



Intex Corporate Office and Fulfillment Center

Initial Study – Notice of Preparation

prepared by

City of Long Beach

Planning Bureau, Long Beach Development Services
411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802
Contact: Scott Kinsey, AICP, Planner V

prepared with the assistance of

Rincon Consultants, Inc.

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

April 2023



RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

rinconconsultants.com

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Initial Study

1. Project Title

Intex Corporate Office and Fulfillment Center

2. Lead Agency Name and Address

City of Long Beach
Long Beach Development Services, Planning Bureau
411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802

3. Contact Person, Phone Number and Email

Scott Kinsey, AICP, Planner V
(562) 570-6461
scott.kinsey@longbeach.gov

4. Project Location

4000 Via Oro Avenue
Long Beach, California 90810

Assessor's Parcel Numbers (APNs): 7310-015-034 and 7310-015-019

The 26.47-acre project site is located at 4000 Via Oro, on a vacant property directly across Via Oro Avenue from the current Intex Recreation Corporation building at 4001 Via Oro Avenue in the City of Long Beach. The project site is an open field containing grasses and dirt, but there are also landscaping trees around the boundaries of the site. The project site contains a former oil/gas well on site that was abandoned and plugged in 1944. The parcels on which the project site is located have Assessor Parcel Numbers (APNs) 7310-015-034 and 7310-015-019. APN 7310-015-034 has a main address of 4000 Via Oro Avenue and secondary addresses of 4036 Via Oro Avenue, 4001 Via Alcalde Avenue, 4053 Via Alcalde Avenue, and 4059 Via Alcalde Avenue; and APN 7310-015-019 has an address of 4048 Via Oro Avenue. The site is bounded by West Carson Street to the south, I-710 to the east, Via Oro Avenue to the west, and West Via Plata Street to the north. The project site is regionally accessible from the Long Beach Freeway (Interstate 710, or I-710) and the San Diego Freeway (Interstate 405, or I-405). Figure 1 shows the project location on a regional scale and Figure 2 shows the project site on a local scale. Figure 3 shows photographs of the project site.

Figure 1 Regional Location

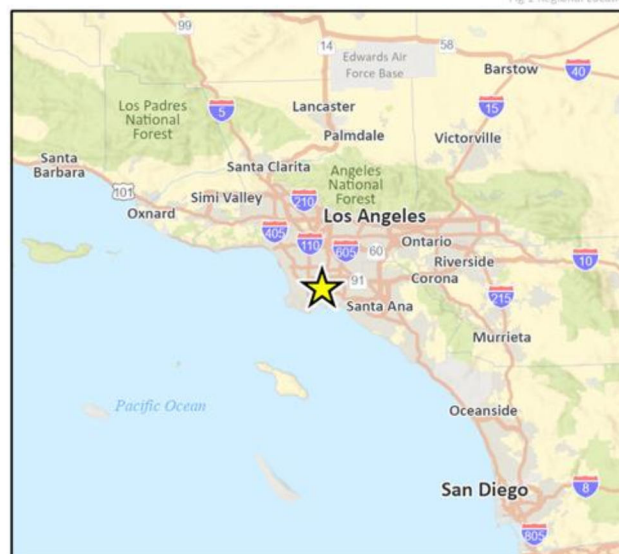
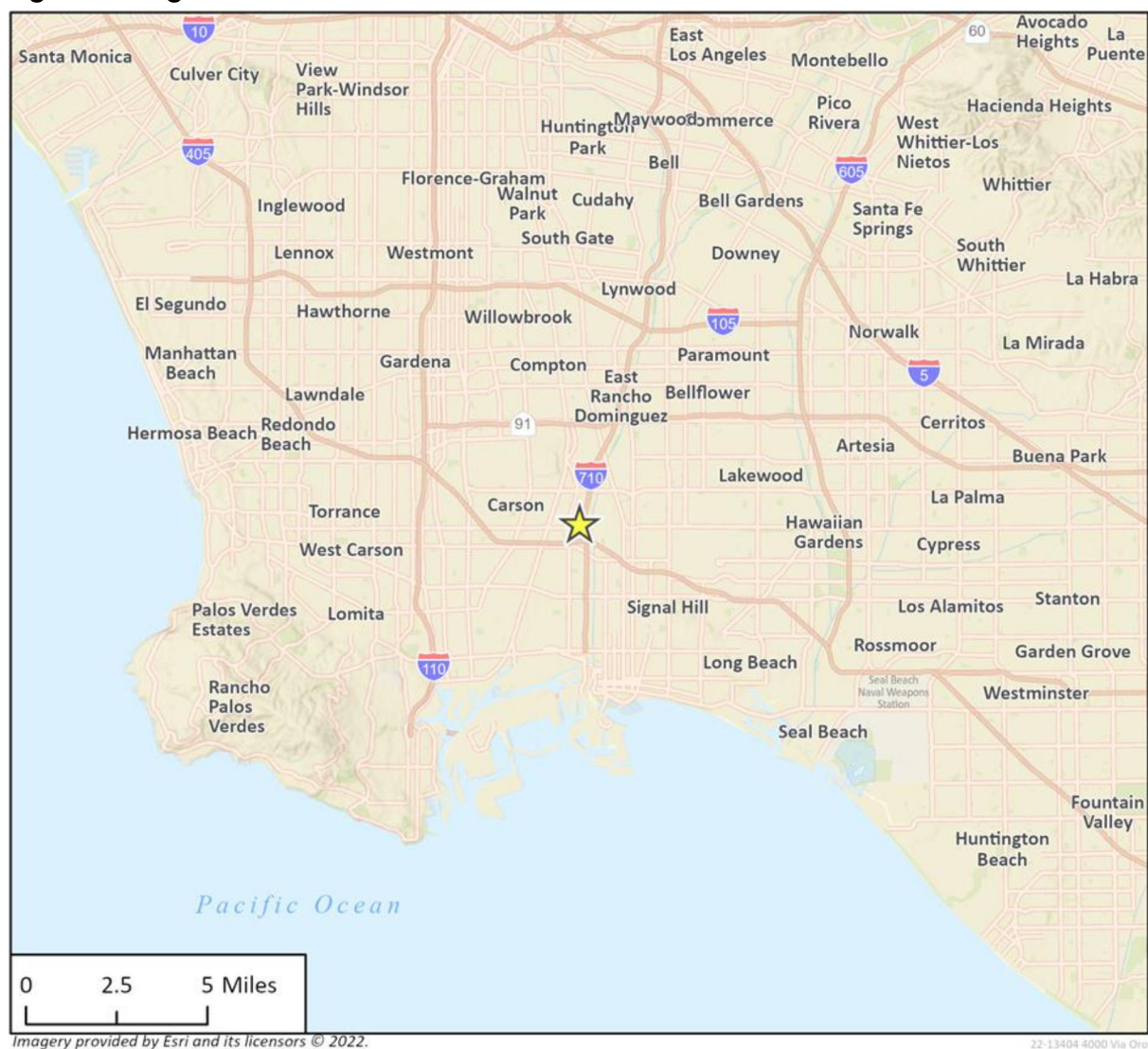


Figure 2 Project Location



Figure 3 Project Site Photographs



Photograph 1. Overview of the project site, looking north from southeast part of project site.



Photograph 2. Overview of the project site, looking south from northeast part of project site.

5. Project Sponsor's Name and Address

Owner

Jeffrey Pierson for Intex Properties South Bay Co.
c/o Ware-Malcomb Architects
10 Edelman
Irvine, California 92618

6. General Plan Designation

"I" (Industrial)

7. Zoning

PD-26 West Long Beach Business Parks Planned Development District

8. Description of Project

The proposed project includes the construction of a new 60-foot-tall, 517,437 square foot (sf) combination warehouse and distribution center with accessory offices. The currently undeveloped project site encompasses two parcels on 26.47 gross acres (26.34 net acres). Goods would be imported via the nearby Port of Los Angeles and Port of Long Beach, sorted, and stored on-site, and then distributed nationally from the project site.

Table 1 summarizes the components of the proposed project. The proposed project site would be developed with 542 parking stalls and 174 loading/trailer parking spaces, all in an open surface parking field. Access to the project site would be via two driveways located along Via Oro Avenue or one driveway located on Carson Street. All solid waste would be stored in an external enclosure that would be locked when not in use. The proposed project site plan is shown in Figure 4. The project would also include signage posted around the project site to indicate entrances and activity nodes, prohibit loitering and trespassing, and warn of surveillance on the site. The project would also include security cameras dispersed throughout the project site.

A major component of the proposed project is the requested street vacation of Via Alcalde Avenue, which forms the eastern boundary of the project site. This right-of-way, once vacated, would become part of the site to be used for vehicle and truck parking and for on-site truck turning and maneuvering. A year-long effort by the project applicant and the City's Public Works Department in conjunction with Caltrans and Metro (LACMTA) has resulted in a determination that the vacation would be feasible and satisfactory to all parties involved.

There are currently about 200 trees on the project site. Under the proposed project, a variety of trees and shrubs would be added to the project site. One parking lot tree has been dedicated for every four parking stalls and one street tree has been dedicated for every 25 feet of street frontage. A total of 103 street trees would be located on all sides of the project site and 138 parking lot trees would be dispersed throughout the site. The proposed project landscaping plan is depicted in Figure 4.

Table 1 Project Summary

Lot and Development Summary	
Lot Summary	
Total Lot Area	1,153,019 square feet (sf)
Building Area and Coverage	
Building Area (Net)	560,039 sf
Footprint	516,880 sf (45% site coverage)
Mezzanine	42,159 sf
Floor Area Ratio (FAR), Gross	0.49
Building Use	
Warehouse	543,239 sf
Office	16,800 sf
Required Parking	
Warehouse	508 stalls
Office	52 stalls
Required Accessible	11 stalls
Total	560 stalls
Proposed Parking	
Auto	570 stalls
Proposed Accessible	10 stalls ¹
Trailer	174 stalls
Truck Docks	
Dock-High Doors	64
Grade-Level Doors	2
Development Standards	
Zoning	
West Long Beach Business Parks Planned Development Zoning District (PD-26)	
Building Setbacks	
Front	20 feet
Side	20 feet
Rear	20 feet
Off-Street Parking	
Standard	8.5 feet x 18 feet
Compact	8 feet x 15 feet
Drive Aisle	24 feet
Required Parking Ratio By Use	
Warehouse	1/1,000 sf
Office (Less than 25% of Total)	1/1,000 sf
Tree Calculations	
Parking Lot Trees Required (1 tree/4 parking spaces)	143
Parking Lot Trees Provided	138 ²
Street Trees Required (1 tree/25 lin. Ft. of street frontage)	110
Street Trees Provided	103

¹ These 10 accessible stalls are included in the total of 570 stalls. Compliance with accessible parking requirements will be subject to regulatory compliance at the time of building permit application, as determined by the City of Long Beach Building and Safety Bureau.

² Compliance with parking lot and street tree requirements will be subject to regulatory compliance at the time of building permit application, as determined by the City of Long Beach Building and Safety Bureau.

Currently there is no natural gas service provided at the project site. If natural gas service is needed for the proposed project, the Long Beach Utilities Department will design and construct all natural gas services and review proposed locations for the new meter and buried service line(s) to be installed. The proposed project would connect to existing electrical lines operated by Southern California Edison. Water and sewer services would be provided by the Long Beach Utilities Department¹. New sewer connections shall be constructed to the smallest sewer main accessible to the site.

¹ Gas service was formerly provided by the Long Beach Energy Resources Department; and water, reclaimed water, and sewer service were provided by Long Beach Water Department, but as a result of a recent City Charter amendment these departments were combined and are now known as the Long Beach Utilities Department.

Figure 4 Illustrative Site Plan



Source: Urban Mosaic, 7/13/2022

9. Surrounding Land Uses

Land uses surrounding the project site consist of commercial and industrial buildings to the north, south, and west (see Figure 5). The Rancho Dominguez Preparatory School (a Los Angeles Unified School District [LAUSD] facility) is located approximately 550 feet west of the project site and Dominguez Elementary School (also an LAUSD facility) is located approximately 780 feet northwest of the project site, both accessible by Santa Fe Avenue. Interstate 710 is east of the project site (see Figure 5). Just east of Interstate 710 is the Metro Blue Line maintenance yard.

10. Required Approvals

In accordance with Sections 15050 and 15367 of the State 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 proposed project would require approvals by the Long Beach Planning Commission and approvals and adoption by the Long Beach City Council, including the following discretionary approvals:

- Site Plan Review: approval by the Planning Commission
- Lot Merger: approval by the Planning Commission or Zoning Administrator
- Street Vacation General Plan Conformity Finding for Via Alcalde Avenue: finding by Planning Commission
- Right-of-Way Vacation for Via Alcalde Avenue: approval by the City Council following project approval and EIR certification by Planning Commission

In addition, ministerial permits, including grading permits, building permits, and public works permits, would be issued by the City to allow site preparation and construction of the proposed project and off-site project infrastructure connections.

No responsible or trustee agencies have been identified for the proposed project.

Figure 5 Surrounding Land Uses Photographs



Photograph 1. View from project looking north along Via Alcalde Avenue, with I-710 freeway on right



Photograph 2. View of commerical buildings to the west of the project site across Via Oro Avenue

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

The City initiated the tribal consultation process, as required under Public Resources Code (PRC) Section 21080.3.1 and consistent with AB 52. The City mailed consultation letters to 11 tribes on January 11, 2023, consistent with the requirements of AB 52, to contacts identified by the Native American Heritage Commission and to Native American tribes that requested notification from the City of Long Beach of projects subject to AB 52. Under AB 52, Native American tribes have 30 days to respond and request further project information and formal consultation. The City received requests for consultation from two tribes. Project-related impacts to tribal cultural resources are potentially significant and these potential impacts, and the outcome of consultation with tribes, will be discussed in an EIR.

Environmental Factors Potentially Affected

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

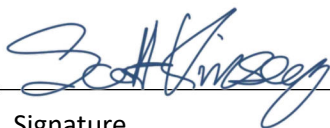
- | | | |
|---|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked=""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

Determination

Based on this initial evaluation:

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

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



Signature

Scott Kinsey, AICP

Printed Name

4/6/23

Date

Planner V

Title

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Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

The project site is a vacant, undeveloped property in an industrial and commercial area in the City of Long Beach. The project would include the development of a 60 foot tall, 560,039 sf warehouse and distribution facility and ancillary offices, and 542 parking stalls and 174 loading/trailer parking spaces, in an open surface parking field, and the vacation of Via Alcalde Avenue. The maximum height limit in the PD 26 zone in which the project is located is four stories, not to exceed 60 feet. The project site is in an urbanized area. Views from the project site include industrial and commercial uses to the north, south, and west; and the I-710 freeway to the east. The project site and surrounding area is flat. There are no scenic vistas that can be viewed from the project site or scenic vistas that would be obstructed by the project.

Scenic vistas provide expansive views of a highly valued landscape feature (e.g., a mountain range, lake, or coastline) or a significant historic or architectural feature. The closest scenic vistas to the project site are the Cerritos Channel and Los Cerritos Wetlands, which are six miles south and 10 miles

southeast of the project site. Development of the proposed project would not obstruct public views of scenic vistas because no scenic vistas are available in the project site vicinity, and the project site is not part of, and would not block views towards, any scenic vista. No impact would occur.

NO IMPACT

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

A review of the California Scenic Highway System indicates that no existing or proposed State scenic highways are located in the vicinity of the project site (Caltrans 2018). The nearest state scenic highway is State Route 1 (Pacific Coast Highway) located approximately 4.8 miles southeast of the project site, in the "Traffic Circle Area" of Long Beach, from where it continues southeast as a scenic highway. The Long Beach Freeway, I-710, runs north to south directly adjacent to the project site, State Highway 47 (CA-47) runs north to south 0.8 mile to the west of the project site and the San Diego Freeway, I-405 runs west to east 0.5 mile to the south of the project site. None of these roadways are officially designated State Scenic Highways.

The project site is devoid of scenic features such as scenic trees, rock outcroppings, and historic resources (see Section 5, *Cultural Resources*). As concluded in checklist question 1(a), development of the project would not result in the obstruction of public views of cultural or historical, or scenic resources on the project site or in the project site vicinity.

About 200 trees are currently located on the project site. The project would involve removal and replacement of some of these trees. Under the proposed project, a variety of trees and shrubs would be added to the project site. The City of Long Beach requires one parking lot tree for every four parking stalls and one street tree for every 25 feet of street frontage, planting additional street trees along areas with roadway frontage, and providing 138 parking lot and 103 street trees (see Figure 4).

Based on the above discussion, the proposed project would have no impact on scenic resources, including those within a state scenic highway.

NO IMPACT

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

As shown in Figure 2, *Project Location*, the project site is in an urbanized area. The project site is located on Via Oro Avenue within an urbanized industrial area of Long Beach. Implementation of the project would change the visual character of the project site by converting an undeveloped vacant lot into a new development with one warehouse/distribution building (including ancillary offices internal to that building), and parking. The proposed development would, however, be similar to the existing industrial and commercial uses that currently surround the project site to the north, south and west.

The proposed project involves the construction of a new 60-foot-tall, 517,437-sf. combination warehouse and distribution center with accessory offices and 542 parking stalls and 174 loading/trailer parking spaces, all in an open surface parking field. The proposed project would be infill development, similar in scale to the buildings currently surrounding the project site. The project site is currently zoned in the "I" (Industrial) Place type of the City's newly adopted General Plan Land Use Element and is also located on "Parcel B" in Subarea I of the West Long Beach Business Parks

Planned Development Zoning District (PD 26). The maximum height limit in the PD 26 zone is four stories, not to exceed 60 feet. The proposed project does not conflict with applicable zoning requirements. For these reasons, the proposed project would be consistent with the City's envisioned visual character and quality of the project site. As the proposed project would not conflict with applicable zoning and other regulations governing scenic quality impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site is currently absent of development and as such, no existing sources of light or glare are present on the project site. Existing sources of light and glare in the project site vicinity are associated with industrial and commercial uses located to the north, south and west of the project site. These sources primarily include exterior building and storage yard security lighting, building windows, and vehicle and truck windshields and headlights, streetlamps and light signals. The proposed project would include similar sources of light and glare on the project site including structural lighting, street lighting, and reflective surfaces on parked cars and building exteriors. The project would be required to comply with all development and design standards, including provisions for materials, of Division II of Chapter 21.33 of the LBMC. Additionally, lighting would be reviewed through the City's Site Plan Review process, as described in Division V of Chapter 21.25—Site Plan Review of the LBMC. It is a typical City condition of approval for large projects to incorporate full-cutoff/BUG²-rated exterior lighting and that is expected to be a condition of approval for this project as well. The project's impacts related to light and glare are therefore less than significant.

LESS THAN SIGNIFICANT IMPACT

² BUG stands for Backlight, Uplight, and Glare (First Light Technologies, 2023)

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2 Agriculture and Forestry Resources

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

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

The California Department of Conservation's 2022 map of Los Angeles County Important Farmland shows that the project site is not in an area consisting of farmland (California Department of Conservation 2022). Therefore, the project would not have an impact on designated farmland.

NO IMPACT

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

The project site and surrounding industrial properties are in an urbanized area. The project site is designated in the "I" (Industrial) Place Type of the City's newly adopted General Plan Land Use Element and is also located on "Parcel B" in Subarea I of the West Long Beach Business Parks Planned

Development Zoning District (PD 26). Uses permitted in PD 26 include manufacturing of various products, industrial activities, service and repair, storage, transportation, communications, utilities and public services, retail, administrative or professional offices, and a variety of similar services typically found in a business center. The project site is not zoned for agricultural use or under any Williamson Act contract. The project would not involve the conversion of farmland to non-agricultural uses; therefore, the proposed project would have no impact with respect to agricultural zoning or other conversion of farmland to non-agricultural use.

NO IMPACT

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

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

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

NO IMPACT

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

The proposed project would redevelop a vacant site for the construction of a new 60-foot-tall, 517,437-sf combination warehouse and distribution center with accessory offices and 542 parking stalls and 174 loading/trailer parking spaces, all in an open surface parking field, does not include the conversion of farmland to non-agricultural uses, and is in an urban area not near any farmland or forest land. The site was used for agriculture from 1963 to 1971 but was not used for agriculture after that time and its development with the proposed project would not convert farmland to a non-agricultural use. Therefore, the proposed project would not involve any changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, no impact would occur.

NO IMPACT

3 Air Quality

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

Air Quality Standards and Attainment

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

Depending on whether the standards are met or exceeded, the SCAB is classified as being in "attainment" or "nonattainment." Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The SCAQMD is in nonattainment for the federal standards for ozone and PM_{2.5} and the state standards for ozone, PM₁₀, and PM_{2.5}. Areas of the SCAB located in Los Angeles County are also in nonattainment for lead. The SCAB is designated unclassifiable or in attainment for all other federal and state standards. Characteristics of O₃, CO, NO₂, SO₂, and suspended particulate matter are described in Table 2.

Table 2 Health Effects Associated with Non-Attainment Criteria Pollutants

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

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

Source: USEPA, 2018a

Air Quality Management

Under state law, the SCAQMD is required to prepare a plan for air quality improvement for pollutants for which the District is in non-compliance. The latest Air Quality Management Plan (AQMP) from 2022 was adopted on December 2, 2022 (SCAQMD 2022). It incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2016 AQMP, including a variety of additional strategies such as regulation, accelerated deployment of available cleaner technology, best management practices, co-benefits from existing programs, incentives, and other Clean Air Act measures to meet the 8-hour ozone standard. The Final 2022 AQMP addresses the need to reduce emissions of NO_x by 67 percent beyond what is required by the adopted rules and regulations in 2037 to meet the 2015 federal ozone standard. The Southern California Association of Government's (SCAG) projections for socio-economic data (e.g., population, housing, employment by industry) and transportation activities from the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal) are integrated into the 2022 AQMP (SCAQMD 2022). The 2022 AQMP builds upon the approaches taken in the 2016 AQMP for the attainment of federal ozone standard and highlights the significant amount of reductions to be achieved. The 2022 AQMP also includes a forecast of 2037 emissions inventories "with growth" based on SCAG's Connect SoCal. The region is

projected to see a 12 percent growth in population, 17 percent growth in housing units, 11 percent growth in employment, and 5 percent growth in VMT between 2018 and 2037. Despite regional growth in the past, air quality has improved substantially over the years, primarily due to the effects of air quality control programs at the local, State, and federal levels (SCAQMD 2022a).

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

Vehicle use, energy consumption, and associated air pollutant emissions are directly related to increased development and growth. A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding the forecasts used in the development of the AQMP. The 2022 AQMP relies on local cities' general plans and the Connect SoCal forecasts of regional population, housing, and employment growth in its own projections for managing Basin air quality.

As discussed in Section 14, *Population and Housing*, the proposed project does not include residential uses or temporary dwelling units and would therefore not directly or indirectly induce substantial unplanned population growth and would be consistent with the population forecasts contained in the 2022 AQMP. These population forecasts are based on local general plans and this project is consistent with the project site's land use designation as described in the Long Beach General Plan. Because the proposed project would not have the potential to generate growth in excess of forecasts used in the AQMP, or result in air pollutant emissions in excess of the forecasts used in the AQMP, it would not conflict with or obstruct implementation of the AQMP. No impact would occur.

NO IMPACT

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

Emissions generated by the proposed project would include temporary construction emissions and long-term operational emissions.

Project construction would generate temporary air pollutant emissions associated with fugitive dust (PM₁₀ and PM_{2.5}) and exhaust emissions from heavy construction vehicles, in addition to reactive organic gases (ROG) that would be released during the drying phase upon application of architectural coatings. It is assumed that the proposed project would comply with SCAQMD Rule 1113 regarding the use of low-volatile organic compound (VOC) architectural coatings. Construction would generally consist of demolition, excavation and grading, building construction, paving, and architectural coating.

Long-term emissions associated with operation of industrial warehouse/distribution uses included in the proposed project would include emissions from vehicle trips (mobile sources); natural gas and electricity use (energy sources); and landscape maintenance equipment, consumer products, and architectural coating associated with onsite development (area sources).

Emissions from construction and operation of the proposed project have the potential to exceed SCAQMD significance thresholds for both regionally significant pollutants and localized significance thresholds, or LSTs. Air quality modeling is necessary to accurately estimate these emissions. This air quality modeling will be done, and the results included and analyzed in an EIR. Until then, this issue remains potentially significant.

POTENTIALLY SIGNIFICANT IMPACT

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

Certain communities or population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Sensitive receptors are defined as land uses that are more likely to be used by these population groups and include health care facilities, retirement homes, school and playground facilities, and residential areas. The sensitive receptors nearest to the project site include two schools (Rancho Dominguez Preparatory School approximately 550 feet [0.1 mile] west of the project site, and Dominguez Elementary School approximately 0.6 mile northwest of the project site), and single-family residences northwest of the project site and southeast of the intersection of Santa Fe Avenue and East Dominguez Street. Due to the project site's proximity to these uses, project-related construction and operational emissions may expose sensitive receptors to additional pollutant concentrations. Air quality modeling is necessary to accurately estimate these emissions at these sensitive receptors. This air quality modeling will be done, and the results included and analyzed in an EIR. Until then, this issue remains potentially significant.

POTENTIALLY SIGNIFICANT IMPACT

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

The proposed industrial warehouse/distribution uses are similar to other commercial and industrial uses in the site vicinity. Substantial objectionable odors are normally associated with uses such as agriculture, wastewater treatment, industrial manufacturing or processing facilities, or landfills, none of which are included in the proposed project. The proposed project would therefore have a less than significant impact related to creation of objectionable odors.

LESS THAN SIGNIFICANT IMPACT

4 Biological Resources

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

- a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The project site is in an urbanized area and does not contain native biological habitat. The project site is currently developed; therefore, special status species are not likely to be found on or around the project site. The project site lacks native vegetation that might otherwise provide habitat for any sensitive or special status species.

The landscaped portion of the public right-of-way bordering the project site contains non-native street trees, some of which would be removed and replaced while others would be retained. Additionally, the project would involve planting additional street trees along areas with roadway frontage. The applicant would be required to comply with conditions of approval that would ensure that trees removed during construction of the proposed project would be replaced. The trees removed could contain bird nests and birds that are protected under the Migratory Bird Treaty Act (MBTA). Birds protected under the MBTA include all common songbirds, waterfowl, shorebirds, hawks, owls, eagles, ravens, crows, native doves and pigeons, swifts, martins, swallows and others, including their body parts (feathers, plumes etc.), nests, and eggs. Even if these trees are replaced, disturbance or removal of the trees during construction of the project could significantly impact nesting birds and/or roosting bats. There is also some potential for bats to use these trees for roosting. These and other migratory species may occur on the project site. Impacts to these species are potentially significant and will be further researched and analyzed in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

- b. *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*
- c. *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Biological resources located within and near the project site could be adversely affected by project construction and operation. The Los Angeles River is located about 0.2 mile east of the project site. Although it is separated from the project site by this distance and intervening structures and land uses such as the I-710 freeway and the Metro Blue Line Yard, the Los Angeles River and associated riparian habitat and wetlands could be affected by the proposed project if the project created polluted runoff or hydrological changes to these resources. Therefore, impacts to these biological resources, and the proposed project's potential to conflict with any local policies or ordinances protecting such biological resources, are potentially significant and will be studied in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

- d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

The project site is surrounded by developed industrial and residential properties and established transportation corridors. Due to the proximity of the project site to the Los Angeles River, impacts to

wildlife movement or corridors may be potentially significant and further analysis is required in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

- e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*
- f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The Long Beach Municipal Code Title 14, Chapter 14.28 states provisions on planting of trees along public streets. Most or all of the trees currently located in the landscaped portion of the public right-of-way bordering the project site would remain or be replaced, and the proposed project includes additional trees and landscaping, but potential conflicts with local policies or ordinances protecting biological resources (including trees) will be analyzed in an EIR, as will the project's potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

POTENTIALLY SIGNIFICANT IMPACT

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5 Cultural Resources

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

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

Further investigation regarding changes to the setting of the project site and as to whether the project site or adjacent properties contain any additional historic resources defined under the California Public Resources Code § 15064.5 is necessary in order to determine the potential significance of this impact, and this issue will be further addressed in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

- b. *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*
- c. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

PRC Section 21083.2(g) generally defines a unique archaeological resource as an artifact, object, or site. As discussed in Public Resource Code 2103.2, if a project can be demonstrated to cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b], and [c]). If archaeological resources are identified, the resource would be required to be treated in accordance with the provisions of Section 21083.2 of the Public Resources Code as appropriate. Treatment may involve procedures such as avoiding the site entirely, halting work and establishment of buffers until a qualified archaeologist is retained, and/or establishment of a treatment plan and/or testing. If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98.

The project site is in an urbanized area. The project site is vacant and undeveloped, and there is no evidence that archaeological resources or human remains are present on-site. In the unlikely event

that such resources are unearthed during excavation and grading, applicable regulatory requirements pertaining to the handling and treatment of such resources would be followed. Although project implementation is not expected to uncover archaeological resources or human remains, the possibility for such resources to exist beneath the surface cannot be ruled out until excavation occurs. Accordingly, potential impacts to these resources will be studied further in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

6 Energy

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

- a. *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*
- b. *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

The project's proposed construction activities, daily operational activities, and mobile sources (vehicle use) would generate energy demand. Project-related construction energy demand would be confined to the period, which would be relatively short in relation to the overall life of the proposed project. Operational energy use (electricity and natural gas) and transportation (petroleum) would continue for the life of the project.

In order to fully and accurately account for the proposed project's energy demands in all these categories, the project's energy use must be modeled based on details related to construction schedule, construction equipment, and building materials; energy use during operation; and transportation emissions based on the results of a traffic study. In addition, consideration of any proposed sustainable design features would need to be incorporated into the models and estimates. To understand how the project would consume energy resources and comply or conflict with a plan for renewable energy, these issues will be further evaluated in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Seismic-related ground failure, including liquefaction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

A Preliminary Geotechnical Investigation was prepared for the project site by LeRoy Crandall and Associates in 1988 (Appendix A). It concluded that the project proposed at that time (described in the report as a mixed-use development with commercial and office buildings of a maximum of 50 feet in height, with potential subterranean construction 1 or 1.5 levels below grade) would be feasible from a geotechnical engineering standpoint provided that the recommendations presented in the report are adhered to during planning and construction of the project. The following is based on the information and analysis contained in the Preliminary Geotechnical Investigation.

- a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*

The project site is located in a seismically active region of Southern California; however, there are no known faults on the project site, according to the Seismic Safety Element of the City's General Plan (City of Long Beach 1988). The nearest known active fault is the Cherry Hill Fault of the Newport-Inglewood Fault Zone, located approximately 0.3 mile east of the project site (LeRoy Crandall and Associates 1988). The project site is not located in an Alquist-Priolo earthquake fault zone. Furthermore, ground breakage has not been observed along the faults of the Newport-Inglewood Zone in historic times. The potentially active fault nearest the site is the Richfield Fault, located approximately 1.7 miles southwest of the site, at its nearest point. The potential for movement on the Richfield Fault during the life of structures on the project site is considered low (LeRoy Crandall and Associates 1988). The proposed project would comply with State of California standards for building design through the California Building Standards Code (California Code of Regulations, Title 24), which requires various measures of all construction in California to account for hazards from seismic shaking. Therefore, the proposed project would not directly or indirectly cause adverse impacts associated with surface fault rupture. No impact would occur.

NO IMPACT

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

The project site is located in the highly seismic Southern California region where several fault systems are considered to be active or potentially active. The nearest known active fault is the Cherry Hill Fault of the Newport-Inglewood Fault Zone located approximately 0.3 mile east of the project site (LeRoy Crandall and Associates 1988). The potentially active fault nearest the site is the Richfield Fault, located approximately 1.7 miles southwest of the site, at its nearest point. The Newport-Inglewood fault zone could create substantial ground shaking if a seismic event occurred along that fault. Similarly, a strong seismic event on any other fault system in Southern California has the potential to create considerable levels of ground shaking throughout the City. Therefore, damage to structures may be unavoidable during large earthquakes. However, the California Building Code (CBC) requires structural design and construction methods which will be employed to minimize adverse effects of seismic ground shaking. Because the project would comply with the CBC, and the proposed project would not exacerbate ground shaking conditions, impacts related to seismically induced ground shaking would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Liquefaction is a process whereby soil is temporarily transformed to fluid form during intense and prolonged ground shaking or because of a sudden shock or strain. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface and where the soils are composed of poorly consolidated fine to medium sand. According to the Long Beach Quadrangle, California 7.5 Minute Seismic Hazard Zone Map (DOC 1998), the project site is in a designated liquefaction hazard zone. Furthermore, the Preliminary Geotechnical Investigation report identified that the site is within an area of moderate to significant liquefaction potential but the potential for onsite liquefaction is considered low (LeRoy Crandall 1988). The location of the site in relation to known active faults indicates that the site may be exposed to greater risk than other locations on the Los Angeles coastal plain due to the proximity of the Newport-Inglewood Fault zone. However, the effects of shaking can be minimized by proper structural design and proper construction. The results of site-specific geologic reports will be analyzed in an EIR, which will identify site-specific geologic conditions, and site-specific hazards related to seismic activity.

POTENTIALLY SIGNIFICANT IMPACT

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

According to the City of Long Beach Seismic Safety Element (1988), the City is relatively flat and characterized by slopes that are not high (less than 50 feet) or steep (generally sloping flatter than 1-1/2:1, horizontal to vertical). The State Seismic Hazard Zone map of the Long Beach Quadrangle indicates that earthquake-induced landslide hazard areas are not present on the project site (DOC 1998). Additionally, according to the Preliminary Geotechnical Investigation (LeRoy Crandall and Associates 1988), the property is located on relatively flat-lying ground with no slope stability problems and no potential for lurching (movement at right angles to a steep slope during strong ground shaking), and the property is not known to be on or in the path of any existing or potential landslide. As such, there is no risk of landslides on the site.

NO IMPACT

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

Ground-disturbing activities associated with implementation of the proposed project may result in the removal of some topsoil to construct the proposed warehouse/distribution center. Standard construction best management practices (BMPs) would be implemented to avoid or minimize soil erosion associated with ground-disturbing activities. Implementation of erosion control measures described in the City's National Pollutant Discharge Elimination System (NPDES) and SUSMP Regulations Manual (see Chapter 18.61.050 of the LBMC), as well as adherence to requirements provided in the NPDES permit for construction activities would avoid or minimize potential impacts.

Key requirements in the NPDES permit include the following:

- Development of a Stormwater Pollution Prevention Plan (SWPPP) and keep it up to date
- Completion and submittal of a Notice of Intent (NOI)
- Implementation of erosion and sediment controls as well as pollution prevention throughout the entire construction project

- Conduct required inspections to verify compliance with the permit, routine maintenance, complete documentation of all site inspections, and compliance with turbidity monitoring requirements
- Comply with State, Tribal, or territory-specific requirements

Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*
- d. *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

According to Plate 9, "Slope Stability Study Areas" of the Long Beach General Plan Seismic Safety Element, the project site is not located in an area of slope instability (City of Long Beach 1988) and no potential for lurching. As discussed above in item a.3., the project site is underlain by potentially liquefiable soils; however, with proper mitigation, the depths and thicknesses of the liquefiable soil layers make foundation bearing failure improbable in the event of liquefaction. Compliance with the recommendations of the geotechnical investigation would minimize impacts from geologic hazards such as landslides, lateral spreading, subsidence, liquefaction, and collapse if such hazards are present on the project site:

- Proper structural design and proper construction
- Mitigation of any contaminants from past oil pump and oil storage operations be directed toward the Los Angeles River (away from the subject site)
- Foundation considerations that assume footings be carried into the firm natural soils to impose a net dead plus live load pressure of 4,000 pounds per square foot or friction piling as an alternative foundation type
- Excavation may be sloped back at ¾:1 in lieu of using shoring, if the necessary space is available
- Provide support for floor slabs and walks on grade by replacing the excavations with properly compacted fill
- Floor slab support be supported on grade or where a capillary break is considered necessary, the floor slabs may be supported on a layer of gravel or on an impermeable membrane

Subsidence is the sudden sinking or gradual downward settling of the earth's surface with little or no horizontal movement. Subsidence is caused by a variety of activities, which include, but are not limited to, withdrawal of groundwater, pumping of oil and gas from underground, the collapse of underground mines, liquefaction, and hydrocompaction. Lateral spreading is the horizontal movement or spreading of soil toward an open face. The soil profile of the project site is characterized by alluvial materials comprised of sand and clay underlying a layer of artificial fill within the upper 2.5 feet (LeRoy Crandall and Associates 1988).

The proposed project would be required to comply with California Building Code requirements related to these hazards. Nevertheless, possible impacts associated with these soil-related hazards will be further studied in an EIR, based on site-specific geologic reports.

POTENTIALLY SIGNIFICANT IMPACT

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

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

NO IMPACT

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

Rincon evaluated the paleontological sensitivity of the geologic units that underlie the project site to assess the projects potential for significant impacts to scientifically important paleontological resources. The analysis was based on the results of a paleontological locality search and a review of existing information in the scientific literature regarding known fossils within geologic units mapped at the project site and the Society of Vertebrate Paleontology (SVP) system for assessing paleontological sensitivity (SVP 2010). Sedimentary rock units can be assigned a high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources. Following the literature review, a paleontological sensitivity classification was assigned to each geologic unit mapped within the project area. This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present. The potential for impacts to significant paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units.

The geology of the region surrounding the project site was mapped by Saucedo et al. (2016), who identified a single geologic unit, Quaternary young alluvium (Unit 2), underlying the project site. Quaternary young alluvium (Unit 2) consists of poorly consolidated and poorly sorted clay, silt, and sand, that represent floodplain deposits from the Holocene to late Pleistocene (Saucedo et al. 2016). A geotechnical report conducted for the project site reported an approximately 2.5-foot-thick layer of artificial fill overlying at least 63 feet of Holocene alluvium, which represented the maximum depth of the analysis' test borings (LeRoy Crandall and Associates 1988). Holocene sediments are generally considered too young (i.e., less than 5,000 years old) to preserve paleontological resources (SVP 2010). Therefore, Quaternary young alluvium (Unit 2) has low paleontological sensitivity.

A fossil locality search of the Natural History Museum of Los Angeles County recovered no known localities within the project site (Bell 2023). However, there are two known fossil localities bearing mammoth (*Mammuthus*) and camel (Camelidae) fossils less than 1.2 miles west of the project site found 24 to 30 feet below the surface, in unnamed Pleistocene sediments, which could correspond to the same type of sediments underlying Quaternary young alluvium (Unit 2) that is found in the project site.

The project site is previously disturbed, and no mass excavations for major underground structures (e.g., basements, underground parking, utilities) are anticipated. Therefore, ground disturbance will likely be limited to the uppermost few feet of sediment. At this depth, sediments are anticipated to consist of artificial fill or low-sensitivity Quaternary young alluvium (Unit 2) and not the potentially fossiliferous Pleistocene sediments (LeRoy Crandall and Associates 1988; Saucedo et al. 2016). Therefore, this project is anticipated to have a less than significant impact on paleontological resources.

LESS THAN SIGNIFICANT IMPACT

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8 Greenhouse Gas Emissions

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

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

GHGs occur naturally and from human activities. Human activities that produce GHGs include fossil fuel burning (coal, oil, and natural gas for heating and electricity, gasoline and diesel for transportation); methane generated by landfill wastes and raising livestock; deforestation activities; and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆). Since 1750, estimated concentrations of CO₂, CH₄, and N₂O in the atmosphere have increased over by 36 percent, 148 percent, and 18 percent respectively, primarily due to human activity. Emissions of GHGs affect the atmosphere directly by changing its chemical composition. Changes to the land surface indirectly affect the atmosphere by changing the way in which the Earth absorbs gases from the atmosphere.

According to California's Fourth Climate Change Assessment, statewide temperatures from 1986 to 2016 were approximately 1°F to 2°F higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2018).

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

The project's proposed construction activities, energy use, daily operational activities, and mobile sources (traffic) would generate GHG emissions. Project-related construction emissions would be

confined to the construction period of the proposed project. Operational emissions sources include area sources (consumer products, landscape maintenance equipment, and painting), energy use (electricity and natural gas), solid waste, electricity to deliver water, and transportation emissions.

To fully and accurately account for the proposed project's emissions in all these categories, the project's emissions must be modeled based on details related to construction schedule, construction equipment, and building materials; energy use during operation; and transportation emissions. Emissions related to construction and operation of the proposed project will be modeled and evaluated in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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

The City of Long Beach adopted its first-ever climate action plan on August 16, 2022. The Long Beach Climate Action Plan (LB CAP), known as the Climate Action and Adaptation Plan (CAAP) prior to adoption by the City Council, is a comprehensive planning document that addresses climate action and climate adaptation, and help the City to comply with various local, regional, State, and federal regulations to significantly reduce emissions. It will also guide and reduce the City's GHG emissions. The LB-CAP outlines a course of action to reduce municipal and communitywide GHG emissions that contribute to climate change. It includes emission reduction adaptations and mitigations in the following areas:

- Infrastructure and programs to improve public health
- Water efficiency and conservation
- Energy use and efficiency
- Transportation and mobility
- Waste reduction and recycling
- Community leadership and engagement

The proposed project would be consistent with the LB-CAP if it includes provisions to implement the applicable LB-CAP GHG reduction measures. Consistency with applicable measures will be evaluated in an EIR. The GHG analysis included in the EIR will consider the 2030 statewide 40 percent GHG emissions reductions targets in Senate Bill 32, which took effect January 1 2017; Executive Order B-55-18, which took effect September 2018, established a statewide goal of carbon neutrality by 2045; and CARB's Scoping Plan, which was adopted in November 2022 (CARB 2022).

POTENTIALLY SIGNIFICANT IMPACT

9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

The proposed warehouse/distribution uses would not involve the routine transport, use or disposal of hazardous substances, other than minor amounts used for maintenance and landscaping of the project site. Project construction would involve the use of potentially hazardous materials such as vehicle fuels and fluids that could be released should an accidental leak or spill occur. However, standard construction best management practices for the use and handling of such materials would be implemented to avoid or reduce the potential for such conditions to occur. Any use of potentially hazardous materials during construction would be required to comply with all local, state, and federal regulations regarding the handling of potentially hazardous materials. For example, operation of the project would be required to comply with all applicable State and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the California Code of Regulations, Title 22. The Los Angeles River is located about 0.2 mile east of the project site, but construction would be limited to the project site and, for any offsite sewer line improvements, adjacent right-of-way. Therefore, with adherence to all applicable laws, impacts associated with the routine transport, use, or disposal of hazardous materials; or reasonably foreseeable upset and accident conditions involving the release of hazardous materials (not including releases from potential subsurface contamination, which is analyzed under impact 9d) would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The schools closest to the project site are Rancho Dominguez Preparatory School, which is located approximately 550 feet (0.1 mile) west of the project site; and Dominguez Elementary School, which is located 0.6 mile northwest of the project site. While the proposed project would not have a significant impact from reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (see impact 9a, b), other types of releases (such as releases from potential subsurface soil contamination, or hazardous emissions from on- and off-site project-related vehicles) could be significant. Therefore, there would be potentially significant impact relating to hazardous emissions or handling of hazardous materials, substances or waste within 0.25 mile of an existing school. Further analysis of this issue will be discussed in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

- d. *Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

A preliminary soil analysis conducted by Applied Geosciences, Inc. (May 1988) determined that residual concentrations of chlorinated pesticides Dichlorodiphenyltrichloroethane (DDT) and dichlorodiphenyldichloroethylene (DDE) were present in the surficial soils at the site but that soil mitigation would not be required since the reported concentrations were below the Total Threshold limit Concentration (TTLC) for compounds reported. The report noted that “there appears to be a

moderate potential for environmental contamination due to a former oil/gas well on the site.” (Leroy 1988). Leroy indicated that an oil/gas was present at the site in 1944 and was abandoned the same year without producing. Therefore, Leroy indicated that the “likelihood of extensive contamination” is remote. However, Leroy indicated that the Department of Oil and Gas may require re-abandonment of the on-site well if buildings are to be placed over the well. Nevertheless, in order to determine the potential significance of this impact, it is necessary to conduct a standard record search from federal, state, county and city environmental record sources for known hazardous materials contamination at the project site; assess applicable Phase I environmental assessments (ESA) or other technical reports that may be available from the City, applicant, or other property owners in the study area; and examine files readily available from online databases, the Los Angeles County Fire Department, and the Regional Water Quality Control Board concerning past contamination spills and/or cleanup activities. This analysis will be conducted as part of an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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

The project site is not located within an airport land use plan, or within two miles of a public airport or public use airport. The closest airports are Long Beach Airport, located approximately 5.6 miles to the southeast, and Compton Woodley Airport, located approximately six miles to the northwest. No impact would occur. According to the Los Angeles County Airport Land Use Commission (ALUC), the project site is outside the noise contours of both airports (ALUC 1991).

NO IMPACT

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

Under the West Long Beach Business Parks Planned Development for PD 26 Developer Off-Site Conditions, developments requiring site plan review, such as this proposed project, would require roadway enhancements to accommodate development intensity. Also, in accordance with the Public Safety Element of the General Plan, emergency response and evacuation procedures would be developed through the City in coordination with the police and fire departments. The proposed project would therefore not involve the development of structures that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site is not located in a wildland fire hazard area as defined by the Department of Forestry and Fire Protection (CalFire 2022). The project would not affect the potential for wildland fires to occur or expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

NO IMPACT

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10 Hydrology and Water Quality

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

- a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*
- 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 or through the addition of impervious surfaces, in a manner which would:*
 - (i) *Result in substantial erosion or siltation on- or off-site?*
 - (ii) *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*
 - (iii) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*
 - (iv) *Impede or redirect flood flows?*

The proposed project would alter existing drainage patterns on the project site by introducing additional structures and impervious surfaces, but it would not alter the course of a stream or river. During construction of the project, local drainage patterns could be temporarily altered, and erosion could occur that could produce polluted runoff or negatively affect stormwater drainage systems. However, the proposed project would be required to comply with the NPDES Multiple Separate Storm Sewer System (MS4) Permit (Order No. R4-2021-0105 NPDES Permit No. CAS004004) issued by the Los Angeles Regional Water Quality Control Board, which would require implementation of Best Management Practices (BMPs). BMPs would be required to reduce polluted runoff from the project site by retaining, treating, or infiltrating polluted runoff onsite. Nonstructural BMPs used in low impact development (LID) aim to lessen stormwater runoff impacts through sound site planning and design, including practices such as minimizing site disturbance, preserving important site features, reducing and disconnecting impervious cover, enforcing water conservation, implementing outdoor horticulture areas, and maintaining natural drainage features. Structural BMPs utilized to regulate and treat runoff are also considered LID-BMPs if they perform these functions close to the runoff's source. Furthermore, Structural LID-BMPs include various types of basins, filters, surfaces, and devices located on individual lots in a residential development or throughout a commercial, industrial, or institutional development site in areas not typically suited for larger, centralized structural facilities.

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

LESS THAN SIGNIFICANT IMPACT

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

The major aquifers beneath Long Beach are known as the 400-foot Gravel, the 200-foot Sand, and the Gaspar Zone (Long Beach Conservation General Plan, 1973). These aquifers have a storage capacity of approximately 30 million acre-feet of water. Water services will be provided by the Long Beach Utilities Department (LBUD), which primarily relies upon groundwater extracted locally from the Central Basin to meet customer water demands, as well as purchasing imported water from the Metropolitan Water District (MWD) to make up the difference between demand and groundwater

supplies. The Urban Water Management Plan (UWMP) currently has adequate supplies and mitigation and emergency plans (UWMP 2022). Furthermore, the proposed use of the is consistent with its land use designation and is therefore accounted for, at a macro level, by the provider's UWMP. A Water Supply Assessment is also not required for this project because it does not expect to use the amount of water equivalent to, or greater than that used by a 500 dwelling unit development. Given the facts above and the relatively small amount of water used by the proposed project, development and operation of the project would not deplete local groundwater supplies and no impact would occur.

NO IMPACT

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

The project site is located about 5 miles northeast of the Pacific Ocean and 0.2 mile west of the concrete-lined Los Angeles River channel; however, it is not located in an inundation or tsunami zone (California Department of Conservation 2021). The dam closest to the project site is Whittier Narrows Dam, approximately 17 miles to the north. Additionally, the project site is not located near a body of water that would be subject to seiche and is not located on or near slopes subject to mudflow events. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the project site is not located in a 100-year flood zone (Map # 06037C1955F). The project site is situated in Zone X, which refers to an area with reduced flood risk due to levee (FEMA 2008). The project would not result risk release of pollutants due to project inundation. Therefore, no impact would occur.

NO IMPACT

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

Potential water quality impacts associated with the proposed project are discussed in Section 10 a-c of this Initial Study. In September of 2014, the California Legislature enacted comprehensive legislation aimed at strengthening local control and management of groundwater basins throughout the state. Known as the Sustainable Groundwater Management Act (SGMA), the legislation provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for State intervention when necessary to protect the resource. The West Coast Subbasin of the Coastal Plain of the Los Angeles West Coast Groundwater Basin, which underlies the project site, is designated as a "very low priority" basin and is therefore not required per SGMA to be managed by a Groundwater Sustainability Agency through implementation of a Groundwater Sustainability Plan (California Department of Water Resources 2023). Furthermore, the Land Use Covenant (LUC) prohibits the extraction or removal of groundwater without a Groundwater Management Plan that has been approved in advance by the Department of Toxic Substances Control in writing. Based on groundwater levels beneath the project site, it is not anticipated that construction activities would encounter groundwater. As mentioned in impact discussion c. above, though project would use minimal amounts of groundwater supply, the water is accounted for and adequate for this proposed project and would not further exacerbate groundwater supply. The project would not otherwise substantially degrade water quality. No impact would occur.

NO IMPACT

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11 Land Use and Planning

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

a. Would the project physically divide an established community?

The proposed project involves development of a new warehouse/distribution center in an urbanized area of Long Beach, on a vacant site that has developed surrounding areas with industrial, commercial, and residential uses. The project does not include new roads or other facilities that would be physically divide the community. The Via Alcalde Avenue that is proposed for vacation, and the proposed right of way, are immediately east of the project site, respectively, and would not divide the community. There would be no impact.

NO IMPACT

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

Applicable land use plans for the proposed project include the Long Beach General Plan Land Use Element (City of Long Beach, 2019) and the West Long Beach Business Parks Planned Development District (PD-26) (City of Long Beach, West Long Beach Business Parks Planned Development Plan). Other policy documents with relevance and applicability to the proposed project include the Los Angeles River Master Plan, Long Beach RiverLink Plan, Lower Los Angeles River Revitalization Plan, and the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) of the Southern California Association of Governments (SCAG). These various Los Angeles River plans are advisory/aspirational, not regulatory. As described in Section 10, *Required Approvals*, the proposed project requires Site Plan Review, a lot merger, and General Plan Conformity Finding for Street Vacation from the City of Long Beach. To determine the project's consistency with applicable plans and policies in terms of its potential environmental impacts, this issue will be studied further in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*
- b. *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

The project site is in an urbanized area of Long Beach that is not used for mineral resource extraction and is not in a state-designated or locally designated mineral resource zone. The project site has a former oil/gas well on the site that was abandoned and plugged in 1944. The proposed project would not result in the loss of availability of a known mineral resource. No impact would occur.

NO IMPACT

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13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	■	□	□	□
b. Generation of excessive groundborne vibration or groundborne noise levels?	■	□	□	□
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	□	□	□	■

Noise is unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). Other metrics for measuring noise include the day-night average sound level (Ldn or DNL), which is the average noise level over a 24-hour period with a 10-dBA penalty for noise occurring during nighttime (10 PM to 7 AM) hours; and the Community Noise Equivalent Level (CNEL), which is the average sound level over a 24 hour period, with a penalty of 5 dB added between 7:00 PM and 10:00 PM and a penalty of 10 dB added for the nighttime hours of 10:00 PM to 7:00 AM. Because of the way the human ear works, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from point sources (such as construction equipment). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance. Noise levels may also be reduced by the introduction of intervening structures. For example, a single row of buildings between the receptor and the noise source reduces noise levels by about 5 dBA, while a solid wall or berm that breaks the line-of-sight reduces noise levels by 5 to 10 dBA.

- a. *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*
- b. *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

The project site is located in an urban area with elevated ambient noise levels from I-710 to the east. Project-related construction could temporarily increase noise levels at nearby noise-sensitive receptors such as nearby schools and residences, while project operation could permanently increase noise from stationary and mobile (traffic) sources, which may also adversely affect such receptors. Impacts related to these issues are potentially significant and will be addressed in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

- c. *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The project site is not located within an airport land use plan, or within two miles of a public airport or public use airport. The closest airport is Long Beach Airport, located approximately 5.6 miles to the southeast. No impact would occur.

NO IMPACT

14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project:

- Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

According to the California Department of Finance (DOF), the City of Long Beach has an estimated population of 460,682 with an average household size of 2.62 persons (DOF 2022). The Southern California Association of Governments (SCAG) estimates that the City's population will increase to 489,600 by 2045, which is an increase of 6.28 percent or 28,918 persons (SCAG 2023). The proposed project does not include residential development and would therefore not directly cause population growth. The proposed project would create jobs that could indirectly cause population growth through employees that may relocate to the area. SCAG estimates that employment in the City of Long Beach will increase to 185,400 by 2045, which is an increase of 18.92 percent or 29,500 jobs from 155,900 jobs in 2016 (SCAG 2023). According to rates from the SCAG 2001 Employment Density Study Summary Report, 543,239 sf of warehouse facilities and 16,800 sf of office headquarters would house approximately 358 employees (543,239 combined sf at 1,518 sf per employee) (SCAG 2001). These 358 employees would equal about 1 percent of the 29,500 new jobs expected in the City by 2045. Therefore, the proposed project would not cause a substantial increase in population or induce unplanned population growth. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Because the proposed project would be developed on a vacant lot, it would not displace existing housing or people and would not necessitate the construction of replacement housing elsewhere. No impact would occur.

NO IMPACT

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15 Public Services

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

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

Fire protection is provided by the Long Beach Fire Department (LBFD). The nearest fire stations to the project site are LBFD Station No. 11 at 160 East Market Street approximately 3.2 miles northeast of the project site, and Station No. 13 at 2475 Adriatic Avenue approximately 2.4 miles south of the project site. As identified in Chapter 18.48 of the LBMC, the City of Long Beach has adopted the California Fire Code (2016 edition). The Fire Code contains regulations related to construction, maintenance and design of buildings and land uses. The proposed project would be required to adhere to all Fire Code requirements.

The proposed project would involve development of a new 560,039 sf warehouse and distribution building on the currently vacant project site, which would incrementally increase demand for fire protection services and could potentially create the need for new or expanded fire protection facilities. This potentially significant impact will be further analyzed in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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

Law enforcement services in Long Beach are provided by the Long Beach Police Department (LBPD). Protection services include emergency and non-emergency police response, routine police patrols, investigative services, traffic enforcement, traffic investigation, and parking code enforcement. LBPD consists of approximately 800 sworn police officers and total staffing of over 1,200 employees (LBPD 2023). Based on a current total population of 460,682 (DOF 2022), the current officer to population ratio is 1.7 sworn officers per 1,000 residents. The Patrol Bureau includes one specialized Field Support Division and three geographical divisions: North, East and West. The project site is served by the LBPD West Division Station, located at 1835 Santa Fe Avenue, approximately 3.1 miles south of the project site.

Although the proposed project does not include housing construction, it includes new warehouse and distribution facilities that would require police protection. Therefore, demand for police protection could be altered by the project and new or expanded police protection facilities could potentially be needed. This potentially significant impact will be further analyzed in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

- a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?*
- a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?*
- a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?*

The proposed project does not include housing construction and would not generate substantial unplanned population growth (see Section 14, *Population and Housing*). Therefore, the proposed project would not increase demand for schools, parks, or other public facilities. There would be no impact.

NO IMPACT

16 Recreation

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

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

As discussed in Section 14, *Population and Housing*, the proposed project does not involve housing construction and would not generate substantial unplanned population growth. Also, the proposed project is a commercial use and employees of the project site would not contribute substantially to use of local parks during their workdays. Therefore, the proposed project would not increase demand for or use of recreational facilities. The project also does not include any recreational facilities. There would be no impact to or from recreational facilities.

NO IMPACT

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17 Transportation

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

- a. *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*
- b. *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*
- c. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*
- d. *Would the project result in inadequate emergency access?*

The addition of a warehouse/distribution center on the project site could increase vehicular traffic to and from the site as well as demand for transit. An April 2020 report by David Evans & Associates entitled *Feasibility Study for Proposed Closure of Via Alcalde Avenue for Intex Corporate Office and Fulfillment Center* documents potential transportation deficiencies associated with the proposed vacation of Via Alcalde Avenue. However, this report does not analyze the project's vehicle miles traveled (VMT) impacts, which is the appropriate metric for analyzing a project's transportation impacts under CEQA Guidelines section 15064.3, subdivision (b). Transportation-related impacts are therefore potentially significant and will be further studied in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	■	□	□	□
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	■	□	□	□
<hr/>				
a. <i>Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?</i>				
b. <i>Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?</i>				
Tribal cultural resources are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:				
1) Included or determined to be eligible for inclusion in the California Register of Historic Resources (CRHR), or				
2) Included in a local register of historical resources				

Tribal cultural resources are also resources determined by the lead agency (which for this project is the City of Long Beach), in its discretion and supported by substantial evidence, to be significant. In making this determination, the lead agency is required to consider the significance of the resource to a California Native American tribe.

The CRHR includes resources listed in or formally determined eligible for listing in the National Register of Historic Places (NRHP). Pursuant to Public Resources Code, Section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Demolition, replacement, substantial alteration, and relocation of historic properties are actions that would change the significance of an historic resource (California Code of Regulations, Title 14, 15064.5).

The City has initiated the tribal consultation process, as required under Public Resources Code (PRC) Section 21080.3.1 and consistent with AB 52³. The City mailed consultation letters to 11 tribes on January 11, 2023, consistent with the requirements of AB 52, to contacts identified by the Native American Heritage Commission and to Native American tribes that requested notification from the City of Long Beach of projects subject to AB 52. Under AB 52, Native American tribes have 30 days to respond and request further project information and formal consultation. The City received requests for consultation from two tribes. Project-related impacts to tribal cultural resources are potentially significant and these potential impacts, and the outcome of consultation with tribes, will be discussed in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

³ The proposed project is subject to AB 52 but not SB 18 because the consultation and notice requirements of SB 18 apply only to projects involving adoption and amendment of general plans and specific plans.

19 Utilities and Service Systems

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

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

Water, Wastewater Treatment, and Stormwater Drainage

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

(LBUD 2015). Wastewater treatment for the City is provided through the Joint Water Pollution Control Plant (JWPCP) of the Los Angeles County Sanitation Districts (Districts). The remaining portion is delivered to the Long Beach Water Reclamation Plant (LBWRP) of the Districts. The JWPCP provides advanced primary and partial secondary treatment for 261.1 million gallons of wastewater per day (MGD), with a permitted capacity for 400 MGD of wastewater. Stormwater draining services are provided by the City and are required to comply with the Los Angeles County Department of Public Works Low Impact Development Standards Manual (LID Standards Manual.) The proposed project would be required to implement Best Management Practices (BMPs) to reduce runoff but, due to the increase in the total amount of development on the project site that it would create, the project may increase stormwater runoff and water demand such that new, relocated, or altered stormwater drainage and/or water supply pipelines would be required to service the site. These potential utility impacts will be further analyzed in an EIR.

Electric Power/Natural Gas/Telecommunications

Operation of the proposed project would require energy use (electricity) throughout the entirety of the project. In addition, the project would require connection to local telecommunication services. Because the proposed project's demand for electric power, natural gas, and telecommunications would be greater than under existing site conditions because it would increase the total amount of development on the project site, new facilities may be required to provide these services to the site, the construction of which could cause environmental effects. Accordingly, this issue will be further analyzed in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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

Water service to the project site would be provided by the Long Beach Utilities Department (LBUD). Because the proposed project would represent an intensification of use on the project site compared to existing conditions, it would increase on-site water use. Such an increase could potentially exceed local supplies, which is a potentially significant impact that will be analyzed in an EIR. This evaluation will include an analysis of water demand associated with the project compared to available water supply under normal, dry, and multiple dry years.

POTENTIALLY SIGNIFICANT IMPACT

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

A majority of the City's wastewater is delivered to the JWPCP of the Los Angeles County Sanitation Districts (Districts). The remaining portion is delivered to the Long Beach Water Reclamation Plant (LBWRP).

Because the proposed project would increase the total amount of development on the project site, it may increase wastewater generation. Such an increase could potentially exceed wastewater treatment capabilities. Therefore, this issue will be analyzed in an EIR, which will compare current wastewater generation on the project site (assumed to be zero, since it is vacant) to the project's

estimated wastewater generation and compare the projected increase to the available capacity of wastewater systems serving the project site and the City.

POTENTIALLY SIGNIFICANT IMPACT

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

The Long Beach Environmental Services Bureau and private permitted waste haulers provide solid waste service for the City. Waste generated from the project site would be disposed of at various facilities based on the contract made between a permitted waste hauler and the building occupant. The proposed project would be required to comply with federal, State, and local statutes and regulations related to solid waste and recycling, such as AB 939 and SB 1383, through participation in existing City waste diversion programs.

Because the proposed project would increase the total amount of development on the project site, it may increase waste generation compared to existing conditions. This increase could exceed, or contribute to an exceedance of, the capacity of solid waste disposal facilities serving the project site. This issue will be studied further in an EIR, which will compare the project's solid waste generation to available landfill capacities and waste reduction mandates.

POTENTIALLY SIGNIFICANT IMPACT

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20 Wildfire

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

- d. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

The project site is in an urban area of the City of Long Beach. There are no undeveloped wildland areas near the project site. The project site is not in a Very High Fire Hazard Severity Zone as mapped by the State, nor is it adjacent to vegetated or hillside areas where slopes or runoff issues from post-fire related hazards are a potential hazard. All future development on the site would be required to adhere to the California Building Code, which incorporates the California Fire Code by reference. The project includes the development of a warehouse/distribution facility with associated office support and would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk. Implementation of the project would have no impact related to wildfire safety hazards, would not impair or conflict with the implementation of wildfire emergency response plans, and would not expose people or structures to significant risks involving wildfires.

NO IMPACT

21 Mandatory Findings of Significance

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

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

As discussed in Section 4, *Biological Resources*, the proposed project would have potentially significant impact on biological resources during construction and operation of the project will be further researched and analyzed in an EIR. As explained in Section 5, *Cultural Resources*, the proposed project's potential to disturb previously undiscovered cultural resources will be studied further in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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

As described in the discussion of environmental checklist sections 1 through 20, the proposed project has potentially significant impacts requiring further analysis in an EIR for all environmental issues except aesthetics, agriculture and forest resources, hazards and hazardous materials, hydrology and water quality, mineral resources, population and housing, recreation, and wildfires. The potential cumulative impacts of applicable environmental issues are therefore also potentially significant and will be studied in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As detailed in this Initial Study, the proposed project has potentially significant impacts related to air quality and noise. These impacts will therefore be studied further in an EIR to determine whether the project would result, either directly or indirectly, in adverse hazards on human beings.

POTENTIALLY SIGNIFICANT IMPACT

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List of Preparers

Rincon Consultants, Inc. prepared this IS-NOP under contract to the City of Long Beach. Persons involved in data gathering analysis, project management, and quality control are listed below.

RINCON CONSULTANTS, INC.

Danielle Griffith, Director, Principal-in-Charge
 Greg Martin, Senior Environmental Planner, Project Manager
 Mabel Chan, Environmental Planner

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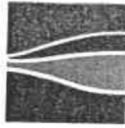
Appendix A

Preliminary Geotechnical Investigation

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REPORT OF
PRELIMINARY GEOTECHNICAL INVESTIGATION
PROPOSED INTEX CORPORATION BUILDING DEVELOPMENT
SITE BOUNDED BY CARSON STREET, VIA ORO
VIA PLATA, AND VIA ALCADE AVENUES
LONG BEACH, CALIFORNIA
FOR THE
UNITEX MANAGEMENT CORPORATION
(OUR JOB NO. AEF-88292)



September 8, 1988

Unitex Management Corporation
2402 Michelson Drive, Suite 145
Irvine, California 92715

(Our Job No. AEF-88292)

Attention: Mr. Jeff Pearson

Gentlemen:

Our "Report of Preliminary Geotechnical Investigation, Proposed Intex Corporation Building Development, Site Bounded by Carson Street, Via Oro, Via Plata, and Via Alcade Avenues, Long Beach, California, for the Unitex Management Corporation" is herewith submitted.

The scope of the investigation was planned in collaboration with Mr. Jeff Pearson.

The results of our preliminary study are presented in the report. Before final planning and design of the project proceed, additional studies should be performed to provide definite recommendations for grading and for foundation design.

Should you have any questions regarding the project or if we can be of further service to you on this phase of the project, please contact us.


Respectfully submitted,

LeROY CRANDALL AND ASSOCIATES


by


Jake Kharraz
Senior Engineer

by


Mervin E. Johnson, C.E.G. 26
Director of Geological Services
Vice President

by


P. A. Maljian
Director of Engineering Services
Vice President



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(6 copies submitted)

REPORT OF
PRELIMINARY GEOTECHNICAL INVESTIGATION
PROPOSED INTEX CORPORATION BUILDING DEVELOPMENT
SITE BOUNDED BY CARSON STREET, VIA ORO
VIA PLATA, AND VIA ALCADE AVENUES
LONG BEACH, CALIFORNIA
FOR THE
UNITEX MANAGEMENT CORPORATION

SUMMARY

It is planned to construct a mixed-use development on a 25-acre site bounded by Carson Street, Via Oro, Via Plata, and Via Alcade Avenues in Long Beach, California. The development will contain commercial and office buildings with a maximum height of 50 feet. Subterranean construction 1 or 1½ levels below grade may be included in the development.

This report provides a preliminary evaluation of the soil and geotechnical conditions of the site with regard to their possible effects on the proposed development and general information for preliminary planning and design. A more comprehensive investigation will be required for final design and construction.

This preliminary study indicates that there are no known geologic or soil conditions which would prevent the development of the property as planned. There are no known faults passing through or immediately adjacent to the site; accordingly, the possibility of



surface rupture of the site due to faulting is remote. The site appears as safe with respect to geologic and seismic hazards as any within the general area.

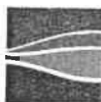
Shallow fill soils were encountered in the four borings drilled for this preliminary study. The natural soils beneath the site consist primarily of silt, silty sand, and sand with occasional layers of clay; the natural soils are generally firm and dense at the locations explored. The upper natural soils would become weaker and more compressible when wet. Water was measured at a depth of 43 feet below grade.

With proper grading of the site, typical one- or two-story buildings could be supported on shallow spread footings. For support of heavier buildings, or if a greater bearing value is desired, footings could extend into the underlying firmer natural soils at depths of about five feet below the existing grade. As an alternative foundation type, friction piling may be used. Either driven friction piling or drilled cast-in-place concrete piling would be feasible; the lengths of drilled piling would be restricted due to water.

No exceptional difficulties due to the soil conditions are anticipated in excavating at the site. Where space for a sloped excavation is not available, the walls of the excavation should be shored during construction. Water was encountered well below the planned level of excavation, and water should not be a factor in the subterranean construction.



Our environmental assessment of the site did not reveal any evidence of significant surface or subsurface contamination which would require major mitigation. However, there appears to be a moderate potential for environmental contamination due to a former oil/gas well on the site.



SCOPE

This report presents the results of a preliminary geotechnical investigation and preliminary environmental audit of the subject site which is being considered for development. The locations of the site and our exploration borings are shown on Plate 1, Site Plan. Also shown are the locations of borings drilled for a previous preliminary investigation which included the currently planned development.

This investigation was authorized to determine preliminary information on the soil and foundation conditions of the property and to identify any geologic hazards connected with the site. More comprehensive studies will be required prior to preparing final plans for development of the site.

In addition to the preliminary geotechnical studies, we were to perform a preliminary environmental audit to establish if any portions of the property were used for purposes which would have utilized or stored materials which are now considered toxic or hazardous.

Our investigation included a review of published and unpublished soil and geologic data with regard to the identification and delineation of hazardous features that may be present on the property or in the vicinity. Four exploration borings were drilled at the site in order to provide supplementary information on the subsurface foundation conditions. The recommendations included in this report are based on the previous as well as the current investigations. The results of the current field explorations and laboratory tests are presented in the attached Appendix.



Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical engineers and geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional advice included in this report.

SITE CONDITIONS

The property is bounded by Carson Street, Via Oro, Via Plata, and Via Alcade Avenues in Long Beach, California. The site is vacant and relatively flat. There is a three- to four-foot-high berm around the perimeter of the site. Existing vegetation consists of weeds and shrubs. There are existing structures adjacent to the site as indicated on Plate 1.

SOIL CONDITIONS

Existing fill soils, 2½ feet in thickness, were encountered in the four exploration borings. The existing fill soils, which are not uniformly well compacted, consist of silt and silty sand. Deeper and/or poorer quality fill could occur between borings.

The natural soils beneath the site consist primarily of silt, silty sand, and sand with occasional layers of clay; the natural soils are generally firm and dense at the locations explored. The upper natural soils would become weaker and more compressible when wet.

Water was measured at a depth of 43 feet below grade.



GEOLOGY

GENERAL

The site is located on essentially flat lying ground, within the Dominguez Gap, at an elevation of approximately 30 feet above sea level (U.S. Geological Survey Datum). The Dominguez Gap is a low lying area on the Los Angeles County Coastal Plain, bordered by Dominguez Hills to the north and Signal Hill to the south, through which the Los Angeles River flows. The hills bordering Dominguez Gap are part of a structural uplift along the Newport-Inglewood Fault Zone. This fault zone, which is comprised of several fault segments, is one of a series of fault zones defining a major northwesterly trending structural element within the Peninsular Ranges geomorphic province. This province comprises the northwesterly-trending mountain ranges and associated valleys, including those in the offshore borderland, extending from Baja California, northwestward, to the Transverse Ranges in Southern California.

The geology in the vicinity of the site is shown on Plate 2, Local Geology.

GEOLOGIC MATERIALS

The site is partially mantled by artificial fill, which extends to a depth of approximately 2½ feet below existing grade.

The natural materials underlying the site are comprised of Holocene age alluvium. These alluvial materials, which were encountered to the maximum 65-foot depth of our borings, primarily consist of poorly-graded sand, silty sand, and sandy silt deposits with some layers of clayey silt and silty clay. The Holocene age alluvium extends to an



estimated depth of 150 feet below the site, at which point it overlies early Pleistocene age deposits of the San Pedro Formation.

At a depth of about 900 feet, Tertiary sedimentary rocks of the Pico, Repetto, and Puente Formations, respectively, underlie the San Pedro Formation. These Tertiary rocks extend to a depth of approximately 14,000 feet beneath the site, where they rest on Mesozoic age Catalina Schist. The Catalina Schist is considered to be the basement rock of the area.

GROUND WATER

The site is located in Township 4 South, Range 13 West, Section 11 in the Central Hydrologic Subarea of the Coastal Plain of Los Angeles County. The property is situated on Holocene alluvial flood-plain deposits adjacent to the Los Angeles River. Shallow ground water is present within these alluvial materials.

Ground water data for State Well 04S/13W-11D01, located approximately 0.7 mile north-northwest of the site, indicate that the ground water level beneath the site dropped from approximately 32 feet below ground surface in 1931 to 77 feet in 1963. The water level subsequently rose to approximately 56 feet below ground surface in the Fall of 1979, the date of the last record. Data compiled by the Los Angeles Flood Control District in the Fall of 1985 indicate a water level at a depth of approximately 120 feet beneath the site. This water level is from deep aquifers in the San Pedro Formation.

Borings drilled to a maximum depth of 40 feet at the site in August 1967 (our Job No. A-67202) did not encounter ground water.



However, borings drilled for this investigation indicate the presence of perched ground water conditions beneath the site. Our borings encountered ground water at a depth of approximately 43 feet beneath the surface.

Ground water contours, established for deep aquifers by the Los Angeles County Flood Control District in the Fall of 1985, indicate that the ground water flow gradient is towards the north. However, the perched ground water present beneath the site may have a different flow direction. Although it cannot be substantiated at the present time, it is our opinion, based on the proximity to the Los Angeles River (0.3 mile), that the ground water gradient is generally towards the south-southeast.

GEOLOGIC HAZARDS

The geologic hazards at the site are essentially limited to those caused by earthquakes. The major cause of damage from earthquakes is the result of violent shaking from earthquake waves; damage due to actual displacement or fault movement beneath a structure is much less frequent. The violent shaking would occur not only immediately adjacent to the earthquake epicenter, but within areas for many miles in all directions.

Faults

The numerous faults in Southern California include active, potentially active, and inactive faults. The criteria for these major groups were established by the Association of Engineering Geologists (1973). No faults are known to pass beneath the site. The City of Long



Beach Seismic Safety Element was reviewed as part of our literature analysis. The site is not within an Alquist-Priolo Special Studies Zone. In our opinion, there is very little probability of surface rupture due to faulting occurring on-site.

The active fault nearest the site is the Cherry Hill Fault of the Newport-Inglewood Fault Zone, located approximately 0.3 mile east of the site. An Alquist-Priolo Special Studies Zone has been established along this fault and along other faults of the Newport-Inglewood Zone. Other nearby branches of the Newport-Inglewood Fault Zone include the Avalon-Compton and Reservoir Hill Faults, located 3.1 miles northwest and 4.1 miles southeast of the site, respectively. Other more distant faults of the Newport-Inglewood Fault Zone include the Potrero and Inglewood Faults, located 10.2 and 10.4 miles northwest of the site.

The active San Fernando Fault Zone is located 30 miles to the north-northwest and the major San Andreas Fault is located approximately 47 miles to the north-northeast.

The potentially active fault nearest the site is the Richfield Fault, located approximately 1.7 miles southwest of the site, at its nearest point. This fault appears to offset materials older than middle Pleistocene. The upper 300 feet of materials overlying the fault do not appear to be structurally displaced (LACFCD, 1962). The potential for movement on the Richfield Fault during the life of the structure is considered low.



Other potentially active faults in the area include the Palos Verdes, Charnock, Norwalk, and Overland Faults, located approximately 6.4 miles southwest, 7.5 miles west-northwest, 10.7 miles east, and 14.2 miles northwest of the site, respectively.

Seismicity

Three moderately large magnitude earthquakes, that have had disastrous consequences, have occurred in the metropolitan Los Angeles area within the last 60 years. The latest of these events was the Magnitude 5.9 Whittier Narrows Earthquake, which occurred on October 1, 1987, on a previously unrecognized fault. The earthquake epicenter was located approximately 18 miles north-northeast of the subject site. Eight deaths were directly attributed to this earthquake which caused damage losses over \$215 million. The majority of structural damage occurred in buildings constructed prior to stringent building codes which were developed in response to the 1971 San Fernando Earthquake.

The epicenter of the Magnitude 6.4 February 9, 1971 San Fernando Earthquake was located about 42 miles north of the site. Surface rupture occurred on the Sylmar and Tujunga Faults, which are segments of the San Fernando Fault Zone. This earthquake resulted in the deaths of 64 people and an estimated \$500 million in damage.

The earliest of the three earthquakes was the Long Beach Earthquake, which occurred March 10, 1933. The epicenter of this event was located 20 miles southeast of the site. This earthquake, although only Magnitude 6.3, ranks as one of the major disasters in Southern California. This earthquake resulted in the deaths of 120 people and an



estimated \$41 million damage. The majority of damage was suffered by structures which were considered substandard construction by today's standards and/or were located on filled or saturated ground.

The location of the site in relation to known active faults indicates that the immediate area may be exposed to greater than normal seismic risk for the Los Angeles County Coastal Plain in general.

Subsidence

The Wilmington Oil Field Subsidence Area, a major zone of subsidence due to petroleum extraction, is located south of the site; however, subsidence is not known to have occurred at the site. Re-surization of the Wilmington Oil Field, which started in 1959, has substantially arrested the subsidence.

Stability

The property is located on relatively flat-lying ground with no slope stability problems and no potential for lurching (movement at right angles to a steep slope during strong ground shaking). Additionally, the property is not known to be on or in the path of any existing or potential landslide.

Flooding, Tsunamis, and Seiches

The site is not within a designated flood prone area, as designated by the Federal Emergency Management Agency. The Los Angeles River, located approximately 1,200 feet east of the site, has been channelized for flood control.



As the site is not within a coastal area, the risk of damage from earthquake induced sea waves, called tsunamis, need not be considered.

The site is not located downslope of any large bodies of water that would adversely affect the site in the event of earthquake induced failure or seiches (oscillations in a body of water due to earthquake shaking).

Liquefaction and Seismic Settlement

Liquefaction commonly occurs during earthquake shaking in areas underlain by shallow ground water (generally within 50 feet of the surface) and loose fine sands. According to the Long Beach Seismic Safety Element (1975), the site is within an area of moderate to significant liquefaction potential. Ground water was encountered in all four of our borings at a depth of approximately 43 feet. Standard penetration tests performed for this investigation indicate that the underlying deposits are generally dense. Therefore, it is our opinion that the potential for liquefaction occurring on-site is considered low.

Seismic settlement often occurs when loose granular materials densify during ground shaking. As previously stated, the geologic materials beneath the site generally consist of dense sand, silty sand, and sandy silt. Accordingly, the potential for seismic settlement is remote.



ENVIRONMENTAL AUDITGENERAL

The environmental audit included a site inspection/walkover to verify existing conditions. In addition, the soil samples from our borings were monitored with a Photovac photoionization detector (PID) for indications of contamination due to volatile organic vapors.

Our site history review included a review of various records and maps to determine prior use of the subject property. Records and maps reviewed included building permits at the City of Long Beach Department of Building and Safety, business directories at the Long Beach Central Library, historic site use maps compiled by the Sanborn Map Company, the California Division of Oil and Gas maps, and historic topographic maps.

Our research also involved a records search for nearby sites which store, generate, or dispose of hazardous or toxic materials that could affect the site. The City of Long Beach Fire Department was contacted to determine if any underground storage tanks exist or existed on or adjacent to the property. The City of Long Beach Department of Environmental Health was contacted regarding documentation of hazardous materials used or encountered in the immediate vicinity of the site. The California Office of Permit Assistance (OPA) Hazardous Waste and Substance Site List, for the Cities of Carson and Long Beach, was also reviewed. The Regional Water Quality Control Board was contacted regarding locations of nearby active or abandoned landfills and any ground water contamination problems in the area.



Our review also included an examination of historical aerial photographs from the Spence Collection at UCLA and from our in-house collection.

SITE RECONNAISSANCE/PID SURVEY

No indications of past or present site usage, which may have had an adverse environmental impact, were observed during our site survey. No indications of soil contamination, such as discoloration, unusual odors, or distressed vegetation, were noted.

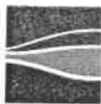
A portable photoionization detector (PID) was used to monitor soil samples from the borings to determine the presence of any volatile organic vapors. No PID readings above background levels were recorded from the soil samples.

RECORD SEARCH

Building Permits

Building permits on file at the City of Long Beach Department of Building and Safety were examined to ascertain if any existing or previous buildings at the site might have stored or utilized materials currently considered toxic or hazardous during their occupancy. Based on the available records, there appears to be no potential for such occupancy.

No building permits have been issued for the subject property. Permits pertaining to properties immediately adjacent to the site indicate the presence of several office buildings and warehouses. Some former or current businesses include: a commercial/metal storage



building at 1000 West Carson Street (1987), an office building at 1500 West Carson Street (1987), an office building/warehouse/parts assembly building at 3900 Via Oro Avenue (1984) (including three spray paint booths), an office building at 3960 Via Oro Avenue (1986), an office building/warehouse at 4001 Via Oro Avenue (1986), and a commercial/research building at 4031 Via Oro Avenue (1986). These buildings are depicted on Plate 1.

Business Directories

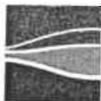
Historical business directory listings, available at the Long Beach Central Library, were also examined to determine if any existing or previous businesses in the immediate vicinity of the property might have stored or utilized toxic or hazardous materials. Based upon available directories (since 1958), there does not appear to be a potential for such occupancy.

Sanborn Map Collection

Historic site use maps, compiled by the Sanborn Map Company, were also examined to determine past site usage. These maps, which predominantly cover commercial areas, did not include the subject site due to lack of commercial development in the area prior to 1960.

Division of Oil and Gas Records

According to the Division of Oil and Gas (D.O.G.) Map Number 137, an oil/gas well was constructed on the site in 1944 (see Plate 1). The well was abandoned later the same year. Abandonment procedures for the well (General Explorations "Dominguez 2") included filling the hole



with heavy drilling fluid. Then a cement plug was placed and approved by the D.O.G. between 717 and 624 feet below the ground surface.

The abandonment procedures performed for this well are not up to present day standards, and the well will probably have to be re-abandoned during any future development. A venting system may also be required if future buildings are located over the oil well.

Topographic Maps

Based on our in-house collection of topographic maps, published by the U.S. Geological Survey, no structures were present at the subject property in 1949, 1964, 1972, or 1981. These maps indicate two oil wells were present east of the site at 1005 West Carson Street from 1964 to 1972. A 1972 map also depicts three above ground tanks east of the property at this site. A 1981 map indicates that only one of the oil wells was present at that time.

Fire Department Records

The Long Beach Fire Department was contacted regarding permits of installations or removals of underground storage tanks in the area. Although no such records were present pertaining to the subject property, records were available which pertained to 1005 West Carson Street. These records indicated that four tanks were removed from the site in August 1987, including: two 1,330-gallon above ground tanks, one 2,700-gallon above ground tank, and one 1,000-gallon below ground tank. All of these tanks were used to store petroleum oil. The soils surrounding the tanks were tested for hydrocarbon contamination and were found to



contain tolerable levels of toxic substances (according to the Environmental Protection Agency). The records also indicated that one 500-gallon oil tank and one 1,000-gallon oil tank were emptied and cleaned at this site. There were no indications of removal of the tanks.

Department of Health Records

The City of Long Beach Department of Environmental Health was contacted regarding any documentation of hazardous materials use or incidences in the vicinity of the site. We are currently waiting for documentation from this agency. A supplementary letter will be sent when we have received this information.

Hazardous Waste and Substance Site List

The California Office of Permit Assistance (OPA) Hazardous Waste and Substance Site List for the Cities of Long Beach and Carson was also examined as part of our research. This list is compiled from data from the State Department of Health Services, the State Water Resources Control Board, and the California Waste Management Board. According to the OPA list, there are no reported sites within the immediate area of the site as of March 1988.

Landfills

According to the Regional Water Quality Control Board, two landfills are located within one mile of the site, including an oil waste landfill, located approximately 1,000 feet northeast of the site, and a landfill of unknown contents, located approximately 0.9 mile to the west (Plate 2).



HISTORIC PHOTOGRAPHS

In order to further identify past site use, historic aerial photographs from the Spence Collection at UCLA, and from our in-house collection, were reviewed. Photographs taken in 1963, 1970, and 1971 indicate that the subject property, and most of the surrounding area, was used for agricultural purposes. The photographs depict three above ground tanks at 1005 West Carson Street and a storage lot(?) at the southwest corner of West Carson Street and the Long Beach Freeway (Plate 3, Spence Collection Aerial Photograph).

PREVIOUS REPORTS

We reviewed our previous geotechnical investigations in the general area of the property. No evidence of local or regional contamination was noted in any of these reports.

CONCLUSIONS

GENERAL

The conclusions and recommendations presented below are preliminary and necessarily general in nature. A comprehensive investigation will be required to provide detailed recommendations prior to preparing final plans for site development.

GEOLOGY

Based on the geologic findings, no active or potentially active faults are known to exist within the site. The closest active fault to the site is the Cherry Hill Fault strand of the Newport-Inglewood Fault Zone, situated 0.3 mile east of the property.



The location of the site in relation to known active faults indicates that the site may be exposed to greater risk than other locations on the Los Angeles County coastal plain due to the proximity of the Newport-Inglewood Fault Zone. However, the effects of shaking can be minimized by proper structural design and proper construction.

The site is on essentially flat lying ground with no stability problems and no potential for lurching. Hazards from flooding, tsunamis, seiches, liquefaction, seismic settlement, and subsidence are considered negligible. No other geologic hazards are known to affect this site.

ENVIRONMENTAL CONSIDERATIONS

Based on the information developed, there appears to be only a very slight potential for significant environmental contamination at the subject site.

Our walk-over of the property did not reveal any conditions or structures which might suggest an environmental liability. Furthermore, neither the business directories, OPA List, or our previous investigations in the area indicate any type of environmental concern.

The Division of Oil and Gas records indicate that an oil/gas well was present on the site in 1944. Local contamination due to past drilling operations is possible; however, the well was abandoned without producing, and the likelihood of extensive contamination at the site due to the oil well is remote.



The D.O.G. may require re-abandonment of the on-site well during future development and construction of a venting system if buildings are placed over the oil well.

Fire department records indicate that several tanks were removed from 1005 West Carson Street, east of the site, in August 1987. The soils surrounding the tanks were tested for contamination and were found to contain tolerable levels of toxic substances (according to the Environmental Protection Agency). Our site survey revealed the presence of one remaining oil pump (not operating) and three associated above ground oil storage tanks at this location. Migration of any contaminants from these past operations will probably be directed toward the Los Angeles River (away from the subject site) and should not impact the site.

The Regional Water Quality Control Board indicates the presence of two landfills within one mile of the site. Neither of these landfills is upgradient from the property, with respect to ground water flow, and should therefore not represent an environmental threat to the site.

Historic photographs indicate that the site was used for agriculture purposes from 1963 to 1971; therefore, there is a slight possibility that low levels of residual pesticides may be present in the underlying soil.



FOUNDATION CONSIDERATIONS

Shallow fill soils were encountered in the four borings drilled for this preliminary study. The natural soils beneath the site consist primarily of silt, silty sand, and sand with occasional layers of clay; the natural soils are generally firm and dense at the locations explored. The upper natural soils would become weaker and more compressible when wet. Water was measured at a depth of 43 feet below grade.

With proper grading of the site, typical one- or two-story buildings could be supported on shallow spread footings. For preliminary design, it may be assumed that footings established on compacted fill or the undisturbed natural soils at a depth of at least two feet below the lowest adjacent grade or floor slab may be designed to impose a net dead plus live load pressure of 2,000 pounds per square foot.

For support of heavier buildings, or if a greater bearing value is desired, footings could extend into the underlying firm natural soils at a depth of about five feet below the existing grade. If subterranean construction is planned, footings should automatically extend into the firm natural soils. For preliminary design, it may be assumed that footings carried into the firm natural soils may be designed to impose a net dead plus live load pressure of 4,000 pounds per square foot.

As an alternative foundation type, friction piling may be used. Either driven friction piling or drilled cast-in-place concrete piling would be feasible; the lengths of drilled piling would be restricted to about 40 feet below the existing grade due to water. For preliminary



design, it may be assumed that a 12-inch-square prestressed concrete driven pile, 40 feet long, will develop a downward capacity of about 180 kips. A 24-inch-diameter drilled cast-in-place concrete pile, 30 feet long, will develop a downward capacity of about 120 kips, and a 40 feet long pile will develop a downward capacity of about 180 kips. Shorter piles will have to be used if a basement is planned in order to keep the tips of the drilled piles within 40 feet of the present ground surface and above the ground water level.

EXCAVATION

No significant difficulties due to soil conditions are anticipated in excavating for basement construction. Conventional earth-moving equipment may be used. If the necessary space is available, temporary unsurcharged excavations may be sloped back at 3/4:1 (horizontal to vertical) in lieu of using shoring.

GRADING

To provide support for floor slabs and walks on grade, the existing fill materials and disturbed natural soils should be excavated and replaced with properly compacted fill. The on-site soils, less debris and organic matter within fill deposits, would be suitable for use in compacted fills.

FLOOR SLAB SUPPORT

The building floor slabs may be supported on grade. No special requirements are anticipated. Where a capillary break is considered necessary, the floor slabs may be supported on a layer of gravel or on an impermeable membrane.



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The following Plates and Appendix are attached and complete this report:

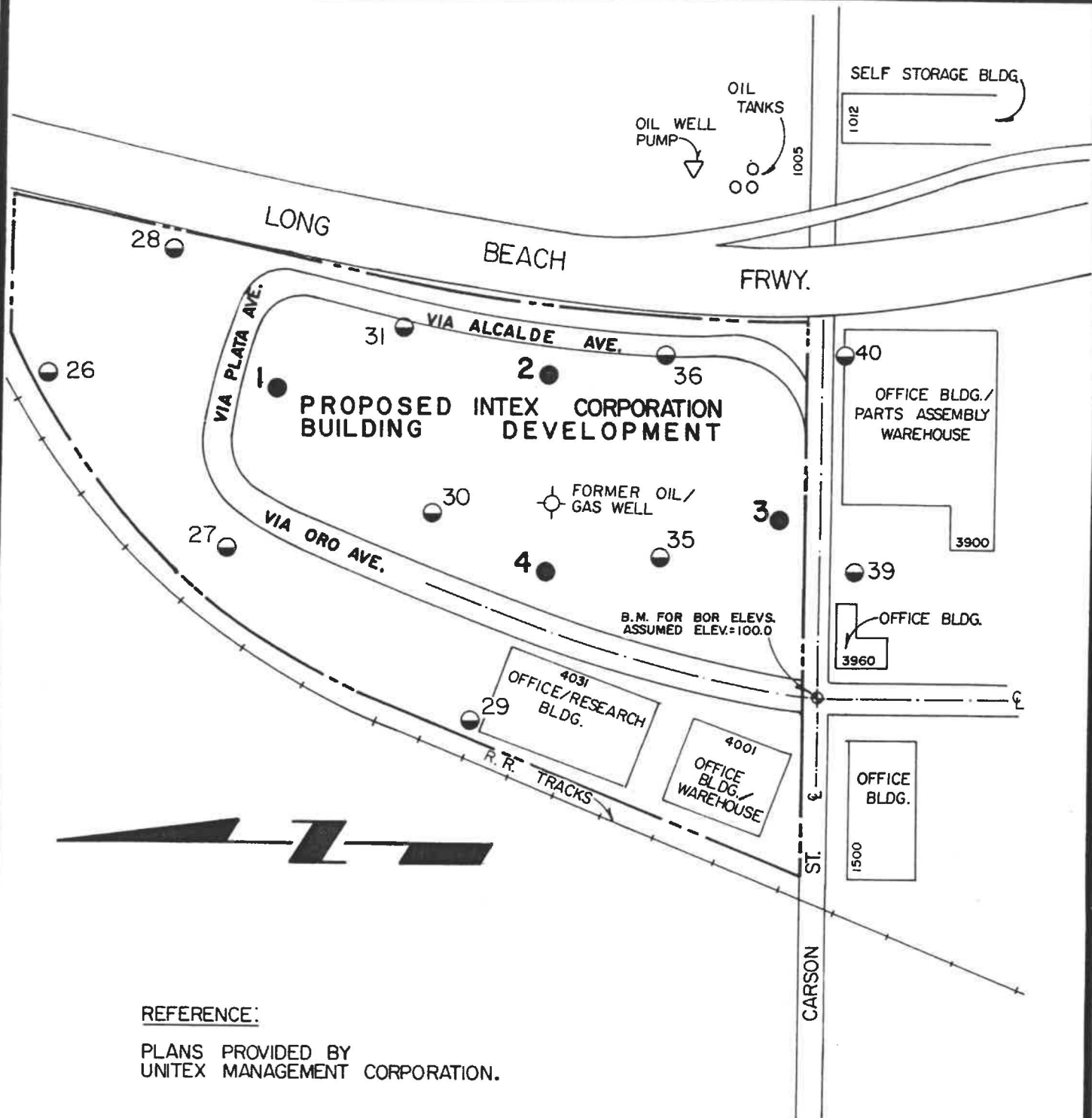
Plate 1 ----- Site Plan

Plate 2 ----- Local Geology

Plate 3 ----- Spence Collection Aerial Photograph

Appendix ----- Explorations and Laboratory Tests





REFERENCE:

PLANS PROVIDED BY
UNITEX MANAGEMENT CORPORATION.

KEY:

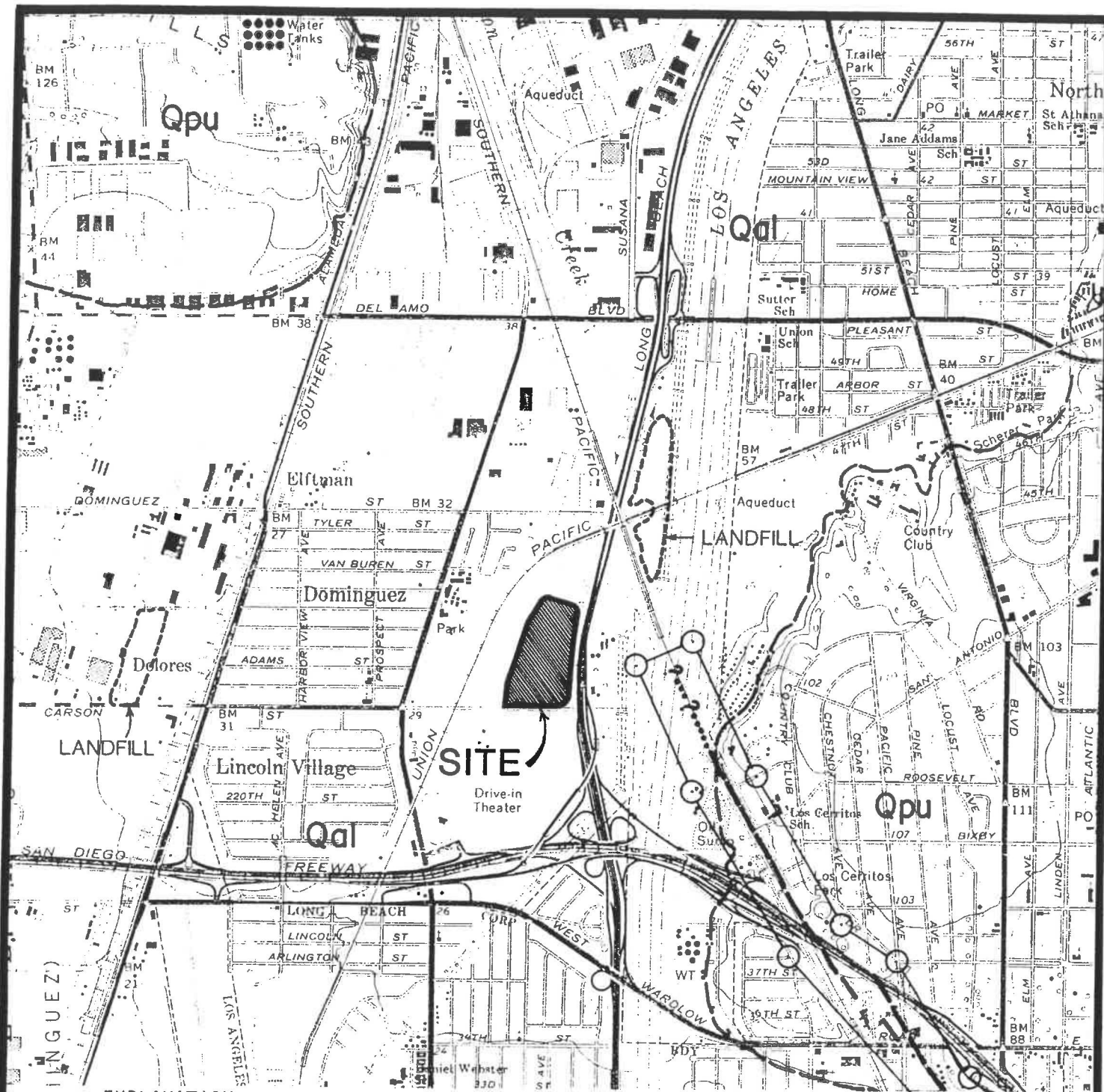
- 2 ● CURRENT INVESTIGATION (AEF-88292)
- 31 ● PREVIOUS INVESTIGATION (A-67202)

SITE PLAN

SCALE 1"=400' (APPROX.)

LeROY CRANDALL AND ASSOCIATES

PLATE 1



EXPLANATION:

- Qal** HOLOCENE ALLUVIUM
- Qpu** LATE PLEISTOCENE TERRACE DEPOSITS
- GEOLOGIC CONTACT, APPROXIMATELY LOCATED
- FAULT: DASHED WHERE APPROXIMATELY LOCATED, DOTTED WHERE CONCEALED, QUERIED WHERE UNCERTAIN
- LIMITS OF SPECIAL STUDIES ZONE

REFERENCES:

BASE MAP FROM U.S.G.S. 7.5'
LONG BEACH QUADRANGLE, PHOTOREVISED 1972.

GEOLOGY MODIFIED FROM POLAND, 1956;
SPECIAL STUDIES ZONE MAP LONG BEACH
QUADRANGLE, C.D.M.G., 1986. APPROXIMATE
LANDFILL LOCATIONS FROM CALIFORNIA
REGIONAL WATER QUALITY BOARD.

LOCAL GEOLOGY

SCALE 1" = 2000'

LeROY CRANDALL AND ASSOCIATES



SPENCE COLLECTION AERIAL PHOTOGRAPH
8/4/71 LONG BEACH, CALIFORNIA

APPENDIX
EXPLORATIONS

The soil conditions were explored by drilling four borings at the locations shown on Plate 1. (In addition, data were available from prior borings drilled on the site.) The borings were drilled to depths of 45 to 65 feet below the existing grade using 18-inch-diameter bucket-type drilling equipment and/or 5-inch-diameter rotary wash-type drilling equipment. Caving of the boring walls occurred in the bucket borings, as indicated on the boring logs; drilling mud was used with the rotary wash equipment to prevent caving. The mud was removed following completion of the drilling to permit future measurements of the water level.

The soils encountered were logged by our field technician, and undisturbed samples were obtained for laboratory inspection and testing. The logs of the borings are presented on Plates A-1.1 through A-1.4; the depths at which undisturbed samples were obtained are indicated to the left of the boring logs. The energy required to drive the Crandall sampler one foot is indicated to the left of the boring logs. In addition to obtaining undisturbed samples, standard penetration tests were performed in two of the borings; the results of the tests are indicated on the logs. The soils are classified in accordance with the Unified Soil Classification System described on Plate A-2.



LABORATORY TESTS

The field moisture content and dry density of the soils encountered were determined by performing tests on the undisturbed samples. The results of the tests are shown to the left of the boring logs.

Direct shear tests were performed on selected undisturbed samples to determine the strength of the soils. The tests were performed at field and increased moisture content and at various surcharge pressures. The yield-point values determined from the direct shear tests are presented on Plate A-3, Direct Shear Test Data.

Confined consolidation tests were performed on six undisturbed samples. Water was added to four of the samples during the tests to illustrate the effect of moisture on the compressibility. The results of the tests are presented on Plates A-4.1 through A-4.3, Consolidation Test Data.

To determine the particle size distribution of the soils and to aid in classifying the soils, mechanical analyses were performed on three samples. The results of the mechanical analyses are presented on Plates A-5.1 and A-5.2, Particle Size Distribution.

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JOB

AEF- 88292

DATE

8/24/88

F.T.

LS

DR.

lp

O.E.

MS

W.P.

lp

CHKD



Note : The log of subsurface conditions shown hereon applies only at the specific boring location and at the date indicated.
It is not warranted to be representative of subsurface conditions at other locations and times.

							BORING 1	
							DATE DRILLED: August 9, 1988	
							EQUIPMENT USED: 5" - Diameter Rotary Wash	
							ELEVATION 102.5 *	
ELEVATION	DEPTH (ft.)	"N" VALUE STD.PEN. TEST	MOISTURE (% of dry wt.)	DRY DENSITY (lbs./cu. ft.)	DRIVE ENERGY (ft.-kips/ft.)	SAMPLE LOC.		
100			7.9	113	6		ML SM	FILL - SANDY SILT and SILTY SAND - brown
	5		16.5	93	3		ML	SANDY SILT - light brownish grey
95			19.4	99	1			Brownish grey
	10		4.8	98	7		SP	SAND - fine, light brownish grey
90			3.4	97	7			
	15		6.2	103	13			
85			7.8	97	9			
	20		5.6	105	21			
80			5.2	96	13			Lenses of Sandy Silt
	25		6.4	103	21			
75			25.4	101	9		SM	SILTY SAND - fine, light brown to dark brown
	30						ML	SANDY SILT - brown
70								
	35	19						
65			32.9	90	7			Some Clay
40								

* Elevations refer to assumed datum; see plate for location of bench mark.

(CONTINUED ON FOLLOWING PLATE)

LOG OF BORING

LeROY CRANDALL AND ASSOCIATES

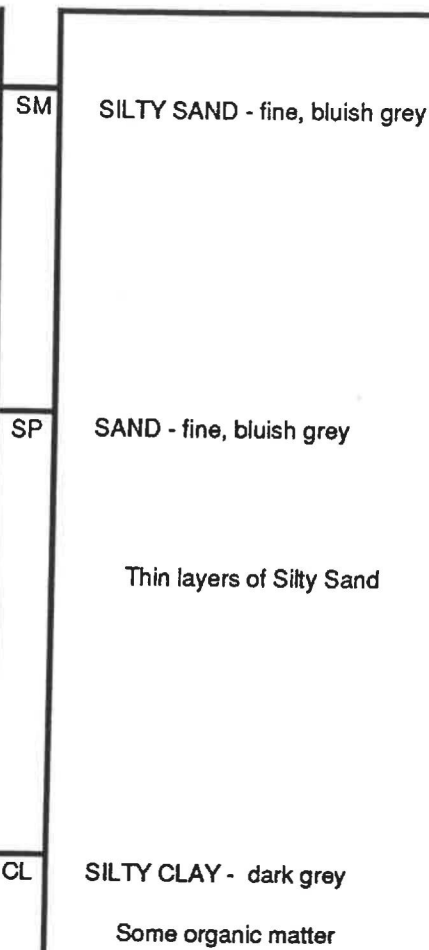
PLATE A - 1.1a

Note : The log of subsurface conditions shown hereon applies only at the specific boring location and at the date indicated.
It is not warranted to be representative of subsurface conditions at other locations and times.

ELEVATION	DEPTH (ft.)	"N" VALUE STD. PEN. TEST	MOISTURE (% of dry wt.)	DRY DENSITY (lbs./cu. ft.)	DRIVE ENERGY (ft. -kips/ft.)	SAMPLE LOC.
60		19				
	45		30.3	94	5	
	55	36				
	50		19.5	106	34	
	50					
	55		23.0	103	23	
	45					
	60		21.5	106	19	
	40					
	65		52.8	68	4	

BORING 1 (Continued)

DATE DRILLED: August 9, 1988
EQUIPMENT USED: 5" - Diameter Rotary Wash



NOTE: Drilling mud used in drilling process. Mud removed after completion of drilling. Water level measured at a depth of 43' 15 minutes after completion of drilling.

LOG OF BORING

LeROY CRANDALL AND ASSOCIATES

PLATE A - 1.1b

JOB AEF-88292 DATE 8/24/88 F.T. LS DR. lp O.E. MS *MS* W.P. lp CHKD *✓*

Note : The log of subsurface conditions shown hereon applies only at the specific boring location and at the date indicated.
It is not warranted to be representative of subsurface conditions at other locations and times.

ELEVATION	DEPTH (ft.)	"N" VALUE STD. PEN. TEST	MOISTURE (% of dry wt.)	DRY DENSITY (lbs./cu. ft.)	DRIVE ENERGY (ft.-kips/ft.)	SAMPLE LOC.
100	5		5.9	108	16	
95	10		2.2	92	8	
90	15		20.0	99	8	
85	20		14.9	102	11	
80	25		25.3	94	6	
75	30		12.9	94	10	
70	35		14.8	110	6	
			25.5	100	3	
			35.5	85	9	
			24.2	102	8	

ML	FILL - SANDY SILT and SILTY SAND - brown
SM	
ML	SANDY SILT - brown
SM	SILTY SAND - fine, light brown
ML	SANDY SILT - brownish grey
ML	SANDY SILT - brownish grey
ML	CLAYEY SILT - brownish grey
ML	SANDY SILT - brownish grey
ML	CLAYEY SILT - brownish grey
SM	SILTY SAND - fine, light greyish brown
ML	CLAYEY SILT - brownish grey
ML	SANDY SILT - brownish grey
ML	SANDY SILT - brownish grey

BORING 2
DATE DRILLED: August 5, 1988
EQUIPMENT USED: 18" - Diameter Bucket
ELEVATION 101.5

(CONTINUED ON FOLLOWING PLATE)

LOG OF BORING

LeROY CRANDALL AND ASSOCIATES
PLATE A - 1.2a

Note : The log of subsurface conditions shown hereon applies only at the specific boring location and at the date indicated.
It is not warranted to be representative of subsurface conditions at other locations and times.

ELEVATION	DEPTH (ft.)	"N" VALUE STD. PEN. TEST	MOISTURE (% of dry wt.)	DRY DENSITY (lbs./cu. ft.)	DRIVE ENERGY (ft.-kips/ft.)	SAMPLE LOC.
65						
	40		34.9	87	7	
60						
	45		24.1	98	14	
55						
50						

BORING 2 (Continued)

DATE DRILLED: August 5, 1988
EQUIPMENT USED: 18" - Diameter Bucket



CLAYEY SILT - brownish grey

SANDY SILT - brownish grey

SAND - fine, bluish grey

(BORING TERMINATED AT A DEPTH OF 45' DUE TO
CAVING AND SLOUGHING BELOW 43')

NOTE: Water level measured at a depth of 43' after completion
of drilling. Caving and sloughing below 43'.

LOG OF BORING

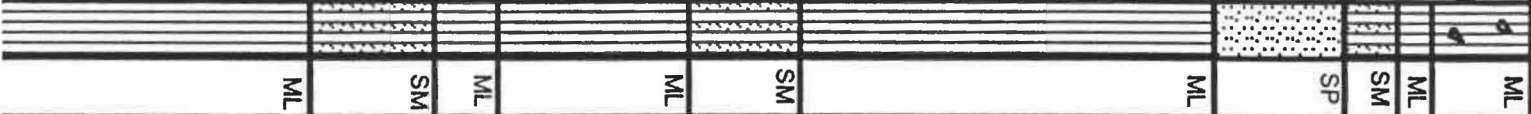
LeROY CRANDALL AND ASSOCIATES

PLATE A - 1.2b

JOB AEF- 88292 DATE 8/24/88 F.T. LS DR. lp O.E. MS *MS* W.P. lp CHKD *AK*

Note : The log of subsurface conditions shown hereon applies only at the specific boring location and at the date indicated.
It is not warranted to be representative of subsurface conditions at other locations and times.

ELEVATION	DEPTH (ft.)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (lbs./cu. ft.)	DRIVE ENERGY (ft.-kips/ft.)	SAMPLE LOC.
100-	5		7.0	112	19	
95-	10		2.1	91	8	
90-	15		2.9	91	3	
85-	20		9.8	99	5	
80-	25		16.0	109	10	
75-	30		17.8	107	3	
70-	35		4.8	99	10	
65-	40		30.9	94	5	
			13.5	101	11	
			26.9	94	11	



BORING 3
DATE DRILLED: August 8 & 9, 1988
EQUIPMENT USED: 18" - Diameter Bucket 0' to 45'
5" - Diameter Rotary Wash 0' to 65'
ELEVATION 101.4

FILL - SANDY SILT - pieces of plaster, brown
ML
SANDY SILT - brown
SM
SILTY SAND - fine, brown
SP
SAND - fine, light brownish grey
ML
SANDY SILT - brownish grey
SM
SILTY SAND - fine, light brownish grey
ML
CLAYEY SILT - brownish grey
SM
SANDY SILT - brownish grey
ML
SANDY SILT - brownish grey
SM
SILTY SAND - fine, brownish grey
Thin layers of Silty Sand
ML
SANDY SILT - brownish grey

(CONTINUED ON FOLLOWING PLATE)
LOG OF BORING

Note: The log of subsurface conditions shown hereon applies only at the specific boring location and at the date indicated. It is not warranted to be representative of subsurface conditions at other locations and times.

ELEVATION	DEPTH (ft.)	"N" VALUE STD. PEN. TEST	MOISTURE (% of dry wt.)	DRY DENSITY (lbs./cu. ft.)	DRIVE ENERGY (ft.-kips/ft.)	SAMPLE LOC.
60						CL
	45	49	19.5	104	11	SP
55			23.4	105	21	
50		72				
50						
55			20.6	105	34	
45						
60			21.2	104	34	
40						
65			19.9	109	34	

BORING 3 (Continued)

DATE DRILLED: August 8 & 9, 1988
EQUIPMENT USED: 18" - Diameter Bucket 0' to 45'
5" - Diameter Rotary Wash 0' to 65'

SILTY CLAY - bluish grey

SAND - fine, bluish grey

Layer of Silty Sand

NOTE: BUCKET BORING Water level measured at a depth of 43' after completion of bucket boring. Caving and sloughing below 43'.

ROTARY WASH BORING Drilling mud used in drilling process. Mud removed after completion of drilling. Water level measured at a depth of 43' 10 minutes after completion of drilling.

LOG OF BORING

LeROY CRANDALL AND ASSOCIATES

PLATE A - 1.3b

JOB AEF- 88292 DATE 8/24/88 F.T. LS DR. lp O.E. MS W.P. lp CHKD YB

Note : The log of subsurface conditions shown hereon applies only at the specific boring location and at the date indicated.
It is not warranted to be representative of subsurface conditions at other locations and times.

ELEVATION	DEPTH (ft.)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (lbs./cu. ft.)	DRIVE ENERGY (ft.-kips/ft.)	SAMPLE LOC.
100	5		5.2	93	14	ML
95	10		6.1	74	3	ML
90	15		9.6	100	11	SP
85	20		2.8	124	8	
80	25		3.0	93	8	
75	30		3.3	93	8	
70	35		2.6	94	14	
			29.8	92	7	ML
			18.7	111	6	ML

BORING 4
DATE DRILLED: August 5, 1988
EQUIPMENT USED: 18" - Diameter Bucket
ELEVATION 101.6

FILL - SANDY SILT - brown	ML
SANDY SILT - light brownish grey	ML
SAND - fine, thin layers of Sandy Silt and Silty Sand, light brownish grey	SP
CLAYEY SILT - brownish grey	ML
SANDY SILT - brownish grey	ML
Grey	

(CONTINUED ON FOLLOWING PLATE)

LOG OF BORING

LEROY CRANDALL AND ASSOCIATES
PLATE A - 1.4a

JOB AEF- 88292

DATE 8/24/88

F.T.

LS

DR.

lp

O.E.

MS

W.P.

lp

CHKD

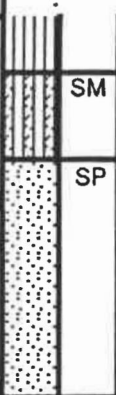
✓

Note : The log of subsurface conditions shown hereon applies only at the specific boring location and at the date indicated.
It is not warranted to be representative of subsurface conditions at other locations and times.

ELEVATION	DEPTH (ft.)	"N" VALUE STD. PEN. TEST	MOISTURE (% of dry wt.)	DRY DENSITY (lbs./cu. ft.)	DRIVE ENERGY (ft. -kips/ft.)	SAMPLE LOC.
65						
40			6.4	96	13	
60						
45			24.9	98	16	
55						
50						

BORING 4 (Continued)

DATE DRILLED: August 5, 1988
EQUIPMENT USED: 18" - Diameter Bucket



SILTY SAND - fine, grey

SAND - fine, light bluish grey
















(BORING TERMINATED AT A DEPTH OF 45' DUE TO
CAVING AND SLOUGHING BELOW 43')

NOTE: Water level measured at a depth of 43' 10 minutes after
completion of drilling. Caving and sloughing below 43'.

LOG OF BORING

LeROY CRANDALL AND ASSOCIATES

PLATE A - 1.4b

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS (More than 50% of material is LARGER than No. 200 sieve size)	GRAVELS (More than 50% of coarse fraction is LARGER than the No. 4 sieve size)	CLEAN GRAVELS (Little or no fines)	 GW	Well graded gravels, gravel - sand mixtures, little or no fines.
			 GP	Poorly graded gravels or gravel - sand mixtures, little or no fines.
		GRAVELS WITH FINES (Appreciable amount of fines)	 GM	Silty gravels, gravel - sand - silt mixtures.
			 GC	Clayey gravels, gravel - sand - clay mixtures.
	SANDS (More than 50% of coarse fraction is SMALLER than the No. 4 sieve size)	CLEAN SANDS (Little or no fines)	 SW	Well graded sands, gravelly sands, little or no fines.
			 SP	Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES (Appreciable amount of fines)	 SM	Silty sands, sand - silt mixtures.
			 SC	Clayey sands, sand - clay mixtures.
FINE GRAINED SOILS (More than 50% of material is SMALLER than No. 200 sieve size)	SILTS AND CLAYS (Liquid limit LESS than 50)	 ML	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		 CL	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
		 OL	OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS (Liquid limit GREATER than 50)	 MH	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
		 CH	CH	Inorganic clays of high plasticity, fat clays.
		 OH	OH	Organic clays of medium to high plasticity, organic silts.
		HIGHLY ORGANIC SOILS		 Pt

BOUNDARY CLASSIFICATIONS: Soils possessing characteristics of two groups are designated by combinations of group symbols.

PARTICLE SIZE LIMITS							
SILT OR CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	Fine	Medium	Coarse	Fine	Coarse		
	No.200	No.40	No.10	No.4	3/4"	3"	12"
U. S. STANDARD SIEVE SIZE							

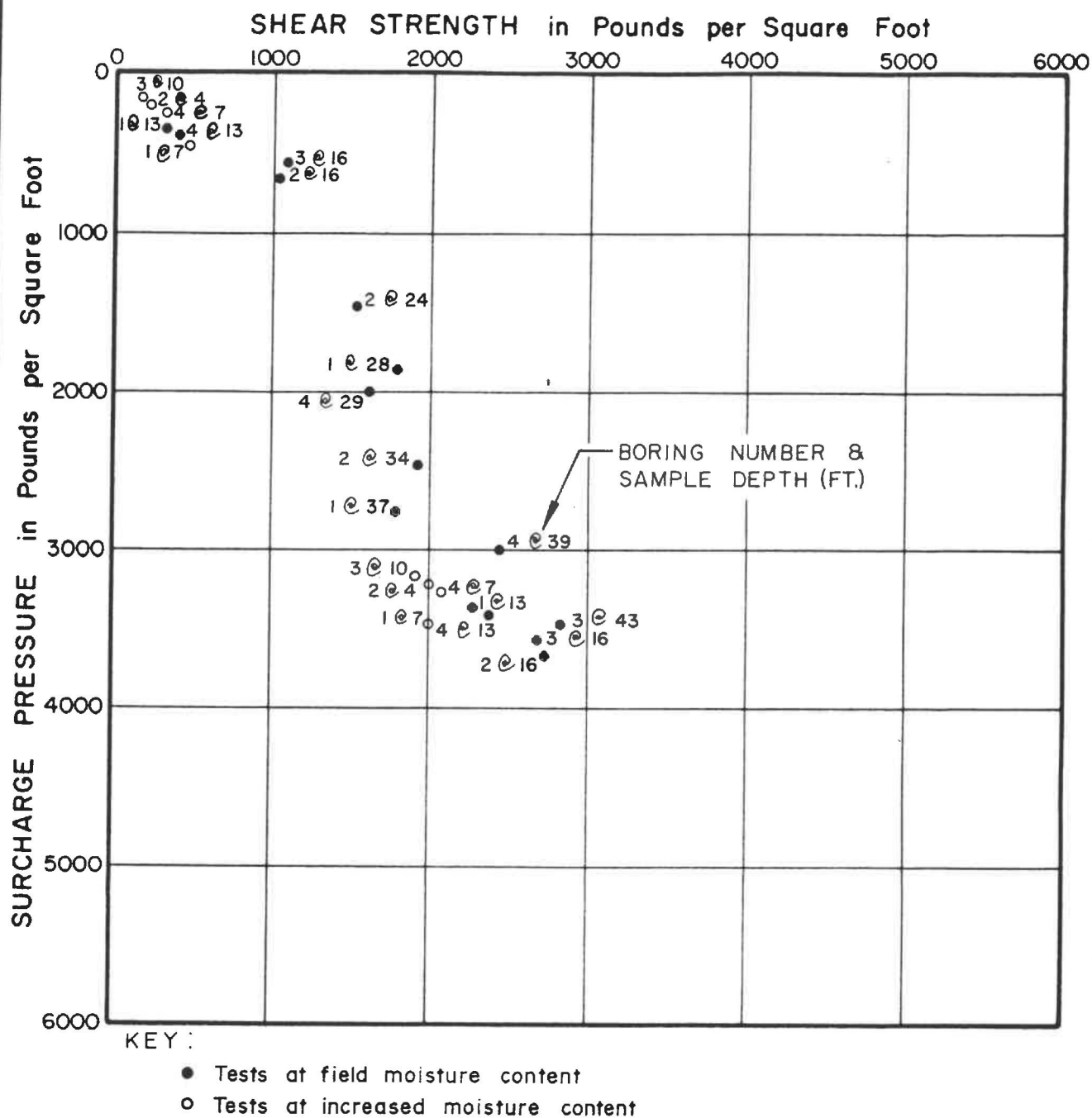
UNIFIED SOIL CLASSIFICATION SYSTEM

Reference:

The Unified Soil Classification System, Corps of Engineers, U.S. Army
Technical Memorandum No. 3-357, Vol. 1, March, 1953 (Revised April, 1960)

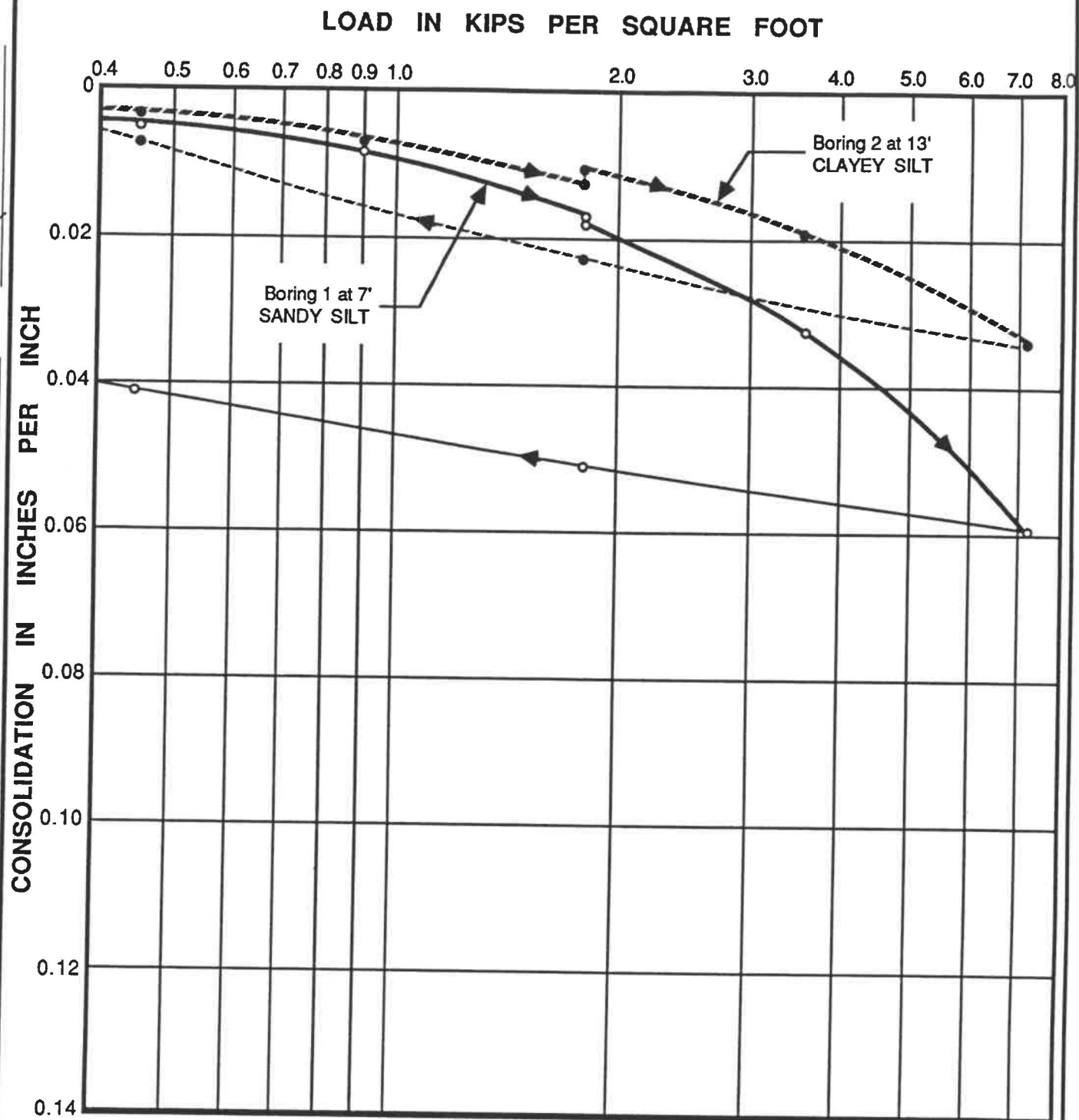
LeROY CRANDALL AND ASSOCIATES

PLATE A - 2



DIRECT SHEAR TEST DATA

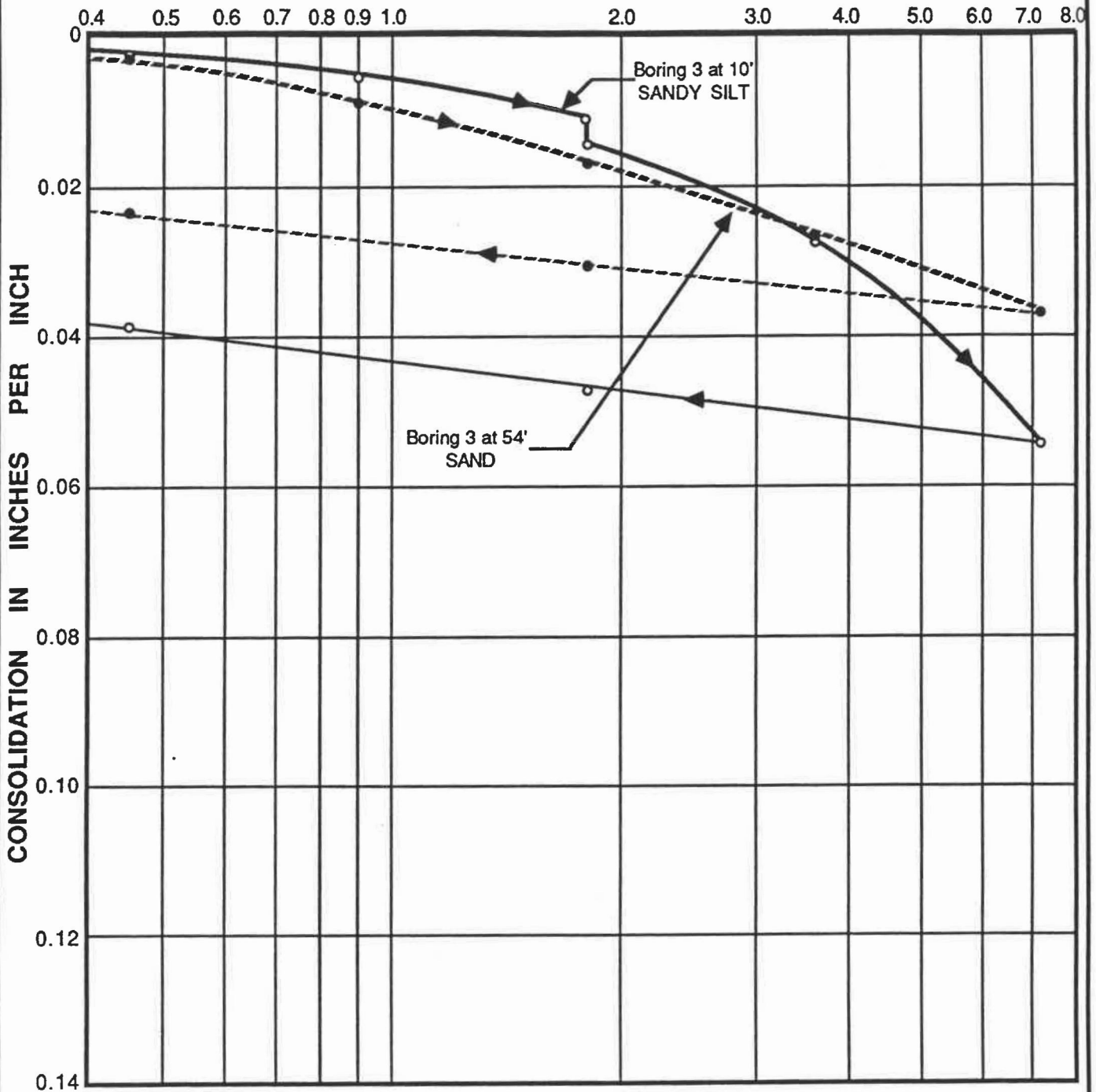
JOB AEF-88292 DATE 8/24/88 DR. Ip W.P. Ip O.E. MS
CHKD *[Signature]*



NOTE: Water added to samples after consolidation under a load of 1.8 kips per square foot.

CONSOLIDATION TEST DATA

LOAD IN KIPS PER SQUARE FOOT

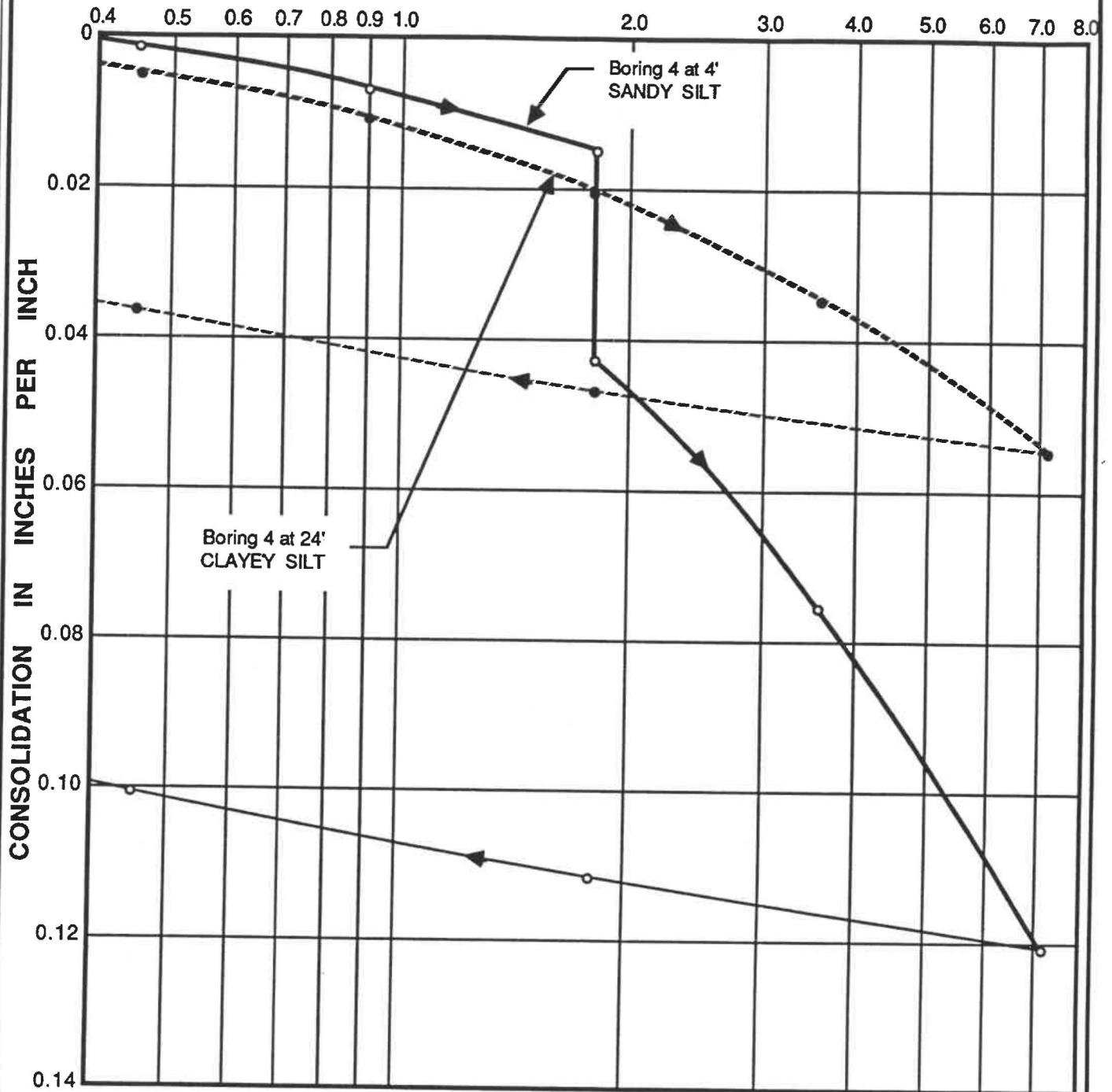


NOTE: Water added to sample from 10' after consolidation under a load of 1.8 kips per square foot.
The other sample tested at field moisture content.

CONSOLIDATION TEST DATA

JOB AEF-88292 DATE 8/24/88 DR. lp W.P. lp O.E. MS CHKD

LOAD IN KIPS PER SQUARE FOOT



NOTE: Water added to sample from 4' after consolidation under a load of 1.8 kips per square foot. The other sample tested at field moisture content.

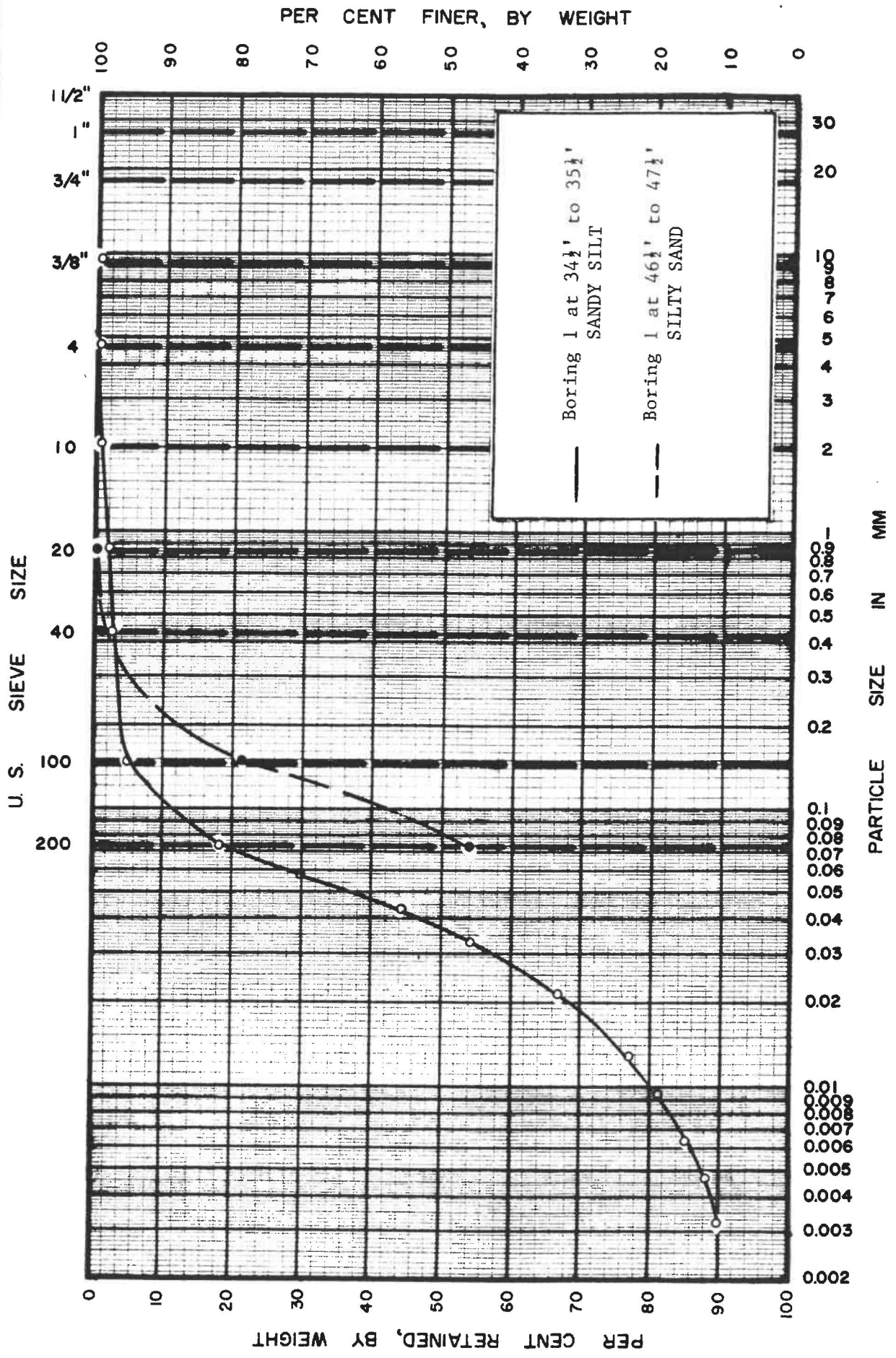
CONSOLIDATION TEST DATA

LeROY CRANDALL AND ASSOCIATES

PLATE A - 4.3

JOB AEF-88292 DATE 8/24/88 DR. dmh W.P. dmh O.E. MS CHKD

111
 JEF-92
 DA 8/21/88
 EW M2 MK - CLERKE



PARTICLE SIZE DISTRIBUTION