil remains are encountered on the site, Mitigation Measure CUL-2 is proposed and requires that a paleontologist shall be contacted to assess the discovery for scientific significance and to make recommendations regarding the necessity to develop paleontological mitigation (including paleontological monitoring, collection, stabilization, and identification of observed resources; curation of resources into a museum repository; and preparation of a monitoring report of findings). With implementation of Mitigation Measure CUL-2, impacts to paleontological resources would be reduced to a less than significant level.

At the completion of project construction, the proposed project would not result in further disturbance of native soils on the project site. Therefore, operation of the proposed project would not result in a substantial adverse change in the significance of a paleontological resource as defined in Section 15064.5 of the *State CEQA Guidelines*, and no mitigation is required for operational activities.

Mitigation Measure:

CUL-2: **Paleontological Resources Impact Mitigation Program.** Prior to commencement of any grading activity on site, the City Director of Development Services, or designee, shall verify that a paleontologist, who is listed on the County of Los Angeles (County) list of certified paleontologists, has been retained by the project applicant and shall be on site during all rough grading and other significant ground-disturbing activities extending 10 feet below ground surface. A paleontologist shall not be required on site if excavation is only occurring in Artificial Fill.

The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the proposed project. The PRIMP should be consistent with the guidelines of the Society of Vertebrate Paleontologists (SVP) (1995) and shall include, but not be limited to, the following:

- Attendance at the pre-grade conference in order to explain the mitigation measures associated with the project.
- During construction excavation, a qualified vertebrate paleontological monitor shall initially be present on a full-time basis whenever excavation shall occur within the sediments that have a high paleontological sensitivity rating and on a spot-check basis in sediments that have a low sensitivity rating. Based on the significance of any recovered specimens, the qualified

paleontologist may set up conditions that shall allow for monitoring to be scaled back to part-time as the project progresses. However, if significant fossils begin to be recovered after monitoring has been scaled back, conditions shall also be specified that would allow increased monitoring as necessary. The monitor shall be equipped to salvage fossils and/or matrix samples as they are unearthed in order to avoid construction delays. The monitor shall be empowered to temporarily halt or divert equipment in the area of the find in order to allow removal of abundant or large specimens. Construction activity may continue unimpeded on other portions of the project site.

- The underlying sediments may contain abundant fossil remains that can only be recovered by a screening and picking matrix; therefore, these sediments shall occasionally be spot-screened through one-eighth to one-twentieth-inch mesh screens to determine whether microfossils exist. If microfossils are encountered, additional sediment samples (up to 6,000 pounds) shall be collected and processed through one-twentieth-inch mesh screens to recover additional fossils. Processing of large bulk samples is best accomplished at a designated location within the project that shall be accessible throughout the project duration but shall also be away from any proposed cut or fill areas. Processing is usually completed concurrently with construction, with the intent to have all processing completed before, or just after, project completion. A small corner of a staging or equipment parking area is an ideal location. If water is not available, the location should be accessible for a water truck to occasionally fill containers with water.
- Preparation of recovered specimens to a point of identification and permanent preservation. This includes the washing and picking of mass samples to recover small invertebrate and vertebrate fossils and the removal of surplus sediment from around larger specimens to reduce the volume of storage for the repository and the storage cost for the developer.
- Identification and curation of specimens into a museum repository with permanent retrievable storage, such as the Natural History Museum of Los Angeles County (LACM).
- Preparation of a report of findings with an appended itemized inventory of specimens. When submitted to the City Director of Development Services, or designee, the report and inventory would signify completion of the program to mitigate impacts to paleontological resources.

(d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant with Mitigation Incorporated. No human remains are present on the project site, and there are no facts or evidence to support the idea that Native Americans or people of European descent are buried on the project site. No prehistoric or historic cemeteries

or burial sites were documented on or in the vicinity of the project site based on the records searches or the field surveys conducted for the proposed project. While the potential to encounter human remains is unlikely, it is possible that previously unknown and undocumented prehistoric or historic cemeteries or burial sites could be discovered during project-related ground disturbing, grading, and excavation activities. Disturbing human remains could violate the State's Health and Safety Code, as well as destroy the resource.

In the unlikely event that human remains are encountered during project grading, the proper authorities would be notified, and standard procedures for the respectful handling of human remains during the earthmoving activities would be adhered to. Construction contractors are required to adhere to CCR Section 15064.5(e), PRC Section 5097, and Section 7050.5 of the State's Health and Safety Code. To ensure proper treatment of burials, in the event of an unanticipated discovery of a burial, human bone, or suspected human bone, the law requires that all excavation or grading in the vicinity of the find halt immediately, the area of the find be protected, and the contractor immediately notify the County Coroner of the find. If the remains are determined to be Native American, the County Coroner will notify the NAHC, which will determine and notify a Most Likely Descendent (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of being granted access to the site. The MLD will also have the opportunity to offer recommendations for the disposition of the remains. The contractor, the Applicant, and the County Coroner are required to comply with the provisions of CCR Section 15064.5(e), PRC Section 5097.98, and Section 7050.5 of the State's Health and Safety Code. In addition to compliance with these provisions (specified in Mitigation Measure CUL-3) the project would implement a number of requests by the Kizh Nation regarding procedures to be followed during ground-disturbing activities. The recommendations of the Kizh Nation have been incorporated into Mitigation Measure CUL-3 to further minimize potential impacts to archaeological resources (including human remains) associated with the Kizh Nation and are outlined further in Section 3.18, Tribal Cultural Resources, of this IS/MND. Compliance with the provisions in Mitigation Measure CUL-3 would ensure that any potential impacts to unknown buried human remains would be less than significant by ensuring appropriate examination, treatment, and protection of human remains as required by State law. In addition, refer to Mitigation Measure TCR-1 in Section 3.18, Tribal Cultural Resources, for discussion on Native American monitoring procedures.

Mitigation Measure:

CUL-3: **Human Remains.** Prior to the commencement of ground-disturbing activities, the Applicant shall arrange a designated location within the footprint of the project site for the reburial of human remains and/or ceremonial objects of Native American origin.

In the event that human remains are encountered on the project site, work within 50 feet of the discovery shall be redirected and the County Coroner notified immediately consistent with the requirements of California Code of Regulations (CCR) Section 15064.5(e). State Health and Safety Code Section

7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The discovery will be kept confidential to secure and prevent any disturbance to the remains.

If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the property owner, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. In the case where discovered human remains cannot be fully documented and recovered on the same day of inspection, 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 the project remains. If this type of steel plate is not available, a 24-hour guard shall be posted outside of working hours.

The MLD may also recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Consistent with CCR Section 15064.5(d), if the remains are determined to be Native American and an MLD is notified, the City of Long Beach shall consult with the MLD as identified by the NAHC to develop an agreement for treatment and disposition of the remains. Treatment and disposition of the remains may include the following:

- Diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, the burials may be removed.
- Removing cremations in bulk or by means as necessary to ensure the complete recovery of all material.
- Storing each occurrence of human remains and associated funerary objects using opaque cloth bags.
- Removing all human remains, funerary objects, sacred objects of cultural patrimony to a secure container on site, to the extent possible. These items should be retained and reburied within six months of recovery.
- Reburial/repatriation on the project site at a location to be agreed upon by the landowner and the tribe. The reburial shall be protected at the agreed upon location in perpetuity. No publicity regarding the recovery of the cultural materials shall occur.

Upon completion of the assessment, the consulting archaeologist shall prepare a report documenting the methods and results and provide recommendations regarding the treatment of human remains and any associated cultural material, as appropriate, and in coordination with the recommendations of the MLD. Additional documentation shall be approved by the tribe for data recovery

purposes. Once complete, the final report of all activities shall be submitted to the NAHC.

In the event that the discovery of human remains includes four or more burials, the location shall be considered a cemetery and a separate treatment plan shall be prepared. The project Applicant shall consult with the respective tribe regarding avoidance of all cemetery sites. A final report of all activities shall be submitted to the NAHC.

Prior to the issuance of grading permits, the City Development Services Department, or designee, shall be responsible for reviewing any reports produced by the archaeologist to determine the appropriateness and adequacy of findings and recommendations. The City Development Services Director, or designee, shall also verify that all grading plans include notes specifying the requirements of CCR Section 15064.5(e), State Health and Safety Code Section 7050.5, and PRC Section 5097.98.

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3.6 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
(ii) Strong seismic ground shaking?	☐	☒	☐	☐
(iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
(iv) Landslides?	☐	☐	☐	☒
(b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☒	☐	☐
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Discussion:

The discussion and analysis provided in this section is based on the *Geotechnical Investigation Proposed Commercial/Industrial Building: NWC Pacific Coast Highway and Cota Avenue Long Beach, California for Prologis* (Geotechnical Investigation) prepared by Southern California Geotechnical, Inc. (May 2016; Appendix D).

Impact Analysis:

(a)(i) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by

the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less than Significant Impact. There are no known active or potentially active faults or fault traces crossing the site. The project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone. The closest mapped active faults to the project site are the Newport Inglewood and Palos Verdes Fault Zones, which are approximately 2.3 and 4.4 miles from the site, respectively.[1] As the project site is not located in an Alquist-Priolo Earthquake Fault Zone and there is no evidence of active faulting on or around the immediate project site, the potential for ground rupture to affect the project is considered to be less than significant, and no mitigation is necessary.

(a)(ii) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?

Less than Significant with Mitigation Incorporated. As with all of Southern California, the project site is subject to strong ground motion resulting from earthquakes on nearby faults. As discussed in Response 3.6(a)(i), the project site is not located within an Alquist-Priolo Earthquake Fault Zone. However, there are several faults in the vicinity of the project site that are capable of producing strong ground motion, including San Andreas Fault, the Newport-Inglewood Fault, and Palos Verdes Fault.[2] During an earthquake along any of these faults, seismically induced ground shaking would be expected to occur. The severity of the shaking would be influenced by the distance of the site to the seismic source, the soil conditions, and the depth to groundwater.

Ground shaking generated by fault movement is considered a potentially significant impact that may affect the proposed project. Mitigation Measure GEO-1 requires that the project Applicant comply with the recommendations of the Geotechnical Investigation prepared for the project, and Mitigation Measure GEO-2 requires compliance with the most current California Building Code (CBC), and the City Building Code, which stipulates appropriate seismic design provisions that shall be implemented with project design and construction. With the implementation of Mitigation Measures GEO-1 and GEO-2, potential project impacts related to seismic ground shaking would be reduced to a less than significant level.

Mitigation Measures:

GEO-1: **Conformance with the project Geotechnical Study.** All grading operations and construction shall be conducted in conformance with the recommendations included in the *Geotechnical Investigation Proposed Commercial/Industrial Building: NWC Pacific Coast Highway and Cota Avenue Long Beach, California for Prologis* (Southern California Geotechnical, Inc., May 12, 2016). Design, grading, and construction shall be performed in accordance with the requirements of the City of Long Beach (City)

[1] California Department of Conservation (DOC). CGS Information Warehouse: Regulatory Maps. Website: http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/LONG_BEACH_EZRIM.pdf (accessed August 17, 2017).

[2] Ibid.

Municipal Code (Title 18) and the California Building Code (CBC) applicable at the time of grading, appropriate local grading regulations, and the requirements of the project geotechnical consultant as summarized in a final written report, subject to review by the Director of the City Development Services Department or designee prior to commencement of grading activities.

Additional site testing and final design evaluation, if required by the Director of the City Development Services Department, or designee, shall be conducted by the project geotechnical consultant to refine these requirements. The project Applicant shall require the project geotechnical consultant to assess whether the requirements in that report need to be modified or refined to address any changes in the project features that occur prior to the start of grading. If the project geotechnical consultant identifies refinements to the requirements, the project Applicant shall require appropriate changes to the final project design and specifications. In such a situation, such refinements shall comply with all applicable City of Long Beach and CBC requirements.

Grading plan review shall also be conducted by the Director of the City Building Department or designee prior to the start of grading to verify that the requirements developed during the geotechnical design evaluation have been appropriately incorporated into the project plans. Design, grading, and construction shall be conducted in accordance with the specifications of the project geotechnical consultant as summarized in a final report based on the CBC applicable at the time of grading and building and the City Building Code. On-site inspection during grading shall be conducted by the project geotechnical consultant and the City Building Official to ensure compliance with geotechnical specifications as incorporated into project plans.

GEO-2: **California Building Code Compliance and Seismic Standards.** Structures and retaining walls shall be designed in accordance with the seismic parameters presented in the *Geotechnical Investigation* (Southern California, Inc., May 12, 2016; Appendix D) and applicable sections of Section 1613 of the most current CBC. Prior to issuance of building permits for planned structures, the Geotechnical Engineer and the Director of the City Development Services Department, or designee, shall review building plans to verify that structural design conforms to the requirements of the geotechnical study and the City Municipal Code.

(a)(iii) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: seismic-related ground failure, including liquefaction?

Less than Significant with Mitigation Incorporated. Liquefaction is the loss of strength in generally cohesionless, saturated soils when the pore- water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. Structures on or above potentially liquefiable soils may experience bearing capacity failures due to the temporary loss

of foundation support, vertical settlements, and/or lateral spreading. The primary factors which influence the potential for liquefaction include: (1) groundwater table elevation; (2) soil type and plasticity characteristics; (3) relative density of the soil; (4) initial confining pressure; and (5) intensity and duration of ground shaking.

The liquefaction susceptibility of the on-site subsurface soils was evaluated as part of the Geotechnical Investigation prepared for the proposed project. The liquefaction potential of the site was evaluated using an empirical method, which predicts the earthquake-induced liquefaction potential of the site based on a given design earthquake magnitude and peak ground acceleration (PGA) at the site. The liquefaction potential of the project site was analyzed utilizing a maximum PGA of 0.642g for a magnitude 7.21 seismic event.

According to the Geotechnical Investigation, the project site is in an area that has potentially liquefiable soils, and would be subject to impacts related to liquefaction of the on-site soils as a result of seismic shaking. Mitigation Measure GEO-1, provided above, requires the Applicant to comply with the recommendations of the project Geotechnical Investigation, which stipulates appropriate seismic design provisions that shall be implemented with project design and construction. With implementation of Mitigation Measure GEO-1, potential project impacts related to seismic-related ground failure, including liquefaction, would be reduced to a less than significant level.

Mitigation Measure:

Refer to Mitigation Measure GEO-1, above.

(a)(iv) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Landslides?

No Impact. The project site is relatively flat, and there are no substantial hillsides or unstable slopes immediately adjacent to the site boundary. As a result, there is no potential for landslide hazards, and no mitigation is required.

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

Less than Significant with Mitigation Incorporated. During the construction activities of the proposed project, bare soil would be exposed, and there would be an increased potential for soil erosion compared to existing conditions. Additionally, during a storm event, soil erosion could occur at an accelerated rate. The increased erosion potential could result in short-term water quality impacts as identified in Section 3.9, Hydrology and Water Quality. During construction, the Applicant would be required to adhere to the requirements of the General Construction Permit and utilize typical Best Management Practices (BMPs) specifically identified in the Storm Water Pollution Prevention Plan (SWPPP) (Compliance Measure WQ-1) for the project in order to prevent construction pollutants from contacting storm water and to keep all products of erosion from moving off site into receiving waters. Water-related impacts during construction

would be less than significant through implementation of construction site BMPs, as specified in (Compliance Measure WQ-1 and WQ-2) (described in Section 3.9, Hydrology and Water Quality).

After project grading and construction, approximately 91 percent of the site would consist of impervious surface area, and the proposed project would result in a net increase in storm water runoff. As discussed in Section 3.9, Hydrology and Water Quality, there are no existing storm drain facilities on the project site. In the existing condition, storm water runoff sheet flows towards Technology Place. Runoff is then conveyed to offsite catch basins west of the site, which ultimately discharge to the Dominguez Channel. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, as discussed in the *Hydrology & Water Quality Technical Report*, the increase in impervious surface area on the project site (6.9 acres) compared to existing conditions, would increase runoff peak flow by 5.68 cubic feet per second (cfs) during a 25-year storm event and 6.18 cfs during a 50-year storm event. Thus, during a storm event, soil erosion could occur at an accelerated rate. As specified in Compliance Measures WQ-1 and WQ-2, the Construction General Permit and City of Long Beach MS4 Permit require preparation of a SWPPP and/or ESCP and implementation of construction BMPs to reduce impacts to water quality during construction, including those impacts associated with soil erosion and siltation. Construction BMPs would include, but would not be limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site.

Mitigation Measures:

No mitigation is required; however, implementation of Compliance Measure WQ-1 and WQ-2 provided in Section 3.9, Hydrology and Water Quality, would reduce any potentially significant impacts related to soil erosion.

(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 off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant with Mitigation Incorporated.

Landslides

Landslides and other forms of mass wasting, including mud flows, debris flows, and soil slips occur as soil moves downslope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking. Because the site is located in a relatively flat area, landslides or other forms of natural slope instability do not represent a significant hazard to the project. In addition, the site is not within a State designated hazard zone for Earthquake-Induced Landsliding.[1] Therefore, potential impacts related to landslides would be less than significant and no mitigation is required.

[1] State of California Department of Conservation. Regulatory Maps Portal. Website: http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps.

Although there are no indications of landslide activity at the project site, grading activities during construction would produce temporary construction slopes in some areas. Unstable cut-and-fill slopes could create significant short-term and long-term hazards.

Mitigation Measure GEO-1 requires the project to conform with the recommendations of the *Geotechnical Study* (Southern California Geotechnical, Inc., May 12, 2016; Appendix D), which contains specific recommendations for addressing potential slope instability. According to the *Geotechnical Study*, temporary excavation slopes should be no steeper than 2:1 (horizontal to vertical) in existing site soils. Deeper excavations may require external stabilization such as shoring or bracing. It is also recommended to maintain adequate moisture content within near-surface soils to improve excavation stability. All excavation activities on the site should be conducted in accordance with California Occupational Safety and Health Administration (Cal/OSHA) regulations. With implementation of these recommendations in accordance with Mitigation Measure GEO-1, potential impacts related to slope instability would be reduced below a level of significance.

Lateral Spreading and Liquefaction

As discussed in Response 3.6(a)(iii), liquefaction is the loss of strength in generally cohesionless saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The project site is in an area that has potentially liquefiable soils, and would be subject to impacts related to liquefaction of the on-site soils as a result of seismic shaking. However, Mitigation Measure GEO-1 above requires the Applicant to comply with the recommendations of the project Geotechnical Investigation, which stipulates appropriate seismic design provisions that shall be implemented with project design and construction. With implementation of Mitigation Measure GEO-1, potential project impacts would be reduced to a less than significant level.

Subsidence

Subsidence occurs when oil, gas, and water extraction lead to land surface sinking, which causes a loss of pore pressure as the weight of the overburden compacts the underlying sediments. Oil extraction from the Wilmington Oil Field caused major land subsidence in the City of Long Beach during the 1940s. However, in 1958, with the passage of the California Subsidence Act, subsidence control measures were initiated, and much of the sinking was abated.[1]

At the project level, removal and recompaction of the near surface soils is estimated to result in an average shrinkage of 10 to 15 percent. Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. The subsidence is estimated to be 0.15± ft. The subsidence-related impacts are considered to be less than significant, and no mitigation is required.

Mitigation Measure:

[1] City of Long Beach. 1973. General Plan Conservation Element. April.

Refer to Mitigation Measure GEO-1, above.

(d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less than Significant with Mitigation Incorporated. Expansive soils contain types of clay materials that occupy considerably more volume when they are wet or hydrated than when they are dry or dehydrated. Volume changes associated with changes in the moisture content of near-surface expansive soils can cause uplift or heave of the ground when they become wet or, less commonly, cause settlement when they dry out. Soils with an expansion index (EI) of greater than 20 are classified as expansive for building purposes and, therefore, have a potentially significant impact.

Based on laboratory testing in the Geotechnical Investigation, the project site soils possess very low expansion potentials. While expansion potential is considered low (EI>50), the Geotechnical Investigation recommends additional expansion index testing be conducted at the completion of rough grading to verify the expansion potential of the as-graded building pad. Mitigation Measure GEO-1 above requires the Applicant to comply with the recommendations of the project Geotechnical Investigation, which will ensure that the foundation and floor slab design recommendations are still suitable with the post-grading expansion potential. Therefore, with implementation of Mitigation Measure GEO-1, potential project impacts related to expansive soils is considered to be less than significant.

Mitigation Measure:

Refer to Mitigation Measure GEO-1, above.

(e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The proposed project does not include construction of septic tanks or connections to septic systems or alternative wastewater disposal systems. Therefore, the proposed project would not result in impacts related to the soils capability to adequately support the use of septic tanks or alternative wastewater disposal systems, and no mitigation is required.

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3.7 GREENHOUSE GAS EMISSIONS

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

Discussion:

The following section is based on greenhouse gas (GHG) modeling and analysis conducted by LSA (June 2017). The air quality modeling worksheets are provided in Appendix A.

Introduction:

Global climate change (GCC) describes alterations in weather features (e.g., temperature, wind patterns, precipitation, and storms) that occur across the Earth as a whole. Global temperatures are modulated by naturally occurring components in the atmosphere (e.g., water vapor, carbon dioxide [CO_2], methane [CH_4], and nitrous dioxide [N_2O]) that capture heat radiated from the Earth's surface, which in turn warms the atmosphere. This natural phenomenon is known as the "greenhouse effect." That said, excessive human-generated greenhouse gas (GHG)[1] emissions can and are altering the global climate. The principal GHGs of concern contributing to the greenhouse effect are CO_2, CH_4, N_2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is the largest naturally occurring GHG; however, it is not identified as an anthropogenic constituent of concern.

Neither the CEQA statutes, the California Office of Planning and Research (OPR) guidelines, nor the draft proposed changes to the *State CEQA Guidelines* currently prescribe specific quantitative thresholds of significance or a particular methodology for conducting an impact analysis related to GHG effects on global climate. Rather, as with most environmental topics, significance criteria are left to the judgment and discretion of the Lead Agency.

Currently, there is no Statewide GHG emissions threshold that has been used to determine the potential GHG emissions impacts of a project. Threshold methodology and thresholds are still being developed and revised by air districts in the State. Therefore, this environmental issue remains unsettled and must be evaluated on a case-by-case basis until SCAQMD adopts significance thresholds and GHG emissions impact methodology. In the absence of a certified Climate Action

[1] The principal GHGs of concern contributing to the greenhouse effect are CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6. Water vapor is the largest naturally occurring GHG; however, it is not identified as an anthropogenic constituent of concern.

Plan for Long Beach, SCAQMD thresholds, when adopted, would apply to future development in the City.

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD convened a GHG CEQA Significance Threshold Working Group (Working Group).[1] This Working Group proposed a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency. According to the tiered approach, if a project is exempt from CEQA, Tier 1 would be the most appropriate tier, the project effects related to GHG emissions/global climate change (GCC) would be less than significant, and the analysis would be complete. If the project is not exempt and there is a local GHG reduction plan in place, then Tier 2 would be the most appropriate tier. If the project is not consistent with the plan, then the project would have a significant impact related to GHG emissions/GCC, and the analysis would be complete. If there is no local GHG reduction plan, Tier 3 is used to screen smaller projects. If the project emissions are less than the applicable numerical threshold, the project effects related to GHG emissions/GCC would be less than significant, and the analysis would be complete. In the absence of any further guidance from SCAQMD since this proposal in 2008, these draft interim proposed GHG emissions thresholds are used in this analysis. The applicable tier for this project is Tier 3; if GHG emissions are less than 10,000 MT CO_2e per year (MT CO_2e/yr), project-level and cumulative GHG emissions are less than significant.

The City of Long Beach's (City) General Plan and Sustainable City Action Plan[2] include goals and policies for the purpose of reducing GHG emissions.

The City's General Plan has adopted a broad spectrum of policies related to climate change, as shown in the Air Quality Element. This element was adopted in 1996 and sets forth the goals, objectives, and policies that guide the City on the implementation of its air quality improvement programs and strategies. The following goals and policies are applicable to the proposed project.

Goal 7: Reduce emissions through reduced energy consumption.

Policy 7.1: Energy Conservation. Reduce energy conservation through conservation improvements and requirements.

Action 7.1.4: Encourage the incorporation of energy conservation features in the design of all new construction

Action 7.1.7: Support efforts to reduce GHG emissions that diminish the stratospheric ozone layer.

Individual GHGs have varying global warming potentials and atmospheric lifetimes. Because it is not possible to tie specific GHG emissions to actual changes in climate, this evaluation focuses on the project's emission of GHGs. CO_2e is a consistent methodology for comparing GHG emissions because it normalizes various GHGs to the same metric. GHG emissions are

[1] SCAQMD. Greenhouse Gases (GHG) CEQA Significance Thresholds. Website: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds (accessed June 2017).

[2] City of Long Beach. 2010. *City of Long Beach Sustainable City Action Plan*. February.

typically measured in terms of metric tons of "CO_2 equivalents" (CO_2e). Therefore, for the purpose of this technical analysis, the concept of CO_2e is used to describe how much global climate change a given type and amount of GHG may cause, using the functionally equivalent amount or concentration of CO_2 as the reference. The GHG emissions estimates were calculated using CalEEMod Version 2016.3.1.

Impact Analysis:

(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Construction and operation of the proposed project would generate GHG emissions, with the majority of energy consumption (and associated generation of GHG emissions) occurring during the project's operations.

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

- **Construction Activities:** GHGs would be emitted through the operation of construction equipment and from worker and supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O.
- **Gas, Electricity and Water Use:** Natural Gas use results in the emission of two GHGs: CH_4 (the major component of natural gas) and CO_2 (from the combustion of natural gas). Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. California's water conveyance system is energy-intensive. Approximately one-fifth of the electricity and one-third of the non-power plant natural gas consumed in the State are associated with water delivery, treatment, and use.[1] This analysis assumes that 50 percent of the warehouse would be refrigerated.
- **Solid Waste Disposal:** Solid waste (e.g., green waste, trash from receptacles, and construction waste) generated by the project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH_4 from the anaerobic decomposition of organic materials. CH_4 is 25 times more potent a GHG than CO_2. However, landfill methane (CH_4) can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.
- **Motor Vehicle Use:** Transportation associated with the project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips.

[1] California Air Resources Board (ARB). 2010. *Economic Sectors Portal*. Website: www.arb.ca.gov/cc/ghgsectors/ghgsectors.htm (accessed June 2017).

Construction GHG Emissions. GHG emissions associated with the project would occur over the short term from construction activities, consisting primarily of emissions from equipment and vehicle exhaust. The calculation presented below includes construction emissions in terms of CO_2 and annual CO_2e GHG emissions from increased energy consumption, water usage, and solid waste disposal.

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

Construction activities produce combustion emissions from various sources such as demolition, site preparation, earthwork, building erection, building construction, architectural coatings, on-site construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. Table 3.7.A presents the annual construction emissions based on the CalEEMod emission estimates. Results indicate that project implementation would generate approximately 683 metric tons of CO_2e per year. Per SCAQMD guidance, due to the long-term nature of the GHGs in the atmosphere, instead of determining significance of construction emissions alone, the total construction emissions are amortized over 30 years (an estimate of the life of the project) and included in the operations analysis. To amortize the emissions over the life of the project, the SCAQMD recommends calculating the total greenhouse gas emissions for the construction activities, dividing it by a 30-year project life. As such, construction emissions were amortized over a 30-year period. Amortized over 30 years, the total construction emissions would generate approximately 23 metric tons of CO_2e per year.

Table 3.7.A: Project Construction Greenhouse Gas Emissions

Emissions	Pollutant Emissions, MT/yr			
	CO_2	CH_4	N_2O	CO_2e
Demolition	41	0	0	41
Site Preparation	18	0	0	18
Grading	140	0	0	141
Backbone Infrastructure	123	0	0	23
Concrete	182	0	0	183
Building Erection	7	0	0	7
Building Construction	373	0	0	373
Architectural Coatings	16	0	0	16
Total Project Emissions	**680**	**0.1**	**0**	**683**
Amortized Emissions	**23**	**0**	**0**	**23**

Source: Compiled by LSA (June 2017).
Note: Numbers in table may not appear to add up correctly due to rounding of numbers.
Bio-CO_2 = biologically generated CO_2
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT/yr = metric tons per year
N_2O = nitrous oxide
NBio-CO_2 = non-biologically generated CO_2

Operational GHG Emissions. Long-term operation of the proposed project would generate GHG emissions from area and mobile sources and indirect emissions from stationary sources associated with energy consumption. Operational and Construction GHG emissions, as shown in Table 3.7.B, were calculated using CalEEMod (Version 2016.3.1). Based on SCAQMD guidance, construction emissions were amortized over 30 years (a typical project lifetime) and added to the total project operational emissions. Mobile-source emissions of GHGs would include project-generated vehicle trips associated with on-site facilities and customers/visitors to the project site. Area-source emissions would be associated with activities including landscaping and maintenance of proposed land uses, natural gas for heating, and other sources. Increases in stationary-source emissions would also occur at off-site utility providers as a result of demand for electricity, natural gas, and water by the proposed project.

Table 3.7.B: Long Term Operational Greenhouse Gas Emissions

Source	Pollutant Emissions (MT/yr)					
	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e
Proposed Project						
Construction Emissions Amortized over 30 Years	0	23	23	0	0	23
Operational Emissions						
Area	0	0.01	0.01	0	0	0.01
Energy	0	1,994	1,994	0	0	1,997
Mobile	0	1,556	1,556	0	0	1,557
Warehouse Equipment	0	72	72	0	0	72
Waste	39	0	39	2	0	97
Water	12	346	358	1	0	398
Total Project Emissions	**51**	**3,967**	**4,018**	**4**	**0**	**4,144**
					SCAQMD Tier 3 Threshold	**10,000**
					Significant?	**No**

Source: Compiled by LSA (June 2017).
Bio-CO_2 = biologically generated CO_2
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT/yr = metric tons per year
N_2O = nitrous oxide
NBio-CO_2 = non-biologically generated CO_2
SCAQMD = South Coast Air Quality Management District

As shown in Table 3.7.B, the proposed project would generate 4,144 MT CO_2e/yr. The project's emissions are less than the SCAQMD Tier 3 threshold of 10,000 MT CO_2e/yr for industrial projects, thus project-level and cumulative GHG emissions are less than significant, and no mitigation is required.

(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The passage of the California Assembly Bill 32 (AB 32), created a comprehensive program to achieve real, quantifiable, and cost-effective reductions in GHGs. The law set up an economy wide cap on the State's GHG emissions at 1990 levels by 2020. It directed the ARB to prepare, approve and implement a Scoping Plan for achieving the maximum

technologically feasible and cost effective reductions in GHG emissions. The ARB adopted the first Scoping Plan, describing a portfolio of measures to achieve the target, in December 2008. The ARB approved the First Update to the Climate Change Scoping Plan (Update) on May 22, 2014. The report establishes a broad framework for continued emission reductions beyond 2020, with a goal of 80 percent below 1990 levels by 2050.

The Sustainable City Action Plan was adopted by the City in February 2010[1] and is intended to guide operational, policy, and financial decisions to create a more sustainable Long Beach. The plan identifies a wide range of goals and implementation actions to conserve energy and water, reduce solid waste, address global warming, tailor urban design, protect natural habitats, improve pedestrian options, and reduce risks to human health. Specific goals related to GHG include increasing the use of renewable energy in Long Beach and reducing the City's overall electric load by 10 percent. Other goals include creating pedestrian friendly neighborhoods. The project plans include the intent to incorporate features sufficient to achieve a LEED Core & Shell rating. While the project plans have not yet developed to identify specific project features that would support the LEED Core & Shell rating, adjustments were made to the CalEEMod modeling to represent that the project would comply with the 2016 California Building Standards Code (California Code of Regulations, Title 24). Therefore, as the proposed project would help conserve energy and achieve the LEED Core & Shell requirements, it would be consistent with the goals and initiatives of AB 32 and the Sustainable City Action Plan, no significant impacts would result from the proposed project, and no mitigation is required.

[1] City of Long Beach. 2010. *City of Long Beach Sustainable City Action Plan*. February.

3.8 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	☐	☒	☐
(b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
(f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
(g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
(h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Discussion:

The discussion and analysis provided in this section is based on the *Phase I Environmental Site Assessment (ESA) for the Former California State University Long Beach Foundation Technology Park*

at 1900-1956 Technology Place in the City of Long Beach, California 90813 (Phase I ESA) (Partner Engineering and Science, Inc.; March 4, 2016) (refer to Appendix E of this IS/MND).

Impact Analysis:

(a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

Less than Significant Impact. Hazardous materials are chemicals that could potentially cause harm during an accidental release or mishap, and are defined as being toxic, corrosive, flammable, reactive, and irritant, or strong sensitizer.[1] Hazardous substances include all chemicals regulated under the United States Department of Transportation "hazardous materials" regulations and the United States Environmental Protection Agency (EPA) "hazardous waste" regulations. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment. The probable frequency and severity of consequences from the routine transport, use, or disposal of hazardous materials is affected by the type of substance, the quantity used or managed, and the nature of the activities and operations.

Construction. Construction activities associated with the proposed project would use a limited amount of hazardous and flammable substances (e.g., oils) during heavy equipment operation for site grading and construction. The amount of hazardous chemicals present during construction is limited and would be in compliance with existing government regulations. The potential for the release of hazardous materials during project construction is low, and even if a release would occur it would not result in a significant hazard to the public, surrounding land uses, or environment due to the small quantities of these materials associated with construction vehicles. Therefore, potential impacts from the routine transport, use, or disposal of hazardous materials during construction of the proposed project would be less than significant, and no mitigation would be required.

Operation. The proposed project includes approximately 205,060 square feet (sf) of warehousing land use, including approximately 20,000 sf of office space. Hazardous substances associated with warehousing and office uses are typically limited in both amount and use such that they can be contained without impacting the environment.

As a warehouse and office development, long-term operational activities may involve the use and storage of small quantities of potentially hazardous materials in the form of cleansers, paints, adhesives, and solvents, as well as fertilizers and pesticides for ornamental landscaping. These types of activities do not involve the use of a large or substantial amount of hazardous materials. In addition, such materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any associated risk would be adequately reduced to a less than significant level through compliance with these standards and regulations. Further, the Hazardous Materials

[1] A "sensitizer" is a chemical that can cause a substantial proportion of people or animals to develop an allergic reaction in normal tissue after repeated exposure to a chemical (U.S. Department of Labor 2017).

Release Response Plan and Inventory Law of 1985 requires businesses that use, handle, or store hazardous materials to prepare with an inventory of hazardous substances on the premises. This plan would include an inventory of hazardous materials; address proper storage, handling, and disposal of hazardous materials; and dictate a spill response and notification requirements. The project would be subject to compliance with this regulation, as well as additional applicable state and local regulations intended to manage the transport, storage, manufacture, and disposal of hazardous materials. Therefore, potential impacts from the routine transport, use, or disposal of hazardous materials resulting from operation of the proposed project would be less than significant, and no mitigation would be required.

The Long Beach Certified Unified Program Agency (Unified Program) is the administering agency for the chemical inventory and business emergency plan regulations for the City. The Unified Program combines both the Long Beach Fire Department (LBFD) and the Health Department into one primary agency responsible for hazardous materials management in the City. The Long Beach Certified Unified Program Agency makes information regarding the appropriate handling, storage, and disposal of all hazardous chemical waste generated in the City publicly available to all residents of the City. Because these resources are available to anyone in the City, it is reasonable to conclude that maintenance workers on the site would use such programs to properly dispose of hazardous waste. Therefore, impacts associated with the disposal of hazardous materials and/or the potential release of hazardous materials that could occur with the implementation of the proposed project are considered less than significant, and no mitigation is required.

(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?

Less than Significant with Mitigation Incorporated. The purpose of the Phase I ESA was to evaluate the project site for potential Recognized Environmental Concerns (RECs) that may be present and/or off-site conditions that may impact the project site. The Phase I ESA prepared for the proposed project included (1) interviews with key personnel, (2), a review of historical sources (3) a review of regulatory agency records, (4) a review of a regulatory database report provided by a third-party vendor, and (5) a property and adjacent site reconnaissance. According to the Phase I ESA, a REC is "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment."

Interviews. Interviews with knowledgeable individuals were conducted as part of the Phase I ESA analysis. These interviews did not result in any new information pertaining to any hazardous substances or petroleum products in, on, or from the project site; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

Review of Historical Sources. As part of the review of historical resources, the Phase I ESA included a review of a hazardous study conducted for a property southwest of the project site with a known release of gasoline. Plume mapping prepared for this study showed that concentrations of total petroleum hydrocarbons (TPH) and select volatile organic compounds (VOCs) diminish with distance, but may still be present at elevated concentrations at the northern and northeastern boundaries of that site. As a result, groundwater monitoring and soil vapor encroachment screening tests were conducted as part of this study. The goal of groundwater sampling was to identify the presence or likely presence of petroleum hydrocarbons (TPH-g), diesel-range TPH (TPH-d), benzene, toluene, ethylbenzene, xylenes (BTEX), and fuel oxygenates. Similarly, the goal of the soil vapor encroachment survey was to determine the presence or likely presence of TPH and select VOCs. Results of the groundwater sampling and soil vapor extraction did not detect any pollutants of concern. As such, it was determined that nearby releases are not a significant environmental concern on the project site, and there are no vapor intrusion concerns for the property.

Review of Regulatory Database Report and Agency Records. The Phase I ESA also included a review of applicable regulatory databases to determine the presence of hazardous sites within the vicinity of the project site. As part of this review, the project site was identified as a Resource Conservation and Recovery Act (RCRA) Small Quantity Generator site in 1998 with an undocumented quantity of lead waste generated on the site. Based on a review of deeds for the site, the registration of the site as a RCRA Small Quantity Generator site is most likely due to the demolition of all, but the two existing buildings on the site between 1996 and 2002, and the disposal of lead-based paint (LBP) during building demolition. Because the site was utilized as an office space for a number of years beginning in 1998, this listing was not determined to be an environmental concern for the site. Furthermore, a review of adjacent property listings determined that vapor migration from historical gasoline releases within the project vicinity is not a likely environmental concern for the project site.

Site Reconnaissance. As part of the Phase I ESA, the potential presence of asbestos-containing materials (ACMs) and LBP were identified. Evidence of mold growth on existing buildings on the site was also discovered. Because the existing buildings are vacant, the presence of mold was not identified until significant black microbial growth had occurred. Additionally, poly-chlorinated biphenyls (PCBs) may be present in unlabeled light ballasts within existing buildings on the project site. Therefore, ACMs, LBP, PCBs, and mold are considered possible recognized environmental conditions (RECs) on the project site, and would require testing and removal in accordance with applicable regulations.

Construction. Construction of the proposed project would include demolition of the existing on-site structures and the removal of existing foundations, asphalt, and concrete pavement.

LBP. Lead is a toxic metal that was used for many years in household products. Lead may cause a range of health defects, from behavioral problems and learning disabilities to seizures and death. LBP was used extensively in buildings constructed before 1950. In 1978, LBP was banned by the federal government. Based on the age of the buildings on the project site and in accordance with recommendations in the Phase I ESA prepared for the project, a general LBP

survey of the project site would be required prior to any construction activities or demolition. As detailed in Mitigation Measure HAZ-1, the LBP survey shall be performed by appropriately licensed and qualified individuals, in accordance with applicable regulations (i.e., American Society for Testing and Materials (ASTM) E 1527-05, and 40 Code of Federal Regulations (CFR), Subchapter R, Toxic Substances Control Act [TSCA], Part 716).

ACMs. Similarly, the use of asbestos in many building products was banned by the EPA by the late 1970s. In 1989, the EPA issued a ruling prohibiting the manufacturing, importation, processing, and distribution of most asbestos-containing products. This rule, known as the Ban and Phase-Out Rule, would have effectively banned the use of nearly 95 percent of all asbestos products used in the United States. However, the United States Fifth Circuit Court of Appeals vacated and remanded most of the Ban and Phase-Out Rule in October 1991. Due to this court decision, many asbestos-containing product categories not previously banned (prior to 1989) may still be in use today. Among these common material types found in buildings are floor tile and roofing materials. ACMs represent a concern when they are subject to damage that results in the release of fibers. Friable ACMs, which can be crumbled by hand pressure and are, therefore, susceptible to damage, are of particular concern. Nonfriable ACM is a potential concern if it is damaged by maintenance work, demolition, or other activities. Based on the age of the buildings on the project site and in accordance with the Phase I ESA prepared for the proposed project, a general asbestos survey of the project site would be required prior to any construction activities or demolition. As detailed in Mitigation Measure HAZ-1, the ACM survey shall be performed by appropriately licensed and qualified individuals, in accordance with applicable regulations (i.e., ASTM E 1527-05, and 40 CFR, Subchapter R, TSCA, Part 716).

PCBs. Standard equipment suspected of potentially containing PCBs include industrial-capacity transformers, fluorescent light ballasts, and oil-cooled machinery. As previously stated, unmarked light fixtures in the existing buildings on the site may contain PCBs. PCBs were utilized in light fixtures to regulate the amount and flow of electricity. PCBs were banned by the EPA in 1977 because of evidence that PCBs accumulate in the environment and can cause harmful health effects.[1] Therefore, due to the presence of unmarked lighting fixtures on the site and the age of on-site buildings, a general PCB survey of the project site would be required prior to any construction activities or demolition. As detailed in Mitigation Measure HAZ-1, this survey shall be performed by appropriately licensed and qualified individuals, in accordance with applicable regulations (i.e., ASTM E 1527-05, and 40 CFR, Subchapter R, TSCA, Part 716).

Mold. Molds are microscopic organisms found indoors and outdoors. Mold grows and multiplies under conditions in which there is sufficient moisture and organic material. Exposure to a moldy environment could result in a variety of health effects, including nasal stuffiness, throat irritation, coughing, eye and/or skin irritation, lung infections, asthma, and neurological effects.[2] As previously stated, substantial mold growth was observed on existing buildings on the project

[1] United States Environmental Protection Agency. 2017. PCBs Questions & Answers. January 10, 2017. Website: https://www3.epa.gov/reg ion9/pcbs/faq.html.

[2] Center for Disease Control and Prevention. Facts about Mold and Dampness. Website: https://www.cdc.gov/mold/dampness_facts.htm, (accessed June 28, 2017).

site. Due to the known presence of mold on the project site, predemolition surveys for mold area required prior to any construction activities and demolition. As detailed in Mitigation Measure HAZ-2, all materials containing mold shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable regulations during demolition of structures.

Summary. As detailed above, the presence of LBP, ACMs, PCBs, and mold cannot be ruled out without a more focused survey of all on-site structures and equipment. Because such materials generally do not pose a threat to human health until disturbed, focused surveys are required prior to demolition. The proposed project would be required to comply with Mitigation Measure HAZ-1 and Mitigation Measure HAZ-2. Mitigation Measures HAZ-1 and HAZ-2 are intended to address the potential for encountering ACMs, PCBs, LBPs, and mold and require predemolition surveys. Should ACMs, LBP, PCBs, or mold be discovered prior to demolition of the existing structure, precautions would be necessary to ensure the materials are properly removed and disposed of in accordance with State and federal law. With implementation of Mitigation Measure HAZ-1 and HAZ-2, any potential impacts would be less than significant.

In addition, in the unlikely event that unknown hazardous materials are discovered on the project site during construction, the project contractor would be required to comply with a Contingency Plan developed and approved prior to the commencement of grading activities. As stated in Mitigation Measure HAZ-3, in the event that construction workers encounter underground tanks, gases, odors, uncontained spills, or other unidentified substances, the Contingency Plan will require the contractor to stop work, cordon off the affected area, and notify the Long Beach Fire Department (LBFD). The LBFD responder shall determine the next steps regarding possible site evacuation, sampling, and disposal of the substance consistent with local, State, and federal regulations. In addition, Caltrans, the California Highway Patrol, and local police and fire departments are trained in emergency response procedures for safely responding to accidental spills of hazardous substances on public roads, further reducing potential impacts to a less than significant level. With implementation of Mitigation Measure HAZ-3, potential risks associated with encountering unknown hazardous wastes during construction would be reduced to a less than significant level.

With implementation of Mitigation Measures HAZ-1 through HAZ-3, construction of the proposed project would not create a significant hazard to the public or to the environment through reasonable foreseeable upset and accident conditions regarding the release of hazardous materials into the environment.

Mitigation Measures:

HAZ-1: **Predemolition Surveys and Abatement of ACMs, LBPs, and PCBs.** Prior to commencement of demolition activities, the Director of the City of Long Beach Development Services Department, or designee, shall verify that predemolition surveys for asbestos-containing materials (ACMs) and lead-based paints (LBPs) (including sampling and analysis of all suspected building materials) and inspections for polychlorinated biphenyl (PCB)-containing electrical fixtures have been

performed. All inspections, surveys, and analyses shall be performed by appropriately licensed and qualified individuals in accordance with applicable regulations (i.e., American Society for Testing and Materials (ASTM) E 1527-05, and 40 Code of Federal Regulations (CFR), Subchapter R, Toxic Substances Control Act [TSCA], Part 716).

Wherever evidence of ACMs, LBPs, or PCB-containing electrical fixtures are present in areas proposed for demolition, all such materials shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable regulations during demolition of structures (40 CFR, Subchapter R, TSCA, Parts 745, 761, and 763). During demolition, air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., South Coast Air Quality Management District [SCAQMD]) and to provide safety to workers and the adjacent community. The project Applicant shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the City of Long Beach Fire Department (LBFD) showing that abatement of any ACMs, LBPs, or PCB-containing electrical fixtures identified in these structures has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agencies (40 CFR, Subchapter R, TSCA, Parts 716, 745, 761, 763, and 795 and California Code of Regulations [CCR] Title 8, Article 2.6). An Operating & Maintenance Plan (O&M) shall be prepared for any ACMs, LBP, or PCB-containing electrical fixtures to remain in place and shall be reviewed and approved by the LBFD.

HAZ-2: **Predemolition Surveys and Abatement of Mold.** Prior to commencement of demolition activities, the City of Long Beach Director of Development Services, or designee, shall verify that predemolition surveys for mold (including sampling and analysis of all suspected building materials) shall be performed. All inspections, surveys, and analyses shall be performed by appropriately licensed and qualified individuals in accordance with applicable regulations. If the predemolition surveys do not find mold, the inspectors shall provide documentation of the inspection and its results to the Long Beach Director of Development Services or designee, to confirm that no further abatement actions are required.

Wherever evidence of mold exists in areas proposed for demolition, all such materials shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable regulations during demolition of structure. All remediation activities, worker protection, engineering controls, and personnel protection equipment will be in compliance with the recommendations in the United States Environmental Protection Agency's "Mold Remediation in Schools and Commercial Buildings" (EPA 402-K-0l-001). The project Applicant shall provide documentation (e.g., all required waste manifests, sampling) to the City of Long Beach Director of Development Services, or designee, confirming that abatement of any mold identified in these structures has been completed.

HAZ-3: **Contingency Plan.** Prior to commencement of grading activities, the City of Long Beach Fire Department (LBFD), or designee, shall review and approve a Contingency Plan that addresses the procedures to be followed should on-site unknown hazards or hazardous substances be encountered during demolition and construction activities. The Contingency Plan shall indicate that if construction workers encounter underground tanks, gases, odors, uncontained spills, or other unidentified substances, the contractor shall stop work, cordon off the affected area, and notify the LBFD. The LBFD responder shall determine the next steps regarding possible site evacuation, sampling, and disposal of the substance consistent with local, State, and federal regulations.

Operation. As stated previously, hazardous substances associated with the proposed warehouse and office uses would be limited in both amount and use such that they can be contained (stored or confined within a specific area) without impacting the environment. Project operation would involve the use of potentially hazardous materials (e.g., of cleansers, paints, adhesives, and solvents, as well as fertilizers and pesticides for ornamental landscaping) typical of warehouse and office uses that, when used correctly and in compliance with existing laws and regulations, would not result in a significant hazard to residents or workers in the vicinity of the proposed project. Operation of the proposed project would not create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment. No mitigation is required.

(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant Impact. Two schools have been identified within 0.25 mile from the project site: Cabrillo High School (500 ft north of the site) and the Long Beach Job Corps Head Start (350 ft northeast of the site).

As previously discussed, demolition and construction activities would involve the use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. All potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with existing federal, State, and local regulations to ensure that the amounts of these materials present during construction would be limited and would not pose a significant adverse hazard to workers or the environment. Any associated risk would be adequately reduced to a level that is less than significant through compliance with these standards and regulations; thus, the limited use and storage of hazardous materials during construction of the proposed project would not pose a significant hazard to the public or the environment, including Cabrillo High School and Long Beach Job Corps Head Start. No mitigation is required

Operation of the proposed project could involve the use and storage of limited quantities of potentially hazardous materials (e.g., solvents, cleaning agents, paints, pesticides, and fertilizers). Proper routine use of these products would not result in a significant hazard to residents, students, or workers in the vicinity of proposed project. The proposed project would

not produce hazardous emissions and any hazardous materials on site would be handled in accordance with all applicable regulations, including containment, reporting, and remediation requirements, in the event of a spill or accidental release. Therefore, operation of the proposed project would not result in a significant impact associated with hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school, and no mitigation is required.

(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 67962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. According to the Phase I ESA, the project site is not included on any hazardous materials sites compiled pursuant to Government Code Section 65962.5 and would not create a significant hazard to the public or the environment. No mitigation is required.

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

No Impact. The project site is approximately 3.2 miles southwest of the Long Beach Municipal Airport and 8 miles east of the Torrance Municipal Airport. The proposed project would not result in safety hazards for people living or working in the area different than would occur under existing conditions. Although the proposed project would result in development of the site with warehouse and office uses that would place employees on the site, the risk of safety hazards associated with the Long Beach and Torrance Airports would not be substantively different in this area of the City with or without the project. No mitigation is required.

(f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. There are no private airports or airstrips in the vicinity of the project site. As a result, the project will not affect or be affected by aviation activities associated with private airports or airstrips. No mitigation is required.

(g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant with Mitigation Incorporated.

Construction. During short-term construction activities, the proposed project could affect emergency services by potentially requiring partial lane closures during street improvements and utility installation. Project construction may also necessitate stopping of traffic to accommodate trucks entering or exiting the project site during construction (e.g., for the movement of construction equipment). As such, construction activities could temporarily increase response times for emergency vehicles in the vicinity of the project site. Mitigation

Measure PSU-1, provided in Section 3.14, Public Services, requires that a Construction Staging and Traffic Management Plan (CSTMP) be prepared for the proposed project to ensure that emergency vehicles would be able to navigate through streets adjacent to the project site that may experience congestion due to construction activities. Mitigation Measure PSU-1 also requires that all emergency access to the project site and adjacent areas be kept clear and unobstructed during all phases of demolition and construction. Traffic management personnel (flag persons), required as part of the CSTMP, would be trained to assist in emergency response by restricting or controlling the movement of traffic that could interfere with emergency vehicle access. With implementation of Mitigation Measure PSU-1, potential impacts related to LBFD's ability to implement an emergency response plan or emergency evacuation access during construction would be less than significant. No additional mitigation is required.

Mitigation Measure:

Refer to Mitigation Measure PSU-1, provided in Section 3.14, Public Services.

Operation. The Long Beach Fire Department (LBFD) is responsible for providing prevention, education, and preparedness services, and coordinating the City's disaster management and Homeland Security efforts. Although the proposed project would vacate Technology Place through the project site and the western half of Cota Avenue on the project site adjacent to the police substation, these changes would not substantively modify the road system in the City. Roads used as response corridors/evacuation routes usually follow the most direct path to or from various parts of a community. For the project site and the surrounding areas, the main corridors anticipated to be used by emergency services providers are PCH, Santa Fe Avenue, and other arterials and freeways in this part of the City. Technology Place, 19th Street, and Cota Avenue are not major arterials and do not provide direct paths of travel across or out of the City. As a result, the project would not result in changes in the circulation system that would adversely affect the ability of the LBFD to implement an emergency response plan or emergency evacuation plan in this part of the City. No mitigation is required.

(h) Expose people or structures to a significant risk of loss, injury of death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. Wildland fires occur in geographic areas that contain the types and conditions of vegetation, topography, weather, and structure density susceptible to risks associated with uncontrolled fires that can be started by lightning, improperly managed camp fires, cigarettes, sparks from automobiles, and other ignition sources. The project site and the surrounding areas are developed with urban and suburban uses and do not include brush- and grass-covered areas typically found in areas susceptible to wildfires. As a result, the project would not expose people or structures to a significant risk of loss, injury, or death associated with wildland fires. No mitigation is required.

3.9 HYDROLOGY AND WATER QUALITY

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
(b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
(c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.	☐	☐	☒	☐
(d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
(e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
(f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐
(g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
(h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
(i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
(j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion:

The discussion and analysis provided in this section is based on the *Geotechnical Investigation Proposed Commercial/Industrial Building: NWC Pacific Coast Highway and Cota Avenue Long Beach, California for Prologis* (Geotechnical Investigation) prepared by Southern California Geotechnical, Inc. (May 2016; attached as Appendix D) and the *CSU Long Beach Building 9, Hydrology & Water Quality Technical Report, City of Long Beach, County of Los Angeles, California* (Hydrology & Water Quality Technical Report) prepared by Fuscoe Engineering (August 7, 2017; attached as Appendix F).

Impact Analysis:

(a) Would the project violate any water quality standards or waste discharge requirements?

Less than Significant Impact. The proposed project involves the demolition of three vacant buildings and three carports, removal of vegetation and trees throughout the project site, and the construction, use, and maintenance of a warehousing/office building. Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals, liquid products, petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste may be spilled or leaked and have the potential to be transported via storm water runoff into receiving waters (i.e., the Dominguez Channel, the Los Angeles River, and ultimately the Pacific Ocean).

During construction, the total disturbed soil area would be approximately 9.68 acres. Because construction of the proposed project would disturb greater than 1 acre of soil, the project is subject to the requirements of the State Water Resources Control Board's (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002, as amended by Orders Nos. 2010-0014-DWQ and 2012-0006-DWQ) (Construction General Permit). The Construction General Permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) and implementation of Construction Best Management Practices (BMPs). Additionally, the proposed project would be required to prepare an Erosion and Sediment Control Plan (ESCP) which includes elements of a SWPPP in compliance with the *Waste Discharge Requirements for Municipal Separate Storm Sewer System Discharges from the City of Long Beach,* Order No. R4-2014-0024, NPDES No. CAS004003 (City MS4 Permit). According to the City MS4 Permit, SWPPPs prepared in accordance with the requirements of the Construction General Permit can be accepted as ESCPs. Therefore, in compliance with the Construction General Permit and the City MS4 Permit, an SWPPP would be prepared and construction BMPs implemented during construction activities, as specified in Compliance Measure WQ-1. Construction BMPs would include, but are not limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site and Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters.

The project site is located within the Dominguez Channel Watershed. As discussed in the *Geotechnical Investigation* (Southern California Geotechnical, May 12, 2016) and the *Hydrology & Water Quality Technical Report* (Fuscoe Engineering, August 7, 2017) prepared for the project, groundwater was encountered in exploratory borings at depths ranging from 9 to 11 feet (ft) below ground surface (bgs). Further research indicated that historic high groundwater reached 8 ft below the existing grade. The Geotechnical Investigation recommends that overexcavation be conducted to a depth of at least 5 ft below the existing grade, 5 ft below the proposed building pad, and 3 ft below the proposed foundation. Due to the relatively shallow groundwater level, which can fluctuate over time, and proposed depth of excavation, there is a potential for groundwater to be encountered during construction. In the event that groundwater is encountered and groundwater dewatering is necessary, disposal of dewatered groundwater can introduce total dissolved solids and other constituents to surface waters. As specified in Compliance Measure WQ-2, any groundwater dewatering during excavation would be conducted in accordance with the Los Angeles Regional Water Quality Control Board's (RWQCB) Groundwater Discharge Permit, which would require testing and treatment (as necessary) of groundwater encountered during groundwater dewatering prior to release.

Anticipated pollutants of concern from the proposed warehousing/office building, the parking lot, and the landscaping include total suspended solids (TSS), oil/grease, heavy metals, nutrients, pesticides, and trash. According the *Hydrology & Water Quality Technical Report*, the proposed project would increase the amount of impervious surface area on site by approximately 6.9 acres (from approximately 1.9 acres to 8.8 acres), which would increase the peak flow of runoff and pollutant loading from the project site. Pursuant to the requirements of the City MS4 Permit, "Redevelopment Projects" are projects that create, add, or replace 5,000 square feet (sf) (approximately 0.115 acre) of impervious surface area. The proposed project qualifies as a Redevelopment Project because it would increase impervious surface area by approximately 6.9 ac (300,564 sf). Redevelopment Projects are required to implement post-construction controls to mitigate storm water pollution and to prepare a Low Impact Development (LID) Plan or equivalent, in compliance with the *City of Long Beach Low Impact Development (LID) Best Management Practices (BMP) Design Manual,* as outlined in the City of Long Beach Municipal Code Chapter 18.74, Low Impact Development Standards. Therefore, the proposed project is required to prepare a LID Plan, or equivalent, that details the LID BMPs that would be implemented to treat storm water runoff and reduce impacts to water quality during operation. In compliance with the City MS4 Permit and Chapter 18.74 of the City Municipal Code, the *Hydrology & Water Quality Technical Report* was prepared for the proposed project that details the LID BMPs that would be implemented to reduce pollutants of concern in storm water runoff during operation. The proposed LID BMPs would include biofiltration planter boxes consisting of a ponding area, mulch layer, planting soils, plants, and in some cases an underdrain which would connect to the existing storm drain system. Implementation of LID BMPs would represent an improvement over existing conditions, because runoff from the project site is currently untreated. As specified in Compliance Measure WQ-3, a final *Hydrology & Water Quality Technical Report* will be prepared for the proposed project and submitted to the City for review and approval.

For the reasons outlined above, with adherence to Compliance Measures WQ-1 through WQ-3, which require implementation of construction and post-construction BMPs and testing and treatment of dewatered groundwater, the proposed project would not violate any water quality standards or Waste Discharge Requirements (WDRs), or otherwise substantially degrade water quality. Therefore, with the implementation of Compliance Measures WQ-1 through WQ-3, impacts related to WDRs, water quality standards, and degradation of water quality would be less than significant and no mitigation is required.

Mitigation Measures: No mitigation is required. However, the following Compliance Measures are standard conditions based on local, State, and federal regulations or laws that serve to reduce impacts related to hydrology and water quality. These Compliance Measures are applicable to the proposed project and shall be incorporated to ensure that the project has minimal impacts to receiving waters.

Compliance Measures:

WQ-1: **Construction General Permit.** Prior to issuance of a grading permit, the Applicant shall obtain coverage under the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. R4-2014-0024 NPDES Permit No. CAS004003; Construction General Permit). This shall include submission of Permit Registration Documents, including a Notice of Intent (NOI) for coverage under the permit to the SWRCB. The Applicant shall provide the Waste Discharge Identification Number (WDID) to the City of Long Beach Development Services Director, or appropriate designee, to demonstrate proof of coverage under the Construction General Permit. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared and implemented for the proposed project in compliance with the requirements of the Construction General Permit. The SWPPP shall identify construction Best Management Practices (BMPs) to be implemented to ensure that the potential for soil erosion and sedimentation is minimized and to control the discharge of pollutants in storm water runoff as a result of construction activities. Upon completion of construction and stabilization of the project site, the Applicant shall submit a Notice of Termination to the Los Angeles Regional Water Quality Control Board (RWQCB).

WQ-2: **Groundwater Dewatering Permit.** Should groundwater dewatering activities be required, the Construction Contractor shall comply with the requirements of the Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Order No. R4-2013-0095, Permit No. CAG994004) (Groundwater Discharge Permit), or subsequent permit. The Construction Contractor shall comply with all applicable provisions in the permit, including water sampling, analysis, and reporting of dewatering-related discharges. The Applicant shall submit an NOI for coverage under the permit to the Los Angeles

RWQCB at least 60 days prior to the start of dewatering. The Applicant shall submit the WDID to the City of Long Beach Development Services Director, or appropriate designee, to demonstrate proof of coverage under the Groundwater Dewatering Permit. Upon completion of groundwater dewatering activities, the Applicant shall submit a Notice of Termination to the Los Angeles RWQCB.

WQ-3: **Low Impact Development Plan.** In compliance with the *Waste Discharge Requirements for Municipal Separate Storm Sewer System Discharges from the City of Long Beach,* Order No. R4-2014-0024, NPDES No. CAS004003 (City of Long Beach MS4 Permit) and as specified in Chapter 18.74, Low Impact Development Standards, of the City of Long Beach Municipal Code, the Applicant shall submit a Final Low Impact Development (LID) Plan, Standard Urban Storm Water Mitigation Plan (SUSMP), or equivalent (such as a Final *Hydrology & Water Quality Technical Report)*, to the City of Long Beach Development Services Director, or appropriate designee, for review and approval prior to issuance of grading permits. The LID/SUSMP Plan shall be prepared consistent with the requirements of the *City of Long Beach Low Impact Development (LID) Best Management Practices (BMP) Design Manual* and shall include the LID BMPs to be incorporated into the project to target pollutants of concern in storm water runoff from the project site.

(b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less than Significant Impact. The City is highly urbanized with infrastructure in place to accommodate future development projects. Approximately 81 percent of the Dominguez Channel Watershed is developed, and approximately 62 percent of the land is covered with impervious surfaces. Approximately 60 percent of the City's existing water supply consists of groundwater extracted from the local Central Basin of the Los Angeles groundwater basin, with the remaining 40 percent consisting of imported water purchased from the Metropolitan Water District (MWD) of Southern California.

As discussed in Response 3.9(a) above, due to the shallow depth of groundwater (ranging from 9 to 11 ft bgs), fluctuating groundwater levels, and anticipated depth of excavation (at least 5 ft bgs), groundwater dewatering cannot be ruled out during excavation activities. However, groundwater dewatering activities would be temporary in nature and would cease following completion of construction. It is not anticipated that the volume of groundwater extracted during dewatering activities would be substantial in comparison to the overall volume of the groundwater basin (13.8 million acre feet [ac ft]).

Grading and construction activities would compact soil, which can decrease infiltration during construction. However, the size of the construction area (9.68 acres) would be minimal

compared to the overall size of the groundwater basin; therefore, there would not be a substantial change in infiltration or groundwater recharge compared to the existing condition.

Operation of the proposed project would not require groundwater extraction. Following project implementation, there would be an increase in impervious surface area of 6.9 acres on the project site. An increase in impervious surface area decreases infiltration, which can decrease the amount of water that is able to recharge the aquifer/groundwater. According to the Geotechnical Investigation prepared for the project, on-site groundwater infiltration is infeasible due to the shallow depth to groundwater and the potential for liquefaction. However, compared to the volume of the groundwater basin, any reduction in on-site infiltration would not be substantial. Thus, this project would not significantly interfere with groundwater recharge.

Development of the proposed project would not substantially lower the groundwater table because the proposed project would not substantially increase water demand from the Long Beach Water Department (LBWD). Operation of the project would result in an increase in potable water usage by approximately 145 acre feet/year, compared to 32,692 acre feet/year available to the City within the Central Basin Aquifer. Although the LBWD does rely partially on groundwater, it is also responsible for managing groundwater resources and has developed the *2015 Urban Water Management Plan* to manage water resources and to prevent overdraft caused by use of groundwater for water supply. Therefore, project impacts related to depletion of groundwater supplies and interference with groundwater recharge would be less than significant, and no mitigation is required.

(c) 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, in a manner which would result in a substantial erosion or siltation on- or off-site?

Less than Significant Impact. There are no existing storm drain facilities on the project site. In the existing condition, storm water runoff sheet flows toward Technology Place, which transects the project site from the northeast corner to the middle of the west boundary of the site. Runoff is then conveyed southwest along the curb and gutter of Technology Place and into the offsite catch basins west of the project site. These catch basins connect to a 3 ft x 7 ft reinforced concrete box referred to as “Line A,” which runs east along Technology Place and discharges to an off-site detention basin located at the northwest corner of PCH and Technology Place. The detention basin outlets west to a 54-inch storm drain which ultimately discharges to the Dominguez Channel.

In the proposed condition, runoff from 9.5 acres of the project site would flow to the proposed biofiltration planter boxes before being discharged into the proposed on-site storm drain system. The proposed on-site storm drain system consists of two 18-inch storm drains, which would collect storm water runoff from the southern and northern portions of the project site, respectively. Both storm drains would connect to a proposed sump pump located near the middle of the western boundary of the project site. Storm water runoff would then be conveyed west along Technology Place to the existing catch basins that outlet to “Line A.” Storm water runoff from the remaining 0.2 acre would sheet flow offsite to adjacent streets and eventually

discharge into an existing 54-inch storm drain line which runs parallel to PCH. The proposed project would also include a concrete storm drain channel along the eastern site boundary to collect and divert off-site runoff to the south and onto Cota Avenue via a proposed parkway drain.

During construction activities, excavated soil would be exposed and disturbed, drainage patterns would be temporarily altered during grading and other construction activities, and there would be an increased potential for soil erosion and the transport of sediment downstream compared with existing conditions. Additionally, during a storm event, soil erosion could occur at an accelerated rate. As discussed in Response 3.9(a) and specified in Compliance Measures WQ-1 and WQ-2, the Construction General Permit and City MS4 Permit require preparation of an SWPPP and/or an ESCP and implementation of construction BMPs to reduce impacts to water quality during construction, including those impacts associated with soil erosion and siltation.

According to the *Hydrology & Water Quality Technical Report*, the increase in impervious surface area on the project site (6.9 acres) compared to existing conditions, would increase runoff peak flow by 5.68 cubic feet per second (cfs) during a 25-year storm event and 6.18 cfs during a 50-year storm event. In the proposed condition, the impervious surface areas would not be prone to erosion or siltation. The landscaped areas would convey storm water and minimize on-site erosion and siltation that could reach downstream receiving waters. Although the proposed project would increase storm water runoff from the project site, the downstream storm drain system and receiving waters (Dominguez Channel) are concrete, man-made systems and are not subject to erosion and siltation. For these reasons, the proposed project would not contribute to on-site of off-site erosion or siltation. Finally, the proposed project would not alter the course of a stream or river. As such, project impacts related to on-site or off-site erosion or siltation would be less than significant, and no mitigation is required.

Mitigation Measures: No mitigation is required. Compliance Measures WQ-1 and WQ-2, listed above in Response 3.9(a), would be implemented to reduce impacts related to erosion and siltation.

(d) 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 substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less than Significant Impact. During construction, soil would be disturbed and compacted and drainage patterns would be temporarily altered, which could increase the volume and velocity of storm water runoff and increase the potential for localized flooding compared to existing conditions. As previously discussed in Response 3.9(a) and specified in Compliance Measure WQ-1, the Construction General Permit and City MS4 Permit require preparation of an SWPPP and/or an ESCP and implementation of Construction BMPs to control and direct surface runoff on-site. By controlling and directing surface runoff on-site, the BMPs would direct additional runoff into the downstream storm drain line (Line “A”) as discussed in Response 3.9(c), which

has sufficient capacity as verified in the *Hydrology & Water Quality Technical Report*. Because additional runoff during construction would be channeled into the storm drains, construction activities would not result in on- or off-site flooding.

The proposed project would increase impervious surfaces on the site by 6.9 acres, which would increase runoff peak flow by 5.68 cubic feet per second (cfs) during a 25-year storm event and by 6.18 cfs during a 50-year storm event. Although there is an increase in storm flows between the existing and proposed project, the receiving storm drain, Line "A," was determined to have sufficient capacity to receive the additional flows according to the *Hydrology & Water Quality Technical Report*. In addition, on-site BMPs and drainage facilities would be sized to accommodate on-site runoff. Thus, the project would not result in on- or off-site flooding. Finally, the project would not alter the course of a stream or river. As specified by Compliance Measure WQ-4, the project Applicant will prepare a final detailed hydrology report in order to ensure that storm drain facilities serving the project site are appropriately sized to accommodate storm water runoff and ensure that on-site flooding would not occur. Therefore, with the implementation of Compliance Measure WQ-4, potential impacts related to on- or off-site flooding resulting from the alteration of existing drainage patterns on the site would be less than significant.

Mitigation Measures: No mitigation is required. In addition to Compliance Measure WQ-4, listed below, Compliance Measure WQ-1, listed in Response 3.9(a), would be implemented to reduce impacts related to drainage.

Compliance Measures:

WQ-4: **Hydrology Report.** Prior to issuance of grading permits, the Applicant shall submit a final hydrology report, or equivalent (such as a Final *Hydrology & Water Quality Technical Report)*, to the City of Long Beach Director of Public Works, or appropriate designee, for review and approval. The hydrology report shall demonstrate, based on hydrologic calculations, that the project's on-site storm conveyance and retention facilities, including landscaped areas, are designed in accordance with the requirement of the Los Angeles County Department of Public Works *Hydrology Manual*.

(e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant Impact. As discussed in Response 3.9(a), earthwork activities would compact soil, which can increase storm water runoff during construction, drainage patterns would be temporarily altered during grading and other construction activities, and construction-related pollutants such as liquid and petroleum products and concrete-related waste could be spilled, leaked, or transported via storm runoff into adjacent drainages and into downstream receiving waters. As specified in Compliance Measure WQ-1, the proposed project would be required to comply with requirements set forth by the Construction General Permit and the City

MS4 Permit, which requires preparation of an SWPPP and/or an ESCP and implementation of construction BMPs to control storm water runoff and discharge of pollutants.

As discussed under Response 3.9(a), groundwater dewatering may be required during construction. Dewatered groundwater may contain elevated levels of total dissolved solids or other constituents that could be introduced to receiving waters. As specified in Compliance Measure WQ-2, groundwater dewatering during construction would be conducted in accordance with the requirements of the Los Angeles RWQCB's Dewatering Permit, which requires testing and treatment, as necessary, of groundwater encountered during dewatering prior to its release.

As discussed in Response 3.9(a), pollutants of concern during the operation of the proposed project could include suspended solids/sediment, nutrients, pathogens (bacteria and viruses), pesticides, trash and debris, oil and grease, and metals. As required by Compliance Measure WQ-3, a LID Plan, or equivalent, would be prepared for the project that details the LID BMPs that would be implemented to treat storm water runoff and reduce impacts to water quality during operation. Biofiltration BMPs are proposed to capture and treat storm water runoff and reduce pollutants of concern in storm water runoff.

As discussed under Responses 3.9(c) and (d), the proposed project would increase the impervious surface area on the project site by 6.9 acres compared to existing conditions, which would increase runoff peak flow by 5.68 cfs during a 25-year storm event and 6.18 cfs during a 50-year storm event. Biofiltration BMPs would capture storm water runoff to attenuate increases in flow, but there would be an increase in the total storm water flows exiting the site. However, as described previously and in the *Hydrology & Water Quality Technical Report*, calculations were conducted to verify that "Line A" has sufficient capacity to receive the additional runoff. As specified in Compliance Measure WQ-4, a detailed final hydrology report would be prepared for the proposed project to ensure that the on- and off-site storm drain facilities are appropriately sized to accommodate storm water runoff from the project site.

For the reasons discussed above, with adherence to Compliance Measures WQ-1 through WQ-4, project impacts associated with the introduction of substantial sources of polluted runoff or additional runoff would be less than significant. No mitigation is required.

Mitigation Measures: No mitigation is required. Compliance Measures WQ-1 through WQ-4, listed above in Responses 3.9(a) and (d), would be implemented to reduce impacts related to contribution of pollutants and storm drain capacity.

(f) Would the project otherwise substantially degrade water quality?

Less than Significant Impact. Refer to Response 3.9(a).

Mitigation Measures: No mitigation is required; however, Compliance Measures WQ-1 through WQ-3, listed in Response 3.9(a), would be implemented to reduce impacts.

(g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The proposed project does not include a housing component. Therefore, the project would not place housing within a 100-year flood hazard area. No impacts would occur related to placement of housing within a 100-year flood hazard area, and no mitigation is required.

(h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. The project site is not located within a 100-year flood hazard area. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map No. 06037C1962F (September 26, 2008) the project site is in an area designated as Zone X: Other Flood Areas. Zone X: Other Flood Areas are areas of 0.2 percent annual chance flood (i.e., 500-year flood) and areas of 1 percent annual chance flood (i.e., 100-year flood) with average depths of less than 1 ft or with drainage areas less than 1 square mile, as well as areas protected by levees from 1 percent annual chance flood. Specifically, according to the FIRM, the project site is in an area protected by levee. Impacts related to inundation from failure of a levee are addressed in Response 3.9(i). Because the project site is not located within a 100-year flood hazard area, the proposed project would not place structures within a 100-year flood hazard area or impede or redirect flood flows, and no mitigation is required.

(i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than Significant Impact. A levee is a type of dam that runs along the banks of a river or canal that provides flood protection. A levee system failure could create severe flooding and high water velocities. The Los Angeles River is located approximately 0.7 mile east of the project site. According to the FEMA FIRM and the United States Army Corps of Engineers (Corps) levee inundation maps for the Los Angeles River, the project site is located within the Los Angeles River/Compton Creek 1 Leveed Area. Therefore, the project site would be at risk from inundation in the case of a levee failure. The project would result in an increase of 198 employees on-site, who would be at risk during the unlikely event of inundation due to failure of the Los Angeles River levee system. The risk of failure of the Los Angeles River levee system is low because it is maintained and inspected by the Corps to ensure the levees' integrity and to ensure that risks are minimized. In addition, the proposed project would not increase the risk of failure of the Los Angeles River levee system. In the context of the surrounding area, the proposed project would not expose a substantial number of new individuals to a risk of flooding, as there is already residential, commercial, and industrial development in the surrounding area. The project site is not within the Special Flood Hazard Area for the Dominguez Channel, which is approximately 4,000 ft west of the project site.

Dam failure is defined as the structural collapse of a dam that releases the water stored in a reservoir behind the dam. A dam failure is usually the result of the age of the structure, inadequate spillway capacity, or structural damage caused by an earthquake or flood. The

Sepulveda Dam and Hansen Dam lie more than 20 miles upstream from where the Los Angeles River passes near the project site. According to the Public Safety Element of the City' General Plan, due to the infrequent periods of high precipitation and high river flow, the probability of flooding as a result of dam failure is considered very low. Due to the intervening low and flat ground and the distance between the Sepulveda Dam and Hansen Dam and the City, flood waters resulting from failure of either of these dams would be expected to dissipate before reaching the City. Therefore, it is not anticipated that the project site would be inundated if one of these dams were to fail. Due to the distance from the project site to the San Gabriel River, the project site would not be inundated in the unlikely event that the Whitter Narrows Dam failed. For these reasons, the impacts related to the exposure of additional people or structures to a significant risk of loss, injury, or death involving flooding from failure of a dam or levee would be less than significant. No mitigation is required.

(j) Would the project inundation by seiche, tsunami, or mudflow?

Less than Significant Impact. Seiching is a phenomenon that occurs when seismic ground shaking induces standing waves (seiches) inside water retention facilities such as reservoirs and water tanks. Such waves can cause retention structures to fail and flood downstream properties. There are no major water-retaining structures located immediately up gradient from the project site; therefore, inundation on the project site from a seismically-induced seiche is considered unlikely. The risk associated with seiches is, therefore, not considered a potential hazard or a potentially significant impact, and no mitigation is required.

Tsunamis are generated wave trains generally caused by tectonic displacement of the sea floor associated with shallow earthquakes, sea floor landslides, rock falls, and exploding volcanic islands. The project site is approximately 2 miles from the Port of Long Beach and 5 miles from open ocean not protected by breakwaters. According to the State of California Department of Conservation Official Tsunami Inundation Maps (California Department of Conservation 2009), the project site is not located within a tsunami inundation area. The risk associated with tsunamis is, therefore, not considered a potential hazard or a potentially significant impact, and no mitigation is required.

Mudslides and slumps are described as a shallower type of slope failure, usually affecting the upper soil mantle or weathered bedrock underlying natural slopes and triggered by surface or shallow subsurface saturation. The project site is relatively flat and is not located downslope of any area of potential mudflow. The risk associated with mudflow is, therefore, not considered a potential hazard or a potentially significant impact, and no mitigation is required.

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3.10 LAND USE PLANNING

Would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Physically divide an established community?	☐	☐	☐	☒
(b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
(c)	Conflict with any applicable habitat conservation plan (HCP) or natural community conservation plan (NCCP)?	☐	☐	☐	☒

Discussion:

The discussion and analysis provided in this section is based on information provided in the City of Long Beach General Plan, Zoning Code (Title 21), and the *CSULB Research and Technology Center/Villages at Cabrillo Long Beach Vets Planned Development Plan* (PD-31).

Impact Analysis:

(a) Would the project physically divide an established community?

No Impact. The proposed project includes the demolition of the existing buildings and carports on the site and the construction of a 205,060-square-foot (sf) warehouse/office building on an approximately 9.88-acre site in west Long Beach. The land uses adjacent to the site include the Long Beach Job Corps Center to the north, the Villages of Cabrillo (a 26-acre residential community providing transitional housing for homeless veterans, families, and youth) to the northwest, McDonald's and the Long Beach Police West Substation to the east, and industrial uses south of Pacific Coast Highway (PCH; also known as State Route 1 [SR-1]).

According to the City's General Plan, the project site is located in the neighborhood area of the Upper Westside, has a land use designation of Mixed Use, and is within the CSULB Research and Technology Center/Villages at Cabrillo Long Beach Vets Planned Development District No. 31 (PD-31) Zoning Area (Subareas B and C). The intent of this unique planned development district is to permit the location of businesses and industries engaged primarily in research and light manufacturing, professional and administrative offices, service industries and laboratories, and University-related student, faculty, and social service uses. The proposed project includes the demolition of existing vacant buildings on the project site and the development of a new warehouse/office use on the project site. Therefore, the proposed project would be consistent with the intent of PD-31 and would also be consistent with surrounding land uses in the project area (e.g., industrial uses south of the site across PCH).

Access to the project site would require vacating the existing segment of Technology Place within the project site and the creation of a new cul-de-sac on Cota Avenue along the eastern boundary of the project site. The project would also include a reciprocal access agreement with nearby property owners that would allow access between Technology Place and PCH via the driveway in the southwestern portion of the project site. The reciprocal access agreement would ensure that the proposed project would maintain vehicular access to the southwestern portion of the site and that no physical divisions or adverse land use impacts to nearby property owners would occur as a result of project implementation.

For the reasons stated above, access improvements and development of the proposed warehouse/office building would not result in physical divisions within any established community, and no mitigation is required.

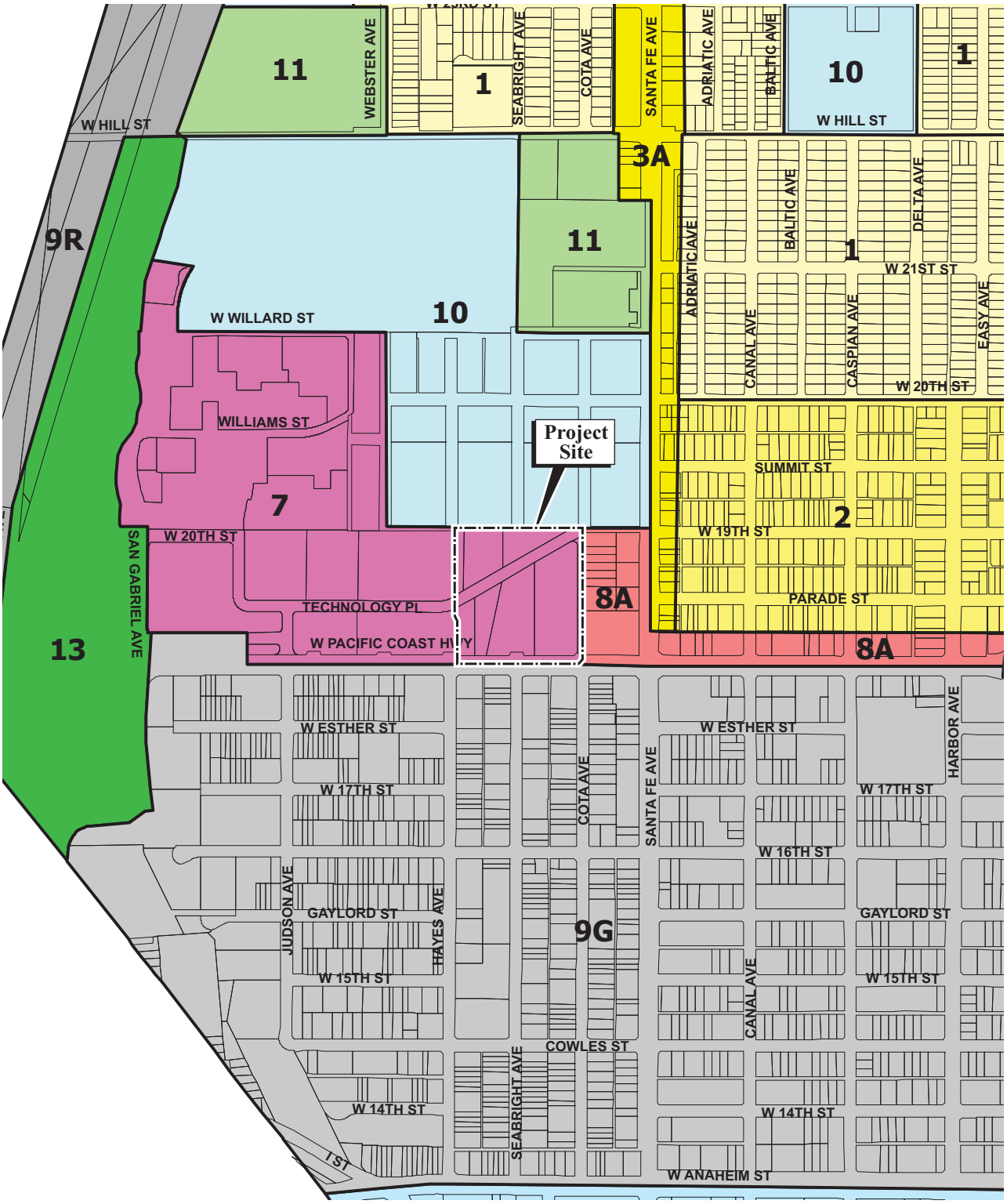
(b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The main documents regulating land use on the project site are the City of Long Beach (City) General Plan and the City's Zoning Code. The proposed project's relationship to these planning documents is described further below.

General Plan. The City's General Plan is the principal land use document guiding development within the City. The City's General Plan is a comprehensive plan that establishes goals, objectives, and policies intended to guide growth and development in the City. The General Plan also serves as a blueprint for development throughout the community and is the vehicle through which the community needs, desires, and aspirations are balanced. The Long Beach General Plan is the fundamental tool for influencing the quality of life in the City.

At the heart of the General Plan is the Land Use Element (LUE) (adopted in 1989 and revised in April 1997). The LUE establishes land use districts and develops a long-term land use vision for these land use districts throughout the City. The Land Use Element also includes goals and policies for each land use district and implements them through implementation strategies. Although there is a Land Use Element update in progress, as described below, the following discussion is applicable to the project site until any changes to the LUE are adopted by the City.

As illustrated on Figure 3.10.1, General Plan Land Uses, the project site is designated as Mixed-Use LUD No. 7. Mixed-Use LUD No. 7 is intended to provide employment centers (including retail, office, and medical facilities), high-density residential, visitor-serving facilities, personal and professional services, recreation facilities at large, and vital activity centers in the City. The proposed project includes the construction of a 205,060 sf warehouse/office building, which would contribute to the mix of office and industrial uses currently part of the area designated LUD No. 7, and is consistent with the existing General Plan land use designation for the project site. LUD No. 7 allows industrial uses within a larger area of mixed uses. In the case of the



LSA

FIGURE 3.10.1

1	Single-Family	9G	General Industry
2	Mixed Style Homes	9R	Restricted Industry
3A	Townhomes	10	Institutional and School
7	Mixed Use	11	Open Space and Park
8A	Traditional Retail Strip Commercial	13	Rights-of-Way

N

NO SCALE

SOURCE: City of Long Beach

CSULB Technology Park Phase III

General Plan Land Use Designations

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project site, the General LUD No. 7 Mixed Use direction is implemented through Planned Development District No. 31, which establishes the mix of uses within the Technology Center and Villages at Cabrillo area. The proposed project would not require a General Plan Amendment and would be consistent with applicable goals and policies included in the City's General Plan with respect to LUD No.7. Therefore, the proposed project would be consistent with the General Plan, and no land use conflict would occur. No mitigation is required.

Proposed General Plan Update. The City is currently in the process of updating and replacing the existing Land Use Element with an entirely new LUE that would guide future development in the City through the year 2040. The proposed Land Use Element would introduce the concept of "PlaceTypes," which would replace the traditional land uses designations and zoning classifications in the existing LUE. The updated LUE would establish 14 primary PlaceTypes that would divide the City into distinct neighborhoods, thus allowing for greater flexibility and a mix of compatible land uses within these areas. Each PlaceType would be defined by unique land use, form, and character-defining goals, policies, and implementation strategies tailored specifically to the particular application of that PlaceType within the City.

The Draft LUE (February 2016) designates the majority of the project site as a Community Commercial. This PlaceType primarily allows for a wide range of local and community-serving commercial uses in buildings no higher than five stories or 60 ft. Allowable uses include auto sales and repair, appliance sales and repair, furniture stores, hardware stores, clothing stores, restaurants, grocery stores, fast-food outlets and similar uses. The proposed project includes construction of a 205,060 sf warehouse/office building on the project site, which would be inconsistent with the proposed PlaceType designation for the site. In the event the proposed LUE is adopted prior to project approval and certification of this IS/MND, a General Plan Amendment (GPA) would be required. It is anticipated that consideration of the CSULB Technology Park Phase III project would occur prior to consideration of the Draft Land Use Element update.

Zoning Code. The City's Zoning Code is the primary implementation tool for the LUE and goals and policies contained therein. The City's Zoning Map indicates the general location and extent of future development in the City. The City's Zoning Ordinance, which includes the Zoning Map, contains more specific information related to permitted land uses, building intensities, and development standards.

Based on the City's Zoning Map and as illustrated on Figure 3.10.2, Zoning Districts, the project site is within the CSULB Research and Technology Center/Villages at Cabrillo Long Beach Vets Planned Development District No. 31 (PD-31) Zoning Area (Subareas B and C). According to the City's Municipal Code, the intent of this planned development district is to permit the location of businesses and industries engaged primarily in research and light manufacturing, professional and administrative offices, service industries and laboratories, and University-related student, faculty, and social service uses.

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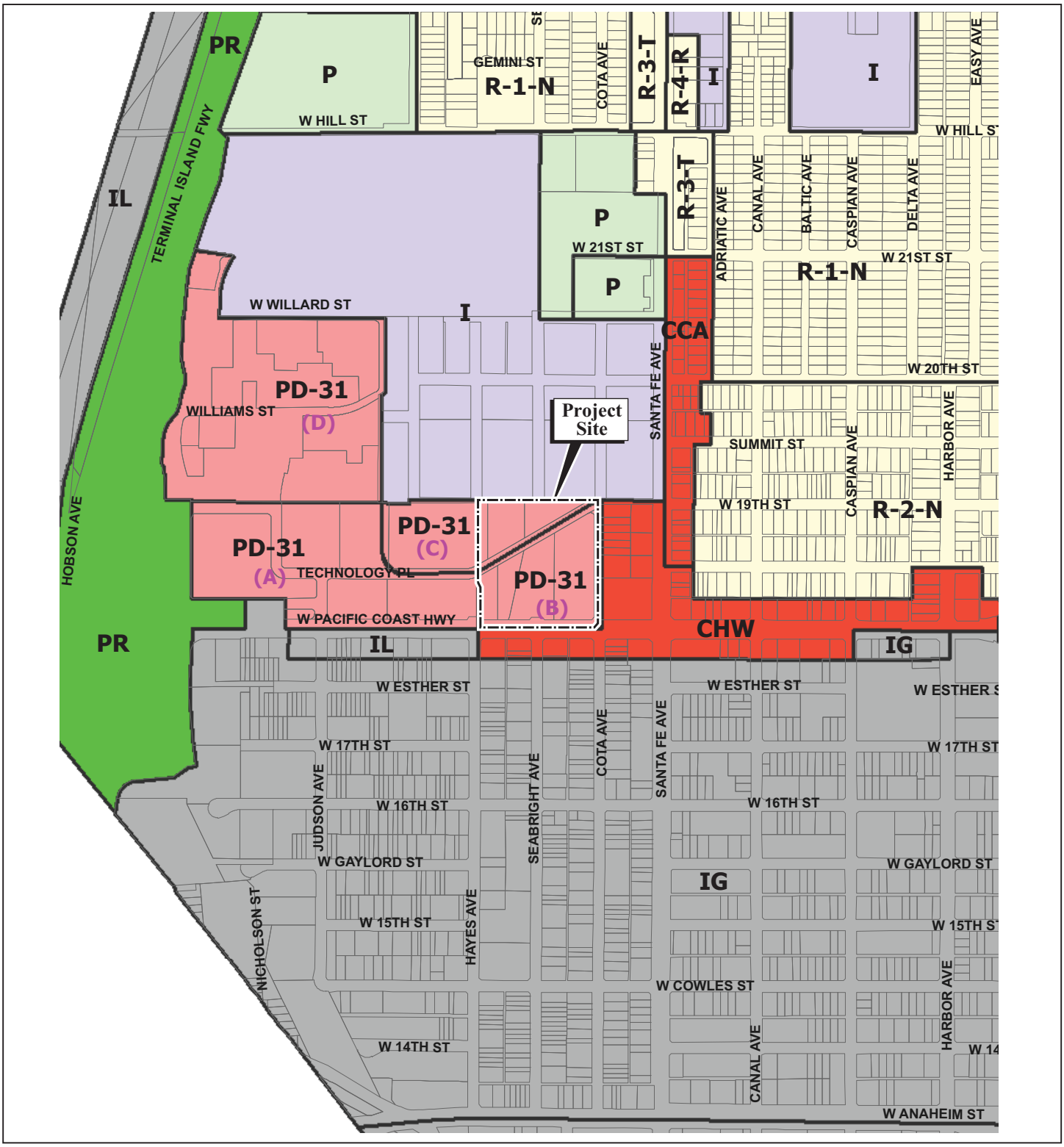

LSA

FIGURE 3.10.2

Residential
R-1-N - Single-Family Residential, Standard Lot
R-2-N - Two-Family Residential, Standard Lot
R-3-T - Multi-family Residential, Townhouse
R-4-R - Moderate-Density Multiple Residential

Commercial
CCA - Community Commercial Automobile-Oriented
CHW - Regional Highway Commercial

Planned Development District
PD-31 - CSULB Tech Center/L.B. Vets
(A) - PD-31 Subareas

Industrial
IG - General Industrial
IL - Light Industrial

Institutional
I - Institutional

Park
P - Park

Public Right-of-Way
PR - Public Right-of-Way

N

NO SCALE

SOURCE: City of Long Beach

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CSULB Technology Park Phase III
Zoning Districts

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Within PD-31, land uses are assigned to specific sub-areas. The project site encompasses all of PD-31 Sub-Area B and a portion of PD-31 Sub-Area C. Permissible land uses in PD-31 Sub-Area B include business office, research and development, light manufacturing, and related uses, as well as University-related student, faculty, and social service-related uses. Permissible land uses in PD-31 Sub-Area C include business office, research and development, light manufacturing, and related uses.

The proposed project includes up to 205,060 sf of warehouse/office building on the project site, which would contribute to the mix of residential, office, and industrial uses currently part of the area designated LUD No. 7 (PD-31), and is consistent with the existing zoning district and subareas regulating development on the project site. Therefore, the proposed project would be consistent with the City's Zoning Code, and no mitigation is required.

(c) Would the project conflict with any applicable habitat conservation plan (HCP) or natural community conservation plan (NCCP)?

No Impact. The project site and the surrounding areas are not subject to any HCP or NCCP. Therefore, the proposed project would not conflict with any HCP or NCCP relating to the protection of biological resources. No mitigation is required.

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3.11 MINERAL RESOURCES

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

Impact Analysis:

(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?

Less than Significant Impact. In 1975, the California Legislature enacted the Surface Mining and Reclamation Act (SMARA) which, among other things, provided guidelines for the classification and designation of mineral lands. Areas are classified on the basis of geologic factors without regard to existing land use and land ownership. The areas are categorized into four Mineral Resource Zones (MRZ):

MRZ-1: An area where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence

MRZ-2: An area where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence

MRZ-3: An area containing mineral deposits, the significance of which cannot be evaluated

MRZ-4: An area where available information is inadequate for assignment to any other MRZ zone

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

The project site has been classified by the California Department of Mines and Geology (CDMG) as being located in MRZ-3, indicating that the project site is located in an area where there are

mineral deposits, the significance of which cannot be evaluated. While the project site is located in MRZ-3, the project site is not designated or zoned for the extraction of mineral deposits.

The proposed project would not result in the loss of a known commercially valuable or locally important mineral resource. No impacts to known mineral resources would occur as a result of the proposed project and therefore no mitigation is required.

(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?

Less than Significant Impact. As stated in Response 3.11(a), the project site is classified as MRZ-3, indicating the site is located where there are mineral deposits, the significance of which cannot be evaluated. The project site is currently developed with two vacant buildings and four ancillary structures, and no mineral extraction activities occur on site. However, as discussed in the Conservation Element of the City's General Plan, oil operations have been underway in Long Beach since 1936, with the major concentration of oil contained in the Wilmington Oil Field.[1] This oil field is 13 miles long, 3 miles wide, and extends from onshore San Pedro to offshore Seal Beach, and includes the project site.[2] To date, a total of 6,150 wells have been drilled for oil extraction; none of the extraction operations occur on the project site. Although not a mineral in the strictest of terms, oil is a resource important to the history of Long Beach. The proposed project will not preclude current or future use of this resource from off-site locations. Therefore, implementation of the proposed project would result in less than significant impacts related to mineral resources, and no mitigation is required.

[1] City of Long Beach. 1973. General Plan Conservation Element. April, 1973.

[2] City of Long Beach Gas & Oil Department. Historical- Oil Operations: Wilmington Oil Field. Website: http://www.longbeach.gov/lbgo/about-us/oil/history/ (accessed June 26, 2017).

3.12 NOISE

Would the project:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
(b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
(c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
(d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
(e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
(f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion:

The following section is based on noise measurements, modeling, and analysis conducted by LSA (refer to Appendix G for noise measurements) for the proposed project. The discussion and analysis provided in this section describes the potential short-term construction noise and vibration impacts associated with the proposed project, as well as long-term operational noise impacts.

Technical Background:

The following provides an overview of the characteristics of sound and the regulatory framework that applies to noise and vibration impacts to sensitive receptors in the vicinity of the project site.

Characteristics of Sound. Sound is increasing to such disagreeable levels in the environment that it can threaten quality of life. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations,

or cycles per second, of a sound wave resulting in the tone's range from high to low. Loudness is the strength of a sound and is used to describe a noisy or quiet environment. It is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

Measurement of Sound. Sound intensity is measured through the A-weighted decibel scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound, similar to the human ear's de-emphasis of such frequencies. Decibels, unlike linear units (e.g., inches or pounds), are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 decibels (dB) is 10 times more intense than 1 dB, 20 dB is 100 times more intense than 1 dB, and 30 dB is 1,000 times more intense than 1 dB. Thirty decibels (30 dB) represents 1,000 times as much acoustic energy as 1 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from its source. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If a sound is produced by a line source (e.g., highway traffic or railroad operations), it decreases 3 dB for each doubling of distance in a hard site environment. In a relatively flat environment with absorptive vegetation, sound produced by a line source decreases 4.5 dB for each doubling of distance.

There are many metrics used to rate potential noise impacts. First, the determination of whether the source type is stationary or non-stationary is made. For the purposes of noise analyses, non-stationary sources include roadway traffic as well as train and aircraft operations which are often governed by criteria presented in the jurisdiction's Noise Element of the General Plan. For all stationary sources, which also includes mobile noise sources located within specific property boundaries, the appropriate noise criteria are often contained in the local jurisdiction's Municipal Code.

The base metric for assessing noise level impacts is the equivalent continuous sound level (L_{eq}), which calculates the total sound energy of time-varying noise over a sample period. For stationary sources that operate intermittently within an hour, percentile noise levels are used for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level—that is, half the

time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same. Should a source operate for a period of less than 1 minute or create impact noise,[1] then the maximum instantaneous noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period, is utilized. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak operating conditions and addresses the annoying aspects of intermittent noise as well as the appropriate percentile noise level criteria.

To assess non-stationary noise sources, the predominant rating scales for human communities in the State of California are Community Noise Equivalent Level (CNEL) and the day-night average noise level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours), and a 10 dBA weighting factor applied to noises occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are within 1 dBA of each other and are normally interchangeable. The City uses the CNEL noise scale for long-term noise traffic noise impact assessment.

Noise impacts can be described in three categories. The first category includes audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater because this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 dB and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category includes changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels (3 dB or greater) are considered potentially significant.

Physiological Effects of Noise. Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear, even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear (the threshold of pain). A sound level of 160–165 dBA will result in dizziness or the loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed areas.

Applicable Noise and Vibration Standards. The City regulates construction noise based on the criteria presented in the City's Municipal Code Noise Ordinance. Section 8.80.202 of the City's Municipal Code provides the following applicable regulations related to construction noise:

[1] "Impact noise" refers to sound resulting from an instance when an object collides with another object.

A. **Weekdays and Federal Holidays.** No person shall operate or permit the operation of any tools or equipment used for construction, alteration, repair, remodeling, drilling, demolition or any other related building activity which produce loud or unusual noise which annoys or disturbs a reasonable person of normal sensitivity between the hours of seven p.m. and seven a.m. the following day on weekdays, except for emergency work authorized by the Building Official. For purposes of this Section, a federal holiday shall be considered a weekday.

B. **Saturdays.** No person shall operate or permit the operation of any tools or equipment used for construction, alteration, repair, remodeling, drilling, demolition or any other related building activity which produce loud or unusual noise which annoys or disturbs a reasonable person of normal sensitivity between the hours of seven p.m. on Friday and nine a.m. on Saturday and after six p.m. on Saturday, except for emergency work authorized by the Building Official.

C. **Sundays.** No person shall operate or permit the operation of any tools or equipment used for construction, alteration, repair, remodeling, drilling, demolition or any other related building activity at any time on Sunday, except for emergency work authorized by the Building Official or except for work authorized by permit issued by the Noise Control Officer.

D. **Owner's/Employer's Responsibility.** It is unlawful for the landowner, construction company owner, contractor, subcontractor or employer of persons working, laboring, building, or assisting in construction to permit construction activities in violation of provisions in this Section.

E. **Sunday Work Permits.** Any person who wants to do construction work on a Sunday must apply for a work permit from the Noise Control Officer. The Noise Control Officer may issue a Sunday work permit if there is good cause shown; and in issuing such a permit, consideration will be given to the nature of the work and its proximity to residential areas. The permit may allow work on Sundays, only between nine a.m. and six p.m., and it shall designate the specific dates when it is allowed.

Additionally, Section 8.80.200G of the City's Municipal Code provides the following direction regarding vibration impacts:

> "Operating or permitting the operation of any device that creates vibration which is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property or at one hundred fifty feet (150') (forty-six (46) meters) from the source if on a public space or public right-of-way. For the purposes of this subsection, "vibration perception threshold" means the minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such directed means as, but not limited to, sensation by touch or visual observation of moving objects."

Sections 8.80.150 and 8.80.170 of the City's Municipal Code provide exterior and interior noise standards which are presented in Tables 3.12.A and 3.12.B, respectively, for various land uses. These exterior and interior noise standards are correlated to land use type and are categorized into five distinct Noise Districts in the City. According to the Noise District Map in Section 8.80.150 of the City's Municipal Code, the project site is located in Noise District 1. For exterior noise limits, the L_{50}

Table 3.12.A: Exterior Noise Limits, L_N (dBA)

Receiving Land Use	Time Period	L_{50}	L_{25}	L_8	L_2	L_{max}
Residential (District One)	Night: 10:00 PM–7:00 AM	45	50	55	60	65
	Day: 7:00 AM–10:00 PM	50	55	60	65	70
Commercial (District Two)	Night: 10:00 PM–7:00 AM	55	60	65	70	75
	Day: 7:00 AM–10:00 PM	60	65	70	75	80
Industrial (District Three)	Any time[1]	65	70	75	80	85
Industrial (District Four)	Any time[1]	70	75	80	85	90

Source: City of Long Beach Municipal Code.
Note: Noise levels in Noise District 5, which includes the Long Beach Municipal Airport, freeways, and waterways, are regulated by other agencies and laws.
[1] For use at boundaries rather than for noise control within industrial districts.
dBA = A-weighted decibels
L_{max} = maximum sound level
L_N = percentile noise exceedance level
L_{50} = noise level representing the median noise level; half the time, the noise level exceeds this level, and half the time, it is less than this level
L_{25} = the noise level exceeded 25 percent of the time during a stated period
L_8 = the noise level exceeded 8 percent of the time during a stated period
L_2 = the noise level exceeded 2 percent of the time during a stated period

Table 3.12.B: Interior Sound Limits, L_N (dBA)

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

Source: City of Long Beach Municipal Code.
dBA = A-weighted decibels
L_{max} = maximum sound level
L_N = percentile noise exceedance level
L_8 = the noise level exceeded 8 percent of the time during a stated period
L_2 = the noise level exceeded 2 percent of the time during a stated period

criteria, which represent all sources operating for a period of 30 minutes to an hour, as well as the L_{25}, L_8, L_2, and L_{max} criteria are presented. For interior noise impact assessment, the L_8, L_2, and L_{max} criteria are utilized.

Thresholds of Significance

A project would normally have a significant effect on the environment related to noise if it would substantially increase the ambient noise levels for adjoining areas or conflict with the adopted environmental plans and the goals of the community in which the project is located. The applicable noise standards governing the project site are the criteria in the City's Noise Ordinance. Typically, compliance with the City's Municipal Code is used to determine when a project results in a significant impact.

Sensitive Land Uses in the Project Vicinity

The project site is located directly north of Pacific Coast Highway (PCH; also known State Route 1 [SR-1]) and west of Cota Avenue. Technology Place currently runs through the project site from the western property line to the northeast corner at the intersection of Cota Avenue and West 19th Street. Surrounding uses include light industrial to the west, the Long Beach Job Corps Center and Head Start to the north, and commercial uses and the Long Beach Police Department West Substation to the east. The Long Beach Job Corps Head Start is located approximately 385 feet (ft) northeast of the northeast corner of the project site. The facility includes an outdoor play area. Across PCH to the south are additional commercial uses and three existing motels. None of the motels contain outdoor spaces such as pools or passive recreation areas and, therefore, only the interior noise standards are applicable to these uses. The nearest permanent residential use is a small apartment building east of the project site across Santa Fe Avenue. The apartment building is approximately 385 ft east of the eastern boundary of the project site. Another nearby residential use is the Century Villages at Cabrillo (CVC) to the northwest. The CVC is a 27 acre residential community providing transitional housing for children, veterans suffering from post-traumatic stress disorder, aging veterans, and other homeless persons with dual diagnoses, such as substance abuse and mental illness. The CVC's eastern property line is located approximately 600 ft west of the northwest corner of the project site.

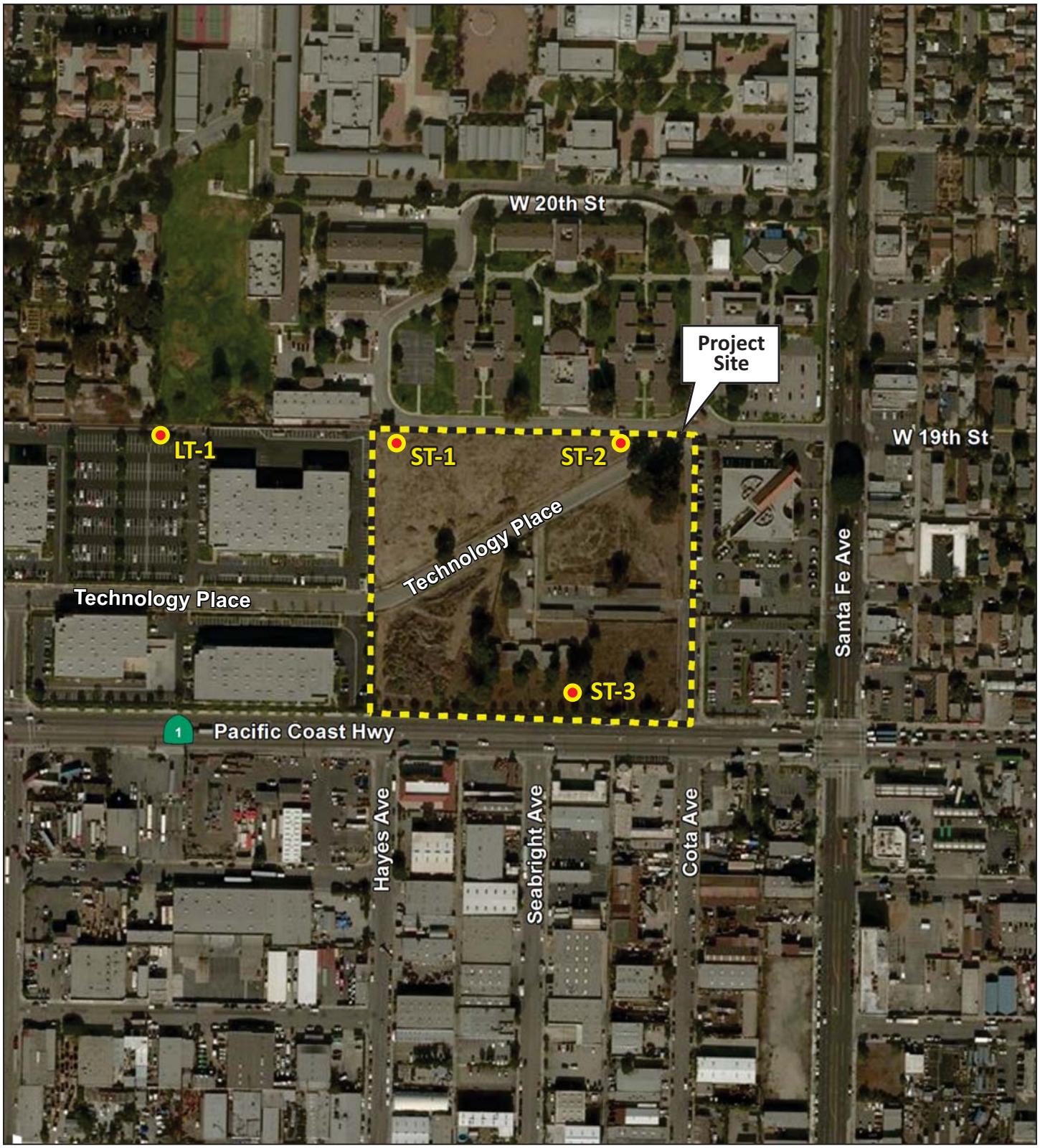
Existing Noise Level Measurements

Noise levels at the project site are dominated by traffic on the surrounding streets. In order to assess the existing noise conditions in the area, noise measurements were gathered along the northwestern, northeastern, and southern property line of the project site. One long-term 24-hour measurement was taken from June 7, 2017, to June 8, 2017, while three short-term measurements were gathered on June 7, 2017. The locations of the noise measurements are shown on Figure 3.12.1, with the results shown in Table 3.12.C.

Table 3.12.C: Existing Noise Level Measurements

Location	Description	Daytime Noise Levels[1] (dBA L_{eq})	Evening Noise Levels[2] (dBA L_{eq})	Nighttime Noise Levels[3] (dBA L_{eq})	Daily Noise Levels (dBA CNEL)	Maximum Noise Levels (dBA L_{max})
LT-1	Near 2131 Technology Park. In the northeast of the parking lot near the Southeast of the residential site.	58.2–67.2	55.5–57.1	53.1–62.9	66.2	82.4
ST-1	Northwestern corner of the project site.	57.2	-	-		78.4
ST-2	Northeastern corner of the project site.	55.0	-	-		71.0
ST-3	Southern edge of the project site, across from the Sea Bright Inn Motel.	70.5	-	-		83.0

Source: LSA (June 7–8, 2017).
[1] Daytime Noise Levels = noise levels during the hours of 7:00 a.m. to 7:00 p.m.
[2] Evening Noise Levels = noise levels during the hours of 7:00 p.m. to 10:00 p.m.
[3] Nighttime Noise Levels = noise levels during the hours of 10:00 p.m. to 7:00 a.m.
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel
L_{eq} = the average noise level during a specific hour
L_{max} = maximum noise level during a specific period
LT = long-term measurement
ST = short-term measurement



LSA

FIGURE 3.12.1

LEGEND

- Project Site
- Noise Monitoring Location

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SOURCE: Bing Maps, 2017

CSULB Technology Park Phase III

Noise Monitoring Locations

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(a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant with Mitigation Incorporated.

Construction Noise Impacts. Short-term noise impacts would occur during demolition and construction of the proposed project. Construction-related, short-term noise levels would be higher than existing ambient noise levels in the vicinity of the project site, but would cease once project construction is completed.

Two types of short-term noise impacts could occur during project construction. First, construction crew commutes and the transport of construction equipment and materials to the project site would incrementally increase noise levels on roads accessing the project site. Technology Place and PCH would be used to access the project site. Although there would be a relatively high single-event noise exposure potential from truck pass-bys, 84 dBA L_{max} at 50 ft as shown in Table 3.12.D, the effect on longer-term (hourly or daily) ambient noise levels would be small when compared to existing hourly and daily traffic volumes on PCH. While the existing volumes on Technology Place are low, the uses to the north and south are light industrial and thus are not considered noise sensitive. Since construction-related vehicle trips would not approach hourly and daily traffic volumes mentioned above, traffic noise would not increase by 3 dBA. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, short-term construction-related worker commutes and equipment transport noise impacts would be less than significant.

The second type of short-term noise impact is related to noise generated during project construction. Construction is conducted in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics that change the character of the noise generated on site. Therefore, the noise levels will vary as construction progresses. Despite the variety in the types and sizes of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 3.12.D lists the maximum noise levels for typical construction-equipment based on a distance of 50 ft between the equipment and a noise receptor.

Typical maximum noise levels range up to 85 dBA L_{max} at 50 ft during the noisiest construction phases. Site preparation, which includes excavation and grading, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavators, bulldozers, backhoes and front loaders. Earthmoving and compacting equipment includes graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

Construction of the proposed project is expected to require on-site use of front-end loaders, bulldozers and graders. Noise associated with the use of construction equipment is estimated to be between 80 and 85 dBA L_{max} at a distance of 50 ft from the active construction area during grading. As shown in Table 3.12.D, the maximum noise level generated by each dozer is

assumed to be approximately 85 dBA L_{max} at 50 ft from the dozer. Each front-end loader would generate approximately 80 dBA L_{max} at 50 ft from the front-end loader. The maximum noise level generated by each grader is approximately 85 dBA L_{max} at 50 ft from the grader. Each doubling of the sound source with equal strength increases the noise level by 3 dBA. Each piece of construction equipment operates as an individual point source. For example, two of the same pieces of construction equipment operating at the same location and generating a noise level of 85 dBA L_{max} at a distance of 50 ft would result in a noise level of 88 dBA L_{max} (two pieces of equipment at 85 dBA plus an increase of 3 dBA= 88 dBA). Therefore, the worst-case composite noise level for the proposed project at a distance of 50 ft from the active construction area would be 89 dBA L_{max} (85 dBA +80 dBA + 85 dBA = 89 dBA).

Table 3.12.D: Typical Maximum Construction Equipment Noise Levels (L_{max})

Type of Equipment	Acoustical Usage Factor	Suggested Maximum Sound Levels for Analysis (dBA L_{max} at 50 ft)
Air Compressor	40	80
Backhoe	40	80
Cement Mixer	50	80
Concrete/Industrial Saw	20	90
Crane	16	85
Dozer	40	85
Excavator	40	85
Forklift	40	85
Generator	50	82
Grader	40	85
Front-End Loader	40	80
Paver	50	85
Roller	20	85
Rubber Tire Dozer	40	85
Scraper	40	85
Tractor	40	84
Truck	40	84
Welder	40	73

Source: Federal Highway Administration. 2006. *Roadway Construction Noise Model.*
dBA = A-weighted decibel
ft = foot/feet
L_{max} = maximum noise level

The sensitive receptors in the vicinity of the project site include the residences at CVC (600 ft to the northwest), the Long Beach Job Corps Head Start facility (385 ft to the northeast), the apartment building on Santa Fe Avenue (385 ft to the east), and the motels south of the project site (100 ft to the south).

In general, doubling the distance would decrease noise levels by 6 dBA, while halving the distance would increase noise levels by 6 dBA. The residential uses located approximately 600 ft

from the project site may be subject to short-term construction noise levels that may reach up to 67 dBA L_{max}. The hotel uses located approximately 100 ft from the project site may be subject to short-term construction noise levels that may reach up to 83 dBA L_{max}. Based on a comparison of existing maximum noise levels due to traffic noise pass-bys along PCH, traffic noise is expected to generally overshadow construction noise impacts.

Compliance with the City's Noise Ordinance would ensure that construction noise impacts are reduced to the greatest extent feasible. Although construction noise would be higher than the ambient noise in the project vicinity, construction noise would cease to occur once the project construction is completed. Mitigation Measure NOI-1 would limit construction hours and require the implementation of noise-reducing measures during construction. Therefore, with the implementation of mitigation, construction activity noise impacts would be less than significant.

Off-site Traffic Noise Impacts. This noise impact analysis for the existing and the opening year (2018) scenarios is based on traffic volume information included in the *Traffic Impact Analysis* (Kunzman Associates, Inc. 2017). The baseline scenarios and with project scenarios are evaluated to determine potential traffic noise impacts on sensitive land uses off the project site. The traffic noise level increase for any given roadway segment in decibels is defined as:

$$L_{increase} = 10 \log_{10} [V_p/V_{np}]$$

where $L_{increase}$ is the increase in noise level in A-weighted decibels (dBA CNEL), V_{np} is the traffic volume with no project, and V_p is the volume with project.

Based on the traffic volume data presented in the *Traffic Impact Analysis* (2017), the project-related noise increase would be extremely low (less than 0.1 dBA) along PCH and less than perceptible along Judson Avenue and Cota Avenue (1.2 dBA) where commercial and industrial uses are located. Therefore, no significant off-site noise impacts from project-related traffic would occur and no mitigation is required.

Operational Impacts. As part of the proposed project, the proposed on-site operational noise-generating uses have the potential to impact surrounding uses. In order to calculate the expected impacts due to long-term operational stationary source activities, the software SoundPlan was used. SoundPlan is a noise modeling program that allows 3-D calculations to be made taking into account topography, ground attenuation, and shielding from structures and walls. Within the model, the noise library allows for the input of many noise sources and calculates the composite noise levels experienced at any receptor necessary. The locations of the sources are shown on Figure 3.12.2. In order to model the potential noise impact when all sources are operating simultaneously, the sound-pressure levels associated with each piece of equipment were converted to A-weighted sound power levels (LwA). Because specific details of the operational noise sources associated with the proposed project are not currently available, reference noise levels measured from similar properties and uses gathered by LSA are utilized for the purposes of this analysis. A description of the sources modeled and their respective sound power level included in the analysis is as follows:

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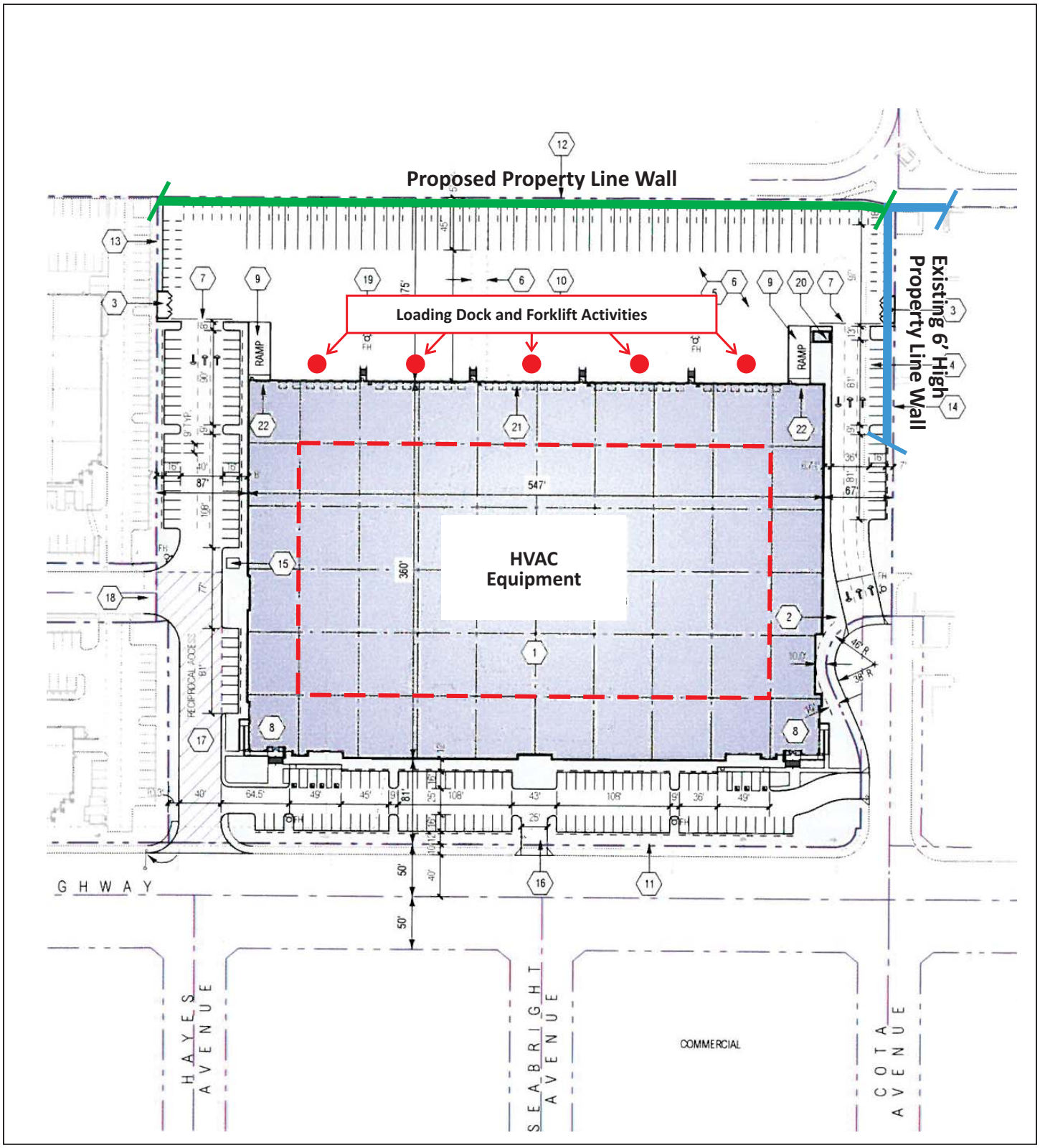

LSA

FIGURE 3.12.2

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SOURCE: RGA Architectural Design

CSULB Technology Park Phase III

On-Site Operations

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- **Heating, Ventilation, and Air Conditioning Units:** The heating, ventilation, and air conditioning (HVAC) units would be used in order to properly maintain a desired temperature inside the building. The sound-power level for this piece of equipment is 85.7 LwA.

- **Container Refrigeration Units (Local):** These external refrigeration units on the semi-containers that operate locally are used to keep the interior temperatures at a fixed temperature. The sound-power level for this piece of equipment is 103.5 LwA.

- **Container Refrigeration Units (Overseas):** These external refrigeration units on the semi-containers used for overseas deliveries are used to keep the interior temperatures at a fixed temperature. The sound-power level for this piece of equipment is 90.7 LwA.

- **Forklift:** Forklifts are used on site to load and unload trailers and move materials. The sound-power level for this piece of equipment is 92.3 LwA.

- **Semi-Truck Arrival and Departure:** Impacts associated with the arrival and departure of the semi-trucks with trailer include air brakes release, back-up beeper, and engine noise. The sound-power level for this activity is 101.2 LwA.

Two scenarios were analyzed for the proposed project. During the daytime hours, it was assumed that all loading docks were in operation at any given time with trailers evenly split between local and overseas containers, as well as four forklifts. Per information provided by the Applicant, during the nighttime hours, up to two containers could remain at the loading docks, with one forklift in operation. During nighttime hours, it is assumed that all emergency back-up beepers would be turned off, which would result in reduced potential noise impacts. For both cases, approximate locations of HVAC units were modeled and assumed to run continuously. In addition to the sources operating on site, the proposed 14 ft high decorative screening wall along the northern boundary of the project site and the existing 6 ft high property line wall along the boundary with the police station were included in the model. The results at each receptor are provided in Table 3.12.E, and a graphic representation of the operational noise impacts is presented in Appendix G.

The exterior noise levels associated with operations at peak conditions during daytime as well as the reduced nighttime operations would not exceed the applicable daytime or nighttime City standards at each receptor. However, in order to ensure that noise levels remain below thresholds, Mitigation Measure NOI-2 is proposed and requires that, prior to issuance of final occupancy permits, an acoustical consultant shall confirm the operations that are proposed to occur on site for both daytime and nighttime hours. Specific information about the exterior equipment that would be utilized in the proposed project would be provided by the manufacturer of the HVAC equipment as well as any other exterior equipment that has yet to be designed. Based on the current operation assumptions, noise levels generated by the project operations would be less than significant.

Table 3.12.E: Operational Noise Impacts

Receptor	Use Type/Category	Daytime/Nighttime Noise Level Standards (dBA L_{eq})[1]	Daytime (Peak) Operational Noise Level (dBA L_{eq})	Nighttime (Reduced) Operational Noise Level (dBA L_{eq})
R1 – Sea Breeze – 1940 West PCH	Hotel/Motel	50 / 45	41.0	40.0
R2 – Sea Bright Inn Motel – 1840 West PCH	Hotel/Motel	50 / 45	41.0	40.2
R3 – Eagle Inn Motel – 1800 West PCH	Hotel/Motel	50 / 45	40.3	39.3
R4 – McDonald's – 1705 West PCH	Fast Food / Commercial	60 / 55	43.9	39.4
R5 – Police Station – 1835 Santa Fe Avenue	Institutional	60 / 55	59.3	50.3
R6 – Job Corps Center – 1903 Santa Fe Avenue	Office / Commercial	60 / 55	56.4	50.4
R7 – CVC – 2001 River Avenue	Residential / Multi-family	50 / 45	48.2	42.1
R8 – Industrial 1 – 2131 Technology Place	Industrial	65 / 65	54.4	46.7
R9 – Industrial 2 – 2130 Technology Place	Industrial	65 / 65	45.9	39.5
R10 – Head Start Daycare – 1903 Santa Fe Avenue[2]	Childcare	60 / 55	51.4	44.5
R11 – Apartment Building – 1874 Santa Fe Avenue	Residential	50 / 45	47.1	40.9

Source: LSA (July 2017).
[1] The noise levels standards presented below are associated with the land use type at each receptor.
[2] Noise impacts to the Head Start Daycare center do not take into account noise reduction provided by intervening buildings, which would result in reduced noise levels.
CVC = Century Villages at Cabrillo
dBA L_{eq} = A-weighted decibel hourly noise level
PCH = Pacific Coast Highway

Mitigation Measures

The following measures would reduce short-term, construction-related noise impacts resulting from the proposed project to a less than significant level.

NOI-1: **Construction Noise:** Prior to issuance of building permits, the City of Long Beach (City), or its designee, shall verify that grading and construction plans include the following requirements to ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved:

- Construction activities occurring as part of the project shall be subject to the limitations and requirements of the City's Municipal Code, which states that construction activities shall occur only between the hours of 7:00 a.m. and 7:00

p.m. on weekdays and federal holidays, and from 9:00 a.m. to 6:00 p.m. on Saturdays. No outdoor noise-generating construction activity is allowed on Sundays.

- During all project area excavation and on-site grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project area as much as feasible.
- Construction staging areas shall be located as far away from sensitive receptors as possible during all phases of construction.

The following measure would ensure that long-term, operational noise impacts resulting from the proposed project remain at a less than significant level.

NOI-2: Prior to issuance of an operation permit, the City's Director of Development Services, or designee, shall retain an acoustical engineer who can verify that the project's heating, ventilation and air-conditioning (HVAC) equipment, and any other exterior equipment, is in compliance with both the daytime and nighttime Noise Ordinance requirements.

If it is discovered that noise level impacts exceed the City's exterior noise level requirements, additional mitigation would be recommended by an acoustical engineer that may include, but would not be limited to, additional noise barriers and shielding panels surrounding the HVAC equipment.

(b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact.

Temporary Impacts. Vibration generated by construction equipment can result in varying degrees of ground vibration, depending on the equipment. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings on soil near an active construction area respond to these vibrations, which range from imperceptible to low rumbling sounds with perceptible vibrations, and they can suffer slight damage at the highest vibration levels. Typically, construction-related vibration does not reach vibration levels that would result in damage to nearby structures.

The *Transportation and Construction Vibration Guidance Manual* shows that the vibration damage threshold for continuous/frequent intermittent sources is 0.1 peak-particle velocity (PPV, or inches per second [in/sec]) for fragile buildings, 0.25 PPV (in/sec) for historic and some old buildings, 0.3 PPV (in/sec) for older residential structures, and 0.5 PPV for new residential structures. The manual shows the vibration annoyance potential criteria to be barely perceptible

at 0.01 PPV (in/sec), distinctly perceptible at 0.04 PPV (in/sec), and strongly perceptible at 0.1 PPV (in/sec) for continuous/frequent intermittent sources. These thresholds were used to evaluate the potential for short-term, construction-related, ground-borne vibration impacts during the construction of the proposed project.

Dozers and trucks used for the construction of the proposed project would generate the highest ground-borne vibration levels. Based on the *Transportation and Construction Vibration Guidance Manual* (Caltrans 2013), a large bulldozer and loaded trucks would generate vibration levels of 0.089 PPV (in/sec) and 0.076 PPV (in/sec), respectively, when measured at 25 ft. Other construction equipment and activities would generate vibration levels much lower than those of dozers and loaded trucks and would therefore result in lower vibration levels. Based on the worst-case condition, the closest building from the project boundary (the industrial buildings located approximately 60 ft to the west of the project site) would experience vibration levels of up to 0.034 PPV (in/sec). This vibration level would be barely perceptible and well below the damage threshold for new construction. Therefore, construction vibration impacts are considered less than significant, and no mitigation is required.

Operational Impacts. Because the rubber tires and suspension systems of trucks and other on-road vehicles provide vibration isolation and reduce noise, it is unusual for on-road vehicles to cause ground-borne noise or vibration problems. Most problems with on-road vehicle-related noise and vibration can be directly related to a pothole, bump, expansion joint, or other discontinuity in the road surface. Smoothing the bump or filling the pothole would usually solve the problem. The proposed project would include a new paved surface; therefore, project-related vehicular traffic would not result in significant ground-borne noise or vibration impacts and no mitigation is required.

(c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant with Mitigation Incorporated. As previously stated, the proposed project would generate a nominal increase in traffic noise due to the minimal increase in traffic volumes associated with the proposed project on roadway segments in the traffic study area.

Potential long-term permanent noise impacts associated with project operations would include loading dock activities, HVAC noise, and forklift operations. As discussed above in Response 3.12 (a), operational noise from the on-site operation under the current assumptions would not result in exceedances of the exterior noise standards at any of the nearby sensitive receptors. With implementation of Mitigation Measure NOI-2, provided in Response 3.12(a), exterior noise levels generated by the proposed project would be verified to meet noise ordinance requirements, and additional mitigation would be recommended if necessary, resulting in a less than significant impact.

Mitigation Measure:

Refer to Mitigation Measure NOI-2 in Response 3.12(a).

(d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant With Mitigation Incorporated. Refer to Response 3.12(a). Compliance with the construction hours specified in the City's Municipal Code as required in Mitigation Measure NOI-1 would ensure that potential short-term increases in ambient noise levels due to construction activities would be reduced to a less than significant level.

Mitigation Measure:

Refer to Mitigation Measure NOI-1 in Response 3.12(a).

(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not within an airport land use plan. The closest airport to the project site is the Long Beach Municipal Airport, which is located approximately 3.2 miles northeast of the project site. Furthermore, the proposed project would be located outside of the 65 dBA impact zone associated with the Long Beach Municipal Airport. Therefore, people working at or visiting the proposed project would not be exposed to excessive noise levels generated by the airport and no impacts would occur.

(f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project is not located in the vicinity of a private airstrip and the proposed project would be located outside of the 65 dBA impact zone associated with the Long Beach Municipal Airport. Therefore, people working at or visiting the proposed project would not be exposed to excessive noise levels generated by private airstrips and no impacts would occur.

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3.13 POPULATION AND HOUSING

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

Impact Analysis:

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

Less than Significant Impact.

Construction. Construction of the proposed project would provide short-term jobs over an approximately 9-month period. Many of the construction jobs would be temporary and would be specific to the variety of construction activities. This workforce would include a variety of craftspeople, such as cement finishers, ironworkers, welders, carpenters, electricians, painters, and laborers. Project-related construction workers would not be expected to relocate their place of residence as a consequence of working on the proposed project; therefore, the proposed project would not be expected to induce substantial population growth or demand for housing through increased construction employment. No mitigation is required.

Operation. The proposed project would not cause or result in direct population growth because the proposed project would not provide housing on the project site. Upon completion of the proposed project, the warehouse uses on the project site are anticipated to provide long-term employment for approximately 198 employees.[1]

[1] The Natelson Company, Inc. 2001. *Employment Density Study Summary Report*. Table II-B Derivation of Square Feet per Employee Based on Average Employees per Acre. October 31, 2001. Los Angeles County employees per land use category- Warehouse: 1,518 sf/ employee, and Low-Rise Office: 319 sf/ employee. Calculation - 205,060 sf warehouse/ 1,518 = 135 warehouse employees, and 20,000 sf office space/ 319 = 63 office employees. Total for project site is 198 employees.

As of June 2017, the City has a labor force of 241,600, and the County has a labor force of 5,102,600, with approximately 11,900 and 229,800 people unemployed, respectively.[1] The June 2017 unemployment rate is 4.9 percent for the City and 4.5 percent for the County.[2] This suggests an available local and regional labor pool to serve the long-term employment opportunities offered by the proposed project. It is unlikely that a substantial number of employees would need to be relocated from outside the region to meet the need for 198 employees. Furthermore, the proposed project would be located within a developed area on the west side of Long Beach that is already served by all utilities. The existing regional infrastructure and the established roadway network would be utilized by employees accessing the project site and would not indirectly or directly induce population or growth.

Operation of the proposed project would not induce substantial population growth or accelerate development in an underdeveloped area, and any impacts to population growth would be less than significant. No mitigation is required.

(b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site is currently developed with two vacant buildings and four ancillary structures. No housing currently exists on the project site, and housing displacement would not occur as a result of project implementation. Therefore, the proposed project would not result in an impact related to the displacement of housing, and no mitigation is required.

(c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. The project site is currently developed with two vacant buildings and four ancillary structures. No housing currently exists on the project site, and no people would be displaced as a result of project implementation. Therefore, the proposed project would not displace substantial numbers of people, necessitating the construction of replacement housing, and no mitigation is required.

1 State of California Employment Development Department. 2017. Monthly Labor Force Data for Cities and Census Designated Places, June 2017. June 21, 2017. Website: http://www.labormarketinfo.ca.gov/file/lfmonth/lasub.xls (accessed on August 10, 2017).

2 Ibid.

3.14 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
(i) Fire Protection?	☐	☒	☐	☐
(ii) Police Protection?	☐	☒	☐	☐
(iii) Schools?	☐	☐	☒	☐
(iv) Parks?	☐	☐	☒	☐
(v) Other public facilities?	☐	☐	☒	☐

Impact Analysis:

Fire protection services would be provided to the proposed project by the Long Beach Fire Department (LBFD). The LBFD provides fire protection, emergency medical and rescue services, hazardous inspection and response, and public education activities to the City's residents and has a total of 23 stations in the City.[1] Currently, LBFD has 527 full-time equivalent uniformed and civilian personnel budgeted.[2]

The LBFD is divided into four primary bureaus: Operations, Fire Prevention, Support Services, and Administration. The Fire Prevention Bureau is responsible for preventing fires, fire code enforcement, plan check, investigations and arson prosecution, records management, and community services and education. The Support Services Bureau consists of the Emergency Medical Services Division and Training Division, and also oversees information technology, communications, fire fleet, and apparatus management. The Operations Bureau is responsible for managing the following: daily field operations in Districts 1, 2, and 3, including fire suppression, personnel management, and fire/non-fire response activities; Special Operations, which consists of Airport, Port, Fireboats, Urban Search and Rescue, Hazardous Materials, Strike Team/Mutual Aid and Terrorism/Weapons of Mass Destruction Operations; and the Marine Safety and Lifeguard Division, which is responsible for ensuring the safe and lawful use of beaches, oceanfront property, waterways, and marinas in the City. Lastly, the Administration Bureau is responsible for the fiscal management of the LBFD.

[1] Long Beach Fire Department (LBFD). Station Locations. Website: http://www.longbeach.gov/fire/station-locations/ (accessed June 20, 2017).

[2] LBFD. Website: http://www.longbeach.gov/fire/ (accessed June 14, 2017).

The project site is located within Fire District Zone 13, as designated by the LBFD. There are two fire stations within Fire District Zone 13 available to serve the project site. Fire Station No. 13, located at 2475 Adriatic Avenue, approximately 1 mile north of the project site, would be the first to the project site in the event of an emergency and would thus be designated as the "first-in" station. Fire Station No. 3 would be designated as the "second-call" station to support Fire Station No. 13. Fire Station No. 3 is located at 1222 Daisy Avenue, approximately 1.5 mile southeast of the project site. Although the project site is located within a Critical Fire Zone according to the Fire Hazards Area Map in the City's General Plan Public Safety Element (1975), the site is not located within a Fire Hazard Severity Zone on the Statewide Cal Fire Map for the Los Angeles Region.[1]

Construction.

Less than Significant with Mitigation Incorporated. Construction activities have the potential to affect emergency services by potentially requiring partial lane closures during street improvements and utility installation. Project construction may also necessitate stopping of traffic to accommodate trucks entering or exiting the project site during construction (e.g., for the movement of construction equipment). As such, construction activities could temporarily increase response times for emergency vehicles in the vicinity of the project site. Mitigation Measure PSU-1 requires that a Construction Staging and Traffic Management Plan (CSTMP) be prepared for the proposed project to ensure that emergency vehicles would be able to navigate through streets adjacent to the project site that may experience congestion due to construction activities. Mitigation Measure PSU-1 also requires that all emergency access to the project site and adjacent areas be kept clear and unobstructed during all phases of demolition and construction. Traffic management personnel (flag persons), required as part of the CSTMP, would be trained to assist in emergency response by restricting or controlling the movement of traffic that could interfere with emergency vehicle access. Additionally, the proposed project would be required to comply with Section 14.08.220 of the LBMC, which requires that safe crossings be maintained for vehicles and pedestrian traffic at all street intersections and crosswalks. With implementation of Mitigation Measure PSU-1 and adherence to the LBMC, potential impacts related to emergency access during construction would be less than significant. No additional mitigation is required.

Mitigation Measure:

The following measure would reduce short-term, construction-related impacts to fire services resulting from the proposed project to a less than significant level.

PSU-1: **Construction Staging and Traffic Management Plan.** A Construction Staging and Traffic Management Plan (CSTMP) shall be prepared for approval by the City of Long Beach Traffic Engineer, or designee, and implemented during proposed project construction. If construction would require lane closures on Pacific Coast Highway, the CSTMP shall also be reviewed and approved by the California Department of Transportation (Caltrans). The CSTMP will also include the name and phone number

[1] California Department of Forestry and Fire Protection. Los Angeles County FHSZ Map. Website: http://www.fire.ca.gov/fire_prevention/fhsz_maps_losangeles (accessed June 28, 2017).

of a contact person who can be reached 24 hours per day regarding construction traffic complaints or emergency situations. In addition, the CSTMP shall take into account and coordinate with other construction staging and traffic management plans that are in effect or have been proposed for other projects in the City of Long Beach. The CSTMP may include, but not be limited to, the following:

- Construction activities shall be scheduled to reduce the effect on traffic flow on arterial streets.
- Construction trucks shall be rerouted to reduce travel on congested streets.
- The Construction Contractor shall keep haul routes clean and free of debris including but not limited to gravel and dirt as a result of its operations. The Construction Contractor shall clean adjacent streets, as directed by the City Traffic Engineer, or designee, of any material which may have been spilled, tracked, or blown onto adjacent streets or areas.
- If hauling or construction operations cause any damage to existing pavement, streets, curbs, and/or gutter along the haul route, the Applicant shall be fully responsible for repairs. The repairs shall be completed to the satisfaction of the City Director of Public Works, or designee, or the California Department of Transportation (Caltrans), as appropriate.
- Construction vehicles, including construction personnel vehicles, shall not park on public streets.
- Construction vehicles shall not stage or queue where they interfere with pedestrian and vehicular traffic or block access to nearby businesses.
- A Caltrans transportation permit shall be obtained for use of oversized transport vehicles on Caltrans facilities.
- A traffic management plan shall be submitted to Caltrans for review and approval if construction would require lane closures on Pacific Coast Highway.
- If feasible, any traffic lane closures will be limited to off-peak traffic periods, as approved by the City of Long Beach Public Works Department. If lanes of Pacific Coast Highway are closed due to construction, the project Applicant shall notify Caltrans and obtain Caltrans' approval prior to such closures.
- The Long Beach Police Department and the Long Beach Fire Department shall be notified a minimum of 24 hours in advance of any lane closures or other roadway work.
- The Long Beach Unified School District shall be notified in advance of any lane closures on Pacific Coast Highway.
- Temporary traffic control provisions shall be implemented during all construction activities adjacent to public right-of-way to improve traffic flow on public roadways (e.g., flag persons).

- Flag persons in adequate numbers shall be provided to minimize impacts to traffic flow and to ensure the safe access into and out of the site.
- Flag persons shall be trained to assist in emergency response by restricting or controlling the movement of traffic that could interfere with emergency vehicle access.
- All emergency access to the project site and adjacent areas shall be kept clear and unobstructed during all phases of demolition and construction.

Operation.

Less than Significant Impact. According to the City's 2016 Adopted Budget, in fiscal year (FY) 2015 the LBFD responded to over 58,000 calls for service. Approximately 85 percent were related to medical emergencies, which totaled approximately 47,400 emergency responses. The LBFD's current response time goal is no more than 6 minutes, 20 seconds, or less 90 percent of the time for firefighting and emergency services. However, the actual response rate within the response time goal was projected to be 86 percent. As such, the LBFD is not currently meeting its current response time goals. As discussed in Section 3.16, Traffic, the proposed project would not result in a substantial increase in traffic congestion or significant impacts at local intersections that would delay emergency vehicles.

As a warehouse/office development, the proposed project would not be anticipated to result in an excessive increase in calls for service. As discussed in Section 3.13, Population and Housing, the proposed project is expected to create jobs for 198 employees within the local labor market. As of June 2017, the City's labor force totaled 241,600, with approximately 11,900 people unemployed. The County's labor force totaled 5,102,600, with approximately 229,800 people unemployed.[1] The June 2017 unemployment rate equaled 4.9 percent for the City and 4.5 percent for the County.[2] This suggests an available local and regional labor pool to serve the long-term employment opportunities offered by the proposed project. As such, it is unlikely that a substantial number of employees would need to relocate from outside the region to meet the need for 198 employees. Although the proposed project may necessitate additional need for fire personnel and staff, that need would be negligible and would not necessitate new or expanded facilities.

The proposed project Applicant would be required to comply with all applicable building code requirements requiring fire protection devices such as sprinklers, alarms per the California Fire Code (CFC), adequately spaced fire hydrants, and fire access lanes. Adherence to applicable codes would decrease the demand for fire services and ensure that there is adequate emergency access on site. In case of an emergency, the two truck yard entry gates would provide Knox boxes to allow for fire department access to the project site. In addition, the proposed project would be required to pay fees pursuant to the Fire Facilities Impact Fee as amended in Chapter 18.23 of the City's Municipal Code. The payment of the Fire Facilities Impact Fees are intended to ensure that fire facilities and

[1] California Employment Development Department. 2017. Monthly Labor Force Data for Cities and Census Designated Places, June 2017. July 21, 2017. Website: https://data.edd.ca.gov/Labor-Force-and-Unemployment-Rates/Local-Area-Unemployment-Statistics-LAUS-/e6gw-gvii (accessed August 18, 2017).

[2] Ibid.

services will satisfy City standards and be available in conjunction with new development. The collection of the Fire Facilities Impact Fees would be used to finance any necessary improvements to current facilities, if required. As stated above, the proposed project would be designed to comply with all LBFD and CFC requirements, would not impair emergency response vehicles or increase response times, and would not substantially increase calls for service, thereby causing the need for new or expanded facilities. In addition, the proposed project is consistent with the General Plan and the planned land uses for the project site and the project Applicant would be required to pay a fire facilities fee in accordance with Section 18.23 of the City's Municipal Code. Therefore, impacts to fire protection would be less than significant, and no mitigation is required.

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

Police protection and law enforcement services are provided to the City by the Long Beach Police Department (LBPD). The LBPD is currently divided into four primary patrol bureaus: the East, West, North, and South Divisions. Although the East Patrol Division's substation serves as the headquarters for the LBPD, the project site is serviced by the West Patrol Division located at 1835 Santa Fe Avenue, immediately to the east of the project site. Currently, the LBPD employs over 1,200 personnel including approximately 800 sworn officers.[1] With a current City population of 470,237,[2] the service ratio of officers to residents is approximately 1 to 588.[3]

According to the City's 2016 Adopted Budget, in FY 2015, officer response to calls for service was projected to be approximately 600,000, which is higher than in previous years. The LBPD attributes this increase in calls for service to its community-outreach efforts that encourage citizens to report suspicious activities more frequently. The LBPD responded to Priority 1 calls (related to life-threatening emergencies) with an average response time of 4.9 minutes. The LBFD's current response time goal is no more than 5 minutes. As such, the LBPD is currently meeting its response time goals.

Construction.

Less than Significant with Mitigation Incorporated. Refer to Response 3.14 (a)(i), above, for discussion on the potential for construction activities to affect emergency services. In addition, if a partial street closure (i.e., a lane closure) would be required, notice would be provided to the LBPD, and flag persons would be used to facilitate the traffic flow until construction is complete.

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1 Long Beach Police Department (LBPD). About the LBPD. Website: http://www.longbeach.gov/police/about-the-lbpd/ (accessed June 28, 2017).

2 U.S. Census Bureau. 2011-2015 American Community Survey 5-Year Estimates. Table DP05. Website: https://www.census.gov/programs-surveys/acs/data/summary-file.2015.html (accessed August 18, 2017).

3 470,237 residents / 800 officers = 587.8

Mitigation Measure:

Refer to Mitigation Measure PSU-1, above.

Operation.

Less than Significant Impact. The following security features would be implemented as part of the project to reduce the potential incremental increase in demand for police services:

- Install a premanufactured 200 sf guardhouse, which would be located at the northeast corner of the project site and staffed during hours of operation.
- Provide lighting in the parking areas to ensure public safety.
- Secure the property along the project site's boundaries through the use of block walls.
- Secure property entrances through the use of secured rolling gates.

As previously stated, the proposed project is anticipated to provide 198 new jobs in the City. When considered with the existing population, the project-related employment increase would have no impact on the LBPD's ratio of police officers per 1,000 residents. As stated in Response 3.14 (a)(i), it is expected that the majority of jobs created by the proposed project would be filled by people currently living in the region. Employees would not be expected to relocate their residence. Therefore, the increase in population associated with the proposed project would be minimal compared to the number of police officers currently employed by the City, and would not trigger the need for new or physically altered police facilities. Further, the project Applicant would be required to pay a police facilities fee in accordance with Section 18.22 of the City's Municipal Code. Although the proposed project would incrementally contribute to demand for additional police protection services, impacts to police services would be less than significant, and no mitigation would be required.

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

Less than Significant Impact. The proposed project is located within the Long Beach Unified School District (LBUSD). Approximately 75,000 students from preschool to high school are currently enrolled in one of LBUSD's 84 public schools. The LBUSD currently operates schools within the City, as well as schools in the Cities of Lakewood, Signal Hill, and Avalon (on Santa Catalina Island). More than 12,000 full-time and part-time employees work at the LBUSD, making it the largest employer in the City.[1]

[1] Long Beach Unified School District (LBUSD). About – Long Beach Unified School District. Website: http://www.lbusd.k12.ca.us/District/ (accessed June 22, 2017).

The proposed project does not include any residential uses that would increase population growth, generate an increased demand for school facilities, or require the construction of school facilities. Although the project is anticipated in increase employment by 198 positions, this amount is nominal and not expected to significantly impact public school services within the LBUSD. Therefore, the project would not result in increases in demand for public school services or related services, and no mitigation is required.

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

Less than Significant Impact. The Long Beach Parks, Recreation, and Marine Department (LBPRM) oversees the operation and maintenance of public recreational facilities within the City, including parks, community centers, marinas, golf courses, and swimming pools. LBPRM is comprised of five bureaus: Animal Care Services, Business Operations, Community Recreation Services, Marine, and Maintenance Operations. The closest park to the project site is Admiral Kidd Park, located at 2125 Santa Fe Avenue, approximately 0.2 mile to the north of the project site. The park covers 12.3 acres and includes walking paths, grassy areas, benches, two soccer fields, a tennis court, a basketball court, and a recreation center.

According to the City's Draft General Plan Urban Design Element (2017),[1] the City has over 100 parks and more than 2,750 acres of recreational space. Although the project is anticipated to increase employment in the City by 198 positions, this amount is minor compared to the amount of parks and recreational space within the City. While it is possible that employees may visit parks and use facilities during breaks or after work hours, such visitation would not significantly affect park performance, and would not require the expansion of parks within the City. Therefore, the impact would be less than significant, and no mitigation is required.

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

Less than Significant Impact. The Long Beach Public Library (LBPL) system is comprised of the Main Library and 11 branches, which collectively house over 800,000 volumes.[2] The Main Library was constructed in 1977 and is located at 101 Pacific Avenue, approximately 2.6 miles from the project site. Amenities include a Family Learning Center, an auditorium, community meeting spaces, and public-use computers.

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1 City of Long Beach. 2017. City of Long Beach Draft General Plan Urban Design Element. Website: http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=5485 (accessed August 18, 2017). Note that the City of Long Beach Draft General Plan Urban Design Element (2017) had not been adopted by the City Council as of August 10, 2017.

2 Long Beach Public Library (LBPL). Facts and Figures. Website: http://www.lbpl.org/info/about/facts_and_figures.asp (accessed June 26, 2017).

As discussed previously, development of the proposed project would result in an increase of an estimated 198 new employees in the City. While it is possible that employees may visit library facilities during breaks or after work hours, the impact would not significantly affect LBPL system performance, and would not require the expansion of libraries within the City. It is unlikely that the implementation of the proposed project would increase demand for library facilities, and impacts to library facilities would, therefore, be less than significant. No mitigation would be required.

3.15 RECREATION

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

Impact Analysis:

(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?

Less than Significant Impact. As previously described in Section 3.14, Public Services, the City of Long Beach currently maintains 2,750 acres of parks and recreational uses throughout the City. There are no existing parks or other recreation uses adjacent to the project site. The nearest parks are Admiral Kidd Park, approximately 0.2 mile north of the project site, and Hudson Park, approximately 0.3 mile northwest of the project site. The project does not propose any residential uses and, therefore, would not increase the population near those parks. Although the project is anticipated to increase employment by 198 employees, the number of employees is minor compared to the amount of parks and recreational space within the City. While it is possible that employees may visit parks and recreational facilities in the City during lunch breaks or after-work hours, it is unlikely that the use of parks by project employees would increase the use of those parks to a level that would contribute to substantial physical deterioration of those facilities. Therefore, the impact is less than significant, and no mitigation is required.

(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?

No Impact. The proposed project includes the construction of a 205,060-square-foot (sf) warehouse. The project Applicant does not propose any recreational uses which might have an adverse physical effect on the environment. Therefore, there would be no impacts related to the construction or expansion of recreational facilities, and no mitigation is required.

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3.16 TRANSPORTATION/TRAFFIC

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Conflict with an applicable plan, ordnance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
(b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads and highways?	☐	☐	☒	☐
(c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
(d) Substantially increase hazards due to a design feature (e. g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
(e) Result in inadequate emergency access?	☐	☒	☐	☐
(f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

Discussion:

This section analyzes the circulation impacts that may result due to development of the proposed project. The following section is based on the *CSULB Technology Park Phase III Building 9 Traffic Impact Analysis (Revised)* (Traffic Impact Analysis) completed for the proposed project by Kunzman Associates, Inc. (Kunzman, August 3, 2017; Appendix H). The Traffic Impact Analysis evaluated six key study intersections in the vicinity of the project site:

1. Judson Avenue/Pacific Coast Highway (PCH; also known as State Route 1 [SR-1], signalized);
2. Hayes Avenue/PCH (unsignalized);
3. Seabright Avenue/PCH (unsignalized);
4. Cota Avenue/PCH (unsignalized);

5. Santa Fe Avenue/PCH (signalized); and
6. Harbor Avenue/PCH (signalized).

These key locations were selected for evaluation based on discussions with City staff and in consideration of the Los Angeles County Congestion Management Program (CMP). The Level of Service (LOS) conditions at these key locations were used to evaluate the potential traffic-related impacts associated with area growth, cumulative projects, and the proposed project. The findings of this investigation are summarized in the following sections.

Technical Background

Intersection Level of Service Methodology. The LOS for each study intersection was determined based on the intersection capacity utilization (ICU) methodology for signalized intersections. Consistent with the City's requirements, the ICU methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums up these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The resulting ICU is expressed in terms of LOS, where LOS A represents free-flow activity and LOS F represents overcapacity operation. LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, speed, delay, and maneuverability on roadway and intersection operations. Typical intersection operations by LOS grade are described below in Table 3.16.A.

Table 3.16.A: LOS Descriptions

LOS	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red signal indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is attained no matter how great the demand.
F	This level describes forced-flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream.

LOS = Level of Service

The relationship between LOS and the ICU value (i.e., v/c ratio) is shown in Table 3.16.B.

Table 3.16.B: LOS/ICU Value Comparison

LOS	Volume-to-Capacity (ICU Methodology)
A	≤ 0.60
B	>0.60 and ≤ 0.70
C	>0.70 and ≤ 0.80
D	>0.80 and ≤ 0.90
E	>0.90 and ≤ 1.00
F	>1.00

ICU = intersection capacity utilization
LOS = level of service

In addition to the ICU methodology of calculating intersection LOS, the 2010 *Highway Capacity Manual* (HCM) methodology was used to determine the LOS at California Department of Transportation (Caltrans) intersections within the study area. The HCM signalized intersection methodology presents LOS in terms of control delay (in seconds per vehicle). The resulting delay is expressed in terms of LOS, as in the ICU methodology. The relationship between LOS and the delay at a signalized intersection is demonstrated in Table 3.16.C.

Table 3.16.C: LOS/Signalized Intersection Delay Comparison

LOS	Signalized Intersection Delay in seconds per Vehicle
A	≤ 10.0
B	>10.0 and ≤ 20.0
C	>20.0 and ≤ 35.0
D	>35.0 and ≤ 55.0
E	>55.0 and ≤ 80.0
F	>80.0

LOS = level of service

The HCM methodology was also used to determine intersection LOS at unsignalized intersections. For the HCM methodology, the LOS is presented in terms of total intersection delay (in seconds per vehicle). The relationship between LOS and the delay at unsignalized intersections is shown in Table 3.16.D.

Table 3.16.D: LOS/Unsignalized Intersection Delay Comparison

LOS	Unsignalized Intersection Delay in seconds per Vehicle
A	≤ 10.0
B	>10.0 and ≤ 15.0
C	>15.0 and ≤ 25.0
D	>25.0 and ≤ 35.0
E	>35.0 and ≤ 50.0
F	>50.0

LOS = level of service

The study intersection LOS analysis was conducted for the weekday a.m. and p.m. peak hours.

The City considers LOS D to be the minimum satisfactory condition for intersection operation. Mitigation is required for any intersection where project traffic causes the intersection's level of service (as measured by ICU) to deteriorate to LOS E or LOS F, or if the project traffic causes an increase in v/c ratio of 0.02 or greater when the intersection is operating at LOS E or LOS F in the baseline condition.

SR-1 is a Caltrans facility. According to the Caltrans *Guide for the Preparation of Traffic Impact Studies,* the LOS at an intersection is considered unsatisfactory when the delay exceeds 35 seconds per vehicle for signalized intersections and 25 seconds per vehicle for unsignalized intersections. Mitigation is required for any intersection where project traffic causes the intersection's LOS (as measured by delay) to deteriorate to LOS D, LOS E, or LOS F, or if it worsens the LOS at an intersection currently operating at LOS D, LOS E, or LOS F in the baseline condition.

Existing Circulation System. The project site is accessible via Judson Avenue, Hayes Avenue, Seabright Avenue, Cota Avenue, Santa Fe Avenue, Harbor Avenue, and PCH. The following discussion provides a brief synopsis of these key area streets.

- **Judson Avenue** is an undivided two-lane, north-south roadway located west of the project site. Judson Avenue is not classified in the Mobility Element of the City's General Plan. It currently carries approximately 900 to 3,100 vehicles per day in the study area.

- **Hayes Avenue** is an undivided two-lane, north-south roadway located west of the project site. Hayes Avenue extends from PCH to Anaheim Street in the south. Access to the project site would be provided via a driveway at the intersection of PCH and Hayes Avenue. This roadway is not classified in the Mobility Element (City of Long Beach 2013). It currently carries approximately 1,100 vehicles per day in the study area.

- **Seabright Avenue** is an undivided two-lane, north-south roadway located south of the project site. Seabright Avenue extends from PCH to Anaheim Street in the south. Access to the project site would be provided via a driveway at the intersection of PCH and Seabright Avenue. This

roadway is not classified in the Mobility Element (City of Long Beach 2013). It currently carries approximately 400 vehicles per day in the study area.

- **Cota Avenue** is an undivided two-lane, north-south roadway located east of the project site. Access to the project site would be provided via a driveway north of the intersection of PCH and Cota Avenue. This roadway is not classified in the Mobility Element (City of Long Beach 2013). It currently carries approximately 300 to 400 vehicles per day in the study area.

- **Santa Fe Avenue** is a divided four-lane, north-south roadway located east of the project site. This roadway is classified as a Major Avenue in the Mobility Element (City of Long Beach 2013). It currently carries approximately 12,500 to 12,800 vehicles per day in the study area.

- **Harbor Avenue** is an undivided two-lane, north-south roadway located east of the project site. This roadway is classified as a Neighborhood Connector in the Mobility Element (City of Long Beach 2013). It currently carries approximately 4,400 to 5,400 vehicles per day in the study area.

- **PCH** is a divided four-lane, east-west roadway south of the project site. This roadway is classified as a Regional Corridor in the Mobility Element (City of Long Beach 2013). It currently carries approximately 31,500 to 39,000 vehicles per day in the study area.

Existing LOS. The existing average daily traffic volumes were obtained from *2015 Traffic Volumes on California State Highways* by Caltrans and factored from peak hour counts obtained by Kunzman Associates, Inc. Peak-hour intersection turn volumes were collected by Kunzman Associates, Inc., in December 2016 for the study intersections.

Table 3.16.E summarizes the existing a.m. and p.m. peak hour LOS for the six study intersections based on existing traffic volumes and current street geometrics. As previously discussed, the LOS was determined using the ICU methodology for signalized intersections and the HCM methodology for Caltrans intersections and unsignalized intersections.

As shown in Table 3.16.E, all study intersections currently operate at satisfactory LOS (defined as LOS D or better) during the weekday a.m. and p.m. peak hours, with the exception of Harbor Avenue/PCH, which operates at LOS E during the weekday p.m. peak hour under the ICU methodology.

Table 3.16.E: Existing LOS Summary

Intersection		Jurisdiction	Analysis Method	Traffic Control	Baseline			
					Weekday AM Peak Hour		Weekday PM Peak Hour	
					v/c or Delay	LOS	v/c or Delay	LOS
1	Judson Avenue/PCH	Long Beach	ICU	Signal	0.529	A	0.502	A
			HCM	Signal	15.5	B	15.4	B
2	Hayes Avenue/PCH	Long Beach	HCM	CSS	13.6	B	15.0	B
3	Seabright Avenue/PCH	Long Beach	HCM	CSS	20.0	C	14.9	B
4	Cota Avenue/PCH	Long Beach	HCM	CSS	21.8	C	12.1	B
5	Santa Fe Avenue/PCH	Long Beach	ICU	Signal	0.715	C	0.728	C
			HCM	Signal	24.3	C	23.6	C
6	Harbor Avenue/PCH	Long Beach	ICU	Signal	0.667	B	0.903	E
			HCM	Signal	18.4	B	19.6	B

Source: Kunzman Associates, Inc. (2017).
Note: Delay is reported in seconds (for HCM).
CSS = Cross Street Stop
HCM = Highway Capacity Manual methodology
ICU = Intersection Capacity Utilization methodology
LOS = level of service
PCH = Pacific Coast Highway
v/c = volume-to-capacity ratio (for ICU)

Impact Analysis:

(a) Would the project conflict with an applicable plan, ordnance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less Than Significant with Mitigation Incorporated.

Construction Impacts

The proposed project would generate short-term construction related vehicle trips. However, traffic generated by construction of the proposed project would be temporary and would not conflict with the Mobility Element (City 2013). Impacts would be less than significant, and no mitigation is required.

Operational Impacts

The traffic impacts of the proposed project during the a.m. peak hour and p.m. peak hour were evaluated based on analysis of future operating conditions at the six study intersections. The future v/c relationships and service level characteristics at each study intersection were

analyzed. The significance of the potential impacts of Options A and B of the proposed project at each study intersection were then evaluated using the traffic impact criteria described in the methodology.

Traffic Impact Analysis Scenarios

The following scenarios are those for which v/c calculations have been performed at the six key intersections for existing plus project and opening year (2018) with project traffic conditions:

- Existing Plus Proposed Project - Option A;
- Existing Plus Proposed Project - Option B;
- Opening Year (2018) Without Project;
- Opening Year (2018) With Project - Option A;
- Opening Year (2018) With Project - Option B.

Existing Plus Proposed Project Conditions – Option A

Table 3.16.F summarizes the peak hour LOS results for Option A in the Existing Plus Proposed Project traffic conditions scenario at each of the study intersections using the City's ICU methodology at signalized intersections and delay methodology at unsignalized intersections, as well as Caltrans HCM methodology. Table 3.16.F indicates that traffic associated with Option A under this scenario would result in significant impacts at the Hayes Avenue/PCH and Seabright Avenue/PCH intersections when compared to the LOS standards and significance impact criteria. As shown, these study intersections are forecast to deteriorate to LOS E or worse during the weekday a.m. and p.m. peak hours and would require mitigation.

Mitigation Measure TRF-1 would require the installation of signage prohibiting southbound through and left-turn movements from the unsignalized driveways on the project site at Hayes Avenue and Seabright Avenue to PCH during the weekday a.m. and p.m. peak hours. As shown in Table 3.16.F, with implementation of Mitigation Measure TRF-1, the significant impacts at the Hayes Avenue/PCH and Seabright Avenue/PCH intersections would be reduced to a less than significant level as the LOS at those intersections during the weekday a.m. and p.m. peak hours would not deteriorate to LOS E or F.

Existing Plus Proposed Project Conditions – Option B

Table 3.16.G summarizes the peak hour LOS results for Option B in the Existing Plus Proposed Project traffic conditions scenario at each of the study intersections. Table 3.16.G indicates that traffic associated with Option B under this scenario would result in significant impacts at the Hayes Avenue/PCH and Seabright Avenue/PCH intersections. As shown, these study intersections are forecast to deteriorate to a LOS E or worse during the weekday a.m. and p.m. peak hours and would require mitigation.

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Table 3.16.F: Existing Plus Proposed Project Peak Hour LOS Summary – Option A

	Intersection	Jurisdiction	Analysis Method	Existing without Project				Existing Plus Project (without Mitigation)						Existing Plus Project (with Mitigation)					
				Weekday AM Peak Hour		Weekday PM Peak Hour		Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday AM Peak Hour			Weekday PM Peak Hour		
				v/c or Delay	LOS	v/c or Delay	LOS	v/c or Delay	LOS	Δ in v/c or Delay	v/c or Delay	LOS	Δ in v/c or Delay	v/c or Delay	LOS	Δ in v/c or Delay	v/c or Delay	LOS	Δ in v/c or Delay
1	Judson Avenue/PCH	Long Beach	ICU	0.529	A	0.502	A	0.539	A	0.010	0.502	A	0.000	0.542	A	0.013	0.499	A	-0.003
		Caltrans	HCM	15.5	B	15.4	B	16.0	B	0.6	15.4	B	0.0	17.3	B	1.9	15.4	B	0.0
2	Hayes Avenue/PCH	Long Beach	HCM	13.6	B	15.0	B	48.8	E	35.2	42.3	E	27.3	14.9	B	1.3	15.6	B	0.6
		Caltrans	HCM	0.4	A	0.1	A	0.4	A	0.0	0.1	A	0.0	0.4	A	0.0	0.1	A	0.0
3	Seabright Avenue/PCH	Long Beach	HCM	20.0	C	14.9	B	72.6	F	52.6	54.0	F	39.1	17.9	C	-2.1	15.2	B	0.3
		Caltrans	HCM	0.1	A	0.1	A	0.1	A	0.0	0.1	A	0.0	0.1	A	0.0	0.1	A	0.0
4	Cota Avenue/PCH	Long Beach	HCM	21.8	C	12.1	B	22.0	C	0.2	22.2	C	10.1	22.2	C	0.4	30.5	D	18.4
		Caltrans	HCM	0.3	A	0.1	A	0.3	A	0.0	0.1	A	0.0	0.3	A	0.0	0.1	A	0.0
5	Santa Fe Avenue/PCH	Long Beach	ICU	0.715	C	0.728	C	0.730	C	0.015	0.743	C	0.015	—	—	—	—	—	—
		Caltrans	HCM	24.3	C	23.6	C	28.3	C	4.0	26.5	C	2.9	—	—	—	—	—	—
6	Harbor Avenue/PCH	Long Beach	ICU	0.667	B	0.903	E	0.670	B	0.003	0.917	E	0.014	—	—	—	—	—	—
		Caltrans	HCM	18.4	B	19.6	B	19.4	B	1.0	20.6	C	1.0	—	—	—	—	—	—

Source: Kunzman Associates, Inc. (2017).
Note: Delay is reported in seconds (for HCM). Shaded cells indicate significant impacts.
Δ = change
HCM = Highway Capacity Manual
ICU = Intersection Capacity Utilization
LOS = level of service
PCH = Pacific Coast Highway
v/c = Volume-to-Capacity ratio (for ICU)
— = Not affected by mitigation

Table 3.16.G: Existing Plus Proposed Project Peak Hour LOS Summary – Option B

	Intersection	Jurisdiction	Analysis Method	Existing without Project				Existing Plus Project (without Mitigation)						Existing Plus Project (with Mitigation)					
				Weekday AM Peak Hour		Weekday PM Peak Hour		Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday AM Peak Hour			Weekday PM Peak Hour		
				v/c or Delay	LOS	v/c or Delay	LOS	v/c or Delay	LOS	Δ in v/c or Delay	v/c or Delay	LOS	Δ in v/c or Delay	v/c or Delay	LOS	Δ in v/c or Delay	v/c or Delay	LOS	Δ in v/c or Delay
1	Judson Avenue/PCH	Long Beach	ICU	0.529	A	0.502	A	0.541	A	0.012	0.504	A	0.002	0.542	A	0.013	0.504	A	0.002
		Caltrans	HCM	15.4	B	15.4	B	16.8	B	1.4	15.4	B	0.0	16.8	B	1.4	15.4	B	0.0
2	Hayes Avenue/PCH	Long Beach	HCM	13.6	B	15.0	B	57.5	E	43.9	51.0	F	36.0	14.4	B	0.8	15.4	C	0.4
		Caltrans	HCM	0.4	A	0.1	A	0.4	A	0.0	0.1	A	0.0	0.4	A	0.0	0.1	A	0.0
3	Seabright Avenue/PCH	Long Beach	HCM	20.0	C	14.9	B	69.9	F	49.9	53.9	F	39.0	17.7	C	-2.3	15.1	C	0.2
		Caltrans	HCM	0.1	A	0.1	A	0.1	A	0.0	0.1	A	0.0	0.1	A	0.0	0.1	A	0.0
4	Cota Avenue/PCH	Long Beach	HCM	21.8	C	12.1	B	22.1	C	0.3	16.6	C	4.5	22.3	C	0.5	27.3	D	15.2
		Caltrans	HCM	0.3	A	0.1	A	0.3	A	0.0	0.1	A	0.0	0.3	A	0.0	0.1	A	0.0
5	Santa Fe Avenue/PCH	Long Beach	ICU	0.715	C	0.728	C	0.729	C	0.014	0.740	C	0.012	—	—	—	—	—	—
		Caltrans	HCM	24.3	C	23.6	C	26.1	C	1.8	26.5	C	2.9	—	—	—	—	—	—
6	Harbor Avenue/PCH	Long Beach	ICU	0.667	B	0.903	E	0.669	B	0.002	0.91	E	0.011	—	—	—	—	—	—
		Caltrans	HCM	18.4	B	19.6	B	19.4	B	1.0	20.4	C	0.8	—	—	—	—	—	—

Source: Kunzman Associates, Inc. (2017).
Note: Delay is reported in seconds (for HCM). Shaded cells indicate significant impacts.
Δ = change
HCM = Highway Capacity Manual
ICU = Intersection Capacity Utilization
LOS = level of service
PCH = Pacific Coast Highway
v/c = volume-to-capacity ratio (for ICU)
— = Not affected by mitigation.

As shown in Table 3.16.G, with implementation of Mitigation Measure TRF-1, the significant impacts at the Hayes Avenue/PCH and Seabright Avenue/PCH intersections would be reduced to a less than significant level as the LOS at those intersections during the weekday a.m. and p.m. peak hours would not deteriorate to LOS E or LOS F.

Opening Year (2018) Without Project Conditions

An analysis of opening year (2018) cumulative traffic conditions indicates that the addition of ambient traffic growth and traffic from related projects would not significantly impact any of the study intersections. All six study intersections are projected to continue to operate at LOS C or better during the weekday a.m. and p.m. peak hours, with the exception of the Harbor Avenue/PCH intersection, which would continue to operate at LOS E during the weekday p.m. peak hour (the same LOS as existing weekday p.m. peak hours).

Opening Year (2018) Plus Proposed Project Conditions – Option A

Table 3.16.H summarizes the peak hour LOS results for Option A in the Opening Year (2018) Plus Proposed Project traffic conditions scenario at each of the study intersections. Table 3.16.H indicates that traffic associated with Option A under this scenario would result in significant impacts at the Hayes Avenue/PCH and Seabright Avenue/PCH intersections. A shown, these study intersections are forecast to operate at an unacceptable service level, LOS E or worse, during the weekday a.m. and p.m. peak hours and would require mitigation.

As shown in Table 3.16.H, with implementation of Mitigation Measure TRF-1, the significant impacts at the Hayes Avenue/PCH and Seabright Avenue/PCH intersections would be reduced to a less than significant level as the LOS at those intersections during the weekday a.m. and p.m. peak hours would not deteriorate to LOS E or F.

Opening Year (2018) Plus Proposed Project Conditions – Option B

Table 3.16.I summarizes the peak hour LOS results for Option B in the Opening Year (2018) Plus Proposed Project traffic conditions scenario at each of the study intersections. Table 3.16.I indicates that traffic associated with Option B under this scenario would result in significant impacts at the Hayes Avenue/PCH and Seabright Avenue/PCH intersections. A shown, these study intersections are forecast to operate at an unacceptable service level, LOS F, during the weekday a.m. and p.m. peak hours and would require mitigation.

As shown in Table 3.16.I, with implementation of Mitigation Measure TRF-1, the significant impacts at the Hayes Avenue/PCH and Seabright Avenue/PCH intersections would be reduced to a less than significant level as the LOS at those intersections during the weekday a.m. and p.m. peak hours would not deteriorate to LOS E or LOS F.

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Table 3.16.H: Opening Year (2018) Plus Proposed Project Peak Hour LOS Summary – Option A

	Intersection	Jurisdiction	Analysis Method	Opening Year without Project				Opening Year Plus Project (without Mitigation)						Opening Year Plus Project (with Mitigation)					
				Weekday AM Peak Hour		Weekday PM Peak Hour		Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday AM Peak Hour			Weekday PM Peak Hour		
				v/c or Delay	LOS	v/c or Delay	LOS	v/c or Delay	LOS	Δ in v/c or Delay	v/c or Delay	LOS	Δ in v/c or Delay	v/c or Delay	LOS	Δ in v/c or Delay	v/c or Delay	LOS	Δ in v/c or Delay
1	Judson Avenue/PCH	Long Beach	ICU	0.541	A	0.513	A	0.551	A	0.010	0.513	A	0.000	0.554	A	0.013	0.510	A	-0.003
		Caltrans	HCM	16.6	B	16.5	B	17.0	B	0.4	16.5	B	0.0	18.3	B	1.7	16.5	B	0.0
2	Hayes Avenue/PCH	Long Beach	HCM	14.0	B	15.4	C	53.9	F	39.9	46.5	E	31.1	15.4	C	1.4	16.1	C	0.7
		Caltrans	HCM	0.5	A	0.1	A	53.9	F	53.4	46.5	E	46.4	0.4	A	-0.1	0.1	A	0.0
3	Seabright Avenue/PCH	Long Beach	HCM	21.1	C	15.4	C	80.2	F	59.1	59.0	F	43.6	18.8	C	-2.3	15.7	C	0.3
		Caltrans	HCM	0.2	A	0.1	A	80.2	F	80.0	59.0	F	58.9	0.1	A	-0.1	0.1	A	0.0
4	Cota Avenue/PCH	Long Beach	HCM	21.8	C	12.3	B	22.0	C	0.2	23.8	C	11.5	22.2	C	0.4	33.4	D	21.1
		Caltrans	HCM	0.3	A	0.1	A	22.0	C	21.7	23.8	A	23.7	0.3	A	0.0	0.1	A	0.0
5	Santa Fe Avenue/PCH	Long Beach	ICU	0.732	C	0.746	C	0.747	C	0.015	0.761	C	0.015	—	—	—	—	—	—
		Caltrans	HCM	25.8	C	25.1	C	28.8	C	3.0	27.5	C	2.4	—	—	—	—	—	—
6	Harbor Avenue/PCH	Long Beach	ICU	0.682	B	0.925	E	0.686	B	0.004	0.940	E	0.015	—	—	—	—	—	—
		Caltrans	HCM	19.5	B	21.3	C	20.5	C	1.0	22.4	C	1.1	—	—	—	—	—	—

Source: Kunzman Associates, Inc. (2017).
Note: Delay is reported in seconds (for HCM). Shaded cells indicate significant impacts.
Δ = change
HCM = Highway Capacity Manual
ICU = Intersection Capacity Utilization
LOS = level of service
PCH = Pacific Coast Highway
v/c = volume-to-capacity ratio (for ICU)
— = Not affected by mitigation.

Table 3.16.I: Opening Year (2018) Plus Proposed Project Peak Hour LOS Summary – Option B

	Intersection	Jurisdiction	Analysis Method	Opening Year without Project				Opening Year Plus Project (without Mitigation)						Opening Year Plus Project (with Mitigation)					
				Weekday AM Peak Hour		Weekday PM Peak Hour		Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday AM Peak Hour			Weekday PM Peak Hour		
				v/c or Delay	LOS	v/c or Delay	LOS	v/c or Delay	LOS	Δ in v/c or Delay	v/c or Delay	LOS	Δ in v/c or Delay	v/c or Delay	LOS	Δ in v/c or Delay	v/c or Delay	LOS	Δ in v/c or Delay
1	Judson Avenue/PCH	Long Beach	ICU	0.541	A	0.513	A	0.551	A	0.010	0.513	A	0.000	0.554	A	0.013	0.515	A	0.002
		Caltrans	HCM	16.6	B	16.5	B	17.6	B	1.0	16.5	B	0.0	17.5	B	0.9	16.5	B	0.0
2	Hayes Avenue/PCH	Long Beach	HCM	14.0	B	15.4	C	63.6	F	49.6	56.3	F	40.9	15.3	C	1.3	15.9	C	0.5
		Caltrans	HCM	0.5	A	0.1	A	0.5	A	0.0	0.1	A	0.0	0.5	A	0.0	0.1	A	0.0
3	Seabright Avenue/PCH	Long Beach	HCM	21.1	C	15.4	C	77.1	F	56.0	59.0	F	43.6	18.6	C	-2.5	15.6	C	0.2
		Caltrans	HCM	0.2	A	0.1	A	0.2	A	0.0	0.1	A	0.0	0.2	A	0.0	0.1	A	0.0
4	Cota Avenue/PCH	Long Beach	HCM	21.8	C	12.3	B	22.1	C	0.3	17.6	C	5.3	22.3	C	0.5	30.0	D	17.7
		Caltrans	HCM	0.3	A	0.1	A	0.3	A	0.0	0.1	A	0.0	0.3	A	0.0	0.1	A	0.0
5	Santa Fe Avenue/PCH	Long Beach	ICU	0.732	C	0.746	C	0.747	C	0.015	0.761	C	0.015	—	—	—	—	—	—
		Caltrans	HCM	25.8	C	25.1	C	27.5	C	1.7	27.0	C	1.9	—	—	—	—	—	—
6	Harbor Avenue/PCH	Long Beach	ICU	0.682	B	0.925	E	0.686	B	0.004	0.940	E	0.015	—	—	—	—	—	—
		Caltrans	HCM	19.5	B	21.3	C	20.5	C	1.0	22.3	C	1.0	—	—	—	—	—	—

Source: Kunzman Associates, Inc. (2017).
Note: Delay is reported in seconds (for HCM). Shaded cells indicate significant impacts.
Δ =- change
HCM = Highway Capacity Manual
ICU = Intersection Capacity Utilization
LOS = level of service
PCH = Pacific Coast Highway
v/c = volume-to-capacity ratio (for ICU)
— = Not affected by mitigation.

Mitigation Measures:

TRF-1: **Signage Prohibiting Through and Left-Turn Movements.** Prior to issuance of a certificate of occupancy, the Applicant, under the direction of Caltrans and/or the City of Long Beach Director of Public Works, or designee, shall install signage prohibiting southbound through and left turn movements during the weekday peak hours (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) from the unsignalized driveways on the project site at Hayes Avenue and Seabright Avenue to Pacific Coast Highway.

(b) Would the project conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads and highways?

Less than Significant Impact. The analysis completed in the *Traffic Impact Analysis* (Kunzman 2017) is consistent with the requirements and procedures outlined in the current Los Angeles County CMP, which was adopted by the Los Angeles County Metropolitan Transportation Authority (Metro) in 2010. The CMP requires that potential impacts on a CMP-monitored intersection be analyzed if a project would add 50 or more trips to that intersection during either the a.m. or p.m. weekday peak hours. The proposed project would add more than 50 trips to the nearest CMP-monitored intersection (i.e., Santa Fe Avenue/PCH) during the a.m. and p.m. weekday peak hours. However, as discussed under Response 3.16 (a), Options A and B of the proposed project would result in less than significant impacts on that intersection under the Existing Plus Proposed Project and Opening Year (2018) Plus Proposed Project scenarios. Therefore, the proposed project would result in less than significant traffic impacts on the CMP Highway and Roadway System and would not conflict with the applicable County of Los Angeles (County) CMP. No mitigation is required.

(c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The project site is approximately 3.2 miles southwest of Long Beach Municipal Airport, which is the nearest airport to the project site. The height of the warehouse/office building (50 ft at its zenith), light standards, and other project features on the site would not be of sufficient height to modify the existing air traffic patterns at the airport. Therefore, the proposed project would not affect aviation traffic levels or otherwise result in substantial aviation-related safety risks.

(d) Would the project substantially increase hazards due to a design feature (e. g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed project would provide driveways from Technology Place and Cota Avenue as well as two driveways along PCH. Each of these driveways would be designed to allow for a safe and efficient movement of traffic to and from the project site. The internal circulation of the proposed project's site plan was reviewed in the traffic study prepared for the proposed

project and was determined to be adequate to accommodate the vehicle trips to and from the project site. No queues over one vehicle are expected at the project driveways or at Cota Avenue, and there is not projected to be any spillback onto the public right-of-way. Therefore, the proposed project would not result in any impacts related to hazards associated with a design feature.

(e) Would the project result in inadequate emergency access?

Less than Significant with Mitigation Incorporated. Emergency access to the project site would be provided by PCH. Temporary impacts to emergency access may occur during construction, especially when lane closures are in effect due to project-related utility work in the vicinity of the project site. Implementation of Mitigation Measure PSU-1, which requires the development of a CSTMP that would ensure that emergency vehicles would be able to navigate through streets adjacent to the project site, would reduce impacts to emergency access during construction to a less than significant level.

Access to/from the site must be designed to City standards and would be subject to review by the Long Beach Fire Department and the Long Beach Police Department for compliance with fire and emergency access standards and requirements. Therefore, approval of the project plans would ensure that the proposed project's impacts related to emergency access during operation would be less than significant.

Mitigation Measure:

Refer to Mitigation Measure PSU-1, provided in Section 3.14, Public Services.

(f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less than Significant Impact. As stated previously, pedestrian access to the project site would be provided via the existing sidewalk located directly south of the project site along PCH. Bicycle access to the project site would be available via adjacent local streets. Long Beach Transit currently operates bus routes on PCH and Judson Avenue (Routes 171 and 176) and Santa Fe Avenue (Routes 191 and 192) in the vicinity of the project site. Torrance Transit also operates bus routes on PCH (Routes 3 and 3 Rapid). The closest bus stops to the project site are located on the south side of PCH just east of Hayes Avenue and on the north side of PCH just east of Cota Avenue.

The proposed project would not affect existing transit service (i.e., bus stops or routes), or conflict with adopted programs, plans, or policies regarding public transit, bicycle, or pedestrian facilities, or otherwise degrade the performance or safety of such facilities. Traffic could increase during construction, but would be temporary, as stated in Response 3.16 (a). During operation, traffic would be similar to current conditions and transportation facilities would continue to perform as they do currently. Impacts are considered less than significant, and no mitigation is required.

3.17 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(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	☐	☒	☐	☐
(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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe	☐	☒	☐	☐

Discussion:

The analysis provided in this section is based on the results of the Assembly Bill 52 (AB 52) consultation process completed in support of the proposed project. Letters and responses associated with the consultation process are included in Appendix I of this IS/MND.

Impact Analysis:

(a) Would the project be 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

(b) Would the project be 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant with Mitigation Incorporated.

The following responses address the thresholds in 3.17(a) and 3.17(b).

Chapter 532, Statutes of 2014 (i.e., Assembly Bill [AB] 52), requires that Lead Agencies evaluate a project's potential to impact "tribal cultural resources." Such resources include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of

Historical Resources (California Register) or included in a local register of historical resources." AB 52 also gives Lead Agencies the discretion to determine, supported by substantial evidence, whether a resource qualifies as a "tribal cultural resource."

Also per AB 52 (specifically Public Resources Code [PRC] 21080.3.1), Native American consultation is required upon request by a California Native American tribe that has previously requested that the City provide it with notice of such projects.

The City of Long Beach (City) currently maintains a list of tribal councils based on a list of councils and corresponding Native American representatives provided to the City by the Native American Heritage Commission (NAHC). All tribal councils on this list were emailed a letter from the City in May 2017 for the purposes of AB 52 consultation. Despite several rounds of follow-up phone calls, only one response was received in response to the City's AB 52 letters.

In a letter dated June 28, 2017, from the Kizh Gabrieleno Band of Mission Indians – Kizh Nation, requested AB 52 consultation with the City regarding the proposed project (Appendix I). The letter indicated that the project site lies within the ancestral territories of the Kizh Gabrieleno, and as such, requested that the City consult with the Kizh Nation regarding the potential discovery of tribal cultural resources during project implementation.

The Kizh Nation also submitted a separate letter outlining the following requests: the Applicant retain a Native American monitor to be present during all construction-related ground-disturbing activities, all archaeological resources unearthed during construction activities be evaluated by a qualified archaeologist and a Native Monitor, and that the landowner designate a site location within the footprint of the project site for the respectful reburial of human remains and/or ceremonial objects associated with the Kizh Nation. The following discussion provides additional information pertaining to these three requests.

- **Retain a Native American Monitor.** The letter requested that the project Applicant retain a Native American monitor to observe the project site during construction-related ground-disturbing activities, including but not limited to, pavement removal, pot-holing or auguring, grubbing, weed abatement, boring, grading, excavation, and trenching, within the project area. The Native American monitor would complete monitoring logs on a daily basis, which would provide descriptions of activities on the site. The monitor would be required to provide all necessary certifications and insurance certificates required for any archaeological resources encountered during grading and excavation activities. Monitoring would cease when grading and excavation activities are completed, or when the Tribal Representatives and monitor have indicated that the site has a low potential for archaeological resources.
- **Unanticipated Discovery of Tribal Cultural Resources.** In the event that archaeological resources are unearthed during project construction, a qualified archaeologist and Native Monitor shall evaluate the resources. If the resources are determined to be Native American in origin, the Tribe shall coordinate with the landowner regarding the treatment and curation of the resources. The Kizh Nation also requested that if resources are determined to be historic or a unique archaeological resource, a qualified archaeologist shall coordinate with the Applicant and City to develop a treatment plan that would reduce impacts to the

resource. The letter also indicated that if preservation of the resource in place is not possible, then treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Furthermore, the letter requested that any historic archeological material that is not Native American in origin shall be curated in a public, non-profit institution with a research interest in the materials. If no such institution is willing to accept the material, the material should be donated to a local school or historical society for educational purposes.

- **Unanticipated Discovery of Human Remains and Associated Funerary Objects.** The letter requested that the landowner identify a location within the footprint of the project site for the respectful reburial of human remains and/or ceremonial objects associated with the Kizh nation prior to the start of ground-disturbing activities. The letter also requested compliance with applicable statues and regulations associated with the unlikely discovery of human remains on the project site and recommended specific procedures for the handling of Native American remains in the event remains are discovered on the project site.

As discussed in Response 3.5(a), the project site does not contain any "historical resources" as defined by the California Environmental Quality Act (CEQA). Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the *State CEQA Guidelines* or PRC 5020.1(k).

As discussed in Response 3.5(b), the project site is not likely to contain any prehistoric site or archaeological resources due to the fact that soils on the site consist of Artificial Fill and Young Alluvium. There is little potential for the proposed project to impact prehistoric resources due to significant prior disturbance from past grading and development activities on the project site and surrounding area. However, Mitigation Measure CUL-1 has been included to mitigate potentially significant impacts associated with the unlikely discovery of archaeological resources on the project site. The recommendations of the Kizh Nation have been incorporated into this mitigation measure to further minimize potential impacts to archaeological resources associated with the Kizh Nation. Therefore, implementation of Mitigation Measure CUL-1 would reduce potentially significant impacts to unknown archaeological resource to a less than significant level.

As discussed in Response 3.5(d), the project site is not likely to contain any human remains due to the fact that soils on the site have been previously disturbed associated with prior disturbance from past grading and development activities on the project site and surrounding area. However, Mitigation Measure CUL-3 has been included to mitigate potentially significant impacts associated with the unlikely discovery of human remains, including those determined to be of Native American decent, on the project site. The recommendations of the Kizh Nation have been incorporated into this mitigation measure to further minimize potential impacts to human remains. Therefore, implementation of Mitigation Measure CUL-3 would reduce potentially significant impacts to unknown human remains to a less than significant level.

As noted above, Mr. Salas, Chairperson, Gabrieleno Band of Mission Indians – Kizh Nation, stated that the project site lies within the ancestral territories of the Kizh Gabrieleno, and

requested that a certified Native American monitor from that group be present during all ground-disturbing activities. While Mr. Salas did not present any evidence that the proposed project would result in a substantial adverse change in the significance of a tribal cultural resource (defined in PRC 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 that is listed or eligible for listing in the California Register, or in a local register of historical resources as defined in PRC Section 5020.1(k)), the City has agreed to include Native American monitoring during ground-disturbing activities. Although no evidence of cultural resources has been provided by the tribes consulted, Mitigation Measure TCR-1 has been proposed and requires the presence of a Native American monitor during ground-disturbing activities, as requested during the consultation processes conducted for the project. Implementation of Mitigation Measure TCR-1 would reduce any potential impacts to previously undiscovered tribal cultural resources to a less than significant level. Therefore, on this basis and as a result of the City's consultation with the Gabrieleno Band of Mission Indians – Kizh Nation, the City has concluded that, with implementation of Mitigation Measure TCR-1, potential impacts related to unknown buried tribal cultural resources would also be reduced below a level of significance.

Mitigation Measure:

TCR-1: **Tribal Cultural Resources: Monitoring Procedures.** Prior to commencement of any ground-disturbing activities, the project Applicant shall present evidence to the City of Long Beach Development Services Department Director, or designee, that a qualified Native American monitor has been contacted and will be allowed access to the project site to provide Native American monitoring services during ground-disturbing project construction activities. The Native American monitor shall be selected by the project Applicant from the list of certified Native American monitors maintained by the Gabrieleno Band of Mission Indians – Kizh Nation. The Native American monitor shall be present at the pre-grading conference to establish procedures for tribal cultural resource surveillance. Those procedures shall include provisions for temporarily halting or redirecting work and creating a 50-foot buffer zone area to permit sampling, identification, and evaluation of resources deemed by the Native American monitor to be tribal cultural resources as defined in Public Resources Code (PRC) Section 21074. Construction activities can continue outside of this buffer zone area. These procedures shall be reviewed and approved by the City of Long Beach Development Services Department Director, or designee, prior to commencement of any surface disturbance on the project site.

Throughout ground-disturbing activities, the Native American monitor shall complete monitoring logs on a daily basis that provide descriptions of the daily activities, including construction activities, locations, soil, and any cultural materials identified. The Native American monitor shall possess Hazardous Waste Operations and Emergency Response (HAZWOPER) certification (if the site is determined to have hazardous concerns). The monitor shall also provide insurance certificates, including liability insurance, for any archaeological resources encountered during

ground-disturbing activities pertinent to the provisions of the California Environmental Quality Act, California PRC Division 13, Section 21083.2(a) through (k). The on-site monitoring shall cease when project grading and excavation activities are completed, or when the tribal representatives and monitor have indicated that the site has a low potential for archaeological resources.

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3.18 UTILITIES/SERVICE SYSTEMS

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

Impact Analysis:

(a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less than Significant Impact. The proposed project is not a wastewater treatment facility and is not subject to the wastewater treatment requirements of the Los Angeles Regional Water Quality Control Board (RWQCB).

Local governments and water districts are responsible for complying with federal regulations, both for wastewater plant operation and for the collection systems (e.g., sanitary sewers) that convey wastewater to the wastewater treatment facility. Proper operation and maintenance is critical for sewage collection and treatment because impacts from these processes can degrade water resources and affect human health. For these reasons, publicly owned treatment works (POTWs) receive Waste Discharge Requirements (WDRs) to ensure that such wastewater

facilities operate in compliance with the water quality regulations set forth by the State. WDRs, issued by the State, establish effluent limits on the kinds and quantities of pollutants that POTWs can discharge. These permits also contain pollutant monitoring, record-keeping, and reporting requirements. Each POTW that intends to discharge into the nation's waters must obtain a WDR prior to initiating its discharge.

Implementation of the proposed project includes the demolition of existing buildings and carports and the construction of a 205,060 sf warehouse/office building on an approximately 10-acre site. These uses will result in the generation of wastewater. The City is located within the service territory of the Sanitation Districts of Los Angeles County (LACSD). The majority of the City's wastewater is delivered to the Joint Water Pollution Control Plant (JWPCP), and the remaining portion is delivered to the Long Beach Water Reclamation Plant (WRP). The JWPCP has a total permitted capacity of 400 million gallons per day (mgd) of wastewater and treats up to 260 mgd.[1] The WRP currently treats up to 25 mgd.[2] Because JWPCP and WRP are considered POTWs, operational discharge flows treated at these plants would be required to comply with applicable WDRs issued by the Los Angeles RWQCB. Compliance with conditions or permit requirements established by the City, as well as with WDRs outlined by the Los Angeles RWQCB, would ensure that wastewater discharged from the project site and treated by the wastewater treatment facility system would not exceed applicable Los Angeles RWQCB wastewater treatment requirements. In addition, the proposed project is anticipated to generate 3,918 gallons of wastewater per day (gpd), which is less than 0.01 percent of the available daily treatment capacity at both JWPCP and WRP, respectively.

The proposed project would comply with all applicable sections of Title 15, Public Utilities, of the City's Municipal Code and, as such, would generate wastewater flows typical of other industrial uses in the City. Therefore, the project would not produce wastewater atypical of flows received at the treatment facilities. As discussed in Responses 3.17 (b) and (e), wastewater generated by the proposed project would not require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities, and it would not result in a determination by the wastewater treatment providers that they have inadequate capacity to serve the project's projected demand in addition to existing commitments. Therefore, since the capacity of the treatment facilities that serve the project would not be exceeded with project implementation, no impacts regarding the ability of the treatment facilities to treat and dispose of wastewater would occur from project implementation. Thus, no potential exists for the project to exceed wastewater treatment requirements of the Los Angeles RWQCB. Therefore, impacts related to wastewater treatment requirements would be less than significant and no mitigation is required.

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1 Sanitation Districts of Los Angeles County. Joint Water Pollution Control Plant. Website: http://www.lacsd.org/wastewater/wwfacilities/jwpcp/ (accessed June 20, 2017).

2 Sanitation Districts of Los Angeles County. Long Beach Water Reclamation Plant. Website: http://www.lacsd.org/wastewater/wwfacilities/joint_outfall_system_wrp/long_beach.asp (accessed June 20, 2017).

(b) Would the project require or result in the construction of new water or wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant Impact.

Water. The Long Beach Water Department provides delivery of domestic water service in the City. The City's two primary sources of water supply are groundwater and imported water. Almost half of the water supply is met due to groundwater wells located throughout and owned by the City. The Long Beach Groundwater Treatment Plant has the capacity to treat up to 62.5 mgd of groundwater.[1] The other half of the City's water is comprised of treated surface water purchased from the Metropolitan Water District of Southern California (MWD), which originates from the Colorado River Aqueduct and the Northern California Bay-Delta region.[2] Additionally, reclaimed water is treated at the Long Beach WRP and is used for the irrigation of schools, golf courses, parks, and greenbelts. As discussed in Response 3.18 (a), the WRP currently has a capacity of 25 mgd.

The proposed project involves the development of an industrial warehouse/office building located in a mixed-use area. The City's water-supply system provides reliable service to a population of nearly half a million people within its service area. According to the City's 2015 Urban Water Management Plan (UWMP), the total projected water demand for the retail customers served by the City is approximately 55,206 acre feet (af) annually. Industrial water demand is projected to decrease from 271 af in 2014 to 122 af in 2040. The City consumed approximately 59,542 af in 2015, and the projected water demand for 2020 is 59,106 af per year. According to the 2015 UWMP, the City's water supplies are projected to meet full service demands due to projected increases in efficiency and water conservation.

The proposed project is an urban infill development in an area currently served by all utilities. It is anticipated that the proposed project would use 129,918 gpd of water for indoor uses.[3] Presently, an 8-inch water line runs parallel to Technology Place through the center of the site in support of the existing uses on adjacent properties. Currently, the existing buildings on the project site do not require any water usage. As a part of the project, the 8-inch water main would be removed and relocated along the northern and western perimeters of the proposed warehouse/office building. The water main would connect to the existing 8-inch water main located where Technology Place meets the western boundary of the project site. All existing utilities on the project site that are no longer in service would be capped and appropriately abandoned or removed, as necessary. Therefore, operation of the proposed project would result in an increase in potable water usage by about 129,918 gpd for indoor uses, but it is marginal compared to the capacities of the City's water treatment facilities.

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1 Long Beach Water Department. Groundwater Treatment Plant. Website: http://www.lbwater.org/groundwater-treatment-plant (accessed June 19, 2017).

2 Long Beach Water Department. Sources of Water. Website: http://www.lbwater.org/sources-water (accessed June 19, 2017).

3 CalEEMod (June 22, 2017). Calculation: (47,420,125 gallons per year / 365 days per year) = 129, 918 gallons per day.

The proposed project would also include landscaped areas that would incorporate water-efficient features, such as drip irrigation and bubblers. Landscape materials would be drought tolerant, and therefore would require little water once fully established. According to California's Model Water Efficient Landscape Ordinance (MWELO), the maximum applied water allowance equals 620,297 gallons per year (gpy), or 1,699 gpd. The estimated total water usage (ETWU) for the project site is 334,960 gpy, or 918 gpd. Thus, the ETWU for the proposed project would be substantially lower than the maximum applied water allowance set forth in the MWELO. Consequently, the increased demand for irrigated water is anticipated to be minimal and would be within the existing service capacity (25 mgd) of the Long Beach WRP. In addition, the proposed project is consistent with the City's General Plan and the planned land uses for the project site. Therefore, implementation of the proposed project would not require or result in the construction of new or expanded water treatment facilities, and no mitigation would be required.

Wastewater. The Long Beach Water Department (LBWD) operates and maintains approximately 765 miles of sanitary sewer lines in the City. As stated in Response 3.18 (a), the LACSD is the primary agency responsible for treatment operations once the wastewater passes through the City's system. The LBWD delivers over 40 mgd of water to LACSD facilities for treatment.[1]

LACSD is responsible for the collection, treatment, and disposal of domestic, commercial, and industrial wastewater generated by over 5.6 million people living and working in the County. LACSD facilities would receive wastewater generated from the proposed project. The majority of wastewater generated in the City is treated at LACSD's JWPCP in Carson; treated wastewater is discharged into the Pacific Ocean. The remaining portion of the City's wastewater is delivered to the WRP, located at 7400 East Willow Street in the City. Treated wastewater from the WRP is used to irrigate various forms of landscape and recharge the groundwater basin. Average flows for the JWPCP and the WRP are 260 mgd[2] and 25 mgd[3], respectively. Therefore, the combined average flow at both plants is 285 mgd.

As stated above, it is anticipated that the proposed project will use 129,918 gpd of water for indoor uses and 918 gpd for landscaping, totaling 130,836 gpd. Wastewater generation for the project is assumed to be 90 percent of the project's water demand, to account for evaporation and absorption losses. Therefore, the proposed project would generate approximately 117,752 gpd of wastewater. The project site contains existing sewer services in support of the existing development, but services would need to be extended to the point of connections at the proposed warehouse/office building.

The project site has two existing sanitary sewer lines: a 10-inch sewer line that runs north/south through the center of the site and an 8-inch sewer line that runs east/west along the southern

1 Long Beach Water Department. Sewage Treatment. Website: http://www.lbwater.org/sewage-treatment (accessed 6/9/17).

2 Sanitation Districts of Los Angeles County (LACSD). Joint Water Pollution Control Plant (JWPCP). Website: http://www.lacsd.org/wastewater/wwfacilities/jwpcp/ (accessed June 20, 2017).

3 LACSD. Long Beach Water Reclamation Plant. Website: http://www.lacsd.org/wastewater/wwfacilities/joint_outfall_system_wrp/long_beach.asp (accessed June 20, 2017).

boundary of the site. All existing utilities on the project site that are no longer in service would be capped and appropriately abandoned or removed, as necessary. The 10-inch sewer line at the project site would be removed and relocated around the northern and eastern perimeters of the proposed warehouse/office building. The sewer line will connect to an existing 10-inch line located at 19th Street and an existing 18-inch line at Pacific Coast Highway (PCH). No new off-site sewer lines or laterals would be required to serve the proposed project.

The proposed project is anticipated to generate an additional 117,752 gpd of wastewater, which is less than 0.01 percent of the available daily treatment capacity at both the JWPCP and the WRP, respectively. Both plants are in compliance with the Los Angeles RWQCB's wastewater treatment requirements and have the capacity to accommodate the increased wastewater flows from the proposed project. In addition, the proposed project is consistent with the City's General Plan and the planned land uses for the project site. Therefore, development of the proposed project would not require, nor would it result in, the construction of new wastewater treatment or collection facilities or the expansion of existing facilities other than those facilities to be constructed on site. Project impacts related to the construction of wastewater treatment or collection facilities would be less than significant, and no mitigation would be required.

(c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant Impact. The Stormwater/Environmental Compliance Division within the City's Public Works Department is responsible for maintaining the storm drain system and monitoring storm water quality. Development of the proposed project involves the demolition of the three buildings and three carports, removal of vegetation and trees throughout the project site, and the construction of a 205,060-square-foot (sf) warehouse/office building on an approximately 10-acre site. According to the Hydrology & Water Quality Technical Report,[1] the proposed project would increase the amount of impervious surface area on site from approximately 1.9 acre to 8.8 acres. This represents an increase of impervious surface area of approximately 6.9 acres, or 300,564 sf, and would effectively increase runoff peak flow by 5.68 cubic feet per second (cfs) during a 25-year storm event and 6.18 cfs during a 50-year storm event.

As discussed in Section 3.9, Hydrology and Water Quality, there are no existing storm drain facilities on the project site. In the existing condition, storm water runoff sheet flows toward Technology Place. Runoff is then conveyed to off-site catch basins west of the site, which ultimately discharge to the Dominguez Channel. In the proposed condition, runoff from 9.5 acres of the project site would flow to the proposed biofiltration planter boxes before being discharged into the proposed on-site storm drain system. The proposed on-site storm drain system would consist of two 18-inch storm drains, which would collect storm water runoff from the southern and northern portions of the project site, respectively. Storm water runoff from the remaining site acreage would flow off-site to adjacent streets and eventually discharge into

[1] Fuscoe Engineering. 2017. *Hydrology & Water Quality Technical Report.* August 7.

to an existing 54-inch storm drain line which runs parallel to Pacific Coast Highway. The proposed project would also include a concrete storm drain channel along the eastern site boundary to collect and divert off-site runoff to the south and onto Cota Avenue via a proposed parkway drain.

The proposed project is subject to the requirements of the State Water Resources Control Board's (SWRCB) Construction General Permit, which requires preparation of a Storm Water Pollution Prevention Program (SWPPP) and Erosion and Sediment Control Plan (ESCP), as well as the implementation of construction best management practices (BMPs). In addition, the City's Municipal Separate Storm Sewer System (MS4) Permit regulates urban storm water runoff, surface runoff, and drainage that flow into the MS4 system. In compliance with the MS4 Permit, the City is responsible for regulating inflows to and discharges from its municipal storm drainage system. Specifically, the City's Public Works/Environmental Compliance Division is charged with the task of ensuring the implementation of the MS4 Permit requirements within the City. According to the City's MS4 Permit, SWPPPs prepared in accordance with the requirements of the Construction General Permit can be accepted as ESCPs. Implementation of Compliance Measure WQ-1, which outlines the requirements of the Construction General Permit and the City's MS4 Permit, would reduce impacts to storm water facilities. Therefore, in compliance with the Construction General Permit and the City' MS4 Permit, a SWPPP would be prepared and construction BMPs implemented during construction activities.

Landscaping included as part of the project would capture storm water runoff to offset an increase in flow (refer to Figure 2.7 for the Conceptual Landscape Plan). Additionally, a storm water capture system would be installed on the western side of the proposed building to comply with the requirements in the Low Impact Development (LID) Plan, and storm drain lines would be constructed and installed to comply with the requirements outlined in the Grading Plan. To comply with the City's LID standards, redevelopment projects are required to implement post-construction controls to mitigate storm water pollution and prepare a LID Plan or equivalent. Thus, the proposed project is required to prepare a LID Plan, or equivalent, that details the LID BMPs that would be implemented to treat storm water runoff and reduce impacts to water quality during operation. Refer to the Hydrology & Water Quality Technical Report[1] for LID BMPs that would be implemented to reduce pollutants of concern in storm water runoff during the proposed project's operation. Compliance Measure WQ-3 outlines the aforementioned LID Plan requirements. Therefore, with implementation of the LID Plan, the proposed project would not exceed the capacity of downstream storm water drainage facilities or cause the expansion of existing facilities. No mitigation is required.

Mitigation Measures: No mitigation measures would be required; however, Compliance Measures WQ-1 and WQ-3, provided in Section 3.9, Hydrology and Water Quality, would reduce the proposed project's impacts related to the construction of new storm water drainage facilities.

[1] Fuscoe Engineering. 2017. *Hydrology & Water Quality Technical Report.* August 7.

(d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less than Significant Impact. As previously stated in Response 3.18(b), above, a relatively moderate increase in water use from the implementation of the proposed project would result from the proposed uses and the irrigation of the proposed landscape areas. The proposed project would not necessitate new or expanded water entitlements, and the City would be able to accommodate the increased demand for potable water. Therefore, incremental water demand increases from the proposed project would have sufficient water supplies available to serve the project from existing entitlements and resources and would not require new or expanded entitlements. In addition, the proposed project is consistent with the City's General Plan and the planned land uses for the project site. Therefore, impacts related to water supplies would be less than significant, and no mitigation would be required.

(e) 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?

Less than Significant Impact. As previously stated in Response 3.18(b), the proposed project would generate an increase in wastewater from the project site. However, the increased wastewater flows from the proposed project can be accommodated within the existing design capacity of the treatment plants that currently serve the City. Therefore, the wastewater treatment providers would have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments. In addition, the proposed project is consistent with the City's General Plan and the planned land uses for the project site. Therefore, impacts related to wastewater generation are less than significant, and no mitigation would be required.

(f) Would the project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less than Significant Impact. The Long Beach Public Works Department provides a wide range of services to the City, including waste collection, which is administered through the Environmental Services Bureau. Citizens and businesses in the City generate approximately 368,000 tons of solid waste per year. Within the City, collection of solid waste is contracted to EDCO. EDCO collects solid waste, green waste (e.g., grass clippings and tree and shrub clippings), and items for recycling. The City provides two different carts for automated collection of trash, recyclables, and green waste.[1]

Solid waste, excluding recyclables, is collected from residential, commercial, and industrial properties and delivered to the Southeast Resource Recovery Facility (SERRF), located at 120 Pier S Avenue in the City. SERRF is owned by a joint powers authority between LACSD and the City, but is operated by a private company under contract. Solid waste is sent to the facility

[1] Environmental Services Bureau. Automated Refuse Collection. Website: http://www.longbeach-recycles.org/refuse_collection/automated_collection.htm (accessed June 22, 2017).

where it is processed through one of three boilers and incinerated in order to produce electricity. The electricity is used to operate the facility and the remainder is sold to Southern California Edison. Using mass burn technology, the facility reduces the volume of solid waste by about 80 percent, while also recovering about 825 tons of recycled metal per year. SERRF processes an average of 1,290 tons of municipal solid waste per day; it has the capacity to process 1,380 tons of solid waste per day.[1] As a result, SERRF has a remaining capacity to process an additional 90 tons of solid waste per day. Following combustion, ash byproduct is transported to a local landfill where it is used as a road base material. LACSD operates two sanitary landfills: the Scholl Canyon Landfill and the Calabasas Landfill. The Scholl Canyon Landfill at 7721 North Figueroa Street in Los Angeles is the closest LACSD landfill to the project site.

Construction of the proposed project would require the demolition of the existing buildings, carports, and associated foundations. The majority of waste generated during demolition and construction activities would be building materials (e.g., concrete, dirt, and waste generated by construction workers). The generation of construction waste would be temporary, would cease upon construction completion, and would not be substantial. Nonhazardous waste from project construction activities would be recycled to the extent feasible, and, where necessary, would be disposed of through SERRF. Section 18.67.020 of the City's Municipal Code stipulates that construction projects valued over $75,000 and all demolition projects are required to divert at least 60 percent of project-related construction and demolition materials. Thus, the proposed project qualifies and would need to meet the City's waste-diversion requirement.

Construction waste is anticipated to be minimal, with 20 percent of construction materials being sourced from recycled content. In addition, the proposed project is anticipated to reduce construction waste by 75 percent. During operation, the proposed project would include painted, concrete, trash-and-recycle-bin enclosures approximately 6 ft in height located at the northeastern and northwestern edges of the project site. There would be one bin for trash and one bin for recycled products at each location.

The proposed project would generate approximately 0.53 ton of solid waste per day during project operation.[2] As stated previously, SERRF has the capacity to process an additional 90 tons of solid waste per day. The incremental increase of solid waste generated by the proposed project would constitute approximately 0.5 percent of the remaining daily available capacity at SERRF. Therefore, solid waste generated by the proposed project would not cause the capacity of SERRF to be exceeded. In addition, the proposed project is consistent with the City's General Plan and the planned land uses for the project site. The proposed project would result in a less than significant impact to solid waste and landfill facilities, and no mitigation would be required.

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1 Sanitation Districts of Los Angeles County. Southeast Resource Recovery Facility (SERRF) Brochure. Website: http://lacsd.org/solidwaste/swfacilities/rtefac/serrf/brochure.asp (accessed June 22, 2017).

2 CalEEMod (June 22, 2017). Calculation: (192.76 tons per year / 365 days) = 0.53 tons per day.

(g) Would the project comply with federal, State, and local statutes and regulations related to solid waste?

Less than Significant Impact. The California Integrated Waste Management Act (Assembly Bill [AB] 939) changed the focus of solid waste management from landfill to diversion strategies (e.g., source reduction, recycling, and composting). The purpose of the diversion strategies is to reduce dependence on landfills for solid waste disposal. AB 939 established mandatory diversion goals of 25 percent by 1995 and 50 percent by 2000. The City provides curbside recycling for residential, commercial, and industrial uses, which counts toward the City's solid waste diversion rate. In addition, the City collects curbside residential green waste, which also counts toward the City's diversion rate. These efforts, combined with SERRF, have resulted in one of the highest waste diversion rates in the nation. In 2006, the City reported a 69 percent waste diversion rate to the California Integrated Waste Management Board, surpassing the required rate by nearly 20 percentage points.[1]

The proposed project would be required to comply with all federal, State, and local regulations related to solid waste. Furthermore, the proposed project would comply with all standards related to solid waste diversion, reduction, and recycling during project construction and operation. Therefore, the proposed project is anticipated to result in less than significant impacts related to potential conflicts with federal, State, and local statutes and regulations related to solid waste and no mitigation is required.

[1] City of Long Beach. Waste Reduction. Website: http://www.longbeach.gov/sustainability/green-urban-services/waste-reduction/ (accessed June 20, 2017).

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3.19 MANDATORY FINDINGS OF SIGNIFICANCE

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

Impact Analysis:

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

Less than Significant with Mitigation Incorporated. The project site is currently developed and is located in an urban area. No portion of the project site or the immediately surrounding area consists of an open body of water that serves as natural habitat in which fish could exist. However, construction and operation of the project would adhere to Compliance Measures WQ-1 through WQ-4, which require compliance with the Construction General Permit, compliance with the Groundwater Discharge Permit, preparation of a Low Impact Development Plan, and preparation of a final Hydrology Report. Adherence to the provisions outlined in Compliance Measures WQ-1 through WQ-4 would reduce project impacts with respect to water quality, thereby reducing potential adverse impacts to fish habitats and wildlife in adjacent bodies of water (i.e., the Los Angeles River, Port of Long Beach, and the Pacific Ocean) to a less than significant level.

The disturbed nature of vegetation, soil, and sand on the site, and the site's geographical isolation from native habitat, offer little potential for special-status plant species to occur on the project site. In addition, while special-status animal species could potentially occur in some of the adjacent open space habitat, they are not expected to occur within the project limits. Due to the urban nature of the site and the prevalence of nonnative ornamental landscaping, impacts to candidate, sensitive, or special-status plant and animal species would be less than significant. Based on the Project Description and the preceding responses, development of the proposed project does not have the potential to degrade the quality of the natural environment. The proposed project would also include the planting of a number of new trees, assorted shrubs, accent plants, and ground cover on the project site. The existing on-site trees may provide suitable habitat for nesting birds, some of which are protected by the Migratory Bird Treaty Act (MBTA). Disturbing or destroying active nests that are protected is a violation of the MBTA. In addition, nests and eggs are protected under California Fish and Game Code Section 3503. Implementation of Mitigation Measure BIO-1 during project construction would ensure that the project complies with the MBTA. With implementation of Mitigation Measure BIO-1, potential impacts to biological resources would be less than significant.

Soils on the project site have been disturbed previously from previous development activities on the site and any unknown archaeological and paleontological resources would have likely been unearthed at the time of the previous disturbance on the project site. However, due to the fact that there have been previously recorded cultural resources within the project area, ground-disturbing activities occurring during project construction could potentially impact to unknown cultural resources on the site. As such, the project would implement Mitigation Measure CUL-1, which requires that construction work be halted in the unlikely event archaeological resources are discovered at any time during grading and construction activities. Likewise, although the potential for paleontological resources on the project site is considered low because the site contains Artificial Fill and Young Alluvial Fan Deposits, ground-disturbing activities could impact unknown paleontological resources. As such, the project would comply with Mitigation Measure CUL-2, which requires that a paleontologist be contacted to assess the discovery in the unlikely event that fossil remains are encountered on the site. In the event that human remains are discovered during construction, Mitigation Measure CUL-3 requires notification of the proper authorities and adherence to standard procedures for the respectful handling of human remains. In addition, Mitigation Measure TCR-1 provides for Native American monitors to be present on site in the event that any native soils are disturbed during project construction. Implementation of Mitigation Measures CUL-1, CUL-2, CUL-3, and TCR-1 would reduce any potential impacts to previously undiscovered cultural resources, paleontological resources, or human remains to a less than significant level.

Mitigation Measures: Refer to Compliance Measures WQ-1 through WQ-4, as well as Mitigation Measures BIO-1, CUL-1 through CUL-3, and TCR-1.

(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?)

Less than Significant Impact. The project site is heavily disturbed and is located in an urbanized area of the City. The proposed project involves the demolition of existing buildings and carports on the site and the construction of a 205,060 sf warehouse/office building. The proposed project would rely on and can be accommodated by the existing road system, public parks, public services, and utilities. As discussed in Response 3.19(a), the proposed project would not result in or contribute to a significant biological or cultural impact. Based on the Project Description and the preceding analysis, impacts related to the proposed project are less than significant or can be reduced to less than significant levels with incorporation of mitigation measures. Therefore, the proposed project's contribution to any significant cumulative impacts would be less than cumulatively considerable.

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

Less than Significant with Mitigation Incorporated. The project site is currently developed and is located in an urbanized area. The proposed project involves the demolition of existing buildings and carports on the site and the construction of a 205,060 sf warehouse/office building. The proposed project would be consistent with all applicable zoning regulations. Therefore, the proposed project would not require or necessitate a Zone Change, a Zoning Variance, or a General Plan Amendment. Furthermore, the proposed project would result in less than significant impacts with respect to air quality and greenhouse gas (GHG) emissions, and less than significant impacts with respect to aesthetics during project construction impacts with implementation of Mitigation Measure AES-1. As stated previously, the project would also result in less than significant impacts with respect to biological, archaeological, paleontological, and tribal cultural resources with implementation of Mitigation Measures BIO-1, CUL-1 through CUL-3, and TCR-1. Additionally, the proposed project would result in less than significant impacts with respect to geological hazards and hazardous materials with implementation of Mitigation Measures GEO-1 and HAZ-1 through HAZ-3. Project-related impacts with respect to public services, noise, and traffic would also be less than significant with the incorporation of Mitigation Measures NOI-1 through NOI-2, PSU-1, TRF-1, and TRF-2, respectively. Based on the Project Description and the preceding responses, development of the proposed project would not cause substantial adverse effects to human beings because all potentially significant impacts of the proposed project would be mitigated to a less than significant level.

Mitigation Measures: Refer to Compliance Measures WQ-1 through WQ-4, BIO-1, as well as Mitigation Measures AES-1, BIO-1, CUL-1 through CUL-3, GEO-1, HAZ-1 through HAZ-3, PSU-1, NOI-1, NOI-2, TRF-1, TRF-2, and TCR-1.

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4.0 MITIGATION MONITORING AND REPORTING PROGRAM

4.1 MITIGATION MONITORING REQUIREMENTS

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

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a Responsible Agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the Lead Agency or a Responsible Agency, prepare and submit a proposed reporting or monitoring program.

- The Lead Agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which its decision is based. A public agency shall provide the measures to mitigate or avoid significant effects on the environment that are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or in the case of the adoption of a plan, policy, regulation, or other project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.

- Prior to the close of the public review period for a draft Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND), a Responsible Agency, or a public agency having jurisdiction over natural resources affected by the project, shall either submit to the Lead Agency complete and detailed performance objectives for mitigation measures which would address the significant effects on the environment identified by the Responsible Agency or agency having jurisdiction over natural resources affected by the project, or refer the Lead Agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a Lead Agency by a Responsible Agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures which mitigate impacts to resources that are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance by a Responsible Agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit that authority of the Responsible Agency or agency having jurisdiction over natural resources affected by a project, or the authority of the Lead Agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

4.2 MITIGATION MONITORING PROCEDURES

The mitigation monitoring and reporting program has been prepared in compliance with PRC Section 21081.6. The program describes the requirements and procedures to be followed by the City of Long Beach to ensure that all mitigation measures adopted as part of the proposed project would be carried out as described in this Initial Study/Mitigated Negative Declaration (IS/MND). Table 4.A lists each of the mitigation measures specified in this IS/MND and identifies the party or parties responsible for implementation and monitoring of each measure.

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
3.1 Aesthetics			
Mitigation Measure AES-1:	**Maintenance of Construction Barriers:** Prior to issuance of any construction permits, the City of Long Beach Development Services Director, or designee, shall verify that construction plans include the following note: During construction, the Construction Contractor shall ensure, through appropriate postings and daily visual inspections, that no unauthorized materials are posted on any temporary construction barriers or temporary pedestrian walkways, and that any such temporary barriers and walkways are maintained in a visually attractive manner. In the event that unauthorized materials or markings are discovered on any temporary construction barrier or temporary pedestrian walkway, the Construction Contractor shall remove such items within 48 hours.	City of Long Beach Development Services Director, or designee/ Construction Contractor	Prior to issuance of any construction permits/ during construction
3.2 Agriculture and Forest Resources			
The proposed project would not result in significant adverse impacts related to agriculture. No mitigation would be required.			
3.3 Air Quality			
The proposed project would not result in significant adverse impacts related to air quality. No mitigation would be required.			

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
3.4 Biological Resources			
Mitigation Measure BIO-1:	**Migratory Bird Treaty Act.** In the event that project construction or grading activities should occur within the active breeding season for birds (February 15–August 15), a nesting bird survey shall be conducted by the designated project biologist no more than three days prior to commencement of construction activities. If active nesting of birds is observed within 100 feet (ft) of the designated construction area prior to construction, the construction crew shall establish an appropriate buffer around the active nest. The designated project biologist shall determine the buffer distance based on the specific nesting bird species and circumstances involved. Once the designated project biologist verifies that the birds have fledged from the nest, or the nest is otherwise inactive, the buffer may be removed. Prior to commencement of grading activities and issuance of any building permits, the City of Long Beach (City) Director of Development Services, or designee, shall verify that all project grading and construction plans include specific documentation regarding the requirements of the Migratory Bird Treaty Act (MBTA), that preconstruction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field with orange snow fencing.	City of Long Beach Director of Development Services, or designee/ Construction Contractor	Three (3) days prior to commencement of construction activities/ February 15–August 15

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
3.5 Cultural Resources			
Mitigation Measure CUL-1:	**Unknown Archeological Resources.** In the event that archaeological resources are discovered during excavation, grading, or construction activities, work shall cease within 50 feet of the find until a qualified archaeologist from the Los Angeles County List of Qualified Archaeologists and a Native American Monitor have evaluated the find in accordance with federal, State, and local guidelines to determine whether the find constitutes a "unique archaeological resource," as defined in Section 21083.2(g) of the California Public Resources Code (PRC). Personnel of the proposed project shall not collect or move any archaeological materials and associated materials. Construction activity may continue unimpeded on other portions of the project site. The found deposits shall be treated in accordance with federal, State, and local guidelines, including those set forth in PRC Section 21083.2. In the event that the resources are determined to be Native American in origin, an appropriate Native American tribal representative(s) shall be notified so the respective tribe(s) can coordinate with the landowner regarding the treatment and curation of these resources. If the resources are determined by the qualified archaeologist to constitute a "historical resource" pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15064.5(a) or is a "unique archaeological resource" pursuant to PRC Section 21083.2(g), the qualified archaeologist shall coordinate with the Applicant and the City of Long Beach (City) to develop a treatment plan that would serve	City of Long Beach Director of Development Services Department, or designee	In the event that archaeological resources are discovered during excavation, grading, or construction activities/ Prior to commencement of grading activities

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
	to reduce impacts. The treatment plan established for the resources shall be in accordance with *State CEQA Guidelines* Section 15064.5(f) for historical resources and PRC Section 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 donated to a local school or historical society in the area for educational purposes. Prior to commencement of grading activities, the Director of the City of Long Beach Development Services Department, or designee, shall verify that all project grading and construction plans include specific requirements regarding California PRC (Section 21083.2) and the treatment of archaeological resources as specified above.		
Mitigation Measure CUL-2:	**Paleontological Resources Impact Mitigation Program.** Prior to commencement of any grading activity on site, the City Director of Development Services, or designee, shall verify that a paleontologist, who is listed on the County of Los Angeles (County) list of certified paleontologists, has been retained by	City of Long Beach Director of Development Services Department, or	Prior to commencement of any grading activity on site

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures	Responsible Party	Timing for Mitigation or Compliance Measure
the project applicant and shall be on site during all rough grading and other significant ground-disturbing activities extending 10 feet below ground surface. A paleontologist shall not be required on site if excavation is only occurring in Artificial Fill. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the proposed project. The PRIMP should be consistent with the guidelines of the Society of Vertebrate Paleontologists (SVP) (1995) and shall include, but not be limited to, the following: • Attendance at the pre-grade conference in order to explain the mitigation measures associated with the project. • During construction excavation, a qualified vertebrate paleontological monitor shall initially be present on a full-time basis whenever excavation shall occur within the sediments that have a high paleontological sensitivity rating and on a spot-check basis in sediments that have a low sensitivity rating. Based on the significance of any recovered specimens, the qualified paleontologist may set up conditions that shall allow for monitoring to be scaled back to part-time as the project progresses. However, if significant fossils begin to be recovered after monitoring has been scaled back, conditions shall also be specified that would allow increased monitoring as necessary. The monitor shall be equipped to salvage fossils and/or matrix samples as they are unearthed in order to avoid construction delays. The monitor shall be empowered to temporarily halt or divert equipment in the area of the find in order to allow	designee	

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures	Responsible Party	Timing for Mitigation or Compliance Measure
removal of abundant or large specimens. Construction activity may continue unimpeded on other portions of the project site. • The underlying sediments may contain abundant fossil remains that can only be recovered by a screening and picking matrix; therefore, these sediments shall occasionally be spot-screened through one-eighth to one-twentieth-inch mesh screens to determine whether microfossils exist. If microfossils are encountered, additional sediment samples (up to 6,000 pounds) shall be collected and processed through one-twentieth-inch mesh screens to recover additional fossils. Processing of large bulk samples is best accomplished at a designated location within the project that shall be accessible throughout the project duration but shall also be away from any proposed cut or fill areas. Processing is usually completed concurrently with construction, with the intent to have all processing completed before, or just after, project completion. A small corner of a staging or equipment parking area is an ideal location. If water is not available, the location should be accessible for a water truck to occasionally fill containers with water. • Preparation of recovered specimens to a point of identification and permanent preservation. This includes the washing and picking of mass samples to recover small invertebrate and vertebrate fossils and the removal of surplus sediment from around larger specimens to reduce		

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
	the volume of storage for the repository and the storage cost for the developer. • Identification and curation of specimens into a museum repository with permanent retrievable storage, such as the Natural History Museum of Los Angeles County (LACM). • Preparation of a report of findings with an appended itemized inventory of specimens. When submitted to the City Director of Development Services, or designee, the report and inventory would signify completion of the program to mitigate impacts to paleontological resources.		
Mitigation Measure CUL-3:	**Human Remains.** Prior to the commencement of ground-disturbing activities, the Applicant shall arrange a designated location within the footprint of the project site for the reburial of human remains and/or ceremonial objects of Native American origin. In the event that human remains are encountered on the project site, work within 50 feet of the discovery shall be redirected and the County Coroner notified immediately consistent with the requirements of California Code of Regulations (CCR) Section 15064.5(e). State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The discovery will be kept confidential to secure and prevent any disturbance to the remains. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission	City of Long Beach Director of Development Services Department, or designee	Prior to the commencement of ground-disturbing activities /In the event that human remains are encountered on the project site

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures	Responsible Party	Timing for Mitigation or Compliance Measure
(NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the property owner, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. In the case where discovered human remains cannot be fully documented and recovered on the same day of inspection, 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 the project remains. If this type of steel plate is not available, a 24-hour guard shall be posted outside of working hours. The MLD may also recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Consistent with CCR Section 15064.5(d), if the remains are determined to be Native American and an MLD is notified, the City of Long Beach shall consult with the MLD as identified by the NAHC to develop an agreement for treatment and disposition of the remains. Treatment and disposition of the remains may include the following: • Diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, the burials may be removed. • Removing cremations in bulk or by means as necessary to ensure the complete recovery of all material. • Storing each occurrence of human remains and associated funerary objects using opaque cloth bags.		

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures	Responsible Party	Timing for Mitigation or Compliance Measure
• Removing all human remains, funerary objects, sacred objects of cultural patrimony to a secure container on site, to the extent possible. These items should be retained and reburied within six months of recovery. • Reburial/repatriation on the project site at a location to be agreed upon by the landowner and the tribe. The reburial shall be protected at the agreed upon location in perpetuity. No publicity regarding the recovery of the cultural materials shall occur. Upon completion of the assessment, the consulting archaeologist shall prepare a report documenting the methods and results and provide recommendations regarding the treatment of human remains and any associated cultural material, as appropriate, and in coordination with the recommendations of the MLD. Additional documentation shall be approved by the tribe for data recovery purposes. Once complete, the final report of all activities shall be submitted to the NAHC. In the event that the discovery of human remains includes four or more burials, the location shall be considered a cemetery and a separate treatment plan shall be prepared. The project Applicant shall consult with the respective tribe regarding avoidance of all cemetery sites. A final report of all activities shall be submitted to the NAHC. Prior to the issuance of grading permits, the City Development Services Department, or designee, shall be responsible for		

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
	reviewing any reports produced by the archaeologist to determine the appropriateness and adequacy of findings and recommendations. The City Development Services Director, or designee, shall also verify that all grading plans include notes specifying the requirements of CCR Section 15064.5(e), State Health and Safety Code Section 7050.5, and PRC Section 5097.98.		
3.6 Geology and Soils			
Mitigation Measure GEO-1:	**Conformance with the project Geotechnical Study.** All grading operations and construction shall be conducted in conformance with the recommendations included in the *Geotechnical Investigation Proposed Commercial/Industrial Building: NWC Pacific Coast Highway and Cota Avenue Long Beach, California for Prologis* (Southern California Geotechnical, Inc., May 12, 2016). Design, grading, and construction shall be performed in accordance with the requirements of the City of Long Beach (City) Municipal Code (Title 18) and the California Building Code (CBC) applicable at the time of grading, appropriate local grading regulations, and the requirements of the project geotechnical consultant as summarized in a final written report, subject to review by the Director of the City Development Services Department or designee prior to commencement of grading activities. Additional site testing and final design evaluation, if required by the Director of the City Development Services Department, or designee, shall be conducted by the project geotechnical consultant to refine these requirements. The project Applicant	City of Long Beach Director of Development Services Department and City of Long Beach Building Official, or designee	Prior to the start of grading activities

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
	shall require the project geotechnical consultant to assess whether the requirements in that report need to be modified or refined to address any changes in the project features that occur prior to the start of grading. If the project geotechnical consultant identifies refinements to the requirements, the project Applicant shall require appropriate changes to the final project design and specifications. In such a situation, such refinements shall comply with all applicable City of Long Beach and CBC requirements. Grading plan review shall also be conducted by the Director of the City Building Department or designee prior to the start of grading to verify that the requirements developed during the geotechnical design evaluation have been appropriately incorporated into the project plans. Design, grading, and construction shall be conducted in accordance with the specifications of the project geotechnical consultant as summarized in a final report based on the CBC applicable at the time of grading and building and the City Building Code. On-site inspection during grading shall be conducted by the project geotechnical consultant and the City Building Official to ensure compliance with geotechnical specifications as incorporated into project plans.		
Mitigation Measure GEO-2:	**California Building Code Compliance and Seismic Standards.** Structures and retaining walls shall be designed in accordance with the seismic parameters presented in the *Geotechnical Investigation* (Southern California, Inc., May 12, 2016; Appendix D) and applicable sections of Section 1613 of the most current CBC. Prior to issuance of building permits for planned structures,	Geotechnical Engineer and the City of Long Beach Director of Development Services Department, or	Prior to the issuance of building permits

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
	the Geotechnical Engineer and the Director of the City Development Services Department, or designee, shall review building plans to verify that structural design conforms to the requirements of the geotechnical study and the City Municipal Code.	designee	
3.7 Greenhouse Gas Emissions			
The proposed project would not result in significant adverse impacts related to greenhouse gas emissions. No mitigation would be required.			
3.8 Hazards and Hazardous Materials			
Mitigation Measure HAZ-1:	**Predemolition Surveys and Abatement of ACMs, LBPs, and PCBs.** Prior to commencement of demolition activities, the Director of the City of Long Beach Development Services Department, or designee, shall verify that predemolition surveys for asbestos-containing materials (ACMs) and lead-based paints (LBPs) (including sampling and analysis of all suspected building materials) and inspections for polychlorinated biphenyl (PCB)-containing electrical fixtures have been performed. All inspections, surveys, and analyses shall be performed by appropriately licensed and qualified individuals in accordance with applicable regulations (i.e., American Society for Testing and Materials (ASTM) E 1527-05, and 40 Code of Federal Regulations (CFR), Subchapter R, Toxic Substances Control Act [TSCA], Part 716). Wherever evidence of ACMs, LBPs, or PCB-containing electrical fixtures are present in areas proposed for demolition, all such materials shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable	City of Long Beach Director of Development Services Department and Chief of the Long Beach Fire Department, or designees	Prior to the commencement of demolition activities and during demolition activities

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
	regulations during demolition of structures (40 CFR, Subchapter R, TSCA, Parts 745, 761, and 763). During demolition, air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., South Coast Air Quality Management District [SCAQMD]) and to provide safety to workers and the adjacent community. The project Applicant shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the City of Long Beach Fire Department (LBFD) showing that abatement of any ACMs, LBPs, or PCB-containing electrical fixtures identified in these structures has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agencies (40 CFR, Subchapter R, TSCA, Parts 716, 745, 761, 763, and 795 and California Code of Regulations [CCR] Title 8, Article 2.6). An Operating & Maintenance Plan (O&M) shall be prepared for any ACMs, LBP, or PCB-containing electrical fixtures to remain in place and shall be reviewed and approved by the LBFD.		
Mitigation Measure HAZ-2:	**Predemolition Surveys and Abatement of Mold.** Prior to commencement of demolition activities, the City of Long Beach Director of Development Services, or designee, shall verify that predemolition surveys for mold (including sampling and analysis of all suspected building materials) shall be performed. All inspections, surveys, and analyses shall be performed by appropriately licensed and qualified individuals in accordance with applicable regulations. If the predemolition surveys do not find mold, the inspectors shall provide documentation of the	City of Long Beach Director of Development Services Department, or designee	Prior to the commencement of demolition activities and during demolition activities

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures	Responsible Party	Timing for Mitigation or Compliance Measure
inspection and its results to the Long Beach Director of Development Services or designee, to confirm that no further abatement actions are required. Wherever evidence of mold exists in areas proposed for demolition, all such materials shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable regulations during demolition of structure. All remediation activities, worker protection, engineering controls, and personnel protection equipment will be in compliance with the recommendations in the United States Environmental Protection Agency's "Mold Remediation in Schools and Commercial Buildings" (EPA 402-K-0l-001). The project Applicant shall provide documentation (e.g., all required waste manifests, sampling) to the City of Long Beach Director of Development Services, or designee, confirming that abatement of any mold identified in these structures has been completed.		

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
Mitigation Measure HAZ-3:	**Contingency Plan.** Prior to commencement of grading activities, the City of Long Beach Fire Department (LBFD), or designee, shall review and approve a Contingency Plan that addresses the procedures to be followed should on-site unknown hazards or hazardous substances be encountered during demolition and construction activities. The Contingency Plan shall indicate that if construction workers encounter underground tanks, gases, odors, uncontained spills, or other unidentified substances, the contractor shall stop work, cordon off the affected area, and notify the LBFD. The LBFD responder shall determine the next steps regarding possible site evacuation, sampling, and disposal of the substance consistent with local, State, and federal regulations.	Chief of the Long Beach Fire Department, or designee	Prior to commencement of grading activities

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
3.9 Hydrology and Water Quality			
Compliance Measure WQ-1:	**Construction General Permit.** Prior to issuance of a grading permit, the Applicant shall obtain coverage under the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. R4-2014-0024 NPDES Permit No. CAS004003; Construction General Permit). This shall include submission of Permit Registration Documents, including a Notice of Intent (NOI) for coverage under the permit to the SWRCB. The Applicant shall provide the Waste Discharge Identification Number (WDID) to the City of Long Beach Development Services Director, or appropriate designee, to demonstrate proof of coverage under the Construction General Permit. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared and implemented for the proposed project in compliance with the requirements of the Construction General Permit. The SWPPP shall identify construction Best Management Practices (BMPs) to be implemented to ensure that the potential for soil erosion and sedimentation is minimized and to control the discharge of pollutants in storm water runoff as a result of construction activities. Upon completion of construction and stabilization of the project site, the Applicant shall submit a Notice of Termination to the Los Angeles Regional Water Quality Control Board (RWQCB).	City of Long Beach Director of Development Services, or designee	Prior to issuance of a grading permit

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
Compliance Measure WQ-2:	**Groundwater Dewatering Permit.** Should groundwater dewatering activities be required, the Construction Contractor shall comply with the requirements of the Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Order No. R4-2013-0095, Permit No. CAG994004) (Groundwater Discharge Permit), or subsequent permit. The Construction Contractor shall comply with all applicable provisions in the permit, including water sampling, analysis, and reporting of dewatering-related discharges. The Applicant shall submit an NOI for coverage under the permit to the Los Angeles RWQCB at least 60 days prior to the start of dewatering. The Applicant shall submit the WDID to the City of Long Beach Development Services Director, or appropriate designee, to demonstrate proof of coverage under the Groundwater Dewatering Permit. Upon completion of groundwater dewatering activities, the Applicant shall submit a Notice of Termination to the Los Angeles RWQCB.	City of Long Beach Director of Development Services Department, or designee	During groundwater dewatering activities/ 60 days prior to the start of dewatering
Compliance Measure WQ-3:	**Low Impact Development Plan.** In compliance with the *Waste Discharge Requirements for Municipal Separate Storm Sewer System Discharges from the City of Long Beach,* Order No. R4-2014-0024, NPDES No. CAS004003 (City of Long Beach MS4 Permit) and as specified in Chapter 18.74, Low Impact Development Standards, of the City of Long Beach Municipal Code, the Applicant shall submit a Final Low Impact Development (LID) Plan, Standard Urban Storm Water Mitigation Plan (SUSMP), or equivalent (such as a Final *Hydrology & Water Quality Technical Report),* to the City of Long Beach	City of Long Beach Director of Development Services Department, or designee	Prior to issuance of a grading permit

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
	Development Services Director, or appropriate designee, for review and approval prior to issuance of grading permits. The LID/SUSMP Plan shall be prepared consistent with the requirements of the *City of Long Beach Low Impact Development (LID) Best Management Practices (BMP) Design Manual* and shall include the LID BMPs to be incorporated into the project to target pollutants of concern in storm water runoff from the project site.		
Compliance Measure WQ-4:	**Hydrology Report.** Prior to issuance of grading permits, the Applicant shall submit a final hydrology report, or equivalent (such as a Final *Hydrology & Water Quality Technical Report)*, to the City of Long Beach Director of Public Works, or appropriate designee, for review and approval. The hydrology report shall demonstrate, based on hydrologic calculations, that the project's on-site storm conveyance and retention facilities, including landscaped areas, are designed in accordance with the requirement of the Los Angeles County Department of Public Works *Hydrology Manual*.	City Public Works Director, or designee	Prior to issuance of grading permits
3.10 Land Use/Planning			
The proposed project would not result in significant adverse impacts related to land use/planning. No mitigation would be required.			
3.11 Mineral Resources			
The proposed project would not result in significant adverse impacts related to mineral resources. No mitigation would be required.			
3.12 Noise			

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
Mitigation Measure NOI-1:	**Construction Noise:** Prior to issuance of building permits, the City of Long Beach (City), or its designee, shall verify that grading and construction plans include the following requirements to ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved: • Construction activities occurring as part of the project shall be subject to the limitations and requirements of the City's Municipal Code, which states that construction activities shall occur only between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and federal holidays, and from 9:00 a.m. to 6:00 p.m. on Saturdays. No outdoor noise-generating construction activity is allowed on Sundays. • During all project area excavation and on-site grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. • The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project area as much as feasible. • Construction staging areas shall be located as far away from sensitive receptors as possible during all phases of construction.	City of Long Beach, its designee, or its contractor	Prior to issuance of building permits/during construction activities/ during all project area excavation and on-site grading

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
Mitigation Measure NOI-2:	Prior to issuance of an operation permit, the City's Director of Development Services, or designee, shall retain an acoustical engineer who can verify that the project's heating, ventilation and air-conditioning (HVAC) equipment, and any other exterior equipment, is in compliance with both the daytime and nighttime Noise Ordinance requirements. If it is discovered that noise level impacts exceed the City's exterior noise level requirements, additional mitigation would be recommended by an acoustical engineer that may include, but would not be limited to, additional noise barriers and shielding panels surrounding the HVAC equipment.	City Director of Development Services, or designee	Prior to issuance of an operation permit
3.13 Population and Housing			
The proposed project would not result in significant adverse impacts related to population or housing. No mitigation would be required.			
3.14 Public Services and Utilities			
Mitigation Measure PSU-1:	**Construction Staging and Traffic Management Plan.** A Construction Staging and Traffic Management Plan (CSTMP) shall be prepared for approval by the City of Long Beach Traffic Engineer, or designee, and implemented during proposed project construction. If construction would require lane closures on Pacific Coast Highway, the CSTMP shall also be reviewed and approved by the California Department of Transportation (Caltrans). The CSTMP will also include the name and phone number of a contact person who can be reached 24 hours per day regarding construction traffic complaints or emergency situations. In addition, the CSTMP shall take into account and coordinate with other construction staging and traffic	City of Long Beach Traffic Engineer, or designee, and Caltrans (if applicable)	During project construction

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures	Responsible Party	Timing for Mitigation or Compliance Measure
management plans that are in effect or have been proposed for other projects in the City of Long Beach. The CSTMP may include, but not be limited to, the following: • Construction activities shall be scheduled to reduce the effect on traffic flow on arterial streets. • Construction trucks shall be rerouted to reduce travel on congested streets. • The Construction Contractor shall keep haul routes clean and free of debris including but not limited to gravel and dirt as a result of its operations. The Construction Contractor shall clean adjacent streets, as directed by the City Traffic Engineer, or designee, of any material which may have been spilled, tracked, or blown onto adjacent streets or areas. • If hauling or construction operations cause any damage to existing pavement, streets, curbs, and/or gutter along the haul route, the Applicant shall be fully responsible for repairs. The repairs shall be completed to the satisfaction of the City Director of Public Works, or designee, or the California Department of Transportation (Caltrans), as appropriate. • Construction vehicles, including construction personnel vehicles, shall not park on public streets. • Construction vehicles shall not stage or queue where they interfere with pedestrian and vehicular traffic or block access to nearby businesses. • A Caltrans transportation permit shall be obtained for use of		

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures	Responsible Party	Timing for Mitigation or Compliance Measure
oversized transport vehicles on Caltrans facilities. • A traffic management plan shall be submitted to Caltrans for review and approval if construction would require lane closures on Pacific Coast Highway. • If feasible, any traffic lane closures will be limited to off-peak traffic periods, as approved by the City of Long Beach Public Works Department. If lanes of Pacific Coast Highway are closed due to construction, the project Applicant shall notify Caltrans and obtain Caltrans' approval prior to such closures. • The Long Beach Police Department and the Long Beach Fire Department shall be notified a minimum of 24 hours in advance of any lane closures or other roadway work. • The Long Beach Unified School District shall be notified in advance of any lane closures on Pacific Coast Highway. • Temporary traffic control provisions shall be implemented during all construction activities adjacent to public right-of-way to improve traffic flow on public roadways (e.g., flag persons). • Flag persons in adequate numbers shall be provided to minimize impacts to traffic flow and to ensure the safe access into and out of the site. • Flag persons shall be trained to assist in emergency response by restricting or controlling the movement of traffic that could interfere with emergency vehicle access. • All emergency access to the project site and adjacent areas shall be kept clear and unobstructed during all phases of		

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures		Responsible Party	Timing for Mitigation or Compliance Measure
	demolition and construction.		
3.15 Recreation			
The proposed project would not result in significant adverse impacts related to recreation. No mitigation would be required.			
3.16 Transportation/Traffic			
Mitigation Measure TRF-1:	**Signage Prohibiting Through and Left-Turn Movements.** Prior to issuance of a certificate of occupancy, the Applicant, under the direction of Caltrans and/or the City of Long Beach Director of Public Works, or designee, shall install signage prohibiting southbound through and left turn movements during the weekday peak hours (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) from the unsignalized driveways on the project site at Hayes Avenue and Seabright Avenue to Pacific Coast Highway.	Caltrans and/or the City of Long Beach Director of Public Works, or designee	Prior to issuance of a certificate of occupancy
3.17 Utilities/Service Systems			
The proposed project would not result in significant adverse impacts related to utilities/service systems. No mitigation would be required.			
3.18 Tribal Cultural Resources			
Mitigation Measure TCR-1:	**Tribal Cultural Resources: Monitoring Procedures.** Prior to commencement of any ground-disturbing activities, the project Applicant shall present evidence to the City of Long Beach Development Services Department Director, or designee, that a qualified Native American monitor has been contacted and will be allowed access to the project site to provide Native American monitoring services during ground-disturbing project construction activities. The Native American monitor shall be selected by the project Applicant from the list of certified Native	City of Long Beach Director of the Development Services Department, or designee	Prior to commencement of any ground-disturbing activities/Throughout ground-disturbing activities

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures	Responsible Party	Timing for Mitigation or Compliance Measure
American monitors maintained by the Gabrieleno Band of Mission Indians – Kizh Nation. The Native American monitor shall be present at the pre-grading conference to establish procedures for tribal cultural resource surveillance. Those procedures shall include provisions for temporarily halting or redirecting work and creating a 50-foot buffer zone area to permit sampling, identification, and evaluation of resources deemed by the Native American monitor to be tribal cultural resources as defined in Public Resources Code (PRC) Section 21074. Construction activities can continue outside of this buffer zone area. These procedures shall be reviewed and approved by the City of Long Beach Development Services Department Director, or designee, prior to commencement of any surface disturbance on the project site. Throughout ground-disturbing activities, the Native American monitor shall complete monitoring logs on a daily basis that provide descriptions of the daily activities, including construction activities, locations, soil, and any cultural materials identified. The Native American monitor shall possess Hazardous Waste Operations and Emergency Response (HAZWOPER) certification (if the site is determined to have hazardous concerns). The monitor shall also provide insurance certificates, including liability insurance, for any archaeological resources encountered during ground-disturbing activities pertinent to the provisions of the California Environmental Quality Act, California PRC Division 13, Section 21083.2(a) through (k). The on-site monitoring shall cease when project grading and excavation activities are completed, or when the tribal representatives and monitor have		

Table 4.A: Mitigation and Monitoring Reporting Program

Mitigation Measures and Compliance Measures	Responsible Party	Timing for Mitigation or Compliance Measure
indicated that the site has a low potential for archaeological resources.		

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