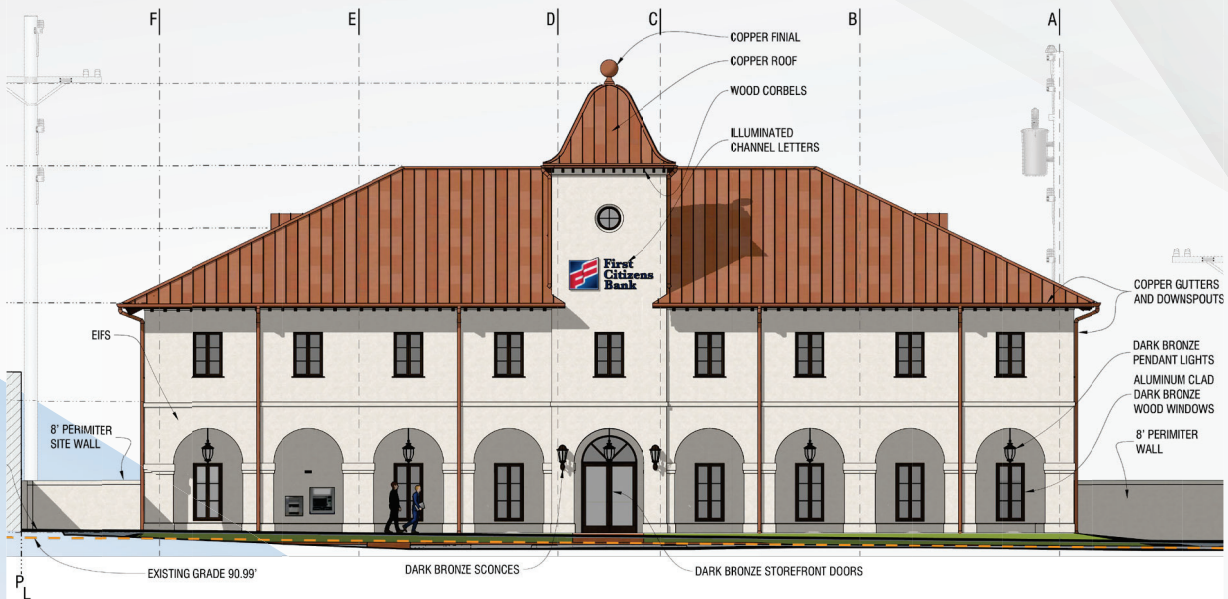


APRIL 2025

FIRST CITIZENS BANK PROJECT

PUBLIC REVIEW DRAFT ENVIRONMENTAL IMPACT REPORT



PREPARED FOR

CITY OF
LONGBEACH

PREPARED BY

Michael Baker
INTERNATIONAL

PUBLIC REVIEW DRAFT ENVIRONMENTAL IMPACT REPORT

First Citizens Bank Project

SCH NO. 2024070597

Lead Agency:



CITY OF LONG BEACH
411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802
Contact: Eljio Sandoval, Planner IV
562.570.6952
eljio.sandoval@longbeach.gov

Prepared by:

MICHAEL BAKER INTERNATIONAL
5 Hutton Centre Drive, Suite 500
Santa Ana, California 92707
Contact: Frances Yau, AICP
949.472.3505

April 2025

JN 199828

This document is designed for double-sided printing to conserve natural resources.



TABLE OF CONTENTS

Section 1.0	Executive Summary.....	1-1
	1.1 Project Location	1-1
	1.2 Project Summary	1-1
	1.3 Project Goals and Objectives	1-2
	1.4 Environmental Issues/Mitigation Summary	1-2
	1.5 Significant Unavoidable Impacts.....	1-13
	1.6 Summary of Project Alternatives	1-13
Section 2.0	Introduction and Purpose	2-1
	2.1 Purpose of the EIR.....	2-1
	2.2 Compliance with CEQA	2-1
	2.3 Notice of Preparation/Early Consultation (Scoping)	2-2
	2.4 Format of the EIR.....	2-3
	2.5 Responsible and Trustee Agencies	2-4
	2.6 Incorporation by Reference	2-5
Section 3.0	Project Description.....	3-1
	3.1 Project Location	3-1
	3.2 Existing Site Conditions	3-1
	3.3 Project Characteristics	3-4
	3.4 Demolition, Grading, and Construction.....	3-9
	3.5 Goals and Objectives.....	3-9
	3.6 Permits and Approvals	3-9
Section 4.0	Basis of Cumulative Analysis	4-1
Section 5.0	Environmental Analysis	5-1
	5.1 Air Quality	5.1-1
	5.2 Cultural and Tribal Cultural Resources	5.2-1
	5.3 Geology and Soils.....	5.3-1
	5.4 Greenhouse Gas Emissions.....	5.4-1
	5.5 Hazards and Hazardous Materials	5.5-1
	5.6 Noise	5.6-1
Section 6.0	Other CEQA Considerations.....	6-1
	6.1 Long-Term Implications of the Proposed Project.....	6-1
	6.2 Irreversible Environmental Changes That Would Be Involved In the Proposed Action Should It Be Implemented.....	6-1
	6.3 Growth-Inducing Impacts	6-2



Section 7.0	Alternatives to the Proposed Project	7-1
Section 8.0	Effects Found Not To Be Significant	8-1
Section 9.0	Organizations and Persons Consulted	9-1
Section 10.0	Bibliography	10-1
Section 11.0	Appendices	
11.1	Notice of Preparation/Initial Study	
11.2	Notice of Preparation/Initial Study Comment Letters	
11.3	Air Quality Assessment	
11.4	AB 52 Documentation	
11.5	Geotechnical Reports	
11.6	Greenhouse Gas Emissions Assessment/LB CAP Checklist	
11.7	Hazardous Materials Documentation	
11.8	Noise and Vibration Assessment	



LIST OF EXHIBITS

Exhibit 3-1	Regional Vicinity.....	3-2
Exhibit 3-2	Site Vicinity.....	3-3
Exhibit 3-3	Conceptual Site Plan	3-5
Exhibit 3-4	Conceptual Landscape Plan	3-8
Exhibit 4-1	Cumulative Projects Map	4-6
Exhibit 5.5-1	Oil Well Locations.....	5.5-5



LIST OF TABLES

Table 3-1	On-Site and Surrounding Land Uses.....	3-1
Table 4-1	Cumulative Projects List.....	4-3
Table 5.1-1	Air Contaminants and Associated Public Health Concerns.....	5.1-3
Table 5.1-2	Ambient Air Quality Data.....	5.1-4
Table 5.1-3	Nearest Sensitive Receptors.....	5.1-5
Table 5.1-4	State and National Ambient Air Quality Standards.....	5.1-7
Table 5.1-5	South Coast Air Basin Attainment Status.....	5.1-10
Table 5.1-6	SCAQMD Emission Thresholds.....	5.1-12
Table 5.1-7	SCAQMD Emission Thresholds for Construction/Operations.....	5.1-13
Table 5.1-8	Maximum Daily Construction Emissions.....	5.1-16
Table 5.1-9	Long-Term Operational Air Emissions.....	5.1-17
Table 5.1-10	Equipment-Specific Grading Rates.....	5.1-19
Table 5.1-11	Localized Significance of Construction Emissions.....	5.1-20
Table 5.1-12	Localized Significance of Operational Emissions.....	5.1-20
Table 5.4-1	Construction-Related Greenhouse Gas Emissions.....	5.4-16
Table 5.4-2	Project Greenhouse Gas Emissions.....	5.4-16
Table 5.4-3	Consistency with the 2020-2045 RTP/SCS.....	5.4-21
Table 5.6-1	Typical Noise Levels.....	5.6-2
Table 5.6-2	Definitions of Acoustical Terms.....	5.6-3
Table 5.6-3	Human Reaction and Damage to Buildings from Continuous or Frequent Intermittent Vibrations.....	5.6-6
Table 5.6-4	Existing Noise Measurements.....	5.6-8



Table 5.6-5	Sensitive Receptors.....	5.6-8
Table 5.6-6	City of Long Beach Exterior Noise Limits for District One	5.6-10
Table 5.6-7	City of Long Beach Adjusted Exterior Noise Standards for District One	5.6-10
Table 5.6-8	Recommended Criteria for Maximum Acceptable Noise Levels In A-Weighted Decibels (dBA)	5.6-11
Table 5.6-9	Typical Construction Noise Levels	5.6-15
Table 5.6-10	Project Construction Equipment Noise Levels	5.6-16
Table 5.6-11	Project Operational Noise Level Increases.....	5.6-17
Table 5.6-12	Typical Construction Equipment Vibration Levels.....	5.6-19
Table 7-1	Comparison of Alternatives	7-11



DRAFT EIR AND APPENDICES

The Notice of Availability (NOA), Draft EIR, and Appendices
are available for public review on the City's website:

<https://www.longbeach.gov/lbcd/planning/environmental/reports/>

In addition to the City's website, these documents are also available for review on the Office of
Planning and Research's (OPR) CEQAnet Online Database, under State Clearinghouse No.
2024070597:

<https://ceqanet.opr.ca.gov/>



1.0 Executive Summary



1.0 EXECUTIVE SUMMARY

1.1 PROJECT LOCATION

The City of Long Beach (City) is located in the southern portion of the County of Los Angeles, approximately 20 miles south of downtown Los Angeles. Surrounding jurisdictions include the cities of Compton, Paramount, Bellflower, Lakewood, and Hawaiian Gardens to the north, Los Alamitos and Seal Beach to the east, and Los Angeles, Carson, and unincorporated Los Angeles County to the west. The Pacific Ocean bounds the City to the south. Additionally, the City surrounds the City of Signal Hill on all sides.

The proposed First Citizens Bank Project (project) is located at 3450-3470 Long Beach Boulevard. The approximately 36,775-square foot (0.87-acre) project site consists of three parcels (Assessor's Parcel Number [APN] 7145-006-010 through -012) and is bound by commercial uses to the north and south, residential uses to the east, and Long Beach Boulevard to the west. Regional access to the site is provided via Interstate 405 that runs west and south of the project site. Local access to the site is provided via Long Beach Boulevard and Wardlow Road.

1.2 PROJECT SUMMARY

The project proposes to develop an approximately 12,469-gross square foot, two-story office/bank building on three parcels (APNs 7145-006-010 through -012). A lot merger is proposed as part of the proposed project's discretionary approvals to combine the three parcels into one. The building would have a floor area ratio of 0.34. The net occupiable building space would be approximately 7,821 square feet. The proposed building height would be 34 feet and would not exceed two stories, with the exception of a 51-foot tower. The proposed building would be situated in the northeastern corner of the project site with parking areas provided to the south and west of the building. A total of 44 surface parking spaces are proposed. Eight of the proposed parking spaces would accommodate electric vehicles, providing access to an electric vehicle charging station. Vehicular access to the project site would be provided via a single driveway from Long Beach Boulevard. A marked pedestrian walkway would connect the sidewalk along Long Beach Boulevard to the entrance of the proposed building. The proposed project would include a walk-up Automated Teller Machine (ATM); however, the proposed project would not include a drive-through teller or drive-through ATM facility.

The proposed project would include grading and minimal amounts of excavation necessary for installation of utilities to the proposed building. The proposed land use is typically a permitted use by right in the Community Commercial Automobile-Oriented (CCA) Zoning District. However, because of project-related excavation, the proposed project's location in the City's methane zone, and the presence of decommissioned and plugged oil wells on the project site, the proposed project is subject to the City's methane gas mitigation ordinance (Long Beach Municipal Code [LBMC] Chapter 18.79, *Methane Gas Mitigation*), which states that methane gas mitigation is required for all newly constructed buildings to be located less than or equal to 300 hundred feet from any active, or 100 feet of an idle and/or abandoned oil/gas well. To comply with LBMC Section 18.78.080, *Wells not accessible*, and LBMC Chapter 18.79, *Methane Gas Mitigation*, the Applicant is proposing to install a Vapor Intrusion Mitigation System to limit potential vapor intrusion impacts and to develop a site-specific Soil Management Plan to excavate and export impacted soils during construction.



Four abandoned and plugged oil wells (Bunny #1, Cather Cherokee #1, Cather Cherokee #2, and Featherstone #15) are located on-site; however, two of the wells (Bunny #1 and Featherstone #15) cannot be definitively located. Attempts by the Applicant to locate the two wells have been inconclusive. As a result, it cannot be verified that Bunny #1 and Featherstone #15 were abandoned to current standards. The Applicant is seeking City concurrence that all reasonable efforts were undertaken to locate these two wells and has requested the project be waived from the City of Long Beach equivalency abandonment standards pursuant to LBMC Section 18.78.070, *Equivalency Abandonment Standard*.

Project construction is anticipated to occur as a single-phase, lasting approximately 14 months. The project would be subject to the following discretionary and ministerial approvals, including, but not limited to:

- CEQA Clearance – to certify the EIR;
- Site Plan/Architectural Review – to ensure that the proposed uses which involve new construction requiring building permits are compatible with surrounding uses and the community as a whole and include adequate public improvements and infrastructure consistent with the General Plan;
- Lot Merger – to combine multiple parcels into one parcel;
- LBMC Section 18.78.070 Waiver – to waive the project from the City’s equivalency abandonment standard; and
- Public Works Permits – to allow for off-site improvements in the public right-of-way.

1.3 PROJECT GOALS AND OBJECTIVES

CEQA Guidelines Section 15124(b) states that an EIR project description must include “[a] statement of objectives sought by the proposed project. The statement of objectives should include the underlying purpose of the project.” As such, the project objectives are outlined below:

- Redevelop the vacant project site with a commercial use that is compatible with nearby uses and fiscally positive for the City.
- Establish a new commercial use that promotes environmentally sustainable design.
- Reduce vehicle miles traveled (VMT) by providing a neighborhood-serving commercial use.
- Implement best management practices related to hazards and hazardous materials to treat impacted soils on-site from historic oil drilling.

1.4 ENVIRONMENTAL ISSUES/MITIGATION SUMMARY

The following summarizes the impacts, mitigation measures, and significance after mitigation analyzed in Section 5.0, *Environmental Analysis*, of this EIR. Refer to the appropriate EIR Section for detailed information.



EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
5.1	Air Quality		
	AQ-1: Implementation of the proposed project could conflict with or obstruct implementation of the applicable air quality plan.	No mitigation measures are required.	Less Than Significant Impact
	AQ-2: The project could result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or State ambient air quality standard.	No mitigation measures are required.	Less Than Significant Impact
	AQ-3: The proposed project could result in localized emissions impacts or expose sensitive receptors to substantial pollutant concentrations.	No mitigation measures are required.	Less Than Significant Impact
	AQ-4: Development associated with implementation of the proposed project could result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	No mitigation measures are required.	Less Than Significant Impact
	Cumulative Impacts: Implementation of the proposed project and related projects could result in cumulatively considerable inconsistencies with the applicable air quality plan.	No mitigation measures are required.	Less Than Significant Impact
	Cumulative Impacts: Short-term construction activities associated with the proposed project and other related cumulative projects could result in increased air pollutant emission impacts or expose sensitive receptors to increased pollutant concentrations.	No mitigation measures are required.	Less Than Significant Impact
	Cumulative Impacts: Implementation of the proposed project and other related cumulative projects could result in increased impacts pertaining to operational air emissions.	No mitigation measures are required.	Less Than Significant Impact
	Cumulative Impacts: Implementation of the proposed project and related projects could result in cumulatively considerable odors that affect a substantial number of people.	No mitigation measures are required.	Less Than Significant Impact
5.2	Cultural and Tribal Cultural Resources		
	CUL-1: The project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.	CUL-1 If archaeological resources are encountered during ground-disturbing activities, work within 50-feet of the find shall be halted and the project Applicant, or their designee, shall retain an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) immediately to evaluate the find. The	Less Than Significant Impact With Mitigation Incorporated



EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
		qualified archaeologist shall evaluate the find in accordance with federal, State, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2, to assess the significance of the find and identify avoidance or other measures as appropriate. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for California Register of Historical Resources eligibility. The treatment plan shall be reviewed and approved by the qualified archaeologist and City of Long Beach Community Development Department.	
	CUL-2: The project could cause a significant impact to a tribal cultural resource.	CUL-2 The project Applicant shall retain a Native American Monitor (monitor) from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation (Tribe). The monitor shall be retained prior to the commencement of any ground-disturbing activity for the project. Ground-disturbing activity shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. A copy of the executed monitoring agreement shall be submitted to the City of Long Beach Community Development Department prior to commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity. The monitor shall complete daily monitoring logs that provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs shall identify and describe any discovered tribal cultural resources, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs shall be provided to the project Applicant/City of Long Beach Community Development Department upon written	Less Than Significant Impact With Mitigation Incorporated



EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
		request to the Tribe. On-site tribal monitoring shall conclude upon one of the following (1) written confirmation to the Tribe from a designated point of contact for the project Applicant/City of Long Beach Community Development Department that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Tribe to the project Applicant/City of Long Beach Community Development Department that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact tribal cultural resources. CUL-3 Upon discovery of any tribal cultural resources, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered tribal cultural resource has been fully assessed by the Gabrieleño Band of Mission Indians – Kizh Nation (Tribe) monitor and/or Tribe archaeologist. The Tribe shall recover and retain all discovered tribal cultural resources in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes. CUL-4 Native American human remains are defined in Public Resources Code Section 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code Section 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed. Human remains and grave/burial goods shall be treated alike per California Public Resources Code Sections 5097.98(d)(1) and (2). Preservation in place (i.e., avoidance) is	



EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
		the preferred manner of treatment for discovered human remains and/or burial goods. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.	
	Cumulative Impacts: The project, combined with other related cumulative projects, could cause cumulatively considerable impacts to archaeological resources or tribal cultural resources.	Refer to Mitigation Measures CUL-1 through CUL-4.	Less Than Significant Impact With Mitigation Incorporated
5.3	Geology and Soils		
	GEO-1: The project could be located on unstable or expansive soils that could result in geologic hazards.	GEO-1 Prior to issuance of grading permits, the City of Long Beach City Engineer shall verify that the proposed project's final construction plans and specifications incorporate the applicable construction design recommendations from the <i>Geotechnical Engineering Report, First Citizen's Bank – Long Beach, Long Beach, Los Angeles County, CA</i> , prepared by Terracon Consultants, Inc. and dated November 2, 2022, and the <i>Geotechnical Report Addendum No. 1 2022 CBC Seismic Design Parameters First Citizen's Bank – Long Beach 3450-3470 Long Beach Boulevard Long Beach, Los Angeles County, CA Terracon Project No. 60225117</i> , prepared by Terracon Consultants, Inc. and dated June 7, 2024.	Less Than Significant Impact With Mitigation Incorporated



EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	GEO-2: Project implementation could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	GEO-2 In the event that paleontological resources are encountered during earth-disturbing activities, all construction activities within 100 feet of the discovery shall be temporarily halted until a qualified paleontologist retained by the Applicant evaluates the find and makes a recommendation. The evaluation shall follow Society of Vertebrate Paleontology (SVP) standards as delineated in the <i>Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources</i> (2010). If the qualified paleontologist finds that the resource is not a significant fossil, then work may resume. If the qualified paleontologist finds the resource is potentially significant, the qualified paleontologist shall make recommendations for appropriate treatment in accordance with SVP guidelines for identification, evaluation, disclosure, avoidance, recovery, and/or curation, as appropriate. The City of Long Beach shall determine the appropriate treatment of the find. Work shall not resume within the no-work radius until the City of Long Beach, through consultation as appropriate, determines that appropriate treatment measures have been completed to the satisfaction of the City. Any fossils recovered during mitigation shall be cleaned, identified, catalogued, and permanently curated with an accredited and permanent scientific institution with a research interest in the materials. A qualified professional paleontologist is a professional with a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California, as well as at least one year of fulltime professional experience or equivalent specialized training in paleontological research (i.e., the identification of fossil deposits, application of paleontological field and laboratory procedures and techniques, and curation of fossil specimens), and at least four months of supervised field and analytic experience in general North American paleontology as defined by the SVP.	Less Than Significant Impact With Mitigation Incorporated



EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	Cumulative Impacts: The proposed project, combined with other related cumulative projects, could expose people and structures to potential substantial adverse effects involving geology and soils and could impact unknown paleontological resources.	Refer to Mitigation Measures GEO-1 and GEO-2.	Less Than Significant Impact With Mitigation Incorporated
5.4	Greenhouse Gas Emissions		
	GHG-1: Greenhouse gas emissions generated by the project could have a significant impact on the environment.	No mitigation measures are required.	Less Than Significant Impact
	GHG-2: Implementation of the proposed project could conflict with an applicable greenhouse gas reduction plan, policy, or regulation.	No mitigation measures are required.	Less Than Significant Impact
	Cumulative Impacts: Greenhouse gas emissions generated by the project and other related cumulative projects could have a significant cumulative impact on the environment or could conflict with an applicable greenhouse gas reduction plan, policy, or regulation.	No mitigation measures are required.	Less Than Significant Impact
5.5	Hazards and Hazardous Materials		
	HAZ-1: Project implementation could create a significant hazard related to the public or environment through routine transport, use, or disposal of hazardous materials, or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	HAZ-1 A site-specific Soil Management Plan (SMP) is proposed as part of the proposed project. Prior to issuance of any grading permits, the City of Long Beach shall ensure the following details are incorporated into the SMP: • Provide guidelines for safety measures, soil management, and handling of disturbed soils during construction in a manner protective of human health and consistent with applicable regulatory requirements; • Require a qualified Phase II/Site Characterization Specialist be on-site during all ground-disturbing work to monitor proper implementation of the SMP;	Less Than Significant Impact With Mitigation Incorporated



		• Provide an outline of existing federal, State, and local laws and regulations pertaining to transport, treatment, and disposal of excavation and exports of impacted soils, which shall be conducted in consultation with the Phase II/Site Characterization Specialist; and • Require a copy of the SMP to be made available to the contractor and the City of Long Beach for use during grading and excavation activities.	
		HAZ-2 During ground disturbing activities, observations shall be made by the contractor for the potential presence of oil/gas well heads (including Featherstone #15), associated underground infrastructure, and soil potentially impacted by chemicals compounds or fuel and oil hydrocarbons. Indications of impacted soil may include chemical or fuel odors, unusual coloration, apparent moisture, and staining. If any of the above are encountered, the qualified environmental professional with Phase II/Site Characterization experience (retained in accordance with Mitigation Measure HAZ-1) shall assist with segregation of excavated material for proper disposal at a licensed waste-handling facility. If Featherstone #15 is uncovered during project construction, the well shall be abandoned in accordance with California Department of Conservation Geologic Energy Management Division (CalGEM) standards or the City of Long Beach's equivalency abandonment standards pursuant to <i>Long Beach Municipal Code</i> Section 18.78.070, <i>Equivalency Abandonment Standard</i>.	
		HAZ-3 The Applicant shall ensure the design of the proposed active or passive vapor intrusion mitigation system (VIMS) required as part of the methane mitigation plan to be submitted in conjunction with the project grading and/or building plans include design measures to address potential vapor intrusion from volatile organic compounds (VOCs). The methane mitigation plan shall be verified by the City of Long Beach Building Official during plan check review. If a passive VIMS is designed for the project as part of the methane mitigation plan,	



EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
		it shall be designed such that in the event indoor air concentrations indicate ineffective mitigation of vapor intrusion during project operation, the passive VIMS can be converted to an active system. Such design may require additional permitting with the local air district (i.e., South Coast Air Quality Management District). Additionally, the Applicant shall ensure the operation, monitoring, and maintenance plan (OMM Plan), established as part of the methane mitigation plan, include a VOC monitoring program to evaluate system performance of VOC mitigation.	
	HAZ-2: Project implementation could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing school.	Refer to Mitigation Measures HAZ-1 through HAZ-3.	Less Than Significant Impact With Mitigation Incorporated
	Cumulative Impacts: The proposed project, combined with other related projects, could create a significant hazard to the public or environment through routine transport, use, or disposal of hazardous materials, or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Refer to Mitigation Measures HAZ-1 through HAZ-3.	Less Than Significant Impact With Mitigation Incorporated
	Cumulative Impacts: The proposed project, combined with other related projects, could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing school.	Refer to Mitigation Measures HAZ-1 through HAZ-3.	Less Than Significant Impact With Mitigation Incorporated
5.6	Noise		
	NOI-1: A substantial temporary or permanent increase in ambient noise levels in the area could result from the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	No mitigation measures are required.	Less Than Significant Impact
	NOI-2: Project implementation could result in adverse vibration impacts to nearby sensitive receptors and structures.	No mitigation measures are required.	Less Than Significant Impact
	Cumulative Impacts: Construction-related activities within the project area could result in significant temporary noise impacts to nearby noise sensitive receivers.	No mitigation measures are required.	Less Than Significant Impact



EIR Section	Impact Statement	Mitigation Measure	Significance After Mitigation
	Cumulative Impacts: The proposed project could result in a significant increase in traffic and long-term stationary ambient noise levels.	No mitigation measures are required.	Less Than Significant Impact
	Cumulative Impacts: Project implementation could result in significant vibration impacts to nearby sensitive receptors and structures.	No mitigation measures are required.	Less Than Significant Impact



This page intentionally left blank.



1.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Compliance with existing regulations and the specific mitigation measures summarized above would reduce project impacts to less than significant levels and no significant unavoidable impacts would result.

1.6 SUMMARY OF PROJECT ALTERNATIVES

“NO PROJECT/EXISTING CONDITIONS” ALTERNATIVE

According to CEQA Guidelines Section 15126.6(e), the specific alternative of “no project” shall be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The “no project” analysis is required to discuss the existing conditions at the time the Notice of Preparation was published (July 16, 2024) as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

The “No Project/Existing Conditions” Alternative assumes the site remains as is and the proposed project is not developed. The project site would remain a vacant and disturbed lot and no construction activities would occur on-site. The project’s proposed site remediation efforts related to potentially hazardous conditions from historic oil drilling activities on-site would not be implemented.

“BUILDING RELOCATION” ALTERNATIVE

The “Building Relocation” Alternative would relocate the proposed building footprint closer to the western property boundary (along Long Beach Boulevard) with the intent to reduce hazardous impacts related to the unknown location of the wellhead identified as Featherstone #15. Based on the technical studies and field surveys conducted on-site, Featherstone #15 is located somewhere along the eastern portion of the site. Thus, the “Building Relocation” Alternative attempts to reduce potential hazardous impacts related to grading and excavation activities along the eastern portion of the site that could inadvertently uncover the wellhead or other well infrastructure.

Similar to the proposed project, the relocated building would be 12,469 square feet and up to 34 feet in height. This alternative would shift the proposed driveway southerly towards the southwestern corner of the project site. Additionally, as the building would be relocated to the northwestern corner of the site, on-site parking areas would be provided to the south and east (rear) of the relocated building. All other architectural features and elements, including the 51-foot bell tower, would remain the same. This alternative would also comply with applicable CCA zone development standards related to setbacks. Specifically, the relocated building would be setback at least 15 feet from Long Beach Boulevard (to accommodate the required 10-foot front yard setback as well as a 15-foot sewer easement), at least 5 feet from side yards, and at least 20 feet from rear yards. Similar to the proposed project, the “Building Relocation” Alternative would require the same City approvals: CEQA Clearance, Site Plan/Architectural Review, Lot Merger, LBMC Section 18.78.070 Waiver, and Public Works Permits.



“REDUCED DENSITY” ALTERNATIVE

The “Reduced Density” Alternative would reduce the proposed project’s density by eliminating the second story of the proposed building. By reducing the development to a one-story building (approximately 24 feet in height), this alternative would reduce the building’s occupiable building space from 7,821 square feet to 3,351 square feet (a reduction of 4,470 square feet). The 51-foot tall bell tower would also be proportionally reduced to 41-feet in height. Given the reduced square footage, the “Reduced Density” Alternative would also proportionally reduce provided parking spaces and landscaping while complying with applicable CCA zone development standards. All other architectural designs and features proposed by the project would remain the same. Similar to the proposed project, the “Reduced Density” Alternative would require the same City approvals: CEQA Clearance, Site Plan/Architectural Review, Lot Merger, LBMC Section 18.78.070 Waiver, and Public Works Permits.

“ENVIRONMENTALLY SUPERIOR” ALTERNATIVE

Based on the alternatives analysis, the “No Project” Alternative is determined to be the environmentally superior alternative, as it would avoid or lessen most of the project’s environmental impacts. According to CEQA Guidelines Section 15126.6(e), “if the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” Accordingly, the “Reduced Density Alternative” is considered the environmentally superior alternative to the proposed project, since this alternative reduces the project’s impacts to air quality, GHG emissions, and noise.

The “Reduced Density” Alternative would achieve the project objectives, some to a lesser extent than others. This alternative would redevelop the vacant project site with a commercial use that is compatible with nearby uses and fiscally positive for the City. However, it can be inferred that an office/bank building reduced by more than half in size (approximately 57 percent reduction in square footage from 7,821 to 3,351 square feet) would not be as fiscally positive (i.e., profitable) as the proposed project. This lack of profitability could result in the Applicant not being able to maintain viable operations over the long term. Nevertheless, this alternative would establish a new commercial use that promotes environmentally sustainable design and help reduce VMT by providing a neighborhood-serving commercial use in the project area. This alternative would also implement best management practices related to hazards and hazardous materials to treat impacted soils on-site from historic oil drilling activities.



2.0 Introduction and Purpose



2.0 INTRODUCTION AND PURPOSE

2.1 PURPOSE OF THE EIR

The purpose of this EIR is to review the existing conditions, analyze potential environmental impacts, and identify feasible mitigation measures to avoid or lessen the project's potentially significant effects. This EIR addresses the project's environmental effects, in accordance with *CEQA Guidelines* Section 15161. As referenced in *CEQA Guidelines* Section 15121(a), the primary purposes of this EIR are to:

- Inform decision-makers and the public generally of the significant environmental effect of a project;
- Identify possible ways to minimize the significant effects of a project; and
- Describe reasonable alternatives to a project.

The mitigation measures that are specified shall be adopted as conditions of approval to minimize the significance of impacts resulting from the project. In addition, this EIR is the primary reference document in the formulation and implementation of a mitigation monitoring program for the project.

As Lead Agency, the City of Long Beach (which has the principal responsibility of processing and approving the project) and other public (i.e., responsible and trustee) agencies that may use this EIR in the decision-making or permit process will consider the information in this EIR, along with other information that may be presented during the CEQA process. Environmental impacts are not always mitigatable to a level considered less than significant; in those cases, impacts are considered significant unavoidable impacts. In accordance with *CEQA Guidelines* Section 15093(b), if a public agency approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts), the agency must state in writing the specific reasons for approving the project, based on the Final EIR and any other information in the public record for the project. *CEQA Guidelines* Section 15093 requires a "statement of overriding considerations" where the Lead Agency specifies the findings and public benefits for the project that outweigh the impacts.

This EIR analyzes the project's environmental effects to the degree of specificity appropriate to the current proposed actions, as required by *CEQA Guidelines* Section 15146. The analysis considers the activities associated with the project to determine the short- and long-term effects associated with their implementation. This EIR discusses the project's direct and indirect impacts, as well as the cumulative impacts associated with other past, present, and reasonably foreseeable future projects.

2.2 COMPLIANCE WITH CEQA

PUBLIC REVIEW OF THE DRAFT EIR

In accordance with *CEQA Guidelines* Sections 15087 and 15105, this Draft EIR will be circulated for a 45-day public review period. Interested agencies and members of the public are invited to comment in writing on the information contained in this document. All written comment letters received before the close of the public review period will be responded to in writing, and the comment letters, together with the responses to those comments, will be included in the Final EIR.



Comment letters should be sent to:

Elijio Sandoval, Planner III
City of Long Beach
411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802
LBDS-EIR-Comments@longbeach.gov

CERTIFICATION OF THE FINAL EIR

Pursuant to *CEQA Guidelines* Section 15132, *Contents of Final Environmental Impact Report*, the Final EIR will consist of:

- a) The Draft EIR or a revision of the Draft;
- b) Comments and recommendations received on the Draft EIR either verbatim or in summary;
- c) A list of persons, organizations, and public agencies commenting on the Draft EIR;
- d) The Lead Agency's responses to significant environmental points raised in the review and consultation process; and
- e) Any other information added by the Lead Agency.

Additionally, pursuant to *CEQA Guidelines* Section 15088, *Evaluation of and Response to Comments*, at least ten days prior to certifying the EIR, the City will provide a written proposed response to a public agency on comments made by that agency. As set forth in *CEQA Guidelines* Section 15088, the response to comments may take the form of a revision to the draft EIR or may be a separate section in the Final EIR.

PROJECT CONSIDERATION

Upon Final EIR certification, the City Council may consider approval of the proposed project. A decision to approve the project would be accompanied by specific, written findings, in accordance with *CEQA Guidelines* Section 15091, and if required, a specific written statement of overriding considerations, in accordance with *CEQA Guidelines* Section 15093.

2.3 NOTICE OF PREPARATION/ EARLY CONSULTATION (SCOPING)

In compliance with the *CEQA Guidelines*, the City has provided opportunities for various agencies and the public to participate in the environmental review process. During EIR preparation, efforts were made to contact various federal, State, regional, and local government agencies and other interested parties to solicit comments on the scope of the review in this document. This included the distribution of a Notice of Preparation (NOP) and Initial Study to various responsible agencies, trustee agencies, and interested parties; refer to [Appendix 11.1, *Notice of Preparation/Initial Study*](#). The purpose of the NOP was to formally announce the preparation of a Draft EIR for the proposed project, and that, as the Lead Agency, the City was soliciting input regarding the scope and content of the environmental information to be included in the Draft EIR. The NOP and Initial Study provided preliminary



information regarding the anticipated range of impacts to be analyzed within the Draft EIR. The NOP and Initial Study were distributed for an initial 30-day public review period from July 16, 2024 through August 15, 2024 and then extended an additional two week to August 29, 2024.

In addition, a virtual public scoping meeting was scheduled for July 31, 2024 at 6:00 p.m. on Zoom. However, due to technical difficulties, the scoping meeting could not be held. As such, a rescheduled virtual public scoping meeting was noticed and conducted on August 22, 2024 at 6:00 p.m. on Zoom; no parties attended the meeting. The scoping meeting's purpose was to:

- Inform the public of the proposed project and the City's intent to prepare an EIR;
- Present an overview of the CEQA EIR process;
- Review the topics to be addressed in the EIR; and
- Receive public comments on issues of concern and environmental topics to be addressed in the EIR.

The NOP comments are provided in Appendix 11.2, *Notice of Preparation/Initial Study Comment Letters*, and have been addressed in each appropriate topical area of this EIR. Issues raised in the NOP comments are summarized below:

- Project compliance with Assembly Bill (AB) 52 and Senate Bill (SB) 18 regarding potential adverse changes in the significance of a historical resource, as well as consultation with California Native American tribes regarding tribal cultural resources (refer to Section 5.2, *Cultural and Tribal Cultural Resources*);
- Potential hazardous materials impacts, including the transport of hazardous materials and release of methane, in the vicinity of nearby schools during the construction and operational activities of the project (refer to Section 5.5, *Hazards and Hazardous Materials*);
- Project-related traffic impacts on existing State transportation facilities (refer to Appendix 11.1, *Notice of Preparation/Initial Study*);
- Potential impacts on pedestrian, bicycle, and transit facilities in the project area (refer to Appendix 11.1); and
- Project impacts on existing and available sewage treatment capacity (refer to Appendix 11.1).

2.4 FORMAT OF THE EIR

The Draft EIR is organized into the following sections:

- Section 1.0, *Executive Summary*, provides a brief project description and summary of the environmental impacts and mitigation measures.
- Section 2.0, *Introduction and Purpose*, provides CEQA compliance information.



- Section 3.0, *Project Description*, provides a detailed project description indicating project location, background, and history; project characteristics, phasing, and objectives; as well as associated discretionary and ministerial actions required.
- Section 4.0, *Basis of Cumulative Analysis*, describes the approach and methodology for the cumulative analysis.
- Section 5.0, *Environmental Analysis*, contains a detailed environmental analysis of the existing conditions, existing regulatory setting, potential project impacts, potential cumulative impacts, recommended mitigation measures, and significant unavoidable impacts (if any) for the following environmental topic areas:
 - Section 5.1, *Air Quality*;
 - Section 5.2, *Cultural and Tribal Cultural Resources*;
 - Section 5.3, *Geology and Soils*;
 - Section 5.4, *Greenhouse Gas Emissions*;
 - Section 5.5, *Hazards and Hazardous Materials*; and
 - Section 5.6, *Noise*.
- Section 6.0, *Other CEQA Considerations*, discusses long-term implications of the proposed action. Irreversible environmental changes that would be involved in the proposed action, should it be implemented, are considered. The project's growth-inducing impacts, including the potential for population growth, is also discussed.
- Section 7.0, *Alternatives to the Proposed Project*, describes a reasonable range of alternatives to the project or its location that could avoid or substantially lessen the project's significant impact and still feasibly attain the basic project objectives.
- Section 8.0, *Effects Found Not To Be Significant*, explains potential impacts that have been determined not to be significant.
- Section 9.0, *Organizations and Persons Consulted*, identifies all agencies, organizations, and individuals consulted.
- Section 10.0, *Bibliography*, identifies reference sources for the EIR.
- Section 11.0, *Appendices*, contains the project's technical documentation.

2.5 RESPONSIBLE AND TRUSTEE AGENCIES

Certain projects or actions undertaken by a Lead Agency require subsequent oversight, approvals, or permits from other public agencies in order to be implemented. Such other agencies are referred to as Responsible Agencies and Trustee Agencies. Pursuant to *CEQA Guidelines* Sections 15381 and 15386, as amended, Responsible Agencies and Trustee Agencies are respectively defined as follows:

"Responsible Agency" means a public agency, which proposes to carry out or approve a project, for which a



Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the Lead Agency, which have discretionary approval power over the project. (Section 15381)

"Trustee Agency" means a state agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California. Trustee Agencies include:

- a) The California Department of Fish and Game with regard to the fish and wildlife of the state, to designated rare or endangered native plants, and to game refuges, ecological reserves, and other areas administered by the department;*
- b) The State Lands Commission- with regard to state owned "sovereign" lands such as the beds of navigable waters and state school lands;*
- c) The State Department of Parks and Recreation with regard to units of the State Park System;*
- d) The University of California with regard to sites within the Natural Land and Water Reserves System. (Section 15386)*

2.6 INCORPORATION BY REFERENCE

Pertinent documents relating to this EIR have been cited in accordance with *CEQA Guidelines* Section 15150, which encourages incorporation by reference as a means of reducing redundancy and the length of environmental reports. The following documents are hereby incorporated by reference into this EIR. These documents are available for review at the City of Long Beach Community Development Department, located at 411 West Ocean Boulevard, 3rd Floor, Long Beach, CA 90802.

- *City of Long Beach General Plan (updated 2023).* The purpose of the *City of Long Beach General Plan* (General Plan) is to provide a general, comprehensive, and long-range guide for community decision-making. The General Plan consists of the following elements that have been adopted/updated periodically: Air Quality (1996); Conservation (1973); Historic Preservation (2010); Housing (2022); Land Use (2019); Local Coastal Program (1980); Mobility (2013); Noise (2023); Open Space and Recreation (2002); Public Safety (2002); Seismic Safety (1988); and Urban Design (2019). The individual elements identify goals and policies for existing and future conditions within the City.
- *City of Long Beach General Plan Land Use and Urban Design Elements Project Final Recirculated Environmental Impact Report (dated October 2019).* The *City of Long Beach General Plan Land Use and Urban Design Elements Project Final Recirculated Environmental Impact Report* (General Plan EIR) was prepared to analyze potential environmental impacts associated with the updated Land Use Element and Urban Design Element, which replaced the previous Land Use Element and Scenic Routes Element. As determined in the General Plan EIR, implementation of the updated Land Use Element and Urban Design Element would result in significant and unavoidable impacts related to air quality, climate change, noise, and transportation. With the exception of air quality, global climate change, noise, and transportation impacts, all other potentially significant impacts were determined to be less than significant upon compliance with existing regulations and implementation of mitigation measures.
- *Long Beach Municipal Code (codified through Ordinance No. ORD-25-0002, enacted March 4, 2025).* The *Long Beach Municipal Code* (LBMC) consists of regulatory, penal, and administrative ordinances of the City. It is the method the City uses to implement control of land uses, in



accordance with the General Plan goals and policies. Title 20, Subdivisions, and Title 21, *Zoning*, of the LBMC identifies land uses permitted and prohibited according to the zoning designation of particular parcels. The purpose of the zoning regulations within the LBMC is to promote and preserve the public health, safety, comfort, convenience, prosperity, and general welfare of the people of Long Beach.



3.0 Project Description



3.0 PROJECT DESCRIPTION

3.1 PROJECT LOCATION

The City of Long Beach (City) is located in the southern portion of the County of Los Angeles (County), approximately 20 miles south of downtown Los Angeles; refer to Exhibit 3-1, Regional Vicinity. Surrounding jurisdictions include the cities of Compton, Paramount, Bellflower, Lakewood, and Hawaiian Gardens to the north, Los Alamitos and Seal Beach to the east, and Los Angeles, Carson, and unincorporated Los Angeles County to the west. The Pacific Ocean bounds the City to the south. Additionally, the City surrounds the City of Signal Hill on all sides.

The proposed First Citizens Bank Project (project) is located at 3450-3470 Long Beach Boulevard. The approximately 36,775-square foot (0.87-acre) project site consists of three parcels (Assessor's Parcel Number [APN] 7145-006-010 through -012) and is bound by commercial uses to the north and south, residential uses to the east, and Long Beach Boulevard to the west; refer to Exhibit 3-2, Site Vicinity. Regional access to the site is provided via Interstate 405 (I-405) that runs west and south of the project site. Local access to the site is provided via Long Beach Boulevard and Wardlow Road.

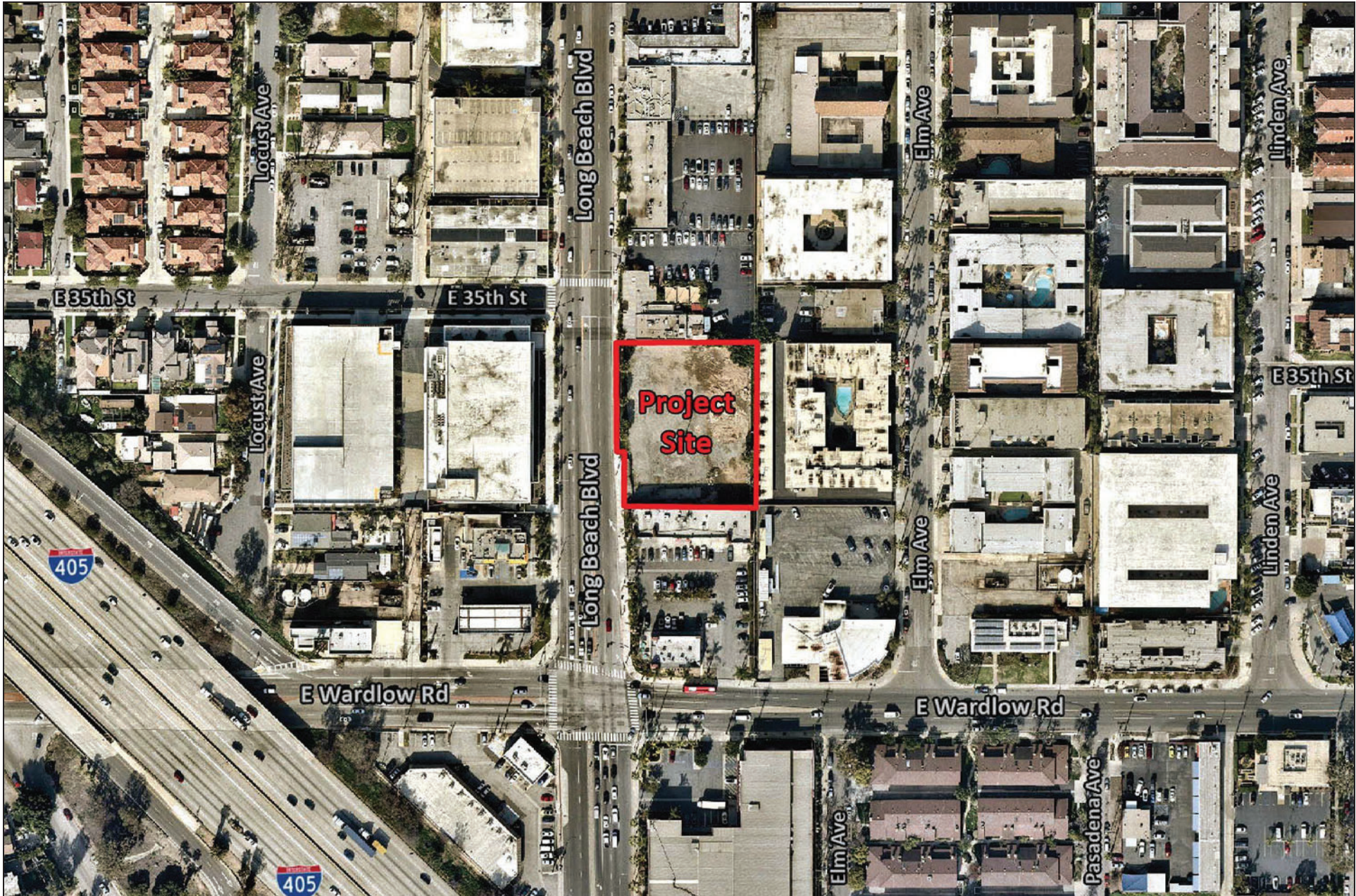
3.2 EXISTING SITE CONDITIONS

The project site is vacant and highly disturbed. The site is largely devoid of vegetation, excluding a narrow band of vegetation featuring patches of grass and four palm trees bordering Long Beach Boulevard, a cluster of two palm trees located in the northeast corner of the project site, and a single palm tree located on the eastern side of the project site towards the southeast corner of the site. Several large branches of a ficus tree planted on an adjacent property overhang the project site in the northeast corner. The site was historically used for oil drilling. Based on California Department of Conservation Geologic Energy Management Division (CalGEM) records, there are a total of four decommissioned and plugged oil wells identified on-site; however, two of the wells cannot be definitively located. Table 3-1, On-Site and Surrounding Land Uses, summarizes the on-site and surrounding land uses.

Table 3-1
On-Site and Surrounding Land Uses

Description	Existing Land Uses	Zoning ¹
Project Site	Undeveloped	Community Commercial Automobile-Oriented (CCA) District; High-Rise Overlay (HR-4) District
North	Restaurant; Commercial Retail; Office; High Density Residential; Church	CCA District; HR-4 District
South	Commercial Retail; Office; Gas Station; High Density Commercial	CCA District; HR-4 District
East	Multi-Family Residential	Residential (R-4-N) District
West	Long Beach Boulevard; Office Building	Community R-4-N (CCN) District; CCA District; HR-4 District

Source: City of Long Beach, *City of Long Beach Use District Map: Page 15*, https://www.longbeach.gov/globalassets/lbcd/media-library/documents/planning/maps/zoning-maps/zoning_map_book_color_page_15, accessed August 20, 2024.



Source: Kimley-Horn and Associates, Inc., July 2024





GENERAL PLAN DESIGNATION AND ZONING

According to the *City of Long Beach General Plan* (General Plan), the project site has a PlaceType designation of Community Commercial.¹ The Community Commercial land use designation is intended to serve automobile oriented commercial needs. Residential uses are not allowed under this land use designation. In areas designated as CC PlaceType, commercial uses that service community-based needs for goods and services are allowed a floor area ratio (FAR) between 0.25 and 1.0. The maximum building height for areas designated for Community Commercial is seven stories but varies based on location in the City. General Plan Map LU-8, *Heights*, identifies the maximum building height at the project site as five stories or 60 feet.

According to the *City of Long Beach Use District Map* (Zoning Map), the project site is located in the Community Commercial Automobile-Oriented (CCA) zoning district, which permits retail and service uses for an entire community including convenience and comparison shopping for goods and associated services.² Specifically, Long Beach Municipal Code (LBMC) Chapter 21.32, *Commercial Districts*, identifies bank, credit union, savings and loan, commercial and industrial loans as permitted uses in the CCA Zone. There is no FAR requirement for CCA zoning district. The maximum building height for areas designated as CCA is two stories or 28 feet. The project site is also subject to the High-Rise Overlay, Four Story Limit (HR-4). The HR-4 Overlay District allows for taller building heights in areas outside downtown Long Beach.

3.3 PROJECT CHARACTERISTICS

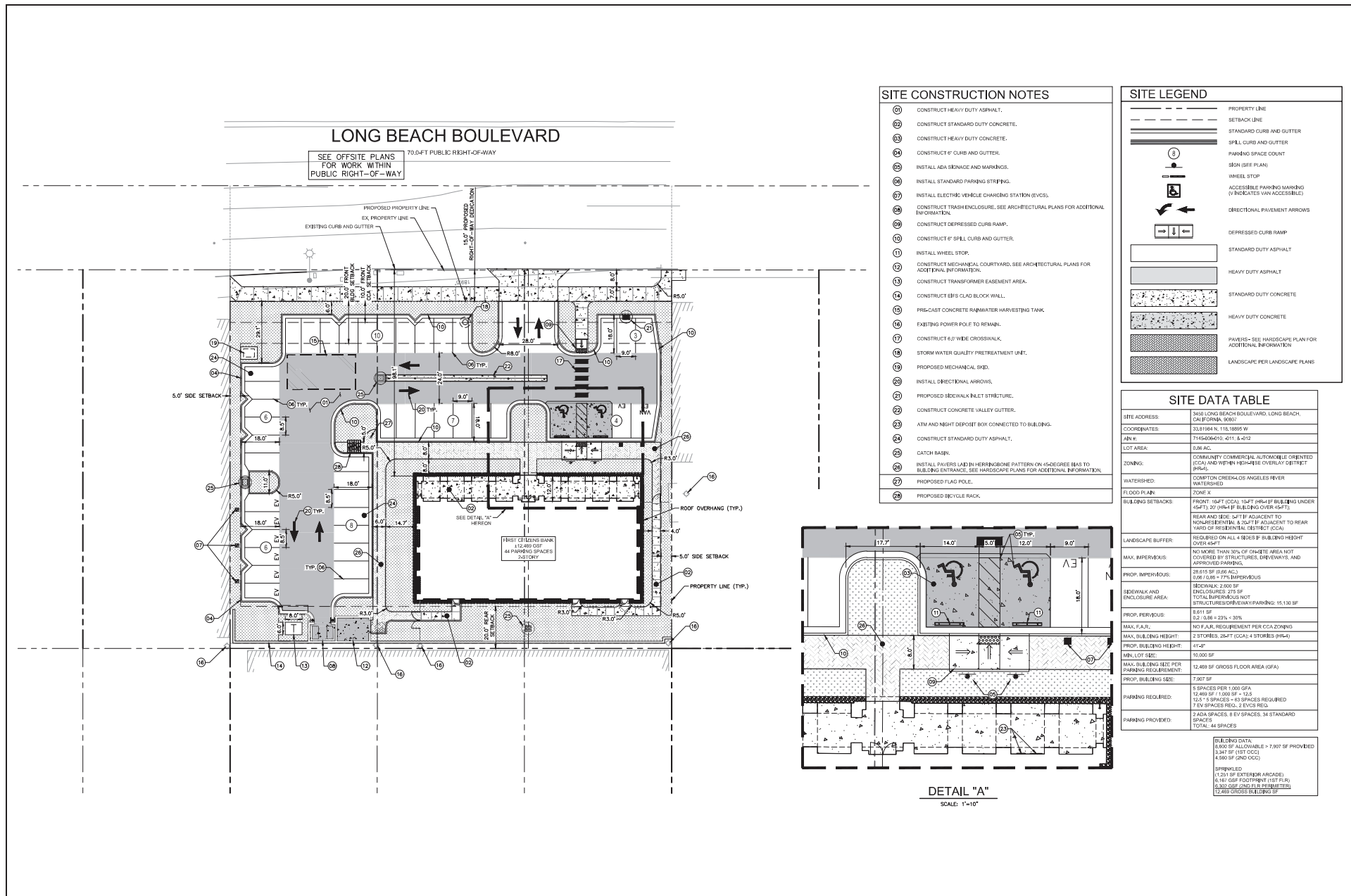
PROJECT OVERVIEW

The proposed project is depicted on Exhibit 3-3, *Conceptual Site Plan*. As shown on Exhibit 3-3, the Applicant proposes to develop an approximately 12,469-gross square foot, two-story office/bank building on three parcels (APNs 7145-006-010 through -012). A lot merger is proposed as part of the proposed project's discretionary approvals to combine the three parcels into one. The building would have a FAR of 0.34. The net occupiable building space would be approximately 7,821 square feet. The proposed building height would be 34 feet and would not exceed two stories, with the exception of a 51-foot tower.³ The proposed building would be situated in the northeastern corner of the project site with parking areas provided to the south and west of the building. A total of 43 surface parking spaces are proposed. Eight of the proposed parking spaces would accommodate electric vehicles, providing access to an electric vehicle charging station. Vehicular access to the project site would be provided via a single driveway from Long Beach Boulevard. A marked pedestrian walkway would connect the sidewalk along Long Beach Boulevard to the entrance of the proposed building. The proposed project

¹ City of Long Beach, *City of Long Beach General Plan Land Use Element*, December 2019, <https://longbeach.gov/globalassets/lbcd/media-library/documents/planning/advance/lueude/land-use-element-final-adopted-december-2019>, accessed August 13, 2024.

² City of Long Beach, *City of Long Beach Use District Map: Page 15*, https://www.longbeach.gov/globalassets/lbcd/media-library/documents/planning/maps/zoning-maps/zoning_map_book_color_page_15, accessed August 13, 2024.

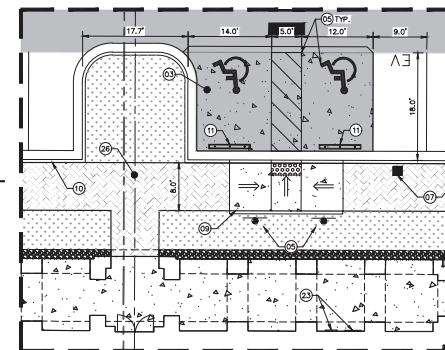
³ LBMC zoning regulations (Section 21.15.1330) define the height of a building with a sloped roof as "the vertical distance above grade to the midpoint height of the highest sloped roof." For the proposed building, this distance amounts to 34 feet, although the peak of the building (the roof ridge) is 42 feet above grade.



SITE CONSTRUCTION NOTES	
01	CONSTRUCT HEAVY DUTY ASPHALT.
02	CONSTRUCT STANDARD DUTY CONCRETE.
03	CONSTRUCT HEAVY DUTY CONCRETE.
04	CONSTRUCT 6" CURB AND GUTTER.
05	INSTALL ADA SIGNAGE AND MARKINGS.
06	INSTALL STANDARD PARKING STRIPING.
07	INSTALL ELECTRIC VEHICLE CHARGING STATION (EVCS).
08	CONSTRUCT TRASH ENCLOSURE. SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
09	CONSTRUCT DEPRESSED CURB RAMP.
10	CONSTRUCT 6" SPILL CURB AND GUTTER.
11	INSTALL WHEEL STOP.
12	CONSTRUCT MECHANICAL COURTYARD. SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
13	CONSTRUCT TRANSFORMER EASEMENT AREA.
14	CONSTRUCT 8" CLAD BLOCK WALL.
15	PRE-CAST CONCRETE RAINWATER HARVESTING TANK.
16	EXISTING POWER POLE TO REMAIN.
17	CONSTRUCT 6" WIDE CROSSWALK.
18	STORM WATER QUALITY PRETREATMENT UNIT.
19	PROPOSED MECHANICAL SKID.
20	INSTALL DIRECTIONAL ARROWS.
21	PROPOSED SIDEWALK INLET STRUCTURE.
22	CONSTRUCT CONCRETE VALLEY GUTTER.
23	ATM AND NIGHT DEPOSIT BOX CONNECTED TO BUILDING.
24	CONSTRUCT STANDARD DUTY ASPHALT.
25	CATCH BASIN.
26	INSTALL PAVERS Laid IN HERRINGBONE PATTERN ON 45DEGREE BIAS TO BUILDING ENTRANCE. SEE HARDSCAPE PLANS FOR ADDITIONAL INFORMATION.
27	PROPOSED FLAG POLE.
28	PROPOSED BICYCLE RACK.

SITE LEGEND	
	PROPERTY LINE
	SETBACK LINE
	STANDARD CURB AND GUTTER
	SPILL CURB AND GUTTER
	PARKING SPACE COUNT
	SIGN (SEE PLAN)
	WHEEL STOP
	ACCESSIBLE PARKING MARKING (V INDICATES VAN ACCESSIBLE)
	DIRECTIONAL PAVEMENT ARROWS
	DEPRESSED CURB RAMP
	STANDARD DUTY ASPHALT
	HEAVY DUTY ASPHALT
	STANDARD DUTY CONCRETE
	HEAVY DUTY CONCRETE
	PAVERS-SEE HARDSCAPE PLAN FOR ADDITIONAL INFORMATION
	LANDSCAPE PER LANDSCAPE PLANS

SITE DATA TABLE	
SITE ADDRESS:	3400 LONG BEACH BOULEVARD, LONG BEACH, CALIFORNIA 90807
COORDINATES:	33.01984 N, 118.18895 W
APN #:	7145-006-010, 011, & 012
LOT AREA:	0.86 AC.
ZONING:	COMMUNITY COMMERCIAL AUTOMOBILE ORIENTED (CCA) AND NEIGHBORHOOD COMMUNITY ORIENTED (NCA)
WATERSHED:	COMPTON CREEK-CO SAN ANGELES RIVER WATERSHED
FLOOD PLAIN:	ZONE X
BUILDING SETBACKS:	FRONT: 10.0' (CCA); 15.0' (NCA) (IF BUILDING UNDER 45.0' TYP. IF BUILDING OVER 45.0' TYP.)
LANDSCAPE BUFFER:	REQUIRED ON ALL 4 SIDES IF BUILDING HEIGHT OVER 45.0'
MAX. IMPERVIOUS:	NO MORE THAN 30% OF ON-SITE AREA NOT COVERED BY STRUCTURES, DRIVEWAYS, AND APPROVED PARKING.
PROP. IMPERVIOUS:	28,015 SF (0.66 AC.) 0.98 (0.86 = 77% IMPERVIOUS)
SIDEWALK AND ENCLOSURE AREA:	SIDEWALK: 2,600 SF ENCLOSURE: 275 SF TOTAL IMPERVIOUS NOT STRUCTURES OR PAVEMENT: 15,130 SF
PROP. IMPERVIOUS:	8,811 SF 0.2 / 0.86 = 23% < 30%
MAX. F.A.R.:	NO F.A.R. REQUIREMENT PER CCA ZONING
MAX. BUILDING HEIGHT:	2 STORES, 28.0' (CCA); 4 STORES (NCA)
PROP. BUILDING HEIGHT:	41.0'
MIN. LOT SIZE:	10,000 SF
MAX. BUILDING SIZE PER PARKING REQUIREMENT:	12,469 SF GROSS FLOOR AREA (GFA)
PROP. BUILDING SIZE:	7,907 SF
PARKING REQUIRED:	5 SPACES PER 1,000 GFA 12,469 SF / 1,000 SF = 12.5 12.5 * 5 SPACES = 63 SPACES REQUIRED 7 EV SPACES REQ. 3 EVCS REQ.
PARKING PROVIDED:	2 ADA SPACES, 6 EV SPACES, 34 STANDARD SPACES TOTAL: 48 SPACES



DETAIL "A"
SCALE: 1"=10'

Source: Conceptual Site Plan Preliminary Layout dated April 12, 2023



would include a walk-up Automated Teller Machine (ATM); however, the proposed project would not include a drive-through teller or drive-through ATM facility.

The proposed project would include grading and minimal amounts of excavation necessary for installation of utilities to the proposed building. The proposed land use is typically a permitted use by right in the CCA Zoning District. However, because of project-related excavation, the proposed project's location in the City's methane zone, and the presence of decommissioned and plugged oil wells on the project site, the proposed project is subject to the City's methane gas mitigation ordinance (LBMC Chapter 18.79, *Methane Gas Mitigation*), which states that methane gas mitigation is required for all newly constructed buildings to be located less than or equal to 300 hundred feet from any active, or 100 feet of an idle and/or abandoned oil/gas well. To comply with LBMC Section 18.78.080, *Wells not accessible*, and LBMC Chapter 18.79, *Methane Gas Mitigation*, the Applicant is proposing to install a Vapor Intrusion Mitigation System (VIMS) to limit potential vapor intrusion impacts and to develop a site-specific Soil Management Plan to excavate and export impacted soils during construction.

As stated, four abandoned and plugged oil wells (Bunny #1, Cather Cherokee #1, Cather Cherokee #2, and Featherstone #15) are located on-site; however, two of the wells (Bunny #1 and Featherstone #15) cannot be definitively located. Attempts by the Applicant to locate the two wells have been inconclusive; refer to [Section 5.5, *Hazards and Hazardous Materials*](#). As a result, it cannot be verified that Bunny #1 and/or Featherstone #15 were abandoned to current standards. The Applicant is seeking City concurrence that all reasonable efforts were undertaken to locate these two wells and has requested the project be waived from the City of Long Beach equivalency abandonment standards pursuant to LBMC Section 18.78.070, *Equivalency Abandonment Standard*.

ARCHITECTURAL DESIGN

The proposed building would be located toward the northeastern corner of the project site, with parking areas situated to the south and west. The building would feature two stories, approximately 15-feet each, and an approximately 16-foot hipped roof. The main building height would be approximately 34 feet in height, and 42 feet above grade. An approximately 51-foot tower, featuring a square bell roof topped with a finial, would be incorporated in the front center of the building. The roof would be copper clad, featuring copper rain gutters and downspouts, underlaid by dark wood corbels. The building exterior would be treated with a white exterior insulation finish system (stucco). The first floor of the building would feature an arcade along the front of the building. An array of photovoltaic (PV) solar panels would be mounted on the roof at the rear of the building and channelized signage identifying the bank would be mounted on the front tower. An eight-foot, stucco-covered perimeter wall would be constructed along the northern, eastern, and southern perimeter of the site. The western side fronting Long Beach Boulevard, would remain open to the street. The proposed building would be architecturally distinct, in terms of scale and color, but would be of similar size and height as surrounding buildings and would contribute to the eclectic architecture of the surrounding area.



LANDSCAPING

The existing landscaping on the project site would be removed and new landscaping would be planted throughout the parking area, around the periphery of the proposed building, and along the site boundaries. As depicted on Exhibit 3-4, *Conceptual Landscape Plan*, the proposed landscaping on-site includes various trees, shrubs, and ground cover. The proposed project's open space/landscaping would represent approximately 20 percent of the project site's coverage. Landscaping for the proposed project would be consistent with the requirements of LBMC Chapter 21.42, *Landscaping Standards*.

PARKING AND CIRCULATION

LBMC Chapter 21.41, *Off-Street Parking and Loading Requirements*, identifies the required number of parking spaces for particular land uses. Specifically, pursuant to LBMC Section 21.41.216, *Parking – Required number of spaces*, banks are required to provide a minimum of five parking spaces per 1,000 square feet of gross floor area. The net occupiable building space is 7,821 square feet, and it is anticipated a minimum of 39 parking spaces would be required. However, under the most conservative estimates accounting for all 12,469 square feet of the proposed building, the LBMC could require up to a minimum of 63 parking spaces.

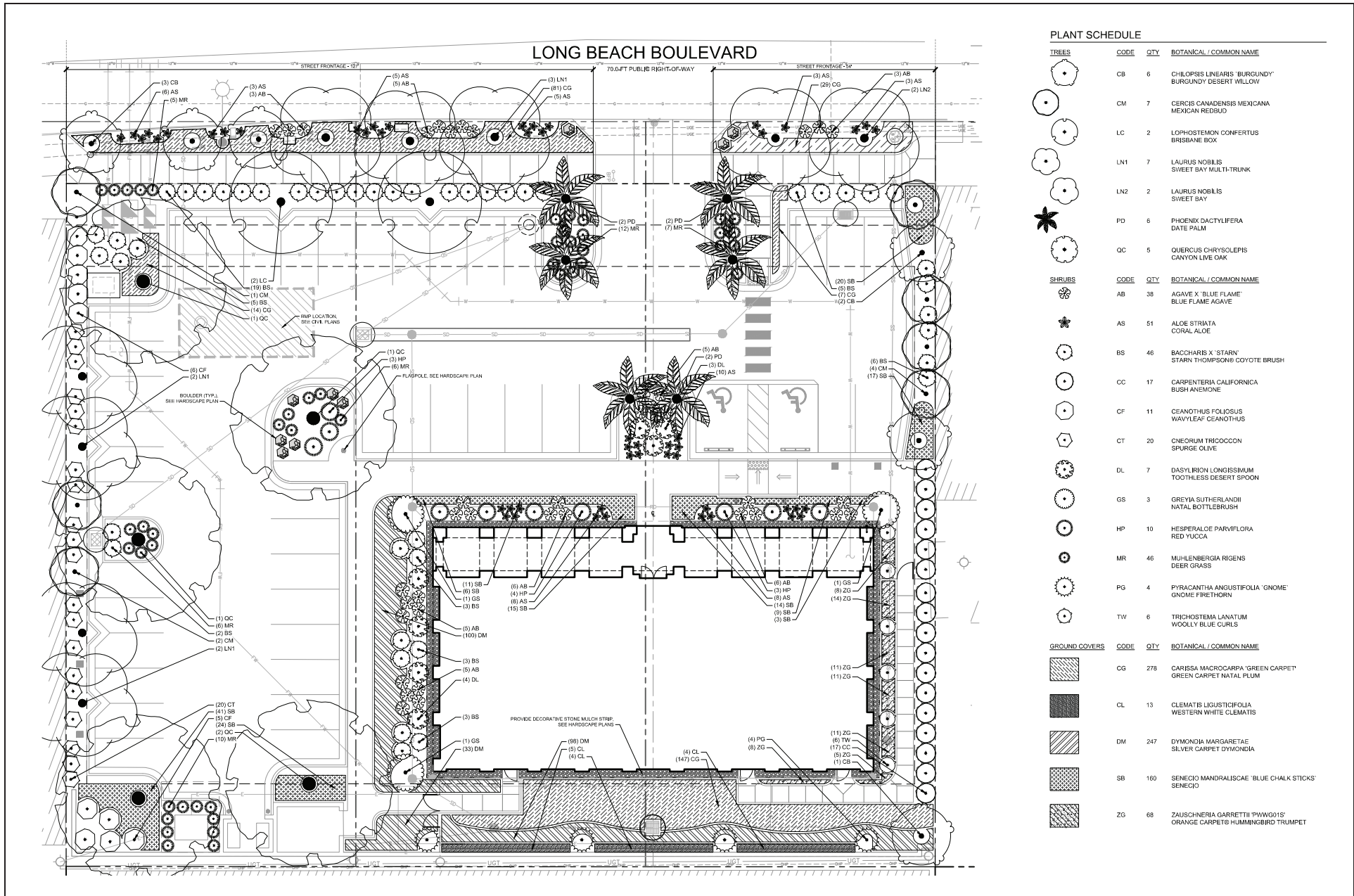
A total of 43 vehicular parking spaces are proposed. Eight of the proposed parking spaces would accommodate electric vehicles, providing access to an electric vehicle charging station. While the City's zoning regulations establish a minimum parking standard, Assembly Bill 2097 (AB 2097), adopted September 2022, prohibits a public agency from imposing any minimum automobile parking requirement on any residential, commercial, or other development project, that is located within 0.5-mile of public transportation.⁴ The project site is located within 0.5-mile of high-quality public transportation. As such, the proposed project is not required to provide the 63 parking spaces determined by LBMC Section 21.41.216. However, the proposed parking spaces are still subject to LBMC Chapter 21.41 development standards.

Vehicular access to the project site would be provided via one driveway at Long Beach Boulevard. The driveway would provide access to the on-site parking spaces. Adjacent to the driveway, a marked pedestrian walkway would connect the sidewalk along Long Beach Boulevard to the walk-up ATM at the front of the proposed building.

INFRASTRUCTURE AND PUBLIC SERVICES

Electrical service would be provided to the project site by Southern California Edison and supplemented by a PV solar panel array installed on the rear of the proposed building roof. Water, sewer, and natural gas services would be provided by the Long Beach Utilities Department (LBUD). The City of Long Beach Environmental Services Bureau is responsible for managing solid waste disposal and recycling in the City. The City contracts with Waste Management for recycling collection services.

⁴ Office of Administrative Law, *Assembly Bill No. 2097*, https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB2097, September 22, 2022, accessed August 13, 2024.



Source: Kimley-Horn and Associates, Inc., 2023



3.4 DEMOLITION, GRADING, AND CONSTRUCTION

The proposed project would include grading and minimal amounts of excavation necessary for installation of utilities to the proposed building. Project construction is anticipated to occur as a single-phase, lasting approximately 14 months.

3.5 GOALS AND OBJECTIVES

CEQA Guidelines Section 15124(b) states that an EIR project description must include “[a] statement of objectives sought by the proposed project. The statement of objectives should include the underlying purpose of the project.” As such, the project objectives are outlined below:

- Redevelop the vacant project site with a commercial use that is compatible with nearby uses and fiscally positive for the City.
- Establish a new commercial use that promotes environmentally sustainable design.
- Reduce vehicle miles traveled (VMT) by providing a neighborhood-serving commercial use.
- Implement best management practices related to hazards and hazardous materials to treat impacted soils on-site from historic oil drilling.

3.6 PERMITS AND APPROVALS

The City of Long Beach is the Lead Agency under CEQA and has discretionary and ministerial authority over the proposed project. The project would be subject to various permits and approvals, including, but not limited to:

- CEQA Clearance – to certify the EIR;
- Site Plan/Architectural Review – to ensure that the proposed uses which involve new construction requiring building permits are compatible with surrounding uses and the community as a whole and include adequate public improvements and infrastructure consistent with the General Plan;
- Lot Merger – to combine multiple parcels into one parcel;
- LBMC Section 18.78.070 Waiver – to waive the project from the City’s equivalency abandonment standard; and
- Public Works Permits – to allow for off-site improvements in the public right-of-way.



This page intentionally left blank.



4.0 Basis of Cumulative Analysis



4.0 BASIS OF CUMULATIVE ANALYSIS

CEQA Guidelines Section 15355 provides the following definition of cumulative impacts:

“Cumulative impacts” refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

- (a) The individual effects may be changes resulting from a single project or a number of separate projects.*
- (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

CEQA Guidelines Section 15130(a) further addresses the discussion of cumulative impacts, as follows:

- (1) As defined in Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.*
- (2) When the combined cumulative impact associated with the project’s incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting the lead agency’s conclusion that the cumulative impact is less than significant.*
- (3) An EIR may determine that a project’s contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project’s contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable.*

Section 5.0, *Environmental Analysis*, assesses the cumulative impacts for each applicable environmental issue, and does so to a degree that reflects each impact’s severity and likelihood of occurrence.

In accordance with *CEQA Guidelines* Section 15130(b), the discussion of cumulative impacts should be guided by the standards of practicality and reasonableness, and should include the following elements in its discussion of significant cumulative impacts:

- 1. *Either:*
 - A. A list of past, present and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or*
 - B. A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the*



reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.

- 2. When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.*
- 3. Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.*
- 4. A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available.*
- 5. A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.*

This EIR evaluates the project's potential cumulative impacts using both the list and summary of projections approaches depending upon which approach is appropriate/relevant for each environmental issue area. The geographic area considered for cumulative impacts varies depending on environmental issue area. For example, the project's operational effects have geographic scopes that are global (such as greenhouse gases, addressed in Section 5.4, *Greenhouse Gas Emissions*), regional (such as air quality, addressed in Section 5.1, *Air Quality*), and local (such as noise, addressed in Section 5.6, *Noise*).

Table 4-1, *Cumulative Projects List*, and Exhibit 4-1, *Cumulative Projects Map*, identify related projects in the area (within a two-mile radius of the project site) determined as having the potential to interact with the proposed project to the extent that a significant cumulative effect may occur. The two-mile radius was identified as an appropriate distance given the small scale of the proposed development and less than significant project-level environmental effects. The following list of projects was developed based on data obtained from the City of Long Beach and City of Signal Hill. The implementation of each project represented in Table 4-1 was determined to be reasonably foreseeable.



**Table 4-1
Cumulative Projects List**

Map Key	Project Title/ Application No.	Location	Description	Status
CITY OF LONG BEACH				
1	Application No. 1707-10	4800 Long Beach Boulevard	Construction of 20, three-story townhomes at the corner of 49th Street and Long Beach Boulevard	Under Construction
2	Application No. 1708-07	530 East 33rd Street	Construction of a 15,432-square foot industrial development (i.e., Harbor Freight)	Under Construction
3	Application No. 1905-29	4251 Long Beach Boulevard	Construction of an 8,559-square foot commercial shell building	Under Construction
4	Application No. 1910-23	2515-2545 Atlantic Avenue and 550-572 Vernon Street	Construction of a 154-unit multi-family affordable housing development	Planning Commission Approved. Pending City Council
5	Application No. 2003-024	712 Baker Street	Construction of a housing project consisting of 226 attached and seven detached dwelling units with a five percent affordable component	Planning Commission Approved; Pending City Council
6	Application No. 2105-11	2500 Pacific Avenue	Long range development plan and associated entitlements for construction of a new gym, church, rectory, convent and addition to existing school at Holy Innocents Church and School	Planning Commission Approved
7	Application No. 2102-38	4400 Cherry Avenue	Construction of a 14,192-square foot community mausoleum with a 17,846-square foot subterranean basement	Pending
8	Application No. 2106-20	3009 Long Beach Boulevard	Construction of a 6,500-square foot single-story building for future medical/office use	Pending
9	Application No. 2109-01	4101 Long Beach Boulevard	Construction of a two-story, 12,656-square foot fire station with three drive through apparatus bays	Approved
10	Application No. 2110-19	3655 Elm Avenue	Construction of 15, three-story townhomes	Pending
11	Application No. 2203-26	4000 Via Oro Avenue	Construction of a 525,280-square foot warehouse and distribution facility located within the West Long Beach Business Parks Planned Development (PD-26)	Pending
12	Application No. 2208-18 and 2305-04	2401 East Wardlow Road	Development of four industrial buildings totaling approximately 740,359 square feet and construction of a 505,043-square foot tilt-up concrete industrial building	Pending; Conditionally Approved
13	Application No. 2304-16	3901 Via Oro Avenue	Construction of a 74,203-square foot warehouse building	Conditionally Approved
14	Application No. 2304-33 and 2407-21	3701 North Pacific Place	Construction of a four-story, 206,756-square foot self-storage building consisting of approximately 1,681 self-storage units on four levels	Completed; Pending
15	Application No. 2311-07	3061 Long Beach Boulevard	Construction of a 49-unit, five-story, 100 percent affordable housing development	Pending
16	Application No. 2312-24	2970 California Avenue	Construction of 33 modular non-congregate shelter units (interim housing) and a resource center building for unhoused individuals	Conditionally Approved



**Table 4-1 [cont'd]
Cumulative Projects List**

Map Key	Project Title/ Application No.	Location	Description	Status
17	Application No. 2401-17	1027 East Hill Street	Emergency housing ordinance to convert a seven-unit residential development into a ten-unit building	Pending
18	Application No. 2405-05	3050 Orange Avenue and 1301 Spring Street	Construction of a new 50,000-square foot industrial building with 6,000 square feet of office space	Pending
19	Application No. 2405-10	1131 East Wardlow Road	Development of three, two-to-five story, 100 percent affordable housing developments with 73 dwelling units	Pending
20	Application No. 2407-06	1450 Dominguez Street	Construction of an 80,000 square-foot industrial warehouse building	Pending
CITY OF SIGNAL HILL				
21	Durant Remodel Project	1180 East 23rd Street	Building remodel, installation of a trash enclosure, and parking	Under construction
22	New Industrial Buildings Project	1450 East 27th Street and 2655 Walnut Avenue	Development of nine, one-story (and one-story-with-mezzanine) concrete tilt-up buildings for occupancy by a variety of light industrial businesses	Pending resubmittal
23	American University of Health Sciences Master Plan	1600-1680 East Hill Street	Approval of an educational Master Plan to allow for new programs of study to supplement existing programs and allow for an increase in the net total of students	Certificate of Occupancy issued; Pending resubmittal for an anticipated on-site remodel
24	New Industrial Building Project	1701 East Creston Avenue	Construction of an industrial building	Pending resubmittal
25	Costco Gas/WF ATM	2220 East Willow Street and 2598 Cherry Avenue	Demolition of a Wells Fargo ATM to construct additional Costco Gas fueling stations	Under review
26	New Warehouses Project	2457 Brayton Avenue	Construction of a new 4,800-square foot warehouse and a 1,200-square foot warehouse	Under review
27	Distribution Warehouse Project	2550 Orange Avenue	Development of the site with industrial uses	Pending resubmittal
28	Self-Storage Project	3177 California Avenue	Construction of a new 177,345-square-foot self-storage facility	Under construction
29	3201 Walnut Project	3201 Walnut Avenue	Construction of a new industrial warehouse building	Under review
30	Service Department Outdoor Patio and Gate	1500 East Spring Street	Application for permits and approvals regarding an existing patio and gate	Under review
31	Tenant Improvement – New Audi Dealership	2998 Cherry Avenue	Building improvements for an existing car dealership	Under construction
32	909 1/2 East 25th Street	909 1/2 East 25th Street	Construction of a detached accessory dwelling unit (ADU) on a lot developed with an existing single-family residence	Under review
33	921 1/2 East 25th Street	921 1/2 East 25th Street	Construction of a detached ADU	Under review
34	1110 1/2 East Burnett Street	1110 1/2 East Burnett Street	Conversion of an existing garage with an unpermitted studio to an ADU	Under review



Table 4-1 [cont'd]
Cumulative Projects List

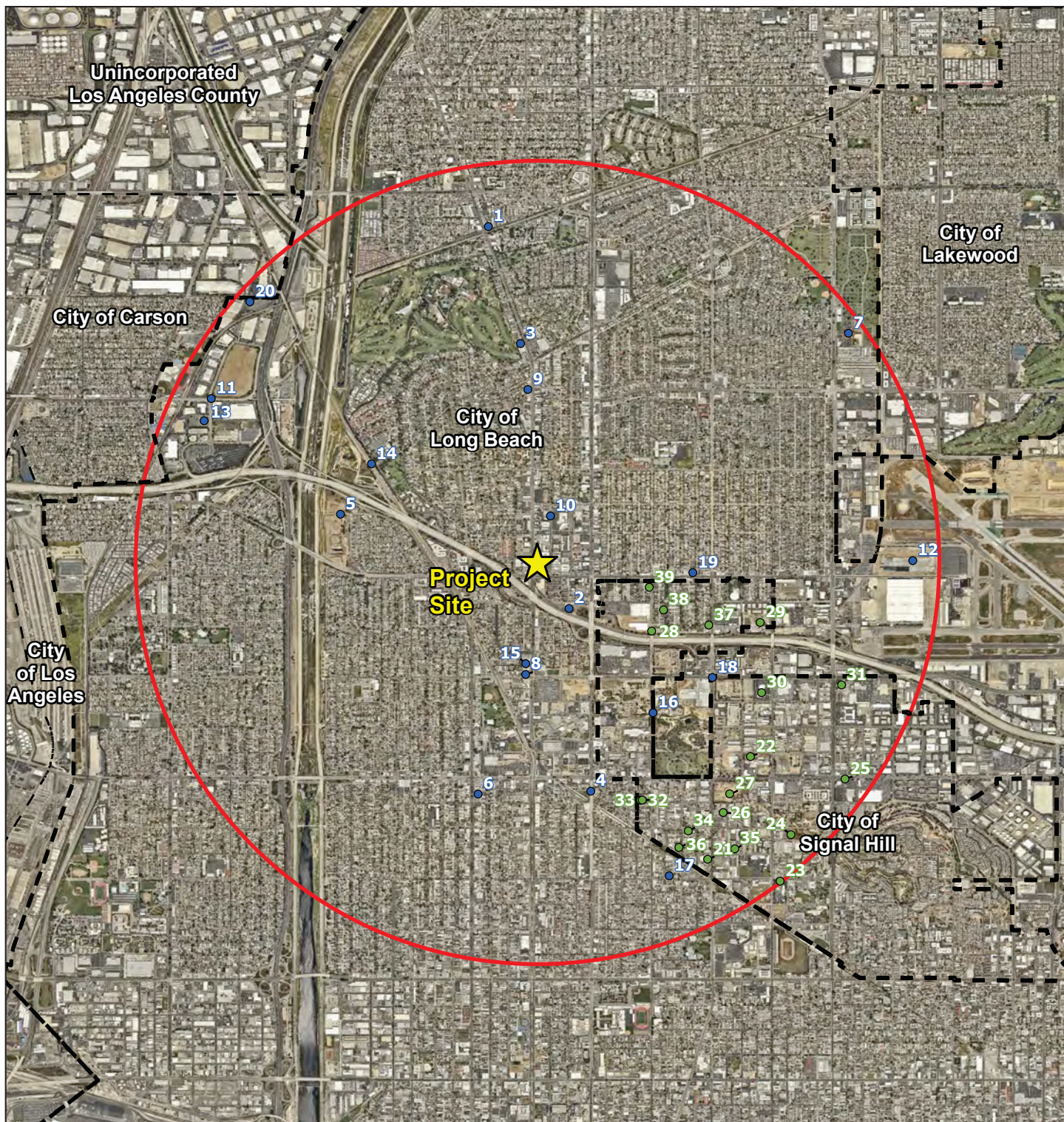
Map Key	Project Title/ Application No.	Location	Description	Status
35	1357 1/2 A East 23rd Street and 1357 1/2 B East 23rd Street	1357 1/2 A East 23rd Street and 1357 1/2 B East 23rd Street	Construction of two 684-square foot ADUs	On hold
36	2323 1/2 Lemon Avenue	2323 1/2 Lemon Avenue	Conversion of two existing 500-square foot garages to ADUs	Pending methane testing
37	3201 1/2 Orange Avenue	3201 1/2 Orange Avenue	Conversion of an existing 428-square foot accessory structure to an ADU	Under review
38	3269 1/2 Lewis Avenue	3269 1/2 Lewis Avenue	Construction of a new two-story ADU	Under review
39	3357 California Avenue	3357 California Avenue	Conversion of an existing garage and carport to an 811-square foot ADU	Under review

Sources:

City of Long Beach, *Cumulative Project List Within 2-Mile Radius*, September 9, 2024.

City of Signal Hill, *Current Projects*, <https://www.cityofsignalhill.org/612/Current-Projects>, accessed August 14, 2024.

City of Signal Hill, *Current Development Status Report*, <https://www.cityofsignalhill.org/DocumentCenter/View/6537/CURRENT-DEVELOPMENT-STATUS-REPORT?bidId=>, accessed August 12, 2024.



Legend



Project Site



City Boundary



2 Mile Buffer



City of Long Beach Cumulative Projects



City of Signal Hill Cumulative Projects

Source: LA Department of Public Works City Boundary, 2024 Nearmap Imagery





5.0 Environmental Analysis



5.0 ENVIRONMENTAL ANALYSIS

The following subsections of the EIR contain a detailed environmental analysis of the existing conditions, project impacts (including direct and indirect, short-term, long-term, and cumulative impacts), recommended mitigation measures, and any significant and unavoidable impacts. The EIR analyzes those environmental issue areas where potentially significant impacts may occur.

The EIR examines environmental factors outlined in Appendix G of the *CEQA Guidelines, Environmental Checklist Form*, as follows:

- 5.1 Air Quality;
- 5.2 Cultural and Tribal Cultural Resources;
- 5.3 Geology and Soils;
- 5.4 Greenhouse Gas Emissions;
- 5.5 Hazards and Hazardous Materials; and
- 5.6 Noise.

Other environmental topical areas are addressed in Section 8.0, *Effects Found Not To Be Significant*.

Each environmental issue is addressed in a separate section of the EIR and is organized into six sections, as follows:

- “Existing Setting” describes the physical conditions that exist at the time of the Notice of Preparation (NOP) and that may influence or affect the analyses.
- “Regulatory Setting” lists and discusses the laws, ordinances, regulations, and standards that apply to the project.
- “Impact Thresholds and Significance Criteria” provides the thresholds that are the basis of conclusions of significance, which are primarily the criteria in Appendix G of the *CEQA Guidelines* (California Code of Regulations, Sections 15000 through 15387).

Primary sources used in identifying the criteria include the *CEQA Guidelines*; local, State, Federal, or other standards applicable to an impact category; and officially established significance thresholds. “. . . An ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting” (*CEQA Guidelines* Section 15064[b]). Principally, “. . . a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance” constitutes a significant impact (*CEQA Guidelines* Section 15382).

Each impact threshold identifies which “Impact Statement” (numerically) the impact analysis can be found.



- “Impacts and Mitigation Measures” describes potential environmental changes to the existing physical conditions that may occur if the proposed project is implemented. Impact Statements are used consolidate thresholds/analyses (*CEQA Guidelines* Section 15120), when appropriate, under one overarching statement. The purpose of including Impact Statements is to introduce impact analyses being considered and state the potential significance before mitigation is applied, if necessary.

Following the impact statement, the environmental impacts are considered. Evidence, based on factual and scientific data, is presented to show the cause and effect relationship between the proposed project and the potential changes in the environment. The exact magnitude, duration, extent, frequency, range or other parameters of a potential impact are ascertained, to the extent possible, to determine whether impacts may be significant; all of the potential direct and reasonably foreseeable indirect effects are considered. Impact conclusions are identified as potentially significant impact, less than significant impact, or resulting in no impact. Should any significant environmental impacts arise, reasonable/feasible mitigation measures are considered to reduce such impacts to the extent feasible.

“Mitigation Measures” are measures that would be required of the project to avoid a significant adverse impact; to minimize a significant adverse impact; to rectify a significant adverse impact by restoration; to reduce or eliminate a significant adverse impact over time by preservation and maintenance operations; or to compensate for the impact by replacing or providing substitute resources or environment.

The “Level of Significance After Mitigation” identifies the resulting impact conclusion, which is the environmental impact that would remain after application of mitigation measures (if any). When these impacts, even with the inclusion of mitigation measures, cannot be mitigated to a level considered less than significant, they are identified as “significant unavoidable impacts.”

- “Cumulative Impacts” describes potential environmental changes to the existing physical conditions that may occur as a result of the proposed project together with all other reasonably foreseeable, planned, and approved future projects producing related or cumulative impacts.
- “Significant Unavoidable Impacts” describes impacts that would be significant and cannot be feasibly mitigated to less than significant, and thus would be unavoidable. To approve a project with significant unavoidable impacts, the lead agency must adopt a Statement of Overriding Considerations. In adopting such a statement, the lead agency is required to balance the benefits of a project against its unavoidable environmental impacts in determining whether to approve the project. If the benefits of a project are found to outweigh the unavoidable adverse environmental effects, the adverse effects may be considered “acceptable” (*CEQA Guidelines* Section 15093[a]).



5.1 Air Quality



5.1 AIR QUALITY

This section addresses the potential air pollutant emissions generated by the construction and operation of the project and impacts on air quality. The analysis also addresses the consistency of the project with the air quality policies set forth within the South Coast Air Quality Management District's (SCAQMD) 2022 *Air Quality Management Plan* (2022 AQMP). The analysis of project-generated air pollutant emissions focuses on whether the project would cause an exceedance of an ambient air quality standard or SCAQMD significance thresholds. This section is primarily based on the *Air Quality Assessment First Citizens Bank – Long Beach Project, City of Long Beach, California* (Air Quality Assessment), prepared by Kimley Horn and Associates, Inc., dated July 2024, provided as Appendix 11.3, *Air Quality Assessment*, of this EIR.

5.1.1 EXISTING SETTING

SOUTH COAST AIR BASIN

Climate and Meteorology

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The project is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, as well as all of Orange County. The SCAB is on a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean on the southwest and high mountains forming the remainder of the perimeter. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below.

The SCAB is part of a semi-permanent high-pressure zone in the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. This usually mild weather pattern is occasionally interrupted by periods of extreme heat, winter storms, and Santa Ana winds. The annual average temperature throughout the 6,645-square-mile SCAB ranges from low 60 to high 80 degrees Fahrenheit with little variance. With more oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas.

Contrasting the steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rainfall occurs between the months of November and April. Summer rainfall is reduced to widely scattered thundershowers near the coast, with slightly heavier activity in the east and over the mountains.

Although the SCAB has a semiarid climate, the air closer to the Earth's surface is typically moist because of the presence of a shallow marine layer. Except for occasional periods when dry, continental air is brought into the SCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog are frequent and low clouds known as high fog are characteristic climatic features, especially along the coast. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SCAB.



Wind patterns across the SCAB are characterized by westerly or southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Wind speed is typically higher during the dry summer months than during the rainy winter. Between periods of wind, air stagnation may occur in both the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During winter and fall, surface high-pressure systems over the SCAB, combined with other meteorological conditions, result in very strong, downslope Santa Ana winds. These winds normally continue for a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the diffusion of pollutants by inhibiting the eastward transport of pollutants. Air quality in the SCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

In addition to the characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two distinct types of temperature inversions control the vertical depth through which air pollutants are mixed. These inversions are the marine inversion and the radiation inversion. The height of the base of the inversion at any given time is called the “mixing height.” The combination of winds and inversions is a critical determinant leading to highly degraded air quality for the SCAB in the summer and generally good air quality in the winter.

Air Pollutants of Concern

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by State and Federal laws. These regulated air pollutants are known as “criteria air pollutants” and are categorized into primary and secondary pollutants.

Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_x), sulfur dioxide (SO₂), coarse particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and lead are primary air pollutants. Of these, CO, NO_x, SO₂, PM₁₀, and PM_{2.5} are criteria pollutants. ROG and NO_x are criteria pollutant precursors and form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, the criteria pollutant ozone (O₃) is formed by a chemical reaction between ROG and NO_x in the presence of sunlight. O₃ and nitrogen dioxide (NO₂) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in Table 5.1-1, *Air Contaminants and Associated Public Health Concerns*.

Toxic Air Contaminants. Toxic air contaminants (TACs) are airborne substances that can cause short-term (acute) or long-term (i.e., chronic, carcinogenic or cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes more than 200 compounds, including particulate emissions from diesel-fueled engines.



Table 5.1-1
Air Contaminants and Associated Public Health Concerns

Pollutant	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM ₁₀ and PM _{2.5})	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O ₃)	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC) ¹ and nitrogen oxides (NO _x) in the presence of sunlight. Motor vehicle exhaust industrial emissions, gasoline storage and transport, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Sulfur Dioxide (SO ₂)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron, and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO ₂)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant. Aggravates lung and heart problems. Precursor to O ₃ . Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead (Pb)	Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.	Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ.
Notes: 1. Volatile Organic Compounds (VOCs or Reactive Organic Gases [ROGs]) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation). Source: Appendix 11.3, <i>Air Quality Assessment</i>.		



LOCAL AMBIENT AIR QUALITY

CARB monitors ambient air quality at approximately 250 air monitoring stations across the State. These stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing levels of ambient air quality, historical trends, and projections near the project are documented by measurements made by the SCAQMD the air pollution regulatory agency in the SCAB that maintains air quality monitoring stations which process ambient air quality measurements.

Pollutants of concern in the SCAB include O₃, PM₁₀, and PM_{2.5}. The closest air monitoring station to the project that monitors ambient concentrations of these pollutants is the Long Beach – Signal Hill Monitoring Station (located approximately 20 miles to the south of the project site). Local air quality data from 2020 to 2022 are provided in Table 5.1-2, *Ambient Air Quality Data*, which lists the monitored maximum concentrations and number of exceedances of State or Federal air quality standards for each year.

Table 5.1-2
Ambient Air Quality Data

Criteria Pollutant	2020	2021	2022
Ozone (O₃)¹			
1-hour Maximum Concentration (ppm)	0.083	0.064	0.077
8-hour Maximum Concentration (ppm)	0.078	0.062	0.059
<i>Number of Days Standard Exceeded</i>			
CAAQS 1-hour (>0.09 ppm)	4	0	1
NAAQS 8-hour (>0.070 ppm)	4	0	1
Carbon Monoxide (CO)			
1-hour Maximum Concentration (ppm)	2.259	2.272	1.943
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>35 ppm)	0	0	0
CAAQS 1-hour (>20 ppm)	0	0	0
Nitrogen Dioxide (NO₂)			
1-hour Maximum Concentration (ppm)	0.075	0.059	0.058
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>0.100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
Particulate Matter Less Than 10 Microns (PM₁₀)¹			
National 24-hour Maximum Concentration	*	*	57.9
State 24-hour Maximum Concentration	*	*	53.0
State Annual Average Concentration (CAAQS=20 µg/m ³)	*	*	*
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>150 µg/m ³)	*	*	0
CAAQS 24-hour (>50 µg/m ³)	*	*	5



Table 5.1-2 [cont'd]
Ambient Air Quality Data

Criteria Pollutant	2020	2021	2022
Particulate Matter Less Than 2.5 Microns (PM_{2.5})¹			
National 24-hour Maximum Concentration	*	*	26.7
State 24-hour Maximum Concentration	*	*	26.7
Number of Days Standard Exceeded			
NAAQS 24-hour (>35 µg/m ³)	*	*	*
Notes: ppm = parts per million µg/m ³ = micrograms per cubic meter PM ₁₀ = particulate matter 10 microns in diameter or less PM _{2.5} = particulate matter 2.5 microns in diameter or less * = insufficient data available to determine the value NA = Not Applicable			
1. Measurements taken at the Long Beach-Signal Hill Monitoring Station at 1710 E 20 th Street, Long Beach, California 90755 (CARB# 70033)			
Source: Appendix 11.3, <i>Air Quality Assessment</i> .			

SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than is the general population. Sensitive receptors that are in proximity to localized sources of toxics are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Sensitive land uses within 1,000 feet of the project site consist of multi-family and single-family residential communities. Sensitive land uses nearest to the project are listed in Table 5.1-3, Sensitive Receptors.

Table 5.1-3
Nearest Sensitive Receptors

Receptor Description	Distance ¹ and Direction from the Project
Multi-Family Residential Dwellings	40 feet to the east
Single-Family Residential Dwellings	300 feet to the southwest
Notes: Distance measured from the project site boundary to the nearest sensitive receptor property line. Source: Appendix 11.3, <i>Air Quality Assessment</i> .	

5.1.2 REGULATORY SETTING

FEDERAL LEVEL

Federal Clean Air Act

Air quality is protected by the Federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the United States Environmental Protection Agency (U.S. EPA) developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for the criteria air pollutants including O₃, NO₂, CO, SO₂, PM₁₀, PM_{2.5}, and lead. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements. The FCAA requires each state to prepare a State Implementation Plan (SIP) to demonstrate how it will attain the NAAQS within the federally imposed deadlines.



The U.S. EPA can withhold certain transportation funds from states that fail to comply with the planning requirements of the FCAA. If a state fails to correct these planning deficiencies within two years of Federal notification, the U.S. EPA is required to develop a Federal implementation plan for the identified nonattainment area or areas. The provisions of 40 Code of Federal Regulations Parts 51 and 93 apply in all nonattainment and maintenance areas for transportation-related criteria pollutants for which the area is designated nonattainment or has a maintenance plan. The U.S. EPA has designated enforcement of air pollution control regulations to the individual states. Applicable Federal standards are summarized in Table 5.1-4, *State and National Ambient Air Quality Standards*.

STATE LEVEL

CALIFORNIA AIR RESOURCES BOARD

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 5.1-4, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for meeting Federal clean air standards for the State of California. Like the U.S. EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a State standard, and are not used as a basis for designating areas as nonattainment. The applicable State standards are summarized in Table 5.1-4 below.



Table 5.1-4
State and National Ambient Air Quality Standards

Pollutant	Averaging Time	California ¹		Federal ²	
		Standard ³	Attainment Status	Standards ^{3,4}	Attainment Status
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	Nonattainment	N/A	N/A
	8 Hours	0.070 ppm (137 µg/m ³)	Nonattainment	0.070 ppm (137 µg/m ³)	Nonattainment
Particulate Matter (PM ₁₀)	24 Hours	50 µg/m ³	Nonattainment	150 µg/m ³	Attainment/Maintenance
	Annual Arithmetic Mean	20 µg/m ³	Nonattainment	N/A	N/A
Fine Particulate Matter (PM _{2.5})	24 Hours	No Separate State Standard		35 µg/m ³	Nonattainment
	Annual Arithmetic Mean	12 µg/m ³	Nonattainment	12.0 µg/m ³	Nonattainment
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Attainment/Maintenance
	1 Hour	20 ppm (23 mg/m ³)	Attainment	35 ppm (40 mg/m ³)	Attainment/Maintenance
Nitrogen Dioxide (NO ₂) ⁵	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	N/A	53 ppb (100 µg/m ³)	Attainment/Maintenance
	1 Hour	0.18 ppm (339 µg/m ³)	Attainment	100 ppb (188 µg/m ³)	Attainment/Maintenance
Lead (Pb) ^{7,8}	30 days Average	1.5 µg/m ³	Attainment	N/A	N/A
	Calendar Quarter	N/A	N/A	1.5 µg/m ³	Nonattainment
	Rolling 3-Month Average	N/A	N/A	0.15 µg/m ³	Nonattainment
Sulfur Dioxide (SO ₂) ⁶	24 Hours	0.04 ppm (105 µg/m ³)	Attainment	0.14 ppm (for certain areas)	Unclassified/Attainment
	3 Hours	N/A	N/A	N/A	N/A
	1 Hour	0.25 ppm (655 µg/m ³)	Attainment	75 ppb (196 µg/m ³)	N/A
	Annual Arithmetic Mean	N/A	N/A	0.30 ppm (for certain areas)	Unclassified/Attainment
Visibility-Reducing Particles ⁹	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Unclassified		
Vinyl Chloride ⁷	24 Hour	0.01 ppm (26 µg/m ³)	N/A		



Table 5.1-4 [cont'd]
State and National Ambient Air Quality Standards

Pollutant	Averaging Time	California ¹		Federal ²	
		Standard ³	Attainment Status	Standards ^{3,4}	Attainment Status
Notes: $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable 1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $\text{PM}_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. 2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above $150 \mu\text{g}/\text{m}^3$ is equal to or less than one. For $\text{PM}_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. 3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas. 4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health. 5. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm. 6. On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of ppb. California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm. 7. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants. 8. The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard ($1.5 \mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved. 9. In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.					
Source: Appendix 11.3. <i>Air Quality Assessment</i> .					

REGIONAL LEVEL

South Coast Air Quality Management Control District

The SCAQMD is the air pollution control agency for Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties. The agency's primary responsibility is ensuring that State and Federal ambient air quality standards are attained and maintained in the SCAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education



campaigns, and many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction. The SCAQMD is also the lead agency in charge of developing the AQMP, with input from the Southern California Association of Governments (SCAG) and CARB. The AQMP is a comprehensive plan that includes control strategies for stationary and area sources, as well as for on-road and off-road mobile sources. SCAG has the primary responsibility for providing future growth projections and the development and implementation of transportation control measures. CARB, in coordination with Federal agencies, provides the control element for mobile sources.

The 2016 AQMP was adopted by the SCAQMD Governing Board on March 3, 2017. The purpose of the AQMP is to set forth a comprehensive and integrated program that would lead the SCAB into compliance with the Federal 24-hour PM_{2.5} air quality standard, and to provide an update to the SCAQMD's commitments towards meeting the Federal 8-hour O₃ standards. The AQMP incorporates the latest scientific and technological information and planning assumptions, including the *Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) and updated emission inventory methodologies for various source categories. As part of its air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide and the Connect SoCal – The 2020-2045 RTP/SCS. The 2020-2045 RTP/SCS was determined to conform to the federally mandated SIP for the attainment and maintenance of the NAAQS. The 2020-2045 RTP/SCS has been incorporated into the 2022 AQMP. Both the Regional Comprehensive Plan and AQMP are based, in part, on projections originating with county and city general plans. On October 1, 2015, the U.S. EPA strengthened the NAAQS for ground-level O₃. The 2022 AQMP, adopted by the SCAQMD Governing Board on December 2, 2022, was developed to address the requirements for meeting the 2015 8-hour O₃ standard. The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies, when cost-effective and feasible, and low NO_x technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other FCAA measures to achieve the 2015 8-hour ozone standard. The 2022 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2020-2045 RTP/SCS and updated emission inventory methodologies for various source categories.

The most recent 2024-2050 RTP/SCS was adopted by SCAG's Regional Council in April 2024. The 2024-2050 RTP/SCS outlines a vision for a more resilient and equitable future, with investment, policies, and strategies for achieving the region's shared goals through 2050. The 2024-2050 RTP/SCS sets forth a forecasted regional development pattern which, when integrated with the transportation network, measures, and policies, will reduce GHG emissions from automobiles and light-duty trucks and achieve the GHG emissions reduction target for the region set by the CARB. In addition, the 2024-2050 RTP/SCS is supported by a combination of transportation and land use strategies that outline how the region can achieve California's GHG-emission-reduction goals and FCAA requirements. These are articulated in a set of Regional Strategic Investments, Regional Planning Policies, and Implementation Strategies. The Regional Planning Policies are a resource for County Transportation Commissions (CTCs) and local jurisdictions, who can refer to specific policies to demonstrate alignment with the 2024-2050 RTP/SCS when seeking resources from state or federal programs. The Implementation Strategies articulate priorities for SCAG efforts in fulfilling or going



beyond the Regional Planning Policies.¹ While SCAG has adopted the 2024-2050 RTP/SCS, CARB has not yet certified it or approved SCAG's GHG emissions reduction calculations.

The State and federal attainment status designations for the SCAB are summarized in Table 5.1-5, *South Coast Air Basin Attainment Status*. The SCAB is currently designated as a nonattainment area with respect to the State O₃, PM₁₀, and PM_{2.5} standards, as well as the national 8-hour O₃ and PM_{2.5} standards. The SCAB is designated as attainment or unclassified for the remaining State and federal standards.

Table 5.1-5
South Coast Air Basin Attainment Status

Pollutant	State	Federal
Ozone (O ₃) (1-Hour Standard)	Non-Attainment	Non-Attainment (Extreme)
Ozone (O ₃) (8-Hour Standard)	Non-Attainment	Non-Attainment (Extreme)
Particulate Matter (PM _{2.5}) (24-Hour Standard)	–	Non-Attainment (Serious)
Particulate Matter (PM _{2.5}) (Annual Standard)	Non-Attainment	Non-Attainment (Moderate)
Particulate Matter (PM ₁₀) (24-Hour Standard)	Non-Attainment	Attainment (Maintenance)
Particulate Matter (PM ₁₀) (Annual Standard)	Non-Attainment	–
Carbon Monoxide (CO) (1-Hour Standard)	Attainment	Attainment (Maintenance)
Carbon Monoxide (CO) (8-Hour Standard)	Attainment	Attainment (Maintenance)
Nitrogen Dioxide (NO ₂) (1-Hour Standard)	Attainment	Unclassifiable/Attainment
Nitrogen Dioxide (NO ₂) (Annual Standard)	Attainment	Attainment (Maintenance)
Sulfur Dioxide (SO ₂) (1-Hour Standard)	Attainment	Unclassifiable/Attainment
Sulfur Dioxide (SO ₂) (24-Hour Standard)	Attainment	–
Lead (Pb) (30-Day Standard)	–	Unclassifiable/Attainment
Lead (Pb) (3-Month Standard)	Attainment	–
Sulfates (SO ₄₋₂) (24-Hour Standard)	Attainment	–
Hydrogen Sulfide (H ₂ S) (1-Hour Standard)	Unclassified	–

Source: Appendix 11.3, *Air Quality Assessment*.

The SCAQMD has published the CEQA Air Quality Handbook (approved by the SCAQMD Governing Board in 1993 and augmented with guidance for Local Significance Thresholds (LST) in 2008). The SCAQMD guidance helps local government agencies and consultants to develop environmental documents required by California Environmental Quality Act (CEQA) and provides identification of suggested thresholds of significance for criteria pollutants for both construction and operation (see discussion of thresholds below). With the help of the CEQA Air Quality Handbook and associated guidance, local land use planners and consultants are able to analyze and document how proposed and existing projects affect air quality in order to meet the requirements of the CEQA review process. The SCAQMD periodically provides supplemental guidance and updates to the handbook on their website.

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial counties and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. Under Federal law, SCAG is designated

¹ Southern California Association of Governments, *Connect SoCal: A Plan for Navigating to a Brighter Future (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy)*, April 4, 2024.



as a Metropolitan Planning Organization and under State law as a Regional Transportation Planning Agency and a Council of Governments.

LOCAL LEVEL

City of Long Beach General Plan

The Air Quality Element of the General Plan was adopted in 1996 and sets forth the goals, objectives, and policies that guide the City in the implementation of its air quality improvement programs and strategies. The Air Quality Element acknowledges the interrelationships among transportation and land use planning in meeting the City's air quality goals. The following goals and policies are applicable to the project:

Goal 6: Minimize particulate emissions from the construction and operation of roads and buildings, from mobile sources, and from the transportation, handling and storage materials.

Policy 6.1: Control Dust. Further reduce particulate emissions from roads, parking lots, construction sites, unpaved alleys, and port operations and related uses.

Goal 7: Reduce emissions through reduced energy consumption.

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

5.1.3 SIGNIFICANCE CRITERIA AND METHODOLOGY

CEQA SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form that was used during the preparation of the Initial Study, which is contained in [Appendix 11.1](#), of this EIR. The issues presented in the Environmental Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant adverse environmental impact if it would:

- a) Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact Statement AQ-1);
- 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 (refer to Impact Statements AQ-2);
- c) Expose sensitive receptors to substantial pollutant concentrations (refer to Impact Statements AQ-3).
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (refer to Impact Statements AQ-4).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a "less than significant impact" or "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced



to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

SCAQMD THRESHOLDS

The significance criteria established by SCAQMD may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if the project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality during construction and operational activities of land use development projects, as shown in [Table 5.1-6, SCAQMD Emission Thresholds](#).

Table 5.1-6
SCAQMD Emission Thresholds

Phase	Pollutant (pounds per day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Construction	75	100	550	150	150	55
Operation	55	55	550	150	150	55
Notes: CO = carbon monoxide; ROG = reactive organic gases; NO _x = nitrogen oxides; PM ₁₀ = particulate matter smaller than 10 microns; PM _{2.5} = particulate matter smaller than 2.5 microns						
Source: Appendix 11.3, <i>Air Quality Assessment</i> .						

Localized Significance Thresholds

The SCAQMD developed LSTs for emissions of NO₂, CO, PM₁₀, and PM_{2.5} generated at new development sites (off-site mobile source emissions are not included in the LST analysis). LSTs represent the maximum emissions that can be generated at a project without expecting to cause or substantially contribute to an exceedance of the most stringent State or national ambient air quality standards. LSTs are based on the ambient concentrations of that pollutant within the project source receptor area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects that disturb 5 acres or less on a single day. The City of Long Beach is located within SCAQMD SRA 4. [Table 5.1-7, Local Significance Thresholds for Construction/Operations](#) shows the LSTs for a 1-acre, 2-acre, and 5-acre project in SRA 4 within 25 meters of the project. The nearest sensitive receptors closest to the proposed project site are the multi-family residential uses located approximately 40 feet (12 meters) to the east. Therefore, the threshold distance of 25 meters was used for the analysis based on the SCAQMD LST methodology guidance. LSTs associated with all acreage categories at 25 meters are provided in [Table 5.1-7](#) for informational purposes. The table shows that the LSTs increase as acreages increase. It should be noted that LSTs are screening thresholds and are therefore conservative. The construction LST acreage is determined based on daily acreage disturbed. The operational LST acreage is based on the total area of the project site. The one-acre LST threshold was used for the 0.8-acre project site.



Table 5.1-7
SCAQMD Emission Thresholds for Construction/Operations

Phase	Pollutant (pounds per day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
1 Acre	57/57	585/585	4/1	3/1
2 Acres	82/82	842/842	7/2	5/1
5 Acres	123/123	1,530/1,530	14/4	8/2
Notes: CO = carbon monoxide; NO _x = nitrogen oxides; PM ₁₀ = particulate matter smaller than 10 microns; PM _{2.5} = particulate matter smaller than 2.5 microns				
Source: Appendix 11.3, <i>Air Quality Assessment</i> .				

Localized CO

In addition to the daily thresholds listed above, development associated with the project would also be subject to the ambient air quality standards. These are addressed through an analysis of localized CO impacts. The significance of localized impacts depends on whether ambient CO levels near the project above State and national CO standards are (the more stringent California standards are 20 ppm for 1-hour and 9 ppm for 8-hour). The SCAB has been designated as attainment under the 1-hour and 8-hour standards.

METHODOLOGY

This air quality impact analysis considers construction and operational impacts associated with the project. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model version 2022.1 (CalEEMod). CalEEMod is a Statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Air quality impacts were assessed according to methodologies recommended by CARB and the SCAQMD.

Construction equipment, trucks, worker vehicles, and ground-disturbing activities associated with project construction would generate emissions of criteria air pollutants and precursors. Daily regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e., a conservative estimate of construction activities) and applying off-road, fugitive dust, and on-road emissions factors in CalEEMod. The proposed project's construction-related emissions were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. The proposed project construction would occur over approximately 14 months, with site preparation and grading anticipated to begin in late 2024. While the exact start date of construction remains to be determined, a November 2024 construction start date was used for modeling purposes to ensure a conservative analysis. CalEEMod uses lower emissions factors in future years due to more stringent standards, regulatory and technological improvements, and fleet turnover. This approach is conservative given that emissions factors decrease in future years.

Project operations would result in emissions of area sources (consumer products), energy sources (natural gas usage), mobile sources (motor vehicles from project generated vehicle trips), and stationary sources (i.e., emergency generators). Project-generated increases in operational emissions would be predominantly associated with stationary sources and motor vehicle use. Project-generated



vehicle emissions are based on trip generation within the *First-Citizens Bank - Long Beach Project Draft Initial Study* (Initial Study), prepared by Kimley-Horn (dated July 2024); refer to Appendix 11.1, *Notice of Preparation/Initial Study*. The number of trips generated by the proposed project was approximated using the Institute of Transportation Engineers (ITE) land use code 710 (General Office Building) and ITE land use code 911 (Walk-In Bank). According to the Initial Study, the project would generate 294 total average daily trips (ADTs). The project-generated trips have been incorporated into CalEEMod as recommended by the SCAQMD. Other operational emissions from area, energy, and stationary sources were quantified in CalEEMod based on land use activity data.

As discussed above, the SCAQMD provides significance thresholds for emissions associated with proposed project construction and operations. The proposed project's construction and operational emissions are compared to the daily criteria pollutant emissions significance thresholds to determine the significance of a project's impact on regional air quality.

The localized effects from the project's on-site emissions were evaluated in accordance with the SCAQMD's LST methodology, which uses on-site mass emissions rate look-up tables and project-specific modeling. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standards and are developed based on the ambient concentrations of that pollutant for each SRA and distance to the nearest sensitive receptor.

5.1.4 IMPACTS AND MITIGATION MEASURES

CONSISTENCY WITH REGIONAL PLANS

AQ-1 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN.

Impact Analysis: As part of its enforcement responsibilities, the U.S. EPA requires that each state with nonattainment areas prepare and submit a SIP that demonstrates the means to attain the Federal standards. The SIP must integrate Federal, State, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under State law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment regarding the NAAQS and CAAQS. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The SCAQMD is required, pursuant to the FCAA, to reduce criteria pollutant emissions for which SCAB is in nonattainment. To reduce such emissions, the SCAQMD prepared the 2022 AQMP, which establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving State and national air quality standards. The 2022 AQMP is a regional and multi-agency effort including the SCAQMD, the CARB, the SCAG, and the U.S. EPA. The 2022 AQMP's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's RTP/SCS, which includes the latest growth forecasts for the region and provides updated emission inventory methodologies for various source categories. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans.



Criteria for determining consistency with the AQMP are defined by the following indicators:

- Consistency Criterion No. 1: A proposed project would not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of the AQMP's air quality standards or the interim emissions reductions.
- Consistency Criterion No. 2: A proposed project would not exceed the AQMP's assumptions or increments based on the years of the project buildout phase.

Consistency Criterion No. 1 refers to the CAAQS and NAAQS. As indicated in [Table 5.1-8](#) and [Table 5.1-9](#) under Impact AQ-2, project construction and operational emissions would be below SCAQMD's thresholds. As the proposed project would not generate localized construction or regional construction or operational emissions that would exceed SCAQMD thresholds of significance, the proposed project would not violate any air quality standards. Therefore, the proposed project would be consistent with Criterion No. 1.

Consistency Criterion No. 2 refers to SCAG's growth forecasts and associated assumptions included in the 2022 AQMP. The future air quality levels projected in the 2022 AQMP are based on SCAG's growth projections, which are based, in part, on the general plans of cities located within the SCAG region. Therefore, projects that are consistent with the applicable assumptions used in 2022 AQMP development would not jeopardize attainment of the air quality levels identified in the 2022 AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

Concerning Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts; SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. Therefore, it is reasonable to conclude that if a project is consistent with the applicable general plan land use designation, and if the general plan was adopted prior to the applicable 2022 AQMP, then the increase in vehicle miles traveled (VMT) and/or population generated by said project would have been included in the applicable 2022 AQMP's assumed VMT and population growth.

The proposed project would be consistent with the intended uses of the Community Commercial (CC) PlaceType (a range of automobile-oriented commercial uses). Additionally, in areas designated as CC PlaceType, commercial uses that service community-based needs for goods and services are allowed a FAR between 0.25 and 1.0. With an FAR of approximately 0.34, the proposed project would be consistent with the permitted FAR for the CC PlaceType. The proposed project's proposed land uses would be consistent with the General Plan's land use designations, which are the basis for the 2022 AQMP. Therefore, the proposed project's forecast population growth and VMT would be consistent with the 2022 AQMP's assumed population growth and VMT for the proposed project site. It is also noted that the project's construction and operational air emissions would not exceed the SCAQMD regional thresholds, and localized emissions during construction and operations would not exceed SCAQMD LST thresholds; refer to Impact AQ-2 and Impact AQ-3 below for further analysis. As such, the proposed project would be consistent with Criterion No. 2.

Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.



Level of Significance: Less Than Significant Impact.

PROJECT-RELATED EMISSIONS

AQ-2 THE PROJECT COULD RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF CRITERIA POLLUTANTS FOR WHICH THE PROJECT REGION IS NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD.

Impact Analysis:

SHORT-TERM (CONSTRUCTION) AIR EMISSIONS

Project construction activities would generate short-term criteria air pollutant emissions. The criteria air pollutants of primary concern at the proposed project site include ozone-precursor pollutants (i.e., ROG and NO_x) and PM₁₀ and PM_{2.5}. Construction-related emissions are short term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Construction activities temporarily generate emissions from site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and movement of construction equipment, especially on unpaved surfaces. Airborne particulate matter emissions are largely dependent on the amount of ground disturbance associated with site preparation activities, as well as weather conditions and the application of water.

Table 5.1-8, *Maximum Daily Construction Emissions*, presents the project's anticipated daily short-term construction emissions. Refer to [Appendix 11.3](#) for the CalEEMod outputs and results.

While impacts would be less than significant, the proposed project would be subject to compliance with SCAQMD Rules 402, 403, and 1113, to further reduce specific construction-related emissions. These measures have not been accounted in CalEEMod modeling for a conservative analysis. The proposed project emissions would not worsen ambient air quality, create additional violations of Federal and State standards, or delay SCAB's 2022 AQMP goal for meeting attainment standards. Therefore, the proposed project's construction-related air quality impacts would be less than significant.

**Table 5.1-8
Maximum Daily Construction Emissions**

Year	Pollutant (pounds per day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2024	1.22	11.50	11.20	0.02	5.97	3.09
2025	6.31	10.20	10.50	0.02	5.90	3.03
SCAQMD Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Notes: CO = carbon monoxide; ROG = reactive organic gases; NO _x = nitrogen oxides; PM ₁₀ = particulate matter smaller than 10 microns; PM _{2.5} = particulate matter smaller than 2.5 microns						
Source: Appendix 11.3, Air Quality Assessment .						



LONG-TERM (OPERATIONAL) AIR EMISSIONS

The proposed project's operational emissions would be associated with area sources, energy sources, stationary sources, and mobile sources. CalEEMod was used to calculate the proposed project's area source, energy source, stationary source, and mobile source pollutant emissions. Table 5.1-9, Long-Term Operational Air Emissions provides the CalEEMod estimated emissions from proposed project operations and as a conservative analysis, represents the worst-case scenario emissions between summer and winter. It is noted that emission rates differ from summer to winter because weather factors are dependent on the season and these factors affect pollutant mixing, dispersion, ozone formation, and other factors. Emissions shown in Table 5.1-9 present the project's anticipated long-term operational emissions and would not exceed SCAQMD daily thresholds.

Table 5.1-9
Long-Term Operational Air Emissions

Emissions Source	Pollutant (pounds per day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	0.40	<0.01	0.55	<0.01	<0.01	<0.01
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.95	0.62	6.88	0.01	0.53	0.10
Emergency Generator	1.69	4.71	4.30	0.01	0.25	0.25
Total Emissions	3.04	5.33	11.73	0.02	0.78	0.35
<i>Significance Threshold</i>	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Notes: CO = carbon monoxide; ROG = reactive organic gases; NO _x = nitrogen oxides; PM ₁₀ = particulate matter smaller than 10 microns; PM _{2.5} = particulate matter smaller than 2.5 microns						
Source: <u>Appendix 11.3, Air Quality Assessment</u> .						

The project's operational emissions sources are described below:

Area Source Emissions

Area-specific CalEEMod default inputs were used to calculate the proposed project's area source emissions. Area source emissions would be generated from gasoline-powered landscaping and maintenance equipment, and consumer products (such as household cleaners). Area source emissions would also be generated from consumer products, architectural coatings, and landscaping that were previously not present on the proposed project site. Typically, area sources are small sources that contribute very little emissions individually, but when combined may generate substantial amounts of pollutants.

Energy Source Emissions

CalEEMod default inputs were used to calculate the proposed project's energy source emissions. Emissions from electricity use are not included in the air quality analysis as they only apply to GHG emissions since electricity generation is an indirect emission generated off-site and, therefore, not relevant for local and regional air quality conditions. The proposed project's primary uses of electricity would be for water heating and space heating and cooling, ventilation, lighting, appliances, and electronics. The proposed project would not use natural gas.



Mobile Source Emissions

CalEEMod default inputs, vehicle mix, and trip distances were used to calculate the proposed project's mobile source emissions, along with trip generation estimates from the Initial Study. The number of trips generated by the project was approximated using relevant ITE land use codes and incorporated into CalEEMod as recommended by the SCAQMD. Mobile source emissions are generated from motor vehicle use, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_x, PM₁₀, and PM_{2.5} are all pollutants of regional concern. NO_x and ROG react with sunlight to form ozone, known as photochemical smog. Additionally, wind currents readily transport PM₁₀ and PM_{2.5}. However, CO tends to be a localized pollutant that disperses rapidly at the source. Project-generated vehicle emissions have been estimated using CalEEMod. The proposed project would result in a total of 294 ADTs.

Emergency Backup Generators

One backup generator was assumed for the project. Backup generators would only be used in the event of a power failure and would not be part of the project's normal daily operations. Emissions from an emergency backup generator for the project were calculated separately from CalEEMod. However, CalEEMod default emissions rates were used. If backup generators are required, the end user would be required to obtain a permit from the SCAQMD prior to installation. Emergency backup generators must meet SCAQMD's Best Available Control Technology (BACT) requirements and comply with SCAQMD Rule 1470 (Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines), which would minimize emissions.

Total Emissions

Based on the proposed land uses and operational characteristics, [Table 5.1-9](#) summarizes the CalEEMod estimated emissions from proposed project operations and indicates the proposed project's unmitigated area, energy, mobile, and stationary source emissions combined would not exceed SCAQMD thresholds for maximum daily emissions for any criteria air pollutants. As such, the proposed project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation. The proposed project's operational air quality impacts would be less than significant.

CONCLUSION

As shown in [Table 5.1-8](#) and [Table 5.1-9](#), the project would not result in significant short- or long-term air quality impacts. The project's emissions would not exceed the SCAQMD adopted construction and operational thresholds. Therefore, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.



LOCALIZED EMISSIONS

AQ-3 THE PROPOSED PROJECT COULD RESULT IN LOCALIZED EMISSIONS
IMPACTS OR EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL
POLLUTANT CONCENTRATIONS.

Impact Analysis:

LOCALIZED SIGNIFICANCE

Localized Construction Significance Analysis

The sensitive receptors closest to the proposed project site are the multi-family residential uses located approximately 40 feet (12 meters) to the east. To determine potential impacts to sensitive receptors, the SCAQMD recommends addressing Localized Significance Thresholds (LSTs) for construction. LSTs were developed in response to SCAQMD Governing Boards’ Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology*, dated June 2003 and revised 2008, for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level analyses.

Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, the data provided in Table 5.1-10, *Equipment-Specific Grading Rates* was used to determine the maximum daily disturbed acreage for comparison to LSTs. For this project, the appropriate Source Receptor Area (SRA) for the localized significance thresholds is SRA 4 area because this SRA includes the proposed project site. LSTs apply to NO_x, CO, PM₁₀, and PM_{2.5}. The SCAQMD produced look-up tables for projects that disturb areas less than or equal to five acres. Based on the daily equipment modeled in CalEEMod, project construction is anticipated to disturb approximately 1.5 acres in a single day.

Table 5.1-10
Equipment-Specific Grading Rates

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day
Grading	Tractors	1	0.5	8	0.5
	Graders	1	0.5	8	0.5
	Dozers	1	0.5	8	0.5
	Scrapers	0	0	8	0
Total Acres Graded per Day					1.5

Source: Appendix 11.3, *Air Quality Assessment*.

The SCAQMD’s methodology indicates that “off-site mobile emissions from the proposed project should not be included in the emissions compared to LSTs.” Therefore, for the construction LST analysis, only emissions included in the CalEEMod “on-site” emissions outputs were considered. LSTs are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. SCAQMD’s LST guidance recommends using the 25-meter threshold for receptors located 25 meters or less from a project site. The sensitive receptors nearest the proposed project site are residential uses located approximately 40 feet (12 meters) to the east of the proposed project site. The above 1.5 acres graded



LSTs were interpolated from the 1-acre, 2-acre, and 5-acre project. Therefore, the LSTs for 1.5 acres at 25 meters were used for the construction analysis.

Table 5.1-11, *Localized Significance of Construction Emissions*, shows daily localized emissions during each phase of construction. In addition, paving and architectural coating emissions were combined because these activities are anticipated to overlap. Table 5.1-11 shows that construction would not result in significant concentrations of pollutants at nearby receptors. Therefore, the proposed project's construction-related activities would result in a less than significant impact concerning LSTs.

Table 5.1-11
Localized Significance of Construction Emissions

Construction Activity	Pollutant (Maximum Pounds per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Site Preparation (2024)	4.60	5.56	0.24	0.22
Grading (2024)	11.4	10.70	0.53	0.49
Grading (2025)	10.1	10.00	0.46	0.43
Paving (2025)	0.35	0.42	0.02	0.01
Building Construction (2025)	5.14	6.94	0.22	0.20
Architectural Coating (2025)	0.88	1.14	0.03	0.03
Maximum Daily Emissions	11.4	10.7	0.53	0.49
SCAQMD Localized Screening Threshold (1.5 acres at 25 meters)	111	816	7	4
Exceed SCAQMD Threshold?	No	No	No	No
Notes: CO = carbon monoxide; NO _x = nitrogen oxides; PM ₁₀ = particulate matter smaller than 10 microns; PM _{2.5} = particulate matter smaller than 2.5 microns				
Source: Appendix 11.3, <i>Air Quality Assessment</i> .				

Localized Operational Significance Analysis

According to the SCAQMD LST methodology, operational LSTs apply to on-site sources. LSTs for receptors located at 25 meters for SRA 4 were utilized in this analysis. The one-acre LST threshold was used for the 0.87-acre project site. Table 5.1-12, *Localized Significance of Operational Emissions* compares the on-site operational emissions to the LST thresholds and indicates the proposed project's maximum daily operational emissions of these pollutants would not result in significant concentrations at nearby sensitive receptors. Therefore, proposed project operations would result in a less than significant impact concerning LSTs.

Table 5.1-12
Localized Significance of Operational Emissions

Activity	Pollutant (Maximum Pounds per Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
On-Site Emissions (Area, Stationary, and Energy Sources)	0.57	0.53	0.05	0.05
SCAQMD Localized Screening Threshold (1 acre at 25 meters)	91	664	1	1
Exceed SCAQMD Threshold?	No	No	No	No
Notes: CO = carbon monoxide; NO _x = nitrogen oxides; PM ₁₀ = particulate matter smaller than 10 microns; PM _{2.5} = particulate matter smaller than 2.5 microns				
Source: Appendix 11.3, <i>Air Quality Assessment</i> .				



The proposed project would not involve the use, storage, or processing of carcinogenic or non-carcinogenic toxic air contaminants (TACs), and no significant toxic airborne emissions would result from the proposed project operations. Project construction activities are subject to regional, State, and Federal regulations and laws concerning toxic air pollutants that would protect sensitive receptors from substantial concentrations of these emissions. Therefore, project impacts concerning the release of TACs would be less than significant.

CRITERIA POLLUTANT HEALTH IMPACTS

On December 24, 2018, the California Supreme Court issued an opinion identifying the need to provide sufficient information connecting a project's air emissions to health impacts or explain why such information could not be ascertained (*Sierra Club v. County of Fresno* [Friant Ranch, L.P.] [2018] 6 Cal.5th 502). The SCAQMD has set its CEQA significance thresholds based on the FCAA, which defines a major stationary source (in extreme ozone nonattainment areas such as the SCAB) as emitting 10 tons per year. The thresholds correlate with the trigger levels for the Federal New Source Review (NSR) Program and SCAQMD Rule 1303 for new or modified sources. The NSR Program was created by the FCAA to ensure that stationary sources of air pollution are constructed or modified in a manner that is consistent with attainment of health-based NAAQS. The NAAQS establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, projects that do not exceed the SCAQMD's mass emissions thresholds would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts would occur.

NO_x and ROG are precursor emissions that form ozone in the atmosphere in the presence of sunlight where the pollutants undergo complex chemical reactions. It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources. Breathing ground-level ozone can result in health effects that include reduced lung function, inflammation of airways, throat irritation, pain, burning, or discomfort in the chest when taking a deep breath, chest tightness, wheezing, or shortness of breath. In addition to these effects, evidence from observational studies strongly indicates that higher daily ozone concentrations are associated with increased asthma attacks, increased hospital admissions, increased daily mortality, and other markers of morbidity. The consistency and coherence of the evidence for effects upon asthmatics suggests that ozone can make asthma symptoms worse and can increase sensitivity to asthma triggers.

The SCAQMD's 2022 AQMP focuses on the 2015 8-hour ozone standard with achieving attainment in 2037. The largest source of NO_x emissions (an O₃ precursor) in 2018 were related to on-road sources. The 2022 AQMP also emphasizes a shift in focus beyond on-road emissions to off-road sources. The 2022 AQMP identifies a 67 percent NO_x reduction beyond the current 2037 baseline and about 83 percent below current levels. To achieve this, the SCAQMD identifies the need for widespread adoption of zero emissions (ZE) technologies across all mobile sectors and stationary sources.

The control strategy for the 2022 AQMP includes aggressive new regulations and the development of incentive programs to support early deployment of advanced technologies. The two key areas for incentive programs are (1) promoting widespread deployment of available ZE and low NO_x technologies and (2) developing new ZE and ultra-low NO_x technologies for use in cases where the technology is not currently available. SCAQMD will prioritize distribution of incentive funding in



Environmental Justice (EJ) areas and seek opportunities to focus benefits on the most disadvantaged communities. The 2022 AQMP includes a total of 49 control measures. In addition to the NO_x measures, the 2022 AQMP relies on co-benefits from climate and energy efficiency programs for further reductions, limited strategic measures for VOC reductions, and other actions.

The SCAQMD's air quality modeling demonstrates that NO_x reductions prove to be much more effective in reducing ozone levels and will also lead to a significant decrease in PM_{2.5} concentrations. NO_x-emitting stationary sources regulated by the SCAQMD include Regional Clean Air Incentives Market (RECLAIM) facilities (e.g., refineries, power plants, etc.), natural gas combustion equipment (e.g., boilers, heaters, engines, burners, flares) and other combustion sources that burn wood or propane. The 2022 AQMP identifies robust NO_x reductions from new regulations on RECLAIM facilities, non-refinery flares, commercial cooking, and residential and commercial appliances. Such combustion sources are already heavily regulated with the lowest NO_x emissions levels achievable but there are opportunities to require and accelerate replacement with cleaner zero-emission alternatives, such as residential and commercial furnaces, pool heaters, and backup power equipment. The SCAQMD plans to achieve such replacements through a combination of regulations and incentives. Technology-forcing regulations can drive development and commercialization of clean technologies, with future year requirements for new or existing equipment. Incentives can then accelerate deployment and enhance public acceptability of new technologies.

As previously discussed, the project's construction-related and operational emissions would not exceed SCAQMD thresholds, thus, impacts to regional air quality would be less than significant; refer to [Table 5.1-8](#) and [Table 5.1-9](#), respectively. The on-site project emissions' localized effects on nearby receptors were also found to be less than significant; refer to [Table 5.1-11](#) and [Table 5.1-12](#). The LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable NAAQS or CAAQS. The LSTs were developed by the SCAQMD based on the ambient concentrations of that pollutant for each SRA and distance to the nearest sensitive receptor. The ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect public health, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. As shown above, project-related emissions would not exceed the regional thresholds or the LSTs, and therefore would not exceed the ambient air quality standards or cause an increase in the frequency or severity of existing violations of air quality standards. Therefore, sensitive receptors would not be exposed to criteria pollutant levels more than the health-based ambient air quality standards.

CARBON MONOXIDE HOTSPOTS

An analysis of CO "hot spots" is needed to determine whether the change in the level of service of an intersection resulting from the proposed project would have the potential to result in exceedances of the CAAQS or NAAQS. It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. Vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined.



Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. The 2022 AQMP is the most recent version that addresses CO concentrations. As part of the SCAQMD *CO Hotspot Analysis*, the Wilshire Boulevard/Veteran Avenue intersection, one of the most congested intersections in Southern California with approximately 100,000 ADTs, was modeled for CO concentrations. This modeling effort identified a CO concentration high of 4.6 ppm, which is well below the 35-ppm Federal standard. The proposed project would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD's *CO Hotspot Analysis*. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection even as it accommodates 100,000 ADTs, it can be reasonably inferred that CO hotspots would not be experienced at any project area intersections from the proposed project's 294 ADTs. Therefore, the proposed project would result in less than significant impacts in this regard.

DIESEL PARTICULATE MATTER

Construction of the proposed project would generate diesel particulate matter (DPM) emissions from the use of off-road diesel equipment required. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic. The duration of exposure would be short and exhaust from construction equipment would dissipate rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities.

The California Office of Environmental Health Hazard Assessment (OEHHA) has not identified short-term health effects from DPM. Construction is temporary and would be transient throughout a site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time. Construction activities would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than five minutes to further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. For these reasons, DPM generated by construction activities would not expose sensitive receptors to substantial amounts of air toxins, and the proposed project would result in a less than significant impact.

The proposed project would involve the development of an office use development that would result in very limited operational activities, including landscaping maintenance operations and emergency generator, that would generate DPM or other TAC emissions. As shown in Table 5.1-9, the project would generate nominal particulate matter emissions during operation. Furthermore, the emergency generator would be subject to the applicable SCAQMD permitting process. Therefore, operation of the proposed project is not anticipated to result in an elevated cancer or other health risk to nearby sensitive receptors, and, as such, the health impact during operation of the proposed project would be less than significant.

Mitigation Measures: No mitigation measures are required.



Level of Significance: Less Than Significant Impact.

ODOR RELATED EMISSIONS

AQ-4 DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN OTHER EMISSIONS (SUCH AS THOSE LEADING TO ODORS) ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE.

CONSTRUCTION

Odors that could be generated by construction activities are required to follow SCAQMD Rule 402 to prevent odor nuisances on sensitive land uses. SCAQMD Rule 402, Nuisance, states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

During construction, emissions from construction equipment, such as diesel exhaust and VOCs from architectural coatings and paving activities may generate odors. However, these odors would be temporary, are not expected to affect a substantial number of people and would disperse rapidly. Therefore, the proposed project's construction-related impacts concerning odors would be less than significant.

OPERATIONS

The SCAQMD *CEQA Air Quality Handbook* identifies certain land uses as odor sources (i.e., agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding). The project proposes development of office use, which would not involve the types of uses that would emit objectionable odors affecting substantial numbers of people. The proposed project would not include any of the land uses that have been identified by the SCAQMD as odor sources. Project operations would not create objectionable odors and there would be no impact.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.1.5 CUMULATIVE IMPACTS

Table 4-1, *Cumulative Projects List*, identifies the related projects and other possible development in the area determined as having the potential to interact with the project to the extent that a significant cumulative effect may occur. The following discussions are included to determine whether a significant cumulative effect would occur.



CUMULATIVE CONSISTENCY WITH APPLICABLE AIR QUALITY PLAN

- **IMPLEMENTATION OF THE PROPOSED PROJECT AND RELATED PROJECTS COULD RESULT IN CUMULATIVELY CONSIDERABLE INCONSISTENCIES WITH THE APPLICABLE AIR QUALITY PLAN.**

Impact Analysis: As analyzed above, operational concentrations of criteria air pollutants of the project would be lower than SCAQMD thresholds. Therefore, the project would not result in an increase in the frequency or severity of existing air quality violations and the project would be consistent with the SCAQMD and SCAG's goals and policies. In addition, the growth anticipated by the project would be consistent with SCAG's growth forecast, and therefore is consistent with the 2022 AQMP. Further, cumulative projects would be required to undergo environmental review pursuant to CEQA and would also be required to analyze project-level consistency with all applicable air quality plans (including the 2022 AQMP) and with applicable SCAQMD rules and regulations. As such, impacts associated with the project in this regard would not be cumulatively considerable. Cumulative impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

CUMULATIVE SHORT-TERM (CONSTRUCTION) AIR EMISSIONS

- **SHORT-TERM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD RESULT IN INCREASED AIR POLLUTANT EMISSION IMPACTS OR EXPOSE SENSITIVE RECEPTORS TO INCREASED POLLUTANT CONCENTRATIONS.**

Impact Analysis: The SCAB is designated nonattainment for ozone, PM₁₀, and PM_{2.5} for State standards and nonattainment for ozone and PM_{2.5} for Federal standards. The SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the FCAA mandates. SCAQMD rules, mandates, and compliance with adopted AQMP emissions control measures would also be imposed on construction projects throughout SCAB, which would include related cumulative projects.

As concluded above, the proposed project's construction-related air quality impacts would be less than significant. As previously discussed, the project's construction-related emissions would not exceed SCAQMD thresholds, thus, would be less than significant; refer to [Table 5.1-8](#). Further, the on-site project emissions' localized effects on nearby receptors were also found to be less than significant; refer to [Table 5.1-11](#). Compliance with SCAQMD rules and regulations would further minimize the construction-related emissions. Therefore, construction emissions, in combination with those from other projects in the area, would not substantially deteriorate the local air quality. The proposed project's construction-related emissions would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Mitigation Measures: No mitigation measures are required.



Level of Significance: Less Than Significant Impact.

CUMULATIVE LONG-TERM (OPERATION) AIR EMISSIONS

- **IMPLEMENTATION OF THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD RESULT IN INCREASED IMPACTS PERTAINING TO OPERATIONAL AIR EMISSIONS.**

Impact Analysis: The SCAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air pollutant emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, individual project emissions contribute to existing cumulatively significant adverse air quality impacts. The SCAQMD developed the operational thresholds of significance based on the level above which individual project emissions would result in a cumulatively considerable contribution to SCAB's existing air quality conditions. Therefore, a project that exceeds the SCAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As concluded above, the proposed project's operational-related air quality impacts would be less than significant. Specifically, the project's operational emissions would not exceed SCAQMD regional thresholds, thus, would be less than significant; refer to [Table 5.1-9](#). The on-site project emissions' localized effects on nearby receptors were also found to be less than significant; refer to [Table 5.1-12](#). As a result, operational emissions would not result in a cumulatively considerable contribution to significant cumulative air quality impacts. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Therefore, project operations would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

CUMULATIVE ODOR RELATED EMISSIONS

- **IMPLEMENTATION OF THE PROPOSED PROJECT AND RELATED PROJECTS COULD RESULT IN CUMULATIVELY CONSIDERABLE ODORS THAT AFFECT A SUBSTANTIAL NUMBER OF PEOPLE.**

Impact Analysis: Future projects would be required to comply with SCAQMD Rule 402, which would ensure that each related project would not create objectionable odors affecting a substantial number of people. As analyzed above, construction and operations of the proposed bank would not result in significant odor impacts. Therefore, the proposed project's contribution to cumulative impacts associated with odors would not be cumulatively considerable, and, as such, cumulative impacts would be less than significant.

5.1.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to air quality would occur.



5.2 Cultural and Tribal Cultural Resources



5.2 CULTURAL AND TRIBAL CULTURAL RESOURCES

The purpose of this section is to identify existing cultural and tribal cultural resources within and around the project site, assess the significance of such resources, and evaluate potential project impacts on such resources. Mitigation measures are recommended, as necessary, to minimize impacts as a result of project implementation.

5.2.1 EXISTING SETTING

NATURAL SETTING

The project site is located approximately 0.92-mile east of the Los Angeles River channel. The site is located within a portion of southern California, which stretches from the Los Angeles area to Baja California in Mexico. This region consists of a series of mountain ranges separated by fault zones, and a coastal plain of landforms. Metamorphic rocks that were affected by igneous rocks underlie the mountain ranges, while marine and nonmarine sedimentary formations underlie the coastal plain. Locally, the project site is relatively flat with an elevation ranging from 98 to 100 feet above mean sea level. The project site is underlain by soils comprised of varying proportions of sand, silt, and clay at a maximum depth of 21.5 feet below ground surface.

CULTURAL SETTING

Prehistoric Period

According to the General Plan Historic Preservation Element, the earliest known occupants of the area that would become Long Beach were Native Americans. The Gabrieleño tribe occupied nearly the entire basin and coastline comprising the counties of Los Angeles and Orange. Named after the Mission San Gabriel, the Gabrieleño were one of the wealthiest and largest Native American groups in Southern California, along with the Chumash. The Gabrieleño's affluence was largely due to the wealth of natural resources within the land base they controlled, which included the rich coastal areas between Topanga Canyon and Aliso Creek, and the offshore islands of San Clemente, San Nicolas, and Santa Catalina. Inland Gabrieleño territory included the watersheds of the Los Angeles, San Gabriel, and Santa Ana Rivers, and was bounded on the north by the San Gabriel Mountains, extended to the east to the area of the current-day City of San Bernardino, and bounded on the south by the Santa Ana Mountains.

Early Spanish accounts indicate that the Gabrieleño lived in permanent villages, with a population ranging from 50 to 200 individuals, and that in 1770 the total Gabrieleño population within the Los Angeles Basin exceeded 5,000 people. There were several types of structures in the Gabrieleño villages: single-family homes that took the form of domed circular structures averaging twelve to thirty-five feet in diameter and covered with tule, fern, or Carrizo; and communal structures measuring more than sixty feet in diameter and housing three or four families. Sweathouses, menstrual huts, and ceremonial enclosures were also common features of many villages. In addition to these permanent settlements, the Gabrieleños also erected smaller, seasonal, resource-procurement camps.



Among the best-researched Gabrieleño communities in the City was Puvungna, a large settlement and important ceremonial site that was probably located in the area historically occupied by Rancho Los Alamitos and currently occupied by California State University, Long Beach (CSULB). Puvungna likely served as a ritual center for Gabrieleño communities in the region. Sites associated with Puvungna were added to the National Register of Historic Places (NRHP) in 1974 and 1982.

The first Spanish contact with the island Gabrieleño took place in 1542 when Juan Rodriguez Cabrillo arrived on Santa Catalina Island. In 1769, Gaspar de Portolá made the first attempt to colonize Gabrieleño territory, and Portola is believed to have met the Gabrieleño chief Hahamovic at the Gabrieleño village, *Hahamog-na*, on the Arroyo Seco near Garfias Spring in South Pasadena. In 1771 the Spanish established the Mission San Gabriel Archangel, and the Gabrieleño population began a rapid decline.

Historic Period

SPANISH AND MEXICAN PERIOD

The area that is now the City of Long Beach received its first European visitors in the late 18th century with the arrival of Spanish explorers and missionaries. Mission San Gabriel Arcángel, founded near what is now the City of Montebello, was awarded jurisdiction over most of this region. During the Spanish and subsequent Mexican reign over Alta California, ownership of the southern portion of present-day Los Angeles County was determined by a series of land grants. Beneficiaries of the land grants were often former soldiers and others who had served the government. The large land grants often had somewhat amorphous boundaries (sometimes based on “landmarks” such as rock outcroppings, river beds, and large trees) and boundary disputes were common.

In 1784, Pedro Fages, the Spanish governor of California, granted 300,000 acres (an amount reduced in 1790 to 167,000 acres) to Manuel Nieto, a Spanish soldier, as a reward for his military service. Nieto raised cattle, sheep, and horses on the land known as Los Coyotes and built an adobe home on a hilltop near today’s Anaheim Road.

Following Nieto’s death in 1804 his property passed to his heirs. In 1834, his property was divided into five smaller ranchos, including Rancho Los Alamitos and Rancho Los Cerritos. These two ranchos encompassed the majority of what now comprises the City, with a portion of the 28,500-acre Rancho Los Alamitos on the east and a portion of the 27,000-acre Rancho Los Cerritos on the west. Today, Alamitos Avenue marks the dividing line between the two former ranchos.

Rancho Los Alamitos was purchased by Governor Jose Figueroa in 1834 for \$500 and construction on the rancho’s existing adobe home was begun. In 1842, Don Abel Stearns, a prominent American-born ranchero from New England purchased the land for \$6,000 and improved the adobe for use as his summer home. Stearns raised cattle to support the ranch, but lost the property to San Francisco mortgage holder, Michael Reese, in 1866 following a severe drought.

Daughter Manuela Cota received the area known as Rancho Los Cerritos. She and husband Guillermo built at least two adobes on the land and raised twelve children, as well as cattle and crops. Following Manuela’s death in 1843, the children sold Rancho Los Cerritos to Massachusetts-born merchant John Temple, an entrepreneur with investments in Los Angeles real estate and ranches. Temple was married to Nieto’s granddaughter, which made him a Mexican citizen. Temple raised cattle and sheep on the rancho and maintained a lucrative business shipping hides to San Pedro harbor. In 1844, Temple



constructed a two-story, Monterey-style adobe house on the property. At its peak, Rancho Los Cerritos possessed 15,000 head of cattle, 7,000 sheep, and 3,000 horses.

AMERICAN PERIOD

California became a territory of the United States in 1848 and the 31st State in the Union in 1850. During this period the California Gold Rush accelerated migration to the State. One of the first discoveries of gold in California occurred in 1842 (within Placerita Canyon in the foothills), 56 miles north of the City. Gold was discovered in northern California in 1848. Men such as Benjamin Flint, Thomas Flint, and Lewellyn Bixby (who would all play a role in the development of Long Beach), came to California during this period to seek their fortune.

The Gold Rush also gave a boost to the Southern California cattle industry at a time when demand for cow hides was decreasing. The new mining population allowed ranchers such as Stearns and Temple to drive their cattle north to feed the hungry miners. However, both Stearns and Temple suffered during the severe droughts of the 1860s and the subsequent economic decline of the 1870s.

In 1866, Temple retired and brothers Thomas and Benjamin Flint, along with their cousin Lewellyn Bixby (Flint, Bixby and Co.), bought Rancho Los Cerritos from Temple for \$20,000. The company selected Lewellyn's brother Jotham to manage the land and some 30,000 sheep. Within three years, Jotham bought into the property and formed his own company. Jotham Bixby and his family resided in the Cerritos adobe from 1866 to 1881.

In 1878, John Bixby leased Rancho Los Alamitos from owner Michael Reese and moved his family into the then deteriorated adobe. Reese sold the 26,392-acre rancho in 1881 for \$125,000 to a partnership composed of I.W. Hellman, a banker and local investor, and the John Bixby & Co. (comprising Jotham Bixby, [Thomas] Flint, and [Lewellyn] Bixby), and the property later became known as the Bixby Ranch. John Bixby, along with his wife, Susan, remained residents of the ranch and began to rehabilitate the adobe and surrounding land, transforming the property into a prosperous working ranch and dairy farm. Bixby's son, Fred, with his wife Florence, moved into the adobe in 1906. Florence created expansive gardens surrounding the house, while Fred focused on the activities of ranching, business, oil, and breeding Shire horses.

By the late 1870s, both Rancho Los Alamitos and Rancho Los Cerritos were under the control of members of the Bixby family, who would be one of the most influential families in City history. Both properties continued to operate as ranches well into the early decades of the 20th century, maintaining dairy farms and growing beans, barley, and alfalfa. However, land from both ranchos was slowly sold off, beginning with the decline of the sheep industry in the 1870s. Settlement within the Long Beach area began as early as 1879 when Jotham Bixby began selling lots along the Los Angeles River in the area that is now west Long Beach, near Willow Street and Santa Fe Avenue.

CITY OF LONG BEACH

On February 10, 1888, the City was incorporated, with 800 citizens and approximately 59 buildings. In 1921 the discovery of oil in the City of Signal Hill (which at that time was an unincorporated area) by the Shell Oil Company brought radical changes to Long Beach, as the ownership, production, and sale of oil became the City's primary industry. Speculators, promoters, and experienced oilmen descended on Signal Hill, competing for mineral leases. Between 1920 and 1925, the City's population more than doubled due to an influx of people hoping to find work in the oil industry, growing from



55,000 in 1920 to an estimated 135,000 in 1925. The discovery of oil made millionaires out of ordinary citizens and investors, and the effects were felt throughout the City, particularly downtown and along the shoreline. During this period downtown boosters wanted to change the City's image and initiated a massive building program. Skyscrapers and high rises transformed the skyline; elegant hotels and apartments were evidence of a new, more sophisticated vision for the City, and solidified its potential as a resort destination. The City continued developing its harbor through the 1920s as the City's oil industry became increasingly dependent on the Long Beach Harbor to export its resources. The growth of the 1920s came to a halt following the stock market crash of 1929. The demand for oil dropped significantly and Long Beach's tourism industry suffered greatly. However, by 1930, the Long Beach Harbor was handling one million tons of cargo each year, and by 1939, harbor and oil revenues were able to finance continued development. Oil was struck again in 1936, this time at the Wilmington Oil Field near the Long Beach Harbor, providing revenue to the City and further assisting in the revitalization of the economy.

5.2.2 REGULATORY SETTING

STATE LEVEL

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change (Public Resources Code Section 5024.1[a]). The criteria for eligibility for the CRHR are consistent with the NRHP criteria but have been modified for State use in order to include a range of historical resources that better reflect the history of California (Public Resources Code Section 5024.1[b]). Certain properties are determined by the statute to be automatically included in the CRHR by operation of law, including California properties formally determined eligible for, or listed in, the NRHP.

Properties are eligible for listing in the CRHR if they meet one or more of the criteria listed above (i.e., *Criterion A [events]* through *Criterion D [information potential]*).

In addition, if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made 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 (Public Resources Code Section 21083.2[a] and [b]).

Public Resources Code Section 21083.2(g) defines a unique archaeological resource as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Criterion 1: Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; or
- Criterion 2: Has a special and particular quality such as being the oldest of its type or the best available example of its type; or



- Criterion 3: Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Assembly Bill 52

On September 25, 2014, Governor Brown signed Assembly Bill 52 (AB 52). In recognition of California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments, and respecting the interests and roles of project proponents, it is the intent of AB 52 to accomplish all of the following:

1. Recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities.
2. Establish a new category of resources in CEQA called “tribal cultural resources” that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation.
3. Establish examples of mitigation measures for tribal cultural resources that uphold the existing mitigation preference for historical and archaeological resources of preservation in place, if feasible.
4. Recognize that California Native American tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are traditionally and culturally affiliated. Because CEQA calls for a sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources.
5. In recognition of their governmental status, establish a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the level of required confidentiality concerning tribal cultural resources, at the earliest possible point in CEQA environmental review process, so that tribal cultural resources can be identified, and culturally appropriate mitigation and mitigation monitoring programs can be considered by the decision making body of the lead agency.
6. Recognize the unique history of California Native American tribes and uphold existing rights of all California Native American tribes to participate in, and contribute their knowledge to, the environmental review process pursuant to CEQA.
7. Ensure that local and tribal governments, public agencies, and project proponents have information available, early in CEQA environmental review process, for purposes of identifying and addressing potential adverse impacts to tribal cultural resources, and to reduce the potential for delay and conflicts in the environmental review process.
8. Enable California Native American tribes to manage and accept conveyances of, and act as caretakers of, tribal cultural resources.
9. Establish that a substantial adverse change to a tribal cultural resource has a significant effect on the environment.



California Public Resources Code

Public Resources Code Sections 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites; identify the powers and duties of the Native American Heritage Commission (NAHC); require descendants to be notified when Native American human remains are discovered; and provide for treatment and disposition of human remains and associated grave goods.

LOCAL LEVEL

City of Long Beach General Plan

The Historic Preservation Element of the General Plan was adopted on June 22, 2010, and sets forth the goals, objectives, and policies that outline the City's vision for future historic preservation efforts and actions. The Historic Preservation Element intends to identify and protect areas, sites and structures having architectural, historical, cultural, or archaeological significance and to reaffirm their continuing value as a resource contributing to the vitality and diversity of the present environment. The following goals and policies are applicable to the project:

Goal 1: Maintain and support a comprehensive, citywide historic preservation program to identify and protect Long Beach's historic, cultural, and archaeological resources.

Policy P.1.1: The City shall comply with City, State, and Federal historic preservation regulations to ensure adequate protection of the City's cultural, historic, and archaeological resources.

Goal 4: Increase public awareness and appreciation of the City's history and historic, cultural, and archaeological resources.

Policy P.4.3: The City shall solicit and encourage public comment and participation in preservation decision-making.

5.2.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

SIGNIFICANCE GUIDELINES

Archaeological Resources

A significant prehistoric archaeological impact would occur if grading and construction activities result in a substantial adverse change to archaeological resources determined to be "unique" or "historic." "Unique" resources are defined in Public Resources Code Section 21083.2; "historic" resources are defined in Public Resources Code Section 21084.1 and *CEQA Guidelines* Section 15126.4.

Public Resources Code Section 21083.2(g) states:

As used in this section, "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:



1. *Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;*
2. *Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or*
3. *Is directly associated with a scientifically recognized important prehistoric or historic event or person.*

CEQA states that when a project would cause damage to a unique archaeological resource, reasonable efforts must be made to preserve the resource in place or leave it in an undisturbed state. Mitigation measures are required to the extent that the resource could be damaged or destroyed by a project. Implementation of the following mitigation measures would mitigate to the greatest extent feasible the potential for future projects to impact archaeological resources.

Tribal Cultural Resources

AB 52 established a new category of resources in CEQA called tribal cultural resources (Public Resources Code Section 21074). “Tribal cultural resources” are either of the following:

- (1) *sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:*
 - (A) *Included or determined to be eligible for inclusion in the California Register of Historical Resources.*
 - (B) *Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.*
- (2) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.*

AB 52 also created a process for consultation with California Native American Tribes in the CEQA process. Tribal Governments can request consultation with a lead agency and give input into potential impacts to tribal cultural resources before the agency decides what kind of environmental assessment is appropriate for a proposed project. The Public Resources Code requires avoiding damage to tribal cultural resources, if feasible. If not, lead agencies must mitigate impacts to tribal cultural resources to the extent feasible.

CEQA SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form that was used during the preparation of the Initial Study, which is contained in Appendix 11.1, Notice of Preparation/Initial Study, of this EIR. The issues presented in the Environmental Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant adverse environmental impact if it would:



Cultural Resources

- Cause a substantial adverse change in the significance of a historical resource pursuant to *CEQA Guidelines* Section 15064.5 (refer to Appendix 11.1, *Notice of Preparation/Initial Study*);
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5 (refer to Impact Statement CUL-1);
- Disturb any human remains, including those interred outside of dedicated cemeteries (refer to Appendix 11.1).

Tribal Cultural Resources

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, 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:
 - 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) (refer to Impact Statement CUL-2); or
 - 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 (refer to Impact Statement CUL-2).

Based on these standards/criteria, the effects of the project have been categorized as either a “less than significant impact” or “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.2.4 IMPACTS AND MITIGATION MEASURES

ARCHAEOLOGICAL RESOURCES

CUL-1 THE PROJECT COULD CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF AN ARCHAEOLOGICAL RESOURCE PURSUANT TO CEQA GUIDELINES SECTION 15064.5.

Impact Analysis: Given that the project site is highly disturbed, located in an urbanized area, and was historically utilized for oil drilling activities, known cultural resources are not expected to occur on-site. While minimal grading and excavation is anticipated during project construction, the site could contain previously undiscovered archaeological resources. Should project ground-disturbing activities encounter previously undiscovered archaeological resources, Mitigation Measure CUL-1 would require all project construction efforts to halt within a 50-foot buffer until an archaeologist examines



the find, evaluates the archaeological significance of the find, and recommends a course of action. With implementation of Mitigation Measure CUL-1, the project would not cause a substantial adverse change in the significance of an archaeological resource or site pursuant to Section 15064.5 of the CEQA Guidelines, and impacts would be reduced to less than significant levels.

Mitigation Measures:

CUL-1 If archaeological resources are encountered during ground-disturbing activities, work within 50-feet of the find shall be halted and the project Applicant, or their designee, shall retain an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) immediately to evaluate the find. The qualified archaeologist shall evaluate the find in accordance with federal, State, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2, to assess the significance of the find and identify avoidance or other measures as appropriate. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for California Register of Historical Resources eligibility. The treatment plan shall be reviewed and approved by the qualified archaeologist and City of Long Beach Community Development Department.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

TRIBAL CULTURAL RESOURCES

CUL-2 THE PROJECT COULD CAUSE A SIGNIFICANT IMPACT TO A TRIBAL CULTURAL RESOURCE.

Impact Analysis: The City sent letters inviting tribes to consult on the project pursuant to AB 52 on April 8, 2024; refer to [Appendix 11.4, AB 52 Documentation](#). The Gabrieleño Band of Mission Indians – Kizh Nation responded to the notification letters within the response period requesting formal consultation with the City.

Tribal consultation between the City and the Gabrieleño Band of Mission Indians – Kizh Nation occurred on May 16, 2024. As part of the consultation process, the Gabrieleño Band of Mission Indians – Kizh Nation requested information regarding prior on-site soil disturbance and oil drilling activities and the proposed project's anticipated level of soil disturbance. The City provided a copy of the Geotechnical Investigation (provided in [Appendix 11.5](#)) to the Gabrieleño Band of Mission Indians – Kizh Nation.

As part of the consultation process, the Gabrieleño Band of Mission Indians – Kizh Nation provided recommended mitigation measures to reduce potential impacts to tribal cultural resources. These recommendations have been incorporated into the proposed project as Mitigation Measures CUL-2 through CUL-4. To avoid impacting or destroying tribal cultural resources that may be inadvertently unearthed during the project's ground disturbing activities, Mitigation Measure CUL-2 would require the project Applicant to retain a qualified Native American Monitor prior to ground disturbing activities. Additionally, Mitigation Measure CUL-2 would require the Native American Monitor to be present during ground disturbing activities and complete daily monitoring logs that provide descriptions of relevant ground disturbing activities. If evidence of potential subsurface tribal cultural resources is found during ground disturbing activities, Mitigation Measure CUL-3 would ensure that activities in the vicinity of the find are halted and appropriate evaluation and treatment of said



resource(s) is conducted. To avoid impacting or destroying human remains and/or burial goods that may be inadvertently unearthed during project ground disturbing activities, Mitigation Measure CUL-4 would ensure human remains and/or burial goods, including Native American remains, are treated in accordance with State law. With implementation of Mitigation Measures CUL-2 through CUL-4, impacts in this regard would be reduced to less than significant levels.

Mitigation Measures:

CUL-2 The project Applicant shall retain a Native American Monitor (monitor) from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation (Tribe). The monitor shall be retained prior to the commencement of any ground-disturbing activity for the project. Ground-disturbing activity shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. A copy of the executed monitoring agreement shall be submitted to the City of Long Beach Community Development Department prior to commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

The monitor shall complete daily monitoring logs that provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs shall identify and describe any discovered tribal cultural resources, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs shall be provided to the project Applicant/City of Long Beach Community Development Department upon written request to the Tribe.

On-site tribal monitoring shall conclude upon one of the following (1) written confirmation to the Tribe from a designated point of contact for the project Applicant/City of Long Beach Community Development Department that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Tribe to the project Applicant/City of Long Beach Community Development Department that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact tribal cultural resources.

CUL-3 Upon discovery of any tribal cultural resources, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered tribal cultural resources has been fully assessed by the Gabrieleño Band of Mission Indians – Kizh Nation (Tribe) monitor and/or Tribe archaeologist. The Tribe shall recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.



CUL-4 Native American human remains are defined in Public Resources Code Section 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code Section 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed. Human remains and grave/burial goods shall be treated alike per California Public Resources Code Sections 5097.98(d)(1) and (2). Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.2.5 CUMULATIVE IMPACTS

Table 4-1, *Cumulative Projects List*, identifies the related projects and other possible development in the area determined as having the potential to interact with the proposed project to the extent that a significant cumulative effect may occur. The following discussions are included to determine whether a significant cumulative effect would occur.

● THE PROJECT, COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS, COULD CAUSE CUMULATIVELY CONSIDERABLE IMPACTS TO ARCHAEOLOGICAL RESOURCES OR TRIBAL CULTURAL RESOURCES.

Impact Analysis: Table 4-1 identifies the related projects and other possible development in the area determined as having the potential to interact with the project to the extent that a significant cumulative effect may occur. Project-related impacts to archeological and tribal cultural resources have been determined to be less than significant with implementation of Mitigation Measures CUL-1 through CUL-4. Future cumulative projects would be evaluated on a project-by-project basis to determine the extent of potential impacts to site-specific archaeological and/or tribal cultural resources. Related projects would be required to adhere to State and Federal regulations, as well as project-specific mitigation measures.

As discussed under Impact Statements CUL-1 and CUL-2, implementation of Mitigation Measures CUL-1 through CUL-4 would reduce potentially significant project impacts to archaeological and tribal cultural resources to less than significant levels. Thus, the project's less than significant impacts would not be cumulatively considerable.

Mitigation Measures: Refer to Mitigation Measures CUL-1 through CUL-4.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.2.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to cultural and tribal cultural resources would occur.



This page intentionally left blank.



5.3 Geology and Soils



5.3 GEOLOGY AND SOILS

This section describes the geologic and seismic conditions within the project area and evaluates the potential for geologic hazard impacts associated with implementation of the project. This section is primarily based upon the following technical studies:

- *Geotechnical Engineering Report, First Citizen's Bank – Long Beach, Long Beach, Los Angeles County, CA* (Geotechnical Investigation), prepared by Terracon Consultants, Inc., dated November 2, 2022; and
- *Geotechnical Report Addendum No. 1 2022 CBC Seismic Design Parameters First Citizen's Bank – Long Beach 3450-3470 Long Beach Boulevard Long Beach, Los Angeles County, CA Terracon Project No. 60225117*, prepared by Terracon Consultants, Inc., dated June 7, 2024.

These technical studies are provided in [Appendix 11.5, *Geotechnical Reports*](#), of this EIR.

5.3.1 EXISTING SETTING

GEOLOGIC SETTING

Regional Geology

The site is located within a portion of southern California, which stretches from the Los Angeles area to Baja California in Mexico. This region consists of a series of mountain ranges separated by fault zones, and a coastal plain of landforms. Metamorphic rocks that were affected by igneous rocks underlie the mountain ranges, while marine and nonmarine sedimentary formations underlie the coastal plain.

Site Topography and Geology

Elevation across the project site ranges from approximately 98 to about 100 feet above mean sea level. According to the Geotechnical Investigation, on-site subsurface soils generally consist of loose to dense sand with varying amounts of silt and clay with interbedded layers medium stiff to hard sandy silt and sandy lean clay to a maximum explored depth of 21.5 feet below ground surface.

Groundwater

Based on the borings conducted as part of the Geotechnical Investigation, groundwater was not observed on-site. However, it is acknowledged that groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff, and other factors not evident at the time borings were conducted. According to data collected from the Los Angeles County Public Works Water Data Library for the State of California from Well Number 906D (approximate site elevation of 95 feet), located approximately 1.25 miles northwest of the site, the highest groundwater elevation level, between 2000 and 2022, was recorded at greater than 50 feet deep.



SEISMIC HAZARDS

The site is located in a seismically active area, as is the majority of southern California. According to the General Plan Seismic Safety Element, major known active faults in the region consist of the Palos Verdes, Cherry Hill, Northeast Flank, and Reservoir Hill faults located south/southeast of the site. The tectonic setting of the Long Beach area includes the Newport-Inglewood and Palos Verdes fault zones. The Newport-Inglewood fault zone is a right-lateral wrench fault system consisting of series of echelon fault segments and folds. The Newport-Inglewood fault zone is visible on the surface as a series of northwest trending elongated hills extending from the City of Newport Beach to the City of Beverly Hills. The Palos Verdes fault zone includes off-shore faulting from Lasuen Knoll northwestward past San Pedro Bay, until it reaches Santa Monica Bay (where the fault bends to the west downwards to Redondo Canyon).

Potential seismic hazards involve primary hazards such as surface fault rupture and seismicity/ground shaking, and secondary hazards such as liquefaction, seismically induced settlement, lateral spreading, seismically induced landslides, seismically induced flooding, seiches, and tsunamis. The primary and secondary seismic hazards associated with the project site are discussed below.

Primary Seismic Hazards

SURFACE FAULT RUPTURE

Based on the Geotechnical Investigation, no active surface faults are located across the site. The closest active faults are the Cherry Hill fault, approximately 0.36-mile south of the project site, and the Northeast Flank fault, approximately 1.8 miles southeast of the site. Thus, the probability of fault rupture within the project site is considered low.

SEISMIC GROUND SHAKING

Earthquake events from one of the regional active or potentially active faults near the project area could result in strong ground shaking. The level of ground shaking at a given location depends on many factors, including the size and type of earthquake, distance from the earthquake, and subsurface geologic conditions. The type of construction also affects how particular structures and improvements perform during ground shaking.

Secondary Seismic Hazards

LIQUEFACTION

Liquefaction is the phenomenon in which loosely deposited granular soils located below the water table undergo rapid loss of shear strength due to excess pore pressure generation when subjected to strong earthquake-induced ground shaking. Ground shaking of sufficient duration results in the loss of grain-to-grain contact due to rapid rise in pore water pressure causing the soil to behave as a fluid for a short period of time. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of ground shaking.

According to the Geotechnical Investigation, the project site is not located within a liquefaction hazard zone as designated by the California Geological Survey (CGS). Furthermore, based on the anticipated



depth to groundwater (greater than 50 feet in depth) for the project site, the liquefaction hazard potential is considered low. Further, the potential for other geologic hazards related to liquefaction, such as lateral spreading, are therefore also considered low.

SUBSIDENCE

Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. Soils that are particularly subject to subsidence include those with high silt or clay content.

According to the U.S. Geological Survey (USGS), the project site is located within areas of recorded subsidence due to historical oil extraction.¹ Accordingly, the project site could be subject to impacts regarding subsidence.

COMPRESSIBLE/COLLAPSIBLE SOILS

Compressible soils are generally comprised of soils that undergo consolidation when exposed to new loading, such as fill or foundation loads. Soil collapse is a phenomenon where the soils undergo a significant decrease in volume upon increase in moisture content, with or without an increase in external loads. Soil collapse is generally associated with recently deposited, Holocene-age soils that have accumulated in an arid or semi-arid environment. Wind-deposited sands and silts, and alluvial fan and debris flow sediments deposited during flash floods represent soils that may be susceptible to collapse. Buildings, structures, and other improvements may be subject to excessive settlement-related distress when compressible soils or collapsible soils are present.

As indicated in the Geotechnical Investigation, the project area is underlain by silty sand soils encountered at an approximate depth of 2.5 and five feet below ground surface and have a slight collapse/swell potential when saturated under normal footing loads of 2,000 pounds per square foot.

EXPANSIVE SOILS

Expansive soils include clay minerals that are characterized by their ability to undergo significant volume change (shrink or swell) due to variations in moisture content. Sandy soils are generally not expansive. Changes in soil moisture content can result from rainfall, irrigation, pipeline leakage, surface drainage, perched groundwater, drought, or other factors. Volumetric change of expansive soil may cause excessive cracking and heaving of structures with shallow foundations, concrete slabs-on-grade, or pavements supported on these materials.

According to the Geotechnical Investigation, expansion index testing indicated that the near surface soils encountered in borings have an expansion index of 0, correlating to a Very Low expansion potential.

PALEONTOLOGICAL RESOURCES

A paleontological resource is a natural resource characterized as faunal or floral fossilized remains but may also include specimens of non-fossil material dating to any period preceding human occupation.

¹ U.S. Geological Survey, *Areas of Land Subsidence in California*, https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html, accessed August 6, 2024.



These resources are valued for the information they yield about the history of the earth and its past ecological settings. The resources are found in geologic strata conducive to their preservation, typically sedimentary formations. Often, they appear as simply small outcroppings visible on the surface; other times they are below the ground surface and may be encountered during grading.

The project site contains bedrock parent material consisting of human-transported material over alluvium and/or palustrine estuarine deposits comprised of varying proportions of sand, silt, and clay.² Given the disturbed and built out nature of the project area, the likelihood of encountering paleontological resources on-site is considered low.

5.3.2 REGULATORY SETTING

FEDERAL LEVEL

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) established the National Earthquake Hazards Reduction Program which is coordinated through the Federal Emergency Management Agency (FEMA), USGS, the National Science Foundation, and the National Institute of Standards and Technology. The purpose of the program is to establish measures for earthquake hazards reduction and promote the adoption of earthquake hazards reduction measures by federal, State, and local governments; national standards and model code organizations; architects and engineers; building owners; and others with a role in planning and constructing buildings, structures, and lifelines. This is achieved through the following:

- (1) Grants, contracts, cooperative agreements, and technical assistance;
- (2) Development of standards, guidelines, and voluntary consensus codes for earthquake hazards reduction for buildings, structures, and lifelines; and
- (3) Development and maintenance of a repository of information, including technical data, on seismic risk and hazards reduction.

The program is intended to improve the understanding of earthquakes and their effects on communities, buildings, structures, and lifelines through interdisciplinary research that involves engineering, natural sciences, and social, economic, and decisions sciences.

Uniform Building Code

The Uniform Building Code (UBC) is published by the International Conference of Building Officials and forms the basis for the California Building Code (CBC, further described below), as well as approximately half of the State building codes in the United States. It has been adopted by the California Legislature to address the specific building conditions and structural requirements for California, as well as provide guidance on foundation design and structural engineering for different soil types. The UBC defines and ranks the regions of the United States according to their seismic

² United States Department of Agriculture, *Web Soil Survey*, <https://websoilsurvey.nrcs.usda.gov/app/>, accessed August 6, 2024.



hazard potential. There are four types of regions defined by Seismic Zones 1 through 4, with Zone 1 having the least seismic potential and Zone 4 having the highest.

Occupational Safety and Health Administration Regulations

The Occupational Safety and Health Administration (OSHA) Excavation and Trenching Standard covers requirements for excavation and trenching operations. OSHA requires that all excavations in which employees could potentially be exposed to cave-ins be protected by sloping or benching the sides of the excavation, supporting the sides of the excavation, or placing a shield between the side of the excavation and the work area.

Paleontological Resources Preservation Act

The Paleontological Resources Preservation Act of 2002 was enacted to codify the generally accepted practice of limiting the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers. These researchers must obtain a permit from the appropriate State or federal agency and agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers.

STATE LEVEL

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Act) (Public Resources Code 2621-2624, Division 2, Chapter 7.5) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Act requires the State Geologist to establish regulatory zones, known as "Earthquake Fault Zones," around the surface traces of active faults and to issue appropriate maps. Local agencies must regulate most development projects within these zones. Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault, at a typical requirement of 50-foot setbacks.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 directs the CGS to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the Seismic Hazards Mapping Act is to minimize loss of life and property through the identification, evaluation, and mitigation of seismic hazards. Staff geologists in the Seismic Hazard Zonation Program gather existing geological, geophysical, and geotechnical data from numerous sources to produce the Seismic Hazard Zone Maps. They integrate and interpret these data regionally to evaluate the severity of the seismic hazards and designate as Zones of Required Investigation (ZORI) those areas prone to liquefaction and earthquake-induced landslides. Cities and counties are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes.



The Seismic Hazards Mapping Act requires that site-specific geotechnical investigations be conducted within the ZORI to identify and evaluate seismic hazards such as liquefaction and earthquake induced landslides, and to formulate mitigation measures prior to permitting most developments designed for human occupancy.

California Building Standards Code

California building standards are published in the California Code of Regulations, Title 24, also known as the California Building Standards Code (CBSC). The CBSC, which applies to all applications for building permits, consists of 11 parts that contain administrative regulations for the California Building Standards Commission and for all State agencies that implement or enforce building standards. Local agencies must ensure development complies with the CBSC guidelines. Cities and counties can adopt additional building standards beyond the CBSC. CBSC Part 2, named the CBC, is based upon the UBC.

Soils Investigation Requirements

California Health and Safety Code Sections 17953–17955 and in Section 1802 of the CBC identify requirements for soils investigations for subdivisions requiring tentative and final maps, and for other specified types of structures. Testing of samples from subsurface investigations is required, such as from borings or test pits. Studies must be done as needed to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on load-bearing capacity, compressibility, liquefaction, differential settlement, and expansiveness.

California Public Resources Code

Paleontological resources are protected under a wide variety of Public Resources Code policies and regulations. In addition, paleontological resources are recognized as nonrenewable resources and receive protection under the Public Resources Code and CEQA. Public Resources Code Division 5, Chapter 1.7, Section 5097.5, and Division 20, Chapter 3, Section 30244 states:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

This statute prohibits the removal, without permission, of any paleontological site or feature from lands under the jurisdiction of the State or any city, county, district, authority, or public corporation, or any agency thereof. As a result, local agencies are required to comply with Public Resources Code Section 5097.5 for their own activities, including construction and maintenance, as well as for permit actions, such as encroachment permits, undertaken by others. Public Resources Code Section 5097.5 also establishes the removal of paleontological resources as a misdemeanor and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public (State, county, city, and district) lands.



California Geologic Energy Management Division Oil and Gas Regulations

The California Geologic Energy Management Division (CalGEM) oversees the regulation of the State's oil, natural gas, and geothermal industries, prioritizing public health, safety, and environmental protection. The division implements various laws and regulations, including recent updates like Senate Bill (SB) 1137, which took effect in June 2024. CalGEM also manages rulemaking processes for well stimulation treatment permitting and underground gas storage, ensuring compliance and public involvement through comment periods and regulatory updates.

SB 1137 prohibits the issuance of well permits and the construction and operation of new oil and gas production facilities within 3,200 feet of sensitive receptors, such as homes, schools, childcare facilities, playgrounds, hospitals, and nursing homes. This law is part of California's broader efforts to transition to clean energy and safeguard communities from the potential health impacts of oil and gas operations.

Public Resources Code Division 3, *Oil and Gas*, Article 4, *Regulation of Operations*, outlines the regulatory framework for oil and gas well operations. Key provisions include:

- **Designation of Agent:** Operators must designate an in-state agent to receive legal notices and orders.
- **Permitting:** Operators must obtain approval before commencing drilling or altering wells.
- **Indemnity Bonds:** Operators are required to file indemnity bonds to cover potential costs related to well operations, including plugging and abandonment.
- **Well Maintenance:** Regulations mandate proper maintenance and safety measures to prevent blowouts, explosions, and environmental contamination.
- **Reporting:** Operators must maintain detailed records of drilling activities and submit regular reports to the regulatory authorities.

REGIONAL LEVEL

Los Angeles County All-Hazard Mitigation Plan

The Disaster Mitigation Act of 2000, Public Law 106-390 (Section 322[a-d]) requires that local governments, as a condition of receiving federal disaster mitigation funds, adopt a mitigation plan that describes the process for identifying hazards, vulnerabilities, and risks; identifies and prioritizes mitigation actions; encourages the development of local mitigation; and provides technical support for those efforts. In response to this and the requirements of the California Office of Emergency Services, the County prepared the Los Angeles County All-Hazard Mitigation Plan to reduce and/or eliminate the effects of hazards through well-organized public education and awareness efforts, preparedness, and mitigation.



LOCAL LEVEL

City of Long Beach General Plan

SEISMIC SAFETY ELEMENT

The purpose of the Seismic Safety Element is to provide a comprehensive analysis of seismic factors to reduce the loss of life, injuries, damage to property, and social and economic impacts resulting from future earthquakes. The following goals are applicable to the project:

Development Goals

- Goal 1: Utilize seismic safety considerations as a means of encouraging and enhancing desired land use patterns.
- Goal 2: Provide an urban environment which is as safe as possible from seismic risk.
- Goal 3: Encourage development that would be most in harmony with nature and thus less vulnerable to earthquake damage.
- Goal 4: Strive to encourage urbanization patterns which preserve and/or create greater earthquake safety for residents and visitors.

Protection Goals

- Goal 3: Assure continued economic stability and growth by minimizing potential seismic hazards.
- Goal 5: Provide the maximum feasible level of seismic safety protection services.

CONSERVATION ELEMENT

The purpose of the Conservation Element is to recognize natural resources and areas of special interest in the City. The Conservation Element also serves as a guideline for promoting policies, standards, and programs essential for the economic and environmental well-being of the City. Regarding geology and soils, the goals of the Conservation Element are to minimize activities that would result in detrimental effects on geologically unstable areas and soils subject to erosion; and continue to monitor areas subject to siltation and deposition of soils which could have a detrimental effect upon water quality and the marine biosphere. The following goals are applicable to the project:

Soils Management Goals

- Goal 3: To minimize those activities which will have a critical or detrimental effect on geologically unstable areas and soils subject to erosion.

Mineral Resource Goals

- Goal 3: To continue to take restorative measures to remedy and prevent subsidence associated with oil extraction.



Long Beach Municipal Code

CHAPTER 18.40, BUILDING CODE

This chapter of the LBMC adopts by reference the CBC, based on the International Building Code as published by the International Code Council. The provisions of the CBC constitute the building code regulations within the City, including the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area, and maintenance of all buildings and/or structures in the City.

5.3.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form that was used during the preparation of the Initial Study, which is contained in [Appendix 11.1](#), of this EIR. The issues presented in the Environmental Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant adverse environmental impact if it would:

- a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42 (refer to [Appendix 11.1](#), *Notice of Preparation/Initial Study*);
 - ii. Strong seismic ground shaking (refer to [Appendix 11.1](#));
 - iii. Seismic-related ground failure, including liquefaction (refer to [Impact Statement GEO-1](#));
 - iv. Landslides (refer to [Appendix 11.1](#));
- b) Result in substantial soil erosion or the loss of topsoil (refer to [Appendix 11.1](#));
- 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 (refer to [Impact Statement GEO-1](#));
- 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 (refer to [Impact Statement GEO-1](#));
- 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 (refer to [Appendix 11.1](#)); and
- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (refer to [Impact Statement GEO-2](#)).



Based on these standards/criteria, the effects of the project have been categorized as either a “less than significant impact” or “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.3.4 IMPACTS AND MITIGATION MEASURES

UNSTABLE AND EXPANSIVE SOILS

GEO-1 THE PROJECT COULD BE LOCATED ON UNSTABLE OR EXPANSIVE SOILS THAT COULD RESULT IN GEOLOGIC HAZARDS.

Impact Analysis: The project site could be located on unstable or expansive soils that could result in geologic hazards associated with landslide, lateral spreading, subsidence, liquefaction, or collapse. Refer to [Appendix 11.1](#) for a discussion concerning the project’s potential impacts with regard to landslide hazards.

UNSTABLE SOILS

Subsidence. Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. Additionally, large areas of land can subside drastically during an earthquake because of offset along fault lines; land subsidence can also occur as a result of settling and compacting of unconsolidated sediment (i.e., settlement) from seismic shaking. Soils that are particularly subject to subsidence include those with high silt or clay content. According to the USGS, the project site is located within areas of recorded subsidence due to oil extraction.³ However, the project does not propose any water, oil, and/or gas extraction that could exacerbate existing subsidence risks at the site. Further, per Mitigation Measure GEO-1, potential hazards associated with subsidence and settlement from seismic-shaking would be minimized with implementation of earthwork and design recommendations related to foundation, floor slabs, and pavement, during site preparation, excavation, subgrade preparation, and placement of engineered fills, as detailed in the Geotechnical Investigation. The proposed project is also required to comply with CBC standards, as adopted by reference in LBMC Chapter 18.40, *Building Code*, to mitigate potential geological hazards related to subsidence. Upon implementation of Mitigation Measure GEO-1 and compliance with the CBC, impacts would be reduced to less than significant levels in this regard.

Lateral Spreading. Lateral spreading is typically exemplified by the formation of vertical cracks on the surface of liquefied soils, and usually takes place on gently sloping ground or level ground with nearby free surface, such as a drainage or stream channel. Due to the lack of shallow groundwater underlying the project site, the potential for liquefaction and dynamic settlement/lateral spreading to occur is considered low. Less than significant impacts are anticipated in this regard.

Collapse. As indicated in the Geotechnical Investigation, the project site is underlain by silty sand soils encountered at an approximate depth of 2.5 and five feet below ground surface and has a slight

³ U.S. Geological Survey, *Areas of Land Subsidence in California*, https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html, accessed August 6, 2024.



collapse/swell potential when saturated under normal footing loads of 2,000 pounds per square foot. Thus, there is the potential for geologic hazard impacts related to compressible/collapsible soils. However, potential hazards associated with collapse would be minimized with implementation of earthwork and design recommendations (i.e., foundation, floor slabs, and pavement) detailed in the Geotechnical Investigation per Mitigation Measure GEO-1. The proposed project is also required to comply with CBC standards, as adopted by reference in LBMC Chapter 18.40, to mitigate potential geological hazards related to collapse. Upon implementation of Mitigation Measure GEO-1 and compliance with the CBC, impacts would be reduced to less than significant levels in this regard.

Liquefaction. According to the Geotechnical Investigation, the project site is not located within a liquefaction hazard zone as designated by the CGS. Furthermore, based on the anticipated depth to groundwater (greater than 50 feet in depth) for the project site, the liquefaction hazard potential is considered low. Impacts in this regard would be less than significant.

EXPANSIVE SOILS

Expansive index testing results for the soil types at the project site indicate that the near surface soils encountered in borings have an expansion index of zero, correlating to a Very Low expansion potential. The proposed project is also required to comply with CBC standards, as adopted by reference in LBMC Chapter 18.40, to mitigate potential geological hazards related to expansive soils. Thus, impacts would be less than significant in this regard.

Mitigation Measures:

GEO-1 Prior to issuance of grading permits, the City of Long Beach City Engineer shall verify that the proposed project's final construction plans and specifications incorporate the applicable construction design recommendations from the *Geotechnical Engineering Report, First Citizen's Bank – Long Beach, Long Beach, Los Angeles County, CA*, prepared by Terracon Consultants, Inc. and dated November 2, 2022, and the *Geotechnical Report Addendum No. 1 2022 CBC Seismic Design Parameters First Citizen's Bank – Long Beach 3450-3470 Long Beach Boulevard Long Beach, Los Angeles County, CA Terracon Project No. 60225117*, prepared by Terracon Consultants, Inc. and dated June 7, 2024.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

PALEONTOLOGICAL RESOURCES

GEO-2 PROJECT IMPLEMENTATION COULD DIRECTLY OR INDIRECTLY DESTROY A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE OR UNIQUE GEOLOGIC FEATURE.

Impact Analysis: The project site contains bedrock parent material consisting of human-transported material over alluvium and/or palustrine estuarine deposits comprised of varying proportions of sand, silt, and clay.⁴ Given the disturbed and built out nature of the project area, the likelihood of encountering paleontological resources on-site is considered low. Nevertheless, in the event that paleontological resources are encountered during earth-disturbing activities, Mitigation Measure

⁴ United States Department of Agriculture, *Web Soil Survey*, <https://websoilsurvey.nrcs.usda.gov/app/>, accessed August 6, 2024.



GEO-2 would require all construction activities within 100 feet of the find to halt until a qualified paleontologist assesses the find to determine its significance and any required measures. If the qualified paleontologist finds the resource is potentially significant, then the qualified paleontologist would make recommendations for appropriate treatment in accordance with Society of Vertebrate Paleontology (SVP) guidelines for identification, evaluation, disclosure, avoidance, recovery, and/or curation, as appropriate. Thus, following implementation of Mitigation Measure GEO-2, impacts would be reduced to less than significant levels.

Mitigation Measures:

GEO-2 In the event that paleontological resources are encountered during earth-disturbing activities, all construction activities within 100 feet of the discovery shall be temporarily halted until a qualified paleontologist retained by the Applicant evaluates the find and makes a recommendation. The evaluation shall follow Society of Vertebrate Paleontology (SVP) standards as delineated in the *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* (2010). If the qualified paleontologist finds that the resource is not a significant fossil, then work may resume. If the qualified paleontologist finds the resource is potentially significant, the qualified paleontologist shall make recommendations for appropriate treatment in accordance with SVP guidelines for identification, evaluation, disclosure, avoidance, recovery, and/or curation, as appropriate. The City of Long Beach shall determine the appropriate treatment of the find. Work shall not resume within the no-work radius until the City of Long Beach, through consultation as appropriate, determines that appropriate treatment measures have been completed to the satisfaction of the City. Any fossils recovered during mitigation shall be cleaned, identified, catalogued, and permanently curated with an accredited and permanent scientific institution with a research interest in the materials.

A qualified professional paleontologist is a professional with a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California, as well as at least one year of full-time professional experience or equivalent specialized training in paleontological research (i.e., the identification of fossil deposits, application of paleontological field and laboratory procedures and techniques, and curation of fossil specimens), and at least four months of supervised field and analytic experience in general North American paleontology as defined by the SVP.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.3.5 CUMULATIVE IMPACTS

Table 4-1, *Cumulative Projects List*, identifies the related projects and other possible development in the area determined as having the potential to interact with the project to the extent that a significant cumulative effect may occur. The following discussions are included to determine whether a significant cumulative effect would occur.

- **THE PROPOSED PROJECT, COMBINED WITH OTHER RELATED CUMULATIVE PROJECTS, COULD EXPOSE PEOPLE AND STRUCTURES TO**



POTENTIAL SUBSTANTIAL ADVERSE EFFECTS INVOLVING GEOLOGY AND SOILS AND COULD IMPACT UNKNOWN PALEONTOLOGICAL RESOURCES.

Impact Analysis: Cumulative projects identified in Table 4-1, *Cumulative Projects List*, would be located within proximity to similar fault zones as the project. However, the intensity of the seismic ground shaking would vary by site based on earthquake magnitude, distance to epicenter, and geology of the area between the epicenter and the cumulative site. Additionally, potential paleontological resource impacts associated with the development of each cumulative project would be specific to each site. Cumulative projects would be required to comply with existing federal, State, and local regulations (including the CBC and LBMC Chapter 18.40) and project-specific mitigation measures related to geologic hazards and paleontological resources impacts on a project-by-project basis.

As concluded above, geologic and seismic hazards associated with the project would be reduced to less than significant levels through conformance with established regulatory requirements, including the CBC and LBMC Chapter 18.40. Further, implementation of Mitigation Measure GEO-1 would ensure project design and construction plans incorporate recommended design features in the project's Geotechnical Investigation, and implementation of Mitigation Measure GEO-2 would ensure that potential impacts to unknown paleontological resources on-site, if encountered, are reduced to less than significant levels. As such, the project would not result in cumulatively considerable impacts in this regard.

Mitigation Measures: Refer to Mitigation Measures GEO-1 and GEO-2.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.3.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to geology and soils would occur.



This page intentionally left blank.



5.4 Greenhouse Gas Emissions



5.4 GREENHOUSE GAS EMISSIONS

This section evaluates greenhouse gas (GHG) emissions associated with the proposed project and analyzes project compliance with applicable regulations. Consideration of the project's consistency with applicable plans, policies, and regulations, as well as the introduction of new sources of GHGs, is included in this section. This section is primarily based on *Greenhouse Gas Emissions Assessment First Citizens Bank – Long Beach Project Long Beach, California* (Greenhouse Gas Emissions Assessment), prepared by Kimley-Horn and Associates, Inc., dated May 2024, provided as [Appendix 11.6, *Greenhouse Gas Emissions Assessment/LB CAP Checklist*](#), of this EIR.

5.4.1 EXISTING SETTING

SCOPE OF ANALYSIS FOR CLIMATE CHANGE

Certain gases in the earth's atmosphere classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

The primary GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Examples of fluorinated gases include chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃); however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the Earth's climate, known as global climate change or global warming.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of a GHG molecule is dependent on multiple variables and cannot be pinpointed, more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere.



GLOBAL CLIMATE CHANGE – GREENHOUSE GASES

The natural process through which heat is retained in the troposphere is called the “greenhouse effect.”¹ The greenhouse effect traps heat in the troposphere through a threefold process as follows: Short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHG in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This “trapping” of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

The most abundant GHGs are water vapor and carbon dioxide (CO₂). Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of GHGs, scientists have established a Global Warming Potential (GWP) for each GHG based on its ability to absorb and re-radiate long wave radiation. GHGs normally associated with development projects include the following:²

Water Vapor (H₂O). Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively. The primary human related source of water vapor comes from fuel combustion in motor vehicles; however, it does not contribute a significant amount (less than one percent) to atmospheric concentrations of water vapor. The IPCC has not determined a GWP for water vapor.

Carbon Dioxide (CO₂). Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the increased use of clean fuel by industrial facilities and mobile sources, CO₂ emissions from fossil fuel combustion decreased by a total of 1.9 percent between 1990 and 2021.³ Between 2020 and 2021, the increase in total GHG emissions was driven largely by an increase in CO₂ emissions from fossil fuel combustion due to economic activity rebounding after the height of the COVID-19 pandemic.⁴ Carbon dioxide is the most widely emitted GHG and is the reference gas (GWP of 1) for determining GWPs for other GHGs.

Methane (CH₄). Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The United States’ top three methane sources are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, used for space and water heating, steam production, and power generation. The GWP of methane is 27.9.

¹ The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth’s surface to 10 to 12 kilometers.

² All GWPs are given as 100-year GWP. Generally, GWPs were obtained from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) and Fifth Assessment Report (AR5), with the addition of GWPs from the IPCC’s Fifth Assessment Report for fluorinated GHGs that did not have GWPs in the AR4 and AR5.

³ United States Environmental Protection Agency, *Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2021*, 2023, <https://www.epa.gov/system/files/documents/2023-04/US-GHG-Inventory-2023-Main-Text.pdf>, accessed July 18, 2024.

⁴ Ibid.



Nitrous Oxide (N_2O). Nitrous oxide is produced by both natural and human related sources. Primary human related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 273.

Hydrofluorocarbons (HFCs). Typically used as refrigerants for both stationary refrigeration and mobile air conditioning, use of HFCs for cooling and foam blowing is increasing, as the continued phase out of chlorofluorocarbons (CFCs) and HCFCs gains momentum. The 100-year GWP of HFCs range from 4.84 for HFC-161 to 14,600 for HFC-23.

Perfluorocarbons (PFCs). PFCs are compounds consisting of carbon and fluorine and are primarily created as a byproduct of aluminum production and semiconductor manufacturing. PFCs are potent GHGs with a GWP several thousand times that of CO_2 , depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years). The GWP of PFCs range from 7,380 to 12,400.

Sulfur hexafluoride (SF_6). SF_6 is a colorless, odorless, nontoxic, nonflammable gas. SF_6 is the most potent GHG that has been evaluated by the IPCC with a GWP of 25,200. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio compared to CO_2 (4 parts per trillion [ppt] in 1990 versus 365 ppm, respectively).

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric ozone (O_3) depletors; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

Hydrochlorofluorocarbons (HCFCs). HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year GWPs of HCFCs range from 56.4 for HCFC-122 to 2,300 for HCFC-142b.

1,1,1 trichloroethane. 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The GWP of methyl chloroform is 161 times that of CO_2 .

Chlorofluorocarbons (CFCs). CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the U.S. Environmental Protection Agency's (U.S. EPA) Final Rule (57 Federal Register [FR] 3374) for the phase out of O_3 depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs remain suspended in the atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with 100-year GWPs ranging from 3,550 for CFC-11 to 16,200 for CFC-13.

5.4.2 REGULATORY SETTING

FEDERAL LEVEL

To date, no national standards have been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions



reduction at the project level. Various efforts have been promulgated at the Federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding

The U.S. EPA's authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and the U.S. EPA's assessment of the scientific evidence that form the basis for the U.S. EPA's regulatory actions.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, the George W. Bush Administration issued Executive Order 13432 in 2007 directing the U.S. EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the U.S. EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Barack Obama issued a memorandum directing the Department of Transportation, Department of Energy, U.S. EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the U.S. EPA and NHTSA proposed stringent, coordinated Federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO₂ in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final



rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking. On January 12, 2017, the U.S. EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the U.S. EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO₂ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the U.S. EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines.

In August 2016, the U.S. EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO₂ emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

On September 27, 2019, the U.S. EPA and the NHTSA published the “Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program.” (84 Fed. Reg. 51,310 (Sept. 27, 2019).) The SAFE Rule (Part One) revoked California’s authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the U.S. EPA and NHTSA finalized rulemaking for SAFE Part Two sets CO₂ emissions standards and corporate average fuel economy (CAFE) standards for passenger vehicles and light duty trucks, covering model years 2021–2026. The current U.S. EPA administration repealed SAFE Rule Part One, effective January 28, 2022, and is reconsidering Part Two.

In December 2021, the U.S. EPA finalized federal GHG emissions standards for passenger cars and light trucks for Model Years 2023 through 2026. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and are based on sound science and grounded in a rigorous assessment of current and future technologies. The updated standards will result in avoiding more than three billion tons of GHG emissions through 2050.

Presidential Executive Order 13990 and 14008

On January 20, 2021, President Biden issued Executive Order 13990, "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis". Executive Order 13990 directs Federal agencies to immediately review and take action to address the promulgation of Federal regulations and other actions that conflict with these important national objectives and to immediately commence work to confront the climate crisis. Executive Order 13990 directs the Council on Environmental Quality (CEQ) to review CEQ’s 2020 regulations implementing the procedural requirements of the National Environmental Policy Act (NEPA) and identify necessary changes or actions to meet the objectives of Executive Order 13990.

Executive Order 13390 also directs the U.S. EPA to consider whether to propose suspending, revising, or rescinding the standards previously revised under the “The Safer Affordable Fuel-Efficient (SAFE)



Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks,” promulgated in April 2020.

On January 27, 2021, President Biden signed Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," to declare the Administration’s policy to move quickly to build resilience, both at home and abroad, against the impacts of climate change that are already manifest and will continue to intensify according to current trajectories. In line with these Executive Order directives, CEQ is reviewing the 2020 NEPA regulations and plans to publish a notice of proposed rulemaking (NPRM) to identify necessary revisions in order to comply with the law; meet the environmental, climate change, and environmental justice objectives of Executive Orders 13990 and 14008; ensure full and fair public involvement in the NEPA process; provide regulatory certainty to stakeholders; and promote better decision making consistent with NEPA’s statutory requirements. This phase 1 rulemaking will propose a narrow set of changes to the 2020 NEPA regulations to address these goals.

STATE LEVEL

State Executive Orders

Executive Order S-1-07. Issued on January 18, 2007, Executive Order S-01-07 mandates that a Statewide goal shall be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the “life-cycle carbon intensity” of transportation fuels. CARB adopted the LCFS on April 23, 2009.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-13-08. Issued on November 14, 2008, Executive Order S-13-08 facilitated the California Natural Resources Agency development of the 2009 California Climate Adaptation Strategy. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order S-14-08. Issued on November 17, 2008, Executive Order S-14-08 expands the State’s Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21- 09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the Renewable



Electricity Standard on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order B-30-15. Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of CO₂e (MMTCO₂e). The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The executive order also requires the State's climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

Executive Order B-55-18. Issued on September 10, 2018, Executive Order B-55-18 establishes a goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing Statewide targets of reducing GHG emissions. The executive order requires CARB to work with relevant State agencies to develop a framework for implementing this goal. It also requires CARB to update the Scoping Plan to identify and recommend measures to achieve carbon neutrality. The executive order also requires State agencies to develop sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

Executive Order N-79-20. Signed in September 2020, Executive Order N-79-20 establishes as a goal that where feasible, all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035. The executive order sets a similar goal requiring that all medium and heavy-duty vehicles will be zero-emission by 2045 where feasible. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy- duty fleets where feasible, drayage trucks, and off-road vehicles and equipment "requiring increasing volumes" of new zero emission vehicles (ZEVs) "towards the target of 100 percent." The executive order directs the California Environmental Protection Agency, the California Geologic Energy Management Division (CalGEM), and the California Natural Resources Agency to transition and repurpose oil production facilities with a goal toward meeting carbon neutrality by 2045. Executive Order N-79-20 builds upon the CARB Advanced Clean Trucks regulation, which was adopted by CARB in July 2020.

Senate Bill 100 (SB 100)

SB 100 (Chapter 312, Statutes of 2018) requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours (kWh) of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, 60 percent by December 31, 2030, and 100 percent by December 31, 2045. The bill requires the California Public Utilities Commission (CPUC), CEC, State board, and all other State agencies to incorporate that policy into all relevant planning. In addition, SB 100 requires the CPUC, CEC, and State board to utilize programs authorized under existing statutes to achieve that policy and, as part of a public process, issue a joint report to the Legislature by January 1, 2021, and every four years thereafter, that includes specified information relating to the implementation of the policy.



Assembly Bill 1493

AB 1493 (also known as the Pavley Bill) requires that CARB develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of GHG emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State.” To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California’s existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 and adoption of 13 CCR Section 1961.1 require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty weight classes for passenger vehicles (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily to transport people), beginning with the 2009 model year. Emissions limits are reduced further in each model year through 2016. The near-term standards were intended to achieve a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term standards were intended to achieve a reduction of about 30 percent.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

California passed the California Global Warming Solutions Act of 2006 (AB 32; *California Health and Safety Code* Division 25.5, Sections 38500-38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Senate Bill 32 (SB 32)

Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

California Building Energy Efficiency Standards (Title 24)

The 2022 California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6), commonly referred to as “Title 24/2022 Energy Code,” became effective on January 1, 2023. In general, Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2022 Title 24 standards encourage efficient electric heat pumps, establish electric-ready requirements for new homes, expand solar photovoltaic and battery storage standards, strengthen ventilation standards, and more.



California Green Building Standards (CALGreen)

The 2022 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as CALGreen, went into effect on January 1, 2023. CALGreen is the first-in-the-nation mandatory green buildings standards code. The California Building Standards Commission developed CALGreen to meet the State's landmark initiative AB 32 goals, which established a comprehensive program of cost-effective reductions of GHG emissions to 1990 levels by 2020. CALGreen was developed to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, and healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the environmental directives of the administration. CALGreen requires that new buildings employ water efficiency and conservation, increase building system efficiencies (e.g., lighting, heating/ventilation and air conditioning [HVAC], and plumbing fixtures), divert construction waste from landfills, and incorporate electric vehicles charging infrastructure.

CARB Scoping Plan

Adopted December 15, 2022, CARB's *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen. The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (i.e., Climate Action Plan) consistent with CEQA Guidelines Section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

Included in the 2022 Scoping Plan is a set of Local Actions (2022 Scoping Plan Appendix D) aimed at providing local jurisdictions with tools to reduce GHGs and assist the State in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects. CARB specifically states that Appendix D



does not address other land uses (e.g., industrial). However, CARB plans to explore new approaches for other land use types in the future.⁵

Although Appendix D does not apply to the project, the 2022 Scoping Plan includes measures that are applicable to all types of land uses. Therefore, project consistency with the 2022 Scoping Plan is included in the analysis below.

Senate Bill 375

Acknowledging the relationship between land use planning and transportation sector GHG emissions, SB 375 was passed by the State Assembly on August 25, 2008, and signed by the Governor on September 30, 2008. The legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32. Reductions in GHG emissions can be achieved by, for example, locating employment opportunities close to transit. Under SB 375, each Metropolitan Planning Organization (MPO) is required to adopt a Sustainable Communities Strategy (SCS) to encourage compact development that reduces passenger vehicle miles traveled (VMT) and trips so the region can meet a target, created by CARB, for reducing GHG emissions. If the SCS is unable to achieve the regional GHG emissions reduction targets, then the MPO is required to prepare an alternative planning strategy that shows how the GHG emissions reduction target can be achieved through alternative development patterns, infrastructure, and/or transportation measures.

CARB Advanced Clean Truck Regulation

CARB adopted the Advanced Clean Truck Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. This rule directly addresses disproportionate risks and health and pollution burdens and puts California on the path for an all zero-emission short-haul drayage fleet in ports and railyards by 2035, and zero-emission “last-mile” delivery trucks and vans by 2040. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. The regulation has two components including a manufacturer sales requirement, and a reporting requirement:

- **Zero-Emission Truck Sales:** Manufacturers who certify Class 2b through 8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales.
- **Company and Fleet Reporting:** Large employers including retailers, manufacturers, brokers, and others would be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, would be required to report about their existing fleet operations. This information would help identify future strategies to ensure that fleets

⁵ California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality, Appendix D: Local Actions*, Page 21, November 2022.



purchase available zero-emission trucks and place them in service where suitable to meet their needs.

REGIONAL LEVEL

South Coast Air Quality Management District Thresholds

The South Coast Air Quality Management District (SCAQMD) formed a GHG California Environmental Quality Act (CEQA) Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. This Working Group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and included a wide variety of stakeholders including the State Office of Planning and Research (OPR), CARB, the Attorney General's Office, a variety of city and county planning departments in the South Coast Air Basin (SCAB), various utilities such as sanitation and power companies throughout the SCAB, industry groups, and environmental and professional organizations. On December 5, 2008, the SCAQMD Governing Board adopted a 10,000 metric tons of carbon dioxide equivalent (MTCO_{2e}) industrial threshold for projects where the SCAQMD is the lead agency. However, the SCAQMD has not announced when a GHG threshold for land use projects will be presented to the governing board where the SCAQMD is not the lead agency. The Working Group proposed a 3,000 MTCO_{2e} threshold for non-industrial projects, but that threshold has not been formally adopted. During Working Group Meeting #7, it was explained that this threshold was derived using a 90 percent capture rate of a large sampling of industrial facilities. During Meeting #8, the Working Group defined industrial uses as production, manufacturing, and fabrication activities or storage and distribution (e.g., warehouse, transfer facility, etc.). The Working Group indicated that the threshold applies to both emissions from construction and operational phases plus indirect emissions (electricity, water use, etc.). The SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

SCAG Regional Transportation Plan/Sustainable Communities Strategy On September 3, 2020, the Regional Council of Southern California Association of Governments (SCAG) formally adopted *The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments – Connect SoCal* (2020-2045 RTP/SCS). The SCS portion of the 2020-2045 RTP/SCS highlights strategies for the region to reach the regional target of reducing GHGs from autos and light-duty trucks by 8 percent per capita by 2020, and 19 percent by 2035 (compared to 2005 levels). Specially, these strategies are:

- Focus growth near destinations and mobility options;
- Promote diverse housing choices;
- Leverage technology innovations;
- Support implementation of sustainability policies; and
- Promote a green region.

Furthermore, the 2020-2045 RTP/SCS discusses a variety of land use tools to help achieve the State-mandated reductions in GHG emissions through reduced per capita VMT. Some of these tools



include center focused placemaking, focusing on priority growth areas, job centers, transit priority areas, as well as high quality transit areas and green regions.

The most recent 2024-2050 RTP/SCS was adopted by SCAG's Regional Council in April 2024. The 2024-2050 RTP/SCS outlines a vision for a more resilient and equitable future, with investment, policies, and strategies for achieving the region's shared goals through 2050. The 2024-2050 RTP/SCS sets forth a forecasted regional development pattern which, when integrated with the transportation network, measures, and policies, will reduce GHG emissions from automobiles and light-duty trucks and achieve the GHG emissions reduction target for the region set by the CARB. In addition, the 2024-2050 RTP/SCS is supported by a combination of transportation and land use strategies that outline how the region can achieve California's GHG-emission-reduction goals and federal Clean Air Act requirements. These are articulated in a set of Regional Strategic Investments, Regional Planning Policies, and Implementation Strategies. The Regional Planning Policies are a resource for County Transportation Commissions (CTCs) and local jurisdictions, who can refer to specific policies to demonstrate alignment with the 2024-2050 RTP/SCS when seeking resources from State or federal programs. The Implementation Strategies articulate priorities for SCAG efforts in fulfilling or going beyond the Regional Planning Policies.⁶ While SCAG has adopted the 2024-2050 RTP/SCS, CARB has not yet certified it or approved SCAG's GHG emissions reduction calculations.

LOCAL LEVEL

City of Long Beach General Plan

The Air Quality Element of the General Plan was adopted in 1996 and sets forth the goals, objectives, and policies that guide the City in the implementation of its air quality improvement programs and strategies. While the Air Quality Element does not specifically address climate change, reductions in other pollutants typically lead to a reduction in GHG emissions. This Element acknowledges the interrelationships among transportation and land use planning in meeting the City's goals. The following goals and policies are applicable to the project.

Goal 7: Reduce emissions through reduced energy consumption.

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

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

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

City of Long Beach Sustainable City Action Plan

Per CEQA Guidelines Section 15183.5, the City adopted the Sustainable City Action Plan on February 2, 2010. The Sustainable City Action Plan is intended to guide operational, policy and

⁶ Southern California Association of Governments, *Connect SoCal: A Plan for Navigating to a Brighter Future (2024-2050 Regional Transportation Plan/ Sustainable Communities Strategy)*, April 4, 2024.



financial decisions to create a more sustainable City. The Sustainable City Action Plan includes initiatives, goals and actions that will move the City toward becoming more sustainable. The Sustainable City Action Plan includes chapters related to buildings and neighborhoods, energy, green economy and lifestyle, transportation, urban nature, waste reduction, and water. Implementation of this plan would contribute to a reduction in the City's overall GHG emissions.

City of Long Beach Climate Action Plan

The Long Beach Climate Action Plan (LB CAP) was approved by the City Council on August 16, 2022. Pursuant to California SB 379, all California cities and counties are required to include climate adaptation and resiliency strategies in their general plans to ensure safety and protection of their community in the future. The LB CAP provides a framework for creating or updating policies, programs, practices, and incentives for Long Beach residents and businesses to reduce the City's GHG footprint and ensure the community and physical assets are better protected from the impacts of climate change. The climate action/mitigation element of the LB CAP will include the following steps:

- A GHG inventory of emissions from various sectors in the Long Beach community, such as building energy, transportation, solid waste, and wastewater.
- A forecast of projected emissions based on anticipated city growth.
- Development of GHG reduction targets based on the latest climate science, and local, regional, State, and federal context and requirements.
- Analysis of existing sustainability and climate mitigation efforts.
- Development of additional GHG mitigation strategies to reduce future emissions from key sectors.
- Development of a framework for implementing mitigation strategies.
- A plan to monitor the performance of the mitigation strategies using performance metrics to track GHG reduction targets.

City of Long Beach Municipal Code

Section 21.45.400 of the LBMC further regulates public and private development to include various standards that promote green buildings. A green building, also known as a sustainable building, is a structure that is designed, built, renovated, operated, or reused in an ecological and resource-efficient manner. Green buildings are designed to meet certain objectives such as protecting occupant health; improving employee productivity; using energy, water and other resources more efficiently; and reducing the overall impact on the environment. The City of Long Beach recognizes the benefit of green buildings and establishes a green building program.

City of Long Beach Green Building Ordinance

On May 12, 2009, the Long Beach City Council approved Ordinance No. ORD- 09-0013 (Subsection 21.45.400—Green Building Standards for Public and Private Development). The following types of projects shall meet the intent of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) program at the Certified level:



- A new residential or mixed-use building of 50 dwelling units and 50,000 gross square feet or more.
- A new mixed use, or non-residential building of 50,000 square feet or more of gross floor area;
- The alteration of an existing residential or mixed-use building that results in the addition of 50 dwelling units and 50,000 gross square feet or more;
- The alteration of an existing mixed use, or non-residential building that results in the expansion of 50,000 gross square feet or more; and
- A new construction or substantial rehabilitation project for which the City provides any portion of funding.

5.4.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

CEQA SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form that was used during the preparation of the Initial Study, which is contained in [Appendix 11.1, *Notice of Preparation/Initial Study*](#), of this EIR. The issues presented in the Environmental Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant adverse environmental impact if it would:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (refer to Impact Statement GHG-1); and
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (refer to Impact Statement GHG-2).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a “less than significant impact” or “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

CEQA Guidelines Section 15064.4 recommends that lead agencies quantify GHG emissions of projects and consider several other factors that may be used in the determination of significance of GHG emissions from a project, including the extent to which the project may increase or reduce GHG emissions; whether a project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHG emissions.

However, CEQA Guidelines Section 15064.4 does not establish a threshold of significance. CEQA Guidelines Section 15064.6 provides lead agencies the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other public agencies or suggested by other experts, if any threshold chosen is supported by substantial evidence. The City of Long Beach has adopted a climate action plan (LB CAP). The LB CAP was adopted on August 16, 2022, and is a



comprehensive planning document outlining the City's proposed approach both to address climate impacts on Long Beach and to reduce Long Beach's impact on the climate by reducing GHG emissions. The City's CAP meets the requirements of State CEQA Guidelines, Section 15183.5; therefore, the proposed project will be evaluated for consistency with the City's CAP. Development projects that can demonstrate consistency with the *Climate Action + Adaptation Plan Consistency Review Checklist* (CAP Checklist) would have less than significant impacts regarding GHG emissions.

METHODOLOGY

The project's construction and operational emissions were calculated using the California Emissions Estimator Model version 2022.1 (CalEEMod). Details of the modeling assumptions and emission factors are provided in [Appendix 11.6](#). For construction, CalEEMod calculates emissions from off-road equipment usage and on-road vehicle travel associated with haul, delivery, and construction worker trips. GHG emissions during construction were forecasted based on the proposed construction schedule and applying the mobile-source and fugitive dust emissions factors derived from CalEEMod. The project's construction-related GHG emissions would be generated from off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles.

The project's operational-related GHG emissions would be generated by vehicular traffic, area sources (e.g., landscaping maintenance, consumer products), electrical generation, natural gas consumption, water supply and wastewater treatment, and solid waste. Project-generated vehicle emissions are based on trip generation within the *First-Citizens Bank – Long Beach Project Draft Initial Study* (Initial Study), prepared by Kimley-Horn and Associates, Inc., dated July 2024, provided as [Appendix 11.1](#). The number of trips generated by the proposed project was approximated using the Institute of Transportation Engineers (ITE) land use code 710 (General Office Building) and ITE land use code 911 (Walk-In Bank). According to the Initial Study, the project would generate 293 total daily vehicle trips. The project-generated trips have been incorporated into CalEEMod as recommended by the SCAQMD.

5.4.4 IMPACTS AND MITIGATION MEASURES

GREENHOUSE GAS EMISSIONS

GHG-1 GREENHOUSE GAS EMISSIONS GENERATED BY THE PROJECT COULD HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT.

Impact Analysis:

SHORT-TERM CONSTRUCTION GREENHOUSE GAS EMISSIONS

Project construction would result in direct emissions of CO₂, N₂O, and CH₄ from construction equipment, the transport of materials, and construction worker travel to and from the project site. Once construction is complete, the generation of construction-related GHG emissions would cease. Construction GHG emissions are typically summed and amortized over the lifetime of the proposed project (assumed to be 30 years), then added to the operational emissions.

Total GHG emissions generated during all phases of construction for the proposed project were combined and are presented in [Table 5.4-1, *Construction-Related Greenhouse Gas Emissions*](#). The exact



construction timeline is unknown; however, to be conservative, earlier dates were utilized in the modeling. This approach is conservative given that emissions factors decrease in future years due to regulatory and technological improvements and fleet turnover. Refer to [Appendix 11.6](#) for additional information regarding the construction assumptions used in this analysis.

Table 5.4-1
Construction-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (MTCO ₂ e)
Year 1 Construction Emissions (2024)	29.0
Year 2 Construction Emissions (2025)	167.0
30-Year Amortized Construction	7.0
Notes: metric tons of carbon dioxide equivalent (MTCO ₂ e)	
Source: Appendix 11.6, Greenhouse Gas Emissions Assessment/LB CAP Checklist .	

It should be noted that these estimates represent gross emissions for the project. CalEEMod outputs are contained within [Appendix 11.6](#). As shown in [Table 5.4-1](#), the project would result in the generation of approximately 196 MTCO₂e over the course of construction. The amortized project construction emissions would be 7.0 MTCO₂e per year. Once construction is complete, the generation of these GHG emissions would cease.

LONG-TERM OPERATIONAL GREENHOUSE GAS EMISSIONS

Operational (long-term emissions) would occur over the proposed project's life. The proposed project would result from direct emissions such as vehicular traffic, operation of any landscaping equipment, and any fugitive refrigerants from HVAC equipment. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power, the energy required to convey water and wastewater, and emissions associated with solid waste. Total GHG emissions associated with the project are summarized in [Table 5.4-2, Project Greenhouse Gas Emissions](#) for informational purposes only.

Table 5.4-2
Project Greenhouse Gas Emissions

Emissions Source	Greenhouse Gas Emissions (MTCO ₂ e per Year)
Proposed Emissions	
Construction Amortized over 30 Years	7.0
Area Source	0.26
Energy	53.0
Generator	20.0
Mobile	235.0
Waste	4.0
Water & Wastewater	0.01
Total Emissions²	319.0
SCAQMD Project Threshold	3,000
Threshold Exceeded?	No
Source: Appendix 11.6, Greenhouse Gas Emission Assessment/LB CAP Checklist .	



As shown in Table 5.4-2, the project would generate approximately 319 MTCO₂e annually from both construction and operations and would not exceed the SCAQMD's proposed GHG threshold of 3,000 MTCO₂e per year. Approximately 88 percent of the proposed project's emissions are from energy and mobile sources which would be further reduced by implementation of Statewide programs and measures, including the reduction in the carbon content of fuels, CARB's advanced clean car program, CARB's mobile source strategy, fuel efficiency standards, cleaner technology, and fleet turnover. Additionally, SCAG's 2020-2045 RTP/SCS is also expected to help California reach its GHG reduction goals, with reductions in per capita transportation emissions of 19 percent by 2035. Accordingly, the proposed project would not interfere with the State's efforts to reduce GHG emissions in 2030.

Project operations would benefit from the implementation of current and potential future energy regulations including the SB 100 renewable electricity portfolio target of 60 percent renewable clean energy by 2045. It should be noted that the proposed project would comply with the 2022 Title 24 Part 6 Building Energy Efficiency Standards (2022 Energy Code). Among other updates, the 2022 Energy Code includes updated standards including new electric heat pump requirements for offices and banks; and the expansion of solar panels and battery storage standards to additional land uses including offices. Projects whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code. Title 24 is part of the State's plans and regulations for reducing emissions of GHGs to meet and exceed AB 32 and SB 32 energy reduction goals. Therefore, the proposed project would have a less than significant impact related to GHG emissions.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

GHG-2 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CONFLICT WITH AN APPLICABLE GREENHOUSE GAS REDUCTION PLAN, POLICY, OR REGULATION.

Impact Analysis: The project's GHG plan consistency analysis is based on the project's consistency with the LB CAP, 2022 Energy Code, CALGreen, 2022 Scoping Plan and 2020-2045 RTP/SCS. The 2020-2045 RTP/SCS is a regional growth-management strategy that targets per-capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California region. The 2020-2045 RTP/SCS incorporates local land use projections and circulation networks in city and county general plans. The 2022 Scoping Plan contains the GHG reductions, technology, and clean energy mandated by statutes. The LB CAP contains energy efficient goals and policies that would help implement energy efficient measures and would subsequently reduce energy consumption and GHG emissions within the City.

CONSISTENCY WITH THE CITY OF LONG BEACH CLIMATE ACTION PLAN

The LB CAP was adopted in August 2022 to use as a guide towards meeting long term GHG emissions reduction goals and creating a community that is more resilient to the effects of climate change. The LB CAP outlines a range of actions the City will take to reduce GHG emissions and adapt to the effects of climate change. These actions are organized by themes, economic sectors, and types of



climate stressors, including Extreme Heat, Air Quality, Drought, Sea Level Rise + Flooding, Building + Energy, Transportation, and Waste Management.

To address project-level consistency with the LB CAP under CEQA, the City has prepared a five-step *Climate Action + Adaptation Plan Consistency Review Checklist* (CAP Checklist) (provided in [Appendix 11.6](#)) to streamline the environmental review process. The CAP Checklist procedure requires that projects demonstrate consistency with the General Plan (Step 1), determine if projects screen out of the CAP Action consistency (Step 2), demonstrate consistency with the CAP GHG Emission Reduction Actions (Step 3), identify alternative project emission reduction measures and additional GHG reductions (Step 4), and demonstrate consistency with the CAP Adaptation Actions (Step 5). All projects must complete Steps 1, 2, 3, and 5.

Step 1 of the CAP Checklist consistency evaluation is related to whether the proposed project is consistent with the General Plan Land Use Element and the underlying assumptions related to population growth. The proposed project consists of an approximately 12,469-square foot office/bank building. Implementation of the proposed project would not require a change in land use designation or zoning and would be consistent with the existing land use designation and zoning of the project site. The proposed project does not include new housing that would result in population growth. Once operational, the proposed building would employ approximately 24 people and would serve varying numbers of bank customers. Based on project plans, the building would have a maximum capacity of approximately 60 to 80 people at one time. It is assumed that these people would be drawn in from the surrounding community. Both the proposed building and the number of employees and visitors it would support would be consistent with the CAP's forecasts. The proposed project would be unlikely to produce new population growth, and it would be consistent with the Land Use Element of the General Plan. Based on this conclusion, the analysis proceeds to the CAP Action consistency review (Step 2) of the CAP Checklist.

Step 2 of the CAP Checklist provides CAP Action Screening Criteria that allows certain projects to screen out of further CAP Checklist consistency review. This includes local-serving retail less than 50,000-square foot. The proposed project would develop a 12,469-square foot office/bank building, less than the 50,000-square foot threshold. Based on this conclusion, the analysis proceeds to demonstrate consistency with the CAP GHG Emissions Reduction Actions (Step 3).

Step 3 of the CAP Checklist requires consistency with GHG Emission Reduction Actions. Only Checklist Items 1, 3, 5, 6, 7, 8, and 15 are applicable to the proposed project. Checklist Item 1 requires projects to utilize 100 percent zero-carbon electricity onsite by: 1) installing on-site renewable energy systems or participating in a community solar program to supply 100 percent of the project's estimated energy demand to the maximum extent feasible; 2) Participating in Southern California Edison (SCE) at the Green Rate level (i.e., 100 percent carbon-free electricity) for all electricity accounts associated with the project until which time SCE provides 100 percent carbon-free electricity for all accounts by default; or 3) a combination of #1 and #2. The proposed project includes installation of a rooftop solar array that would produce some of the electricity utilized on-site; however, the SCE Green Rate program, which is primarily intended for residential customers, has exceeded the amount of capacity available from Green Rate resources and is currently waitlisting new customers. Accordingly, it is currently not feasible to meet the requirements of Checklist Item 1 and it is not applicable to the proposed project.



Checklist Item 3 requires projects to comply with applicable City building energy codes and ordinances. The proposed project would comply with all applicable City building energy codes and ordinances; therefore, the proposed project would be consistent with Checklist Item 3. Checklist Items 5, 6, and 7 require compliance with all State and local requirements for recycling, composting and organic waste collection, and incorporation of organic waste processing capabilities. The proposed project would comply with LBMC Chapter 8.60, *Solid Waste, Recycling, and Litter Prevention and Organic Waste Disposal Reduction*, as well as all other applicable municipal code requirements and would therefore be consistent with Checklist Items 5 and 6. Checklist Item 7 is a voluntary measure, and the proposed project may incorporate some of these capabilities as is feasible for the type of project being developed. Checklist Item 8 provides transportation criteria, that screens out projects with local-serving retail less than 50,000 square feet. As the proposed project falls within this category, it can skip Checklist Items 9 through 14. Checklist Item 15 encourages projects to maximize high density, mixed use, transit-oriented and walkable infill project design. Some of the characteristics identified in Checklist Item 15 that are applicable to the proposed project include local-serving retail and shared and reduced parking strategies, such as EV-only spaces. The project provides an infill retail use in a smaller building and would include EV-only parking spaces with EV charging capacity. Therefore, the proposed project is consistent with the policies of the LB CAP and impacts would be less than significant.

CONSISTENCY WITH THE 2022 ENERGY CODE

The 2022 Energy Code was adopted on August 11, 2021, and approved for inclusion into the California Building Standards Code in December 2021. The 2022 Energy Code focused on energy use in buildings and encourages use of efficient electric heat pumps, establishment of electric-ready requirements for new homes, expansion of solar photovoltaic and battery storage standards, and strengthened ventilation standards. A requirement of the 2022 Energy Code is that new buildings with permit applications applied for on or after January 1, 2023, must comply with the requirements of the 2022 Energy Code. As the proposed project would begin construction after January 2023, it would be obligated to comply with the requirements of the 2022 Energy Code. Accordingly, the proposed project would not conflict with the requirements of the 2022 Energy Code and impacts in this regard would be less than significant.

CONSISTENCY WITH CALGREEN

CALGreen is the State of California's mandatory green building standards code. CALGreen requires new commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. The proposed project would be obligated to incorporate all applicable mandatory measures required by CALGreen. Accordingly, the proposed project would not conflict with the requirements of the CALGreen and any impact would be less than significant.

CONSISTENCY WITH THE CARB SCOPING PLAN

The 2022 Scoping Plan sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279, the California Climate Crisis Act. Currently, the transportation, electricity, and industrial sectors are the largest GHG contributors in the State. The 2022 Scoping Plan plans to achieve the targets established by AB 1279



primarily through zero-emission transportation (e.g., electrifying cars, buses, trains, and trucks and decarbonizing the electricity and industrial sectors.

As discussed above, approximately 90 percent of the project's GHG emissions are from energy and mobile sources which would be further reduced by the 2022 Scoping Plan measures directed towards zero-emission transportation. It should be noted that the City has no control over vehicle emissions (approximately 90 percent of the proposed project's total emissions). However, these emissions would decline in the future due to Statewide measures encouraging reductions in GHGs, as well as the introduction of cleaner technology and fleet turnover. Further, the proposed project would not obstruct or interfere with efforts to increase ZEVs or State efforts to improve system efficiency. Compliance with applicable State standards would ensure consistency with State and regional GHG reduction planning efforts, including the 2022 Scoping Plan. Therefore, the proposed project would result in a less than significant impact related to consistency with the 2022 Scoping Plan.

CONSISTENCY WITH THE 2020-2045 RTP/SCS

On September 3, 2020, SCAG's Regional Council adopted 2020-2045 RTP/SCS. The 2020-2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The 2020-2045 RTP/SCS embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders in the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. SCAG's 2020-2045 RTP/SCS establishes GHG emissions goals for automobiles and light-duty trucks for 2020 and 2035 as well as an overall GHG target for the project region consistent with both the target date of AB 32 and the post-2020 GHG reduction goals of Executive Orders 5-03-05 and B-30-15, described above. As mentioned above, the latest 2024-2050 RTP/SCS was adopted on April 4, 2024. However, CARB concluded that the technical methodology SCAG used to quantify the GHG emission reductions for the 2024-2050 RTP/SCS does not operate accurately.⁷ SCAG resubmitted the Sustainable Communities Strategy (SCS) Submittal Package for CARB's review in June 2024. Review by CARB is limited to acceptance or rejection of SCAG's determination that its SCS would, if implemented, achieve the region's GHG emission reduction target. If CARB rejects SCAG's determination of meeting the GHG emission target, SCAG will need to revise the SCS or adopt an alternative planning strategy demonstrating the ability to achieve the target. As such, until CARB makes the decision, the 2024-2050 RTP/SCS is not a fully adopted document and is potentially subject to further updates, especially from the GHG reduction perspective of the methods and assumptions of the calculation of Auto Operating Costs (AOC)⁸, induced travel, electric vehicle incentives, job center parking and parking deregulation, off-model strategy assumptions, and

⁷ California Air Resources Board, RE: *CARB Review of Southern California Association of Governments' 2024 SCS Senate Bill 375 Greenhouse Gas Emissions Draft Technical Methodology*, March 29, 2024, <https://ww2.arb.ca.gov/sites/default/files/2024-04/SCAG%20memo%20final.pdf>, accessed July 31, 2024.

⁸ AOC is used as key variable across several major model components of the travel demand model, such as vehicle ownership, destination choice, and mode choice. This parameter represents the expenses associated with the usage of vehicles, expressed in cents per mile or dollar per mile. AOC plays a pivotal role as a fundamental parameter within the travel demand model.



emissions factors. As CARB has not made the decision at the time of preparation of this document, the consistency analysis relies upon the 2020-2045 RTP/SCS.

The 2020-2045 RTP/SCS contains over 4,000 transportation projects, ranging from highway improvements, railroad grade separations, bicycle lanes, new transit hubs and replacement bridges. These future investments were included in county plans developed by the six county transportation commissions and seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices for everyone. The 2020-2045 RTP/SCS is an important planning document for the region, allowing project sponsors to qualify for federal funding. The plan accounts for operations and maintenance costs to ensure reliability, longevity, and cost effectiveness. The 2020-2045 RTP/SCS is also supported by a combination of transportation and land use strategies that help the region achieve State GHG emissions reduction goals and Federal Clean Air Act (FCAA) requirements, preserve open space areas, improve public health and roadway safety, support our vital goods movement industry, and utilize resources more efficiently. GHG emissions resulting from development-related mobile sources are the most potent source of emissions, and therefore project comparison to the 2020-2045 RTP/SCS is an appropriate indicator of whether the project would inhibit the post-2020 GHG reduction goals promulgated by the State. The project's consistency with the 2020-2045 RTP/SCS goals is analyzed in detail in Table 5.4-3, Consistency with the 2020-2045 RTP/SCS.

Table 5.4-3
Consistency with the 2020-2045 RTP/SCS

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
Focus Growth Near Destinations and Mobility Options		
• Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations • Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets • Plan for growth near transit investments and support implementation of first/last mile strategies • Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses • Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods • Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations)	Center Focused Placemaking, Priority Growth Areas (PGA), Job Centers, High Quality Transit Areas (HQTAs), Transit Priority Areas (TPA), Neighborhood Mobility Areas (NMAs), Livable Corridors, Spheres of Influence (SOIs), Green Region, Urban Greening.	Consistent. Transit Priority Areas (TPAs) are defined in the 0.5-mile radius around an existing or planned major transit stop or an existing stop along a High-Quality Transit Corridor (HQTC). A HQTC is defined as a corridor with fixed route bus service frequency of 15 minutes (or less) during peak commute hours. Based on <i>Figure 4, Long Beach Transit Priority Areas</i> map, the project site is located within half a mile from HQTC. Therefore, the project would focus growth near destinations and mobility options.



Table 5.4-3 [cont'd]
Consistency with the 2020-2045 RTP/SCS

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
Identify ways to “right size” parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking)		
Promote Diverse Housing Choices		
- Preserve and rehabilitate affordable housing and prevent displacement - Identify funding opportunities for new workforce and affordable housing development - Create incentives and reduce regulatory barriers for building context sensitive accessory dwelling units to increase housing supply - Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions	PGA, Job Centers, HQTAs, NMA, TPAs, Livable Corridors, Green Region, Urban Greening.	Not Applicable. The proposed project does not include a housing development. Therefore, this strategy is not applicable to the project.
Promote a Green Region		
- Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards - Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration - Integrate local food production into the regional landscape - Promote more resource efficient development focused on conservation, recycling and reclamation - Preserve, enhance and restore regional wildlife connectivity - Reduce consumption of resource areas, including agricultural land - Identify ways to improve access to public park space	Green Region, Urban Greening, Greenbelts and Community Separators.	Consistent. The proposed project consists of an office/bank use in an urbanized area and would therefore not interfere with regional wildlife connectivity or consumption of agricultural land. In addition, the project would be required to comply with 2022 Title 24 standards and CALGreen Code, which would help reduce energy consumption and reduce GHG emissions. Thus, the project would support efficient development that reduces energy consumption and GHG emissions. The project would be consistent with this strategy.
Leverage Technology Innovations		
Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes,	HQTA, TPAs, NMA, Livable Corridors.	Consistent. The project would be required to comply with all applicable Title 24 and CALGreen building codes at the time of construction, such as EV charging stations, bike parking and storage. The project would



Table 5.4-3 [cont'd]
Consistency with the 2020-2045 RTP/SCS

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
charging and parking/drop-off space - Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a “mobility wallet,” an app-based system for storing transit and other multi-modal payments - Identify ways to incorporate “micro-power grids” in communities, for example solar energy, hydrogen fuel cell power storage and power generation		also include rooftop solar array. Project include local-serving retail and shared and reduced parking strategies, such as EV-only spaces. Therefore, the project would leverage technology innovations and help the City, County, and State meet its GHG reduction goals. The project would be consistent with this strategy.
Support Implementation of Sustainability Policies		
- Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions - Support Statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations - Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space - Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies - Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region - Continue to support long range planning efforts by local jurisdictions - Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy	Center Focused Place-making, Priority Growth Areas (PGA), Job Centers, High Quality Transit Areas (HQTAs), Transit Priority Areas (TPA), Neighborhood Mobility Areas (NMAs), Livable Corridors, Spheres of Influence (SOIs), Green Region, Urban Greening.	Consistent. This reduction strategy focuses on the collaboration between SCAG and local government to implement sustainability policies and is not applicable to individual development projects. Nevertheless, as previously discussed, the proposed project would promote alternative modes of transportation. Further, the project would comply with sustainable practices included in the Title 24 standards and CALGreen Code. Thus, the project would be consistent with this strategy.
Source: Southern California Association of Governments, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy – Connect SoCal, September 3, 2020.		



The goals stated in the 2020-2045 RTP/SCS were used to determine consistency with the planning efforts previously stated. As shown in [Table 5.4-3](#), the proposed project would be consistent with the stated goals of the 2020-2045 RTP/SCS. As such, the proposed project would not result in any significant impacts or interfere with SCAG's ability to achieve the region's post-2020 mobile source GHG reduction targets.

CONCLUSION

In summary, the project would not conflict with any applicable plan, policy, or regulation of an agency adopted for reducing the emissions of GHGs because the project would generate relatively low levels of GHGs, and would not impede implementation any applicable GHG reduction plan. Further, the plan consistency analysis provided above demonstrates that the proposed project complies with or exceeds the plans, policies, regulations and GHG reduction actions/strategies outlined in LB CAP, 2022 Energy Code, CALGreen, 2022 Scoping Plan, and 2020-2045 RTP/SCS. Therefore, the project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.4.5 CUMULATIVE IMPACTS

[Table 4-1, *Cumulative Projects List*](#), identifies the related projects and other possible development in the area determined as having the potential to interact with the proposed project to the extent that a significant cumulative effect may occur. The following discussions are included to determine whether a significant cumulative effect would occur.

● GREENHOUSE GAS EMISSIONS GENERATED BY THE PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD HAVE A SIGNIFICANT CUMULATIVE IMPACT ON THE ENVIRONMENT OR COULD CONFLICT WITH AN APPLICABLE GREENHOUSE GAS REDUCTION PLAN, POLICY, OR REGULATION.

Impact Analysis: It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of project-related GHG emissions would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As discussed above, the project would not conflict with the LB CAP, 2022 Energy Code, CALGreen, 2022 Scoping Plan, and 2020-2045 RTP/SCS. Therefore, the project's cumulative contribution of GHG emissions would be less than significant and the project's cumulative GHG impacts would also be less than cumulatively considerable.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.



5.4.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to GHG emissions would occur.



This page intentionally left blank.



5.5 Hazards and Hazardous Materials



5.5 HAZARDS AND HAZARDOUS MATERIALS

This section describes the potential for the proposed project to expose the public to hazards, hazardous materials, or risk of upset that may be related to existing conditions or new hazards created as a result of the project. Mitigation measures are recommended, as necessary, to minimize impacts as a result of project implementation. This section is primarily based upon the following technical studies; refer to [Appendix 11.7, *Hazardous Materials Documentation*](#).

- *Phase I Environmental Site Assessment, Commercial Property - Long Beach, CA, 3450 and 3470 Long Beach Boulevard, Long Beach, Los Angeles County, CA* (Phase I ESA), prepared by Terracon Consultants, Inc., dated August 23, 2022 and revised February 21, 2025;
- *Limited Site Investigation, Proposed First Citizen's Bank, 3450 and 3470 Long Beach Boulevard, Long Beach, Los Angeles County, California* (Phase II LSI), prepared by Terracon Consultants, Inc., dated September 27, 2022 and revised June 6, 2024; and
- *Limited Geophysical Survey Report, Commercial Property 3450 Long Beach Boulevard, Long Beach, California 90807* (Limited Geophysical Survey); prepared by Geo Forward, Inc., dated November 26, 2024.

For the purpose of this analysis, the term “hazardous material” refers to both hazardous substances and hazardous waste. A material is defined as “hazardous” if it appears on a list of hazardous materials prepared by a federal, tribal, State, or local regulatory agency, or if it possesses characteristics defined as “hazardous” by such an agency. A “hazardous waste” is a solid waste that exhibits toxic or hazardous characteristics (i.e., ignitability, corrosivity, reactivity, and/or toxicity).

5.5.1 EXISTING SETTING

EXISTING AND FORMER ON-SITE USES

Based on the Phase I ESA, the project site was undeveloped from at least 1896. By the late 1920s, the site was developed with two oil wells with above-ground storage tanks (ASTs) on the eastern and central portions of the site. These oil wells and ASTs were associated with oil production activities. By the late 1940s, the site was developed with one commercial building on the southwestern portion of the site. By the late 1950s, the site was labeled as “full of oil well derricks and tanks” in the historical Sanborn Maps. By the early 1960s, the commercial building on the southwestern portion of the site was demolished and three ASTs remained on the southern portion of the site. By the mid-1970s, the site was primarily used for vehicle or equipment storage. By the late 1980s, a small concrete pad was visible on the southeastern portion of the site, which was no longer visible by the early 1990s. By 2019, the former oil/gas well production activities appeared to have ceased and equipment including the ASTs were cleared, and the site consisted of a gravel-covered parking lot through the present.

The following describes specific development/operations at the project site that involved the handling, storage, use, and/or transport of hazardous materials.



Historic Oil Production Activities

As discussed above, the site was historically used for oil drilling. A Phase I Environmental Site Assessment, prepared by SCS Engineers and dated February 16, 2018, and a Phase II Limited Site Investigation (Phase II LSI), also prepared by SCS Engineers and dated March 5, 2018 (collectively referred to as 2018 Site Investigations), were previously prepared for the site. According to the 2018 Site Investigations, elevated concentrations of volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH) were detected in soil, and elevated concentrations of tetrachloroethene (PCE) and benzene above the applicable Environmental Screening Levels (ESLs) for residential and commercial land use were detected in soil vapor, possibly due to the historic oil production activities.

As such, the Phase II LSI was prepared to evaluate the subsurface conditions of the site. As part of the Phase II LSI, eight soil and eight soil vapor samples (16 total samples) were collected at eight locations across the site. According to the Phase II LSI, soil and soil vapor analytical results were compared to their respective San Francisco Bay Regional Water Quality Control Board (RWQCB) residential and commercial ESLs as well as the U.S. Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) for residential and industrial soils.¹

Soil analytical results indicated concentrations of VOCs, polycyclic aromatic hydrocarbons (PAHs), TPH as gasoline range organics (TPH-GRO), and TPH as motor oil range organics (TPH-MORO) were below screening limits. However, elevated concentrations of TPH as diesel range organics (TPH-DRO) were detected at 10,000 milligrams per kilogram (mg/kg), which is above the commercial ESL for TPH-DRO (1,200 mg/kg). Additionally, it should be noted that soil analytical results indicated metals below reporting limits except for arsenic, which was detected above the commercial non-cancer ESL but within natural background concentrations.

Soil vapor analytical results indicated elevated concentrations of VOCs above their respective ESLs in one or more samples. These VOCs include vinyl chloride, benzene, PCE, and trichloroethylene (TCE). Specifically, vinyl chloride was detected at concentrations ranging from 1.5 micrograms per cubic meter ($\mu\text{g} / \text{m}^3$) to 550 $\mu\text{g} / \text{m}^3$ (which is above the commercial ESL of 5.2 g / m^3); benzene was detected at concentrations ranging from 1.1 $\mu\text{g} / \text{m}^3$ to 150 $\mu\text{g} / \text{m}^3$ (which is above the commercial ESL of 14 $\mu\text{g} / \text{m}^3$); PCE were detected at concentrations ranging from 100 $\mu\text{g} / \text{m}^3$ to 5,300 $\mu\text{g} / \text{m}^3$ (which is above the commercial ESL of 67 g / m^3); and TCE were detected at 2.1 $\mu\text{g} / \text{m}^3$ to 430 $\mu\text{g} / \text{m}^3$ (which is above the commercial ESL of 100 g / m^3).

The remaining VOCs, including acetone, carbon disulfide, chloromethane, cyclohexane, heptane, hexane, dichlorodifluoromethane, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 2-butanone, isopropyl alcohol, styrene, tetrahydrofuran, toluene, ethylbenzene, m,p-xylene, and o-xylene, were detected at concentrations above laboratory reporting limits but below their respective residential and commercial ESLs or without screening levels.

As part of the investigation, methane gas measurements were also collected at each vapor probe at five feet below ground surface (bgs). Recorded concentrations ranged from 8 to 1,650 parts per million

¹ ESLs have not been established for the Los Angeles Regional Water Quality Control Board; as such, ESLs from the SFB RWQCB were used for comparison.



by volume (ppmv) and pressure readings ranged from 0.05 to 0.081 inches of water column (inWC). Methane gas recorded during a second set of reading (collected on September 21, 2022) generally decreased compared to the initial set (collected on September 19, 2022) with the exception of one reading, which indicated a slight increase in methane concentration.

According to the Phase II LSI, methane gas readings at above 1,000 ppmv and pressure at above zero indicate a presence of methane gas at the site. It should be acknowledged that the project site is located within the City-designated Long Beach Methane Gas Mitigation Zone and recorded methane gas concentrations trigger methane mitigation design requirements per the City of Long Beach Development Services Building & Safety Bureau Methane Gas Mitigation IB-055 (BU-055) Information Bulletin (IB-055 Bulletin) and LBMC Chapter 18.79, *Methane Gas Mitigation*.

Unknown Oil Well Location

According to the Phase I ESA, review of California Department of Conservation Geologic Energy Management Division (CalGEM) records indicates there are a total of four oil wells (Bunny #1, Cather Cherokee #1, Cather Cherokee #2, and Featherstone #15) identified on-site in the central and eastern portions of the site. It should be noted there are two possible locations for Featherstone #15 and the location of Bunny #1 is not definitive but may be located in the southeast corner of the site and/or to the off-site adjoining southeast property. Locations and proper abandonment of Cather Cherokee #1 and Cather Cherokee #2 are confirmed and the possible locations of Bunny #1 and Featherstone #15 are shown on to Exhibit 5.5-1, *Oil Well Locations*.

As part of the Phase II LSI, three exploratory excavations were performed in the northeast, east central, and southeast portions of the site to further evaluate the location of Bunny #1 and Featherstone #15; refer to Exhibit 5.5-1. However, no wellheads were identified during these exploratory excavations. In response to these findings, the Applicant undertook a Limited Geophysical Survey to detect and delineate, if possible, the two abandoned oil wells whose exact locations are unconfirmed. The survey was conducted in two phases, first using total-field-intensity magnetometry and the second using electromagnetics. The results of the Limited Geophysical Survey indicate that Bunny #1 and Featherstone #15 “cannot be located within this parcel and both must be off-site in undetermined locations” (refer to Appendix 11.7). The authors of the Limited Geophysical Survey stated that the data “appears to be quite certain”. CalGEM reviewed the Limited Geophysical Survey and on February 11, 2025, issued an “Unfound Oil and Gas Wells” letter, which states “it is likely that the Wells are not in the exact location shown by CalGEM’s Well Finder” (also refer to Appendix 11.7). Thus, the location and abandonment status of Bunny #1 and Featherstone #15 remains inconclusive. As a result, the City must approve a Code Modification Request to waive the requirements of LBMC section 18.78.070 to allow the project to be built without properly abandoning the unfound wells.

EXISTING AND FORMER OFF-SITE USES

Based on the Phase I ESA, surrounding properties consisted of undeveloped land from as early as 1896. During the 1920s, oil wells were developed in the project vicinity along with single-family residences to the west and southeast and a commercial building to the southwest. By the late 1940s, the single-family residence to the southeast was demolished and a commercial building was developed to the northwest. By the early 1950s, the southern adjoining property was developed with a restaurant and the commercial building to the northwest was labeled as a retail store. In the early 1960s, the



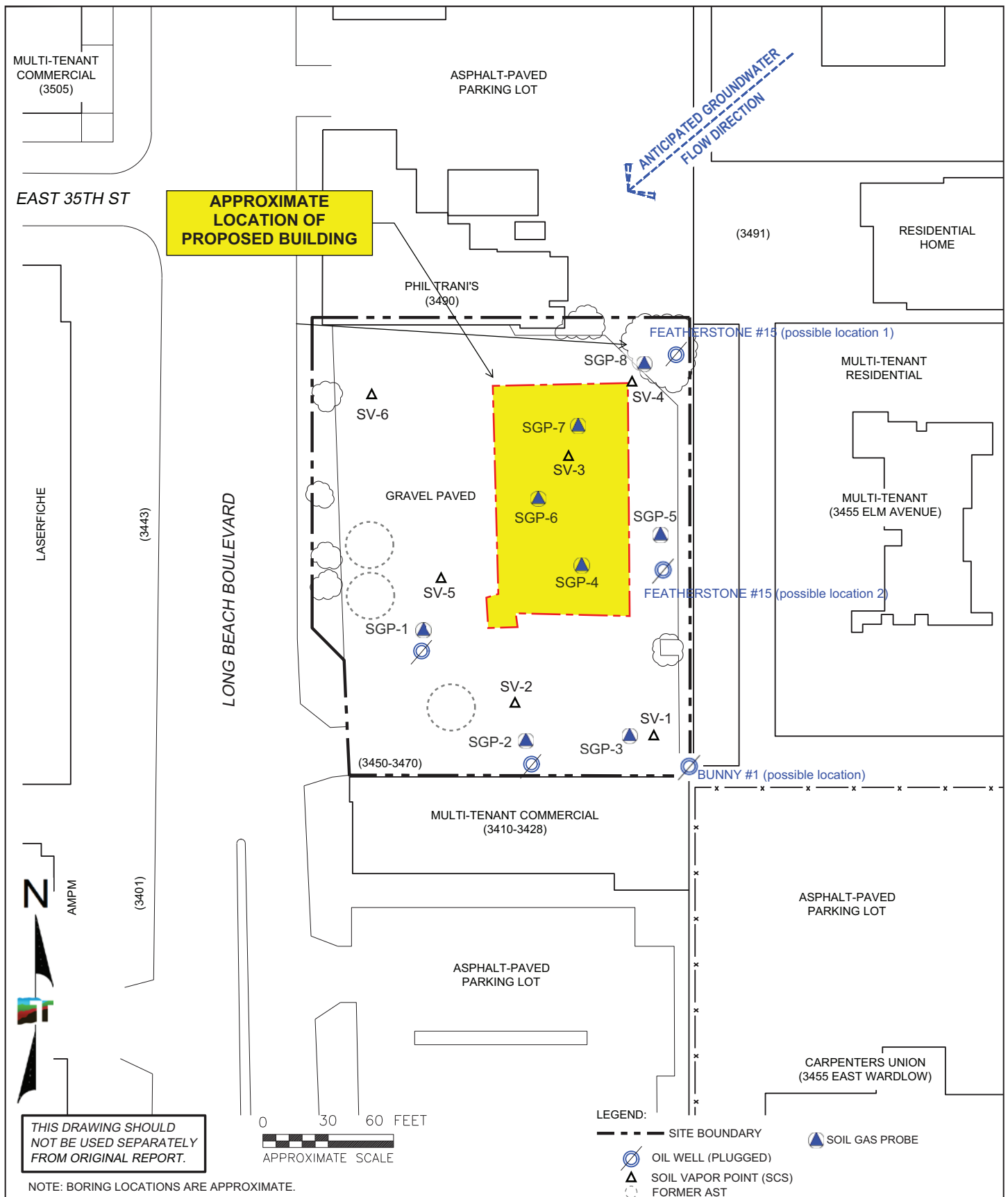
northern and eastern adjoining properties appeared graded; the commercial building to the south was cleared with an asphalt-paved parking lot developed in its place; three commercial buildings were soon developed. During the same period, adjoining property to the southeast consisted of one commercial building; property to the southwest consisted of a gasoline service station; and property to the west was developed with a restaurant in addition to the existing single-family residence. In the mid-1970s, the northern adjoining property was developed with the existing commercial building, the eastern adjoining property was developed with the existing multi-tenant residential building, the southern adjoining was developed with an additional commercial building; and the gasoline service station to the southwest was redeveloped. By the early to mid-2000s, the southern adjoining property consisted of graded land which was redeveloped into the two existing commercial buildings; the commercial building to the southwest was redeveloped during the same time. By 2022, the western adjoining property was redeveloped with the existing commercial building.

As part of the Phase I ESA, regulatory databases were searched for facilities in the project area that have the potential to impact soil, soil vapor, and/or groundwater underneath the project site; twelve facility listings were identified. Among the twelve facility listings, four facilities were further discussed in the Phase I ESA and are described below. The remaining facilities listed in the database report do not appear to have the potential to impact soil, soil vapor, and/or groundwater underneath the project site based upon the facilities' regulatory status, apparent topographic gradient, and/or distance from the site. It is acknowledged that a site is considered topographically up-gradient from the project area when, based on topographic relief, it is higher in elevation than the project area and upstream from the project area in regard to drainage and groundwater flow direction. As such, groundwater contamination at facilities at upper to cross-gradient in relation to a project site may flow towards the project site and impact groundwater underneath the project site. Conversely, groundwater contamination at a facility down-gradient from a project site would have limited impacts due to flow direction.

888-5 Partners, LLC. (3445 Long Beach Blvd.). 888-5 Partners, LLC is located approximately 80 feet to the west and in a topographic cross-to-down-gradient position (i.e., at the same or upper elevation in relation to the project site in regard to drainage and groundwater flow direction) relative to the site. This facility was permitted as a generator from 2018 until 2019, with waste streams identified as asbestos containing waste. Based on the nature of this listing and the waste streams identified, the Phase I ESA concluded that this facility does not have to potential to adversely impact soil, soil vapor, and/or groundwater at the project site.

Long Beach Acoustics, Inc. (3459 Long Beach Blvd.). Long Beach Acoustics, Inc. is located approximately 80 feet to the west and in a topographic cross-to-down-gradient position relative to the site. This facility was formerly permitted with an underground storage tank (UST). Additional information was not provided. Based on the Phase I ESA, this facility was not listed for leaking UST or permitted with an existing UST. Based on the facility's cross-gradient position relative to the site and the absence of reported releases and/or violations, the Phase I ESA concluded that this facility does not have to potential to adversely impact soil, soil vapor, and/or groundwater at the project site.

Firstelement Fuel Inc, Flanagan Ken Chevron Station, Long Beach Arco, Tri-West, United Family, Mac Seven 0 Chevron Service and Long Beach Datsun (3401 Long Beach Blvd.). Firstelement Fuel Inc, Flanagan Ken Chevron Station, Long Beach Arco, Tri-West, United Family, Mac Seven 0 Chevron Service and Long Beach Datsun, is located 90 feet southwest and in a down-gradient position relative to the site. This





facility has operated as a gasoline service station since approximately 1963. Hazardous materials previously and currently identified at the site include unspecified aqueous solution and unspecified oil containing waste; aqueous solutions with organic residues; waste oil and mixed oil; off-specification, aged or surplus organics, and other organic solids. Additionally, this site may contain one sump and one or more USTs based on permits obtained. Nonetheless, based on the facility's distance and topographic down-gradient position relative to the site, and absence of reported releases and/or violations, the Phase I ESA concluded that this facility does not have to potential to adversely impact soil, soil vapor, and/or groundwater at the project site.

Unnamed Facility, Dr Douglas Brooks and Terra Exploration & Production Co. (3505 Long Beach Blvd.). Unnamed Facility, Dr Douglas Brooks and Terra Exploration & Production Co. is located approximately 100 feet to the northwest and in a topographic cross-gradient position relative to the site. This facility was permitted as a generator of hazardous waste for an unknown time period and to operate an unknown number of ASTs with unknown contents totaling 11,676 gallons. Additionally, this facility was formerly permitted to operate a UST of unknown contents or capacity. No additional information was provided. Based on the facility's regulatory status, facility's cross-gradient position relative to the site and absence of reported releases and/or violations, the Phase I ESA concluded that this facility does not have to potential to adversely impact soil, soil vapor, and/or groundwater at the project site.

POTENTIAL ENVIRONMENTAL CONCERNS ASSOCIATED WITH FORMER ON-SITE OPERATIONS

Based on the findings of the Phase I ESA and Phase II LSI, the historic on-site uses have affected soil and soil vapor at the project site. As such, the following environmental conditions may be encountered during implementation of the proposed project:

Soil. Analytical results from soil samples collected indicated elevated concentrations of TPH-DRO above the commercial ESL. As such, construction workers and future workers and visitors of the proposed project may be exposed to soils with elevated concentrations of TPH-DRO.

Soil Vapor. Analytical results from soil vapor samples collected indicated elevated concentrations of VOCs including vinyl chloride, benzene, PCE, and TCE, above their respective commercial ESLs. As such, construction workers and future workers and visitors of the proposed project may be exposed to vapor intrusion.

Methane Gas. Methane gas concentrations measured on-site ranged from 8 to 1,650 ppmv with pressure readings ranged from 0.05 to 0.081 inWC, indicating the presence of methane gas at the site. As such, construction workers and future workers and visitors of the proposed project may be exposed to vapor intrusion from methane gas.

Unknown Oil Well Location. Location and abandonment status of two oil wells known as Bunny #1 and Featherstone #15 remain inconclusive. As such, construction workers may encounter these underground oil/gas wells and associated underground infrastructure during earth moving activities.

SCHOOL SITES

One existing school (Intellectual Virtues Academy of Long Beach) at 3601 Linden Avenue in the City of Long Beach is approximately 0.15-mile (800 feet) northeast of the project site. Additionally, during



the project's Notice of Preparation (NOP) public review period, a comment letter from the Long Beach Unified School District (LBUSD) dated July 26, 2024 was received. The comment letter identified the following schools in the general vicinity of the project site:

- Birney Elementary School, located at 710 West Spring Street (approximately 0.85-mile southwest of the project site);
- Los Cerritos Elementary School, located at 515 West San Antonio Drive (approximately 0.79-mile northwest of the project site); and
- Charles Evans Hughes Middle School, located at 3849 California Avenue (approximately 0.7-mile northeast of the project site).

5.5.2 REGULATORY SETTING

FEDERAL LEVEL

According to the U.S. Environmental Protection Agency (EPA), a “hazardous” waste is defined as one “which because of its quantity, concentrations, or physiochemical or infectious properties, may either increase mortality or produce irreversible or incapacitating illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed” (U.S. Public Health and Welfare Code Section 6903). Special handling and management are required for materials and wastes that exhibit hazardous properties. Treatment, storage, transport, and disposal of these materials are highly regulated at both the federal and state levels. The federal and state laws provide the “cradle to grave” regulation of hazardous wastes. Businesses, institutions, and other entities that generate hazardous waste are required to identify and track their hazardous waste from the point of generation until it is recycled, reused, or disposed of. Compliance with federal and state hazardous materials laws and regulations minimizes the potential risks to the public presented by these potential hazards.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) is the principal federal law that regulates generation, management, and transportation of hazardous waste. Hazardous waste management includes the treatment, storage, or disposal of hazardous waste. The primary responsibility for implementing RCRA is assigned to the EPA’s DTSC, although individual states are encouraged to seek authorization to implement some or all RCRA provisions.

Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) is a law developed to protect the water, air, and soil resources from the risks created by past chemical disposal practices. This law is also referred to as the Superfund Act and regulates sites on the National Priority List, which are called Superfund sites.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act of 1975 (HMTA) empowered the Secretary of Transportation to designate as hazardous material any “particular quantity or form” of a material that



“may pose an unreasonable risk to health and safety or property.” In 1990, Congress enacted the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify the maze of conflicting federal, state, and local regulations. Like the HMTA, the HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The HMTUSA statute includes provisions to encourage uniformity among different state and local highway routing regulations, to develop criteria for the issuance of federal permits to motor carriers of hazardous materials, and to regulate the transport of radioactive materials.

Emergency Planning and Community Right-To-Know Act

In 1986, Congress passed the Superfund Amendments and Reauthorization Act. Title III of this regulation may be cited as the “Emergency Planning and community Right-to-Know Act of 1986” (EPCRA). The EPCRA required the establishment of state commissions, planning districts, and local committees to facilitate the preparation and implementation of emergency plans. Under the requirements, local emergency planning committees are responsible for developing a plan for preparing for and responding to a chemical emergency, including:

- An identification of local facilities and transportation routes where hazardous materials are present.
- The procedures for immediate response in case of an accident (this must include a community-wide evacuation plan).
- A plan for notifying the community that an incident has occurred.
- The names of response coordinators at local facilities.
- A plan for conducting drills to test the plan.

The emergency plan is reviewed by the State Emergency Response Commission and publicized throughout the community. The local emergency planning committee is required to review, test, and update the plan each year. The goal of the plan is to improve public- and private-sector readiness and to mitigate local impacts resulting from natural or man-made emergencies.

Another purpose of the EPCRA is to inform communities and citizens of chemical hazards in their areas. Sections 311 and 312 of EPCRA require businesses to report to state and local agencies the location and quantities of chemicals stored on-site. Under section 313 of EPCRA, manufacturers are required to report chemical releases for more than 600 designated chemicals. In addition to chemical releases, regulated facilities are also required to report off-site transfers of waste for treatment or disposal at separate facilities, pollution prevention measures, and chemical recycling activities. The EPA maintains the Toxic Release Inventory database that documents the information that regulated facilities are required to report annually.

National Emission Standards for Hazardous Air Pollutants

The National Emission Standards for Hazardous Air Pollutants (NESHAP) are stationary source standards for hazardous air pollutants established by the EPA. Hazardous air pollutants (HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects, such as



reproductive effects or birth defects, or adverse environmental effects. Sources subject to NESHAPs are required to perform an initial performance test to demonstrate compliance. To demonstrate continuous compliance, sources are generally required to monitor control device operating parameters which are established during the initial performance test. Sources may also be required to install and operate continuous emission monitors to demonstrate compliance.

STATE LEVEL

The EPA and the DTSC have developed and continue to update lists of hazardous wastes subject to regulation. In addition to the EPA and DTSC, the Los Angeles RWQCB, is the enforcing agency for the protection and restoration of water resources, including remediation of unauthorized releases of hazardous substances in soil and groundwater. Other State agencies involved in hazardous materials management include the Office of Emergency Services, California Department of Transportation (Caltrans), California Highway Patrol, Air Resources Board (ARB), and the California Integrated Waste Management Board (CalRecycle).

Hazardous Materials Release Notification

Many State statutes require emergency notification of a hazardous chemical release:

- California Health and Safety Codes Sections 25270.8, and 25507;
- Vehicle Code Section 23112.5;
- Public Utilities Code Section 7673, (PUC General Orders #22-B, 161);
- Government Code Sections 51018, 8670.25.5 (a);
- Water Codes Sections 13271, 13272; and
- California Labor Code Section 6409.1 (b)10.

Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. Notification is required regarding significant releases from facilities, vehicles, vessels, pipelines, and railroads. In addition, all releases that result in injuries or harmful exposure to workers must be immediately reported to the California Occupational Safety and Health Administration pursuant to the California Labor Code Section 6409.1(b).

Hazardous Materials Disclosure Programs

The Unified Program administered by the State of California consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for environmental and emergency management programs, which include: Hazardous Materials Release Response Plans and Inventories (business plans), the California Accidental Release Prevention (CalARP) Program, the UST Program, and the Aboveground Petroleum Storage Tank (APST) Program. The Unified Program is implemented at the local government level by Certified Unified Program Agencies (CUPA).

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) program was implemented on January 1, 1997, in response to Senate Bill 1889 and replaced the California Risk Management and Prevention Program (RMPP). CalARP aims to be proactive and therefore requires businesses to prepare risk



management plans, which are detailed engineering analyses of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. This requirement is coupled with the requirements for preparation of hazardous materials business plans under the Unified Program, implemented by the CUPA.

Transportation of Hazardous Materials/Wastes

Transportation of hazardous materials/wastes is regulated by CCR Title 26. The U.S. Department of Transportation (DOT) is the primary regulatory authority for the interstate transport of hazardous materials. The DOT establishes regulations for safe handling procedures (i.e., packaging, marking, labeling, and routing) and enforces federal and State regulations and respond to hazardous materials transportation emergencies along with the California Highway Patrol. Emergency responses are coordinated as necessary between federal, State, and local governmental authorities and private persons through a State-mandated Emergency Management Plan.

Worker and Workplace Hazardous Materials Safety

Occupational safety standards exist to minimize worker safety risks from both physical and chemical hazards in the workplace. Cal/OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle.

Department of Toxic Substances Control

The responsibility for implementation of RCRA was given to DTSC in August 1992. The DTSC is also responsible for implementing and enforcing California's own hazardous waste laws, which are known collectively as the Hazardous Waste Control Law. Although similar to RCRA, the California Hazardous Waste Control Law and its associated regulations define hazardous waste more broadly and regulate a larger number of chemicals. Hazardous wastes regulated by California but not by EPA are called "non-RCRA hazardous wastes."

California Geologic Energy Management Division Oil and Gas Regulations

The California Geologic Energy Management Division (CalGEM) oversees the regulation of the State's oil, natural gas, and geothermal industries, prioritizing public health, safety, and environmental protection. The division implements various laws and regulations, including recent updates like Senate Bill (SB) 1137, which took effect in June 2024. CalGEM also manages rulemaking processes for well stimulation treatment permitting and underground gas storage, ensuring compliance and public involvement through comment periods and regulatory updates.

SB 1137 prohibits the issuance of well permits and the construction and operation of new oil and gas production facilities within 3,200 feet of sensitive receptors, such as homes, schools, childcare facilities, playgrounds, hospitals, and nursing homes. This law is part of California's broader efforts to transition to clean energy and safeguard communities from the potential health impacts of oil and gas operations.



Public Resources Code Division 3, *Oil and Gas*, Article 4, *Regulation of Operations*, outlines the regulatory framework for oil and gas well operations. Key provisions include:

- Designation of Agent: Operators must designate an in-state agent to receive legal notices and orders.
- Permitting: Operators must obtain approval before commencing drilling or altering wells.
- Indemnity Bonds: Operators are required to file indemnity bonds to cover potential costs related to well operations, including plugging and abandonment.
- Well Maintenance: Regulations mandate proper maintenance and safety measures to prevent blowouts, explosions, and environmental contamination.
- Reporting: Operators must maintain detailed records of drilling activities and submit regular reports to the regulatory authorities.

REGIONAL LEVEL

Los Angeles Regional Water Quality Control Board

The Los Angeles RWQCB is the enforcing agency for the protection and restoration of water resources, including remediation of unauthorized releases of hazardous substances in soil and groundwater. The Site Cleanup Program (SCP) regulates and oversees the investigation and cleanup of 'non-federally owned' sites where recent or historical unauthorized releases of pollutants to the environment, including soil, groundwater, surface water, and sediment, have occurred. Sites in the program are varied and include, but are not limited to, pesticide and fertilizer facilities, rail yards, ports, equipment supply facilities, metals facilities, industrial manufacturing and maintenance sites, dry cleaners, bulk transfer facilities, refineries, and some brownfields. These releases are generally not from strictly petroleum USTs. The types of pollutants encountered at the sites are plentiful and diverse and include solvents, pesticides, heavy metals, and fuel constituents to name a few.

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) works with the California Air Resources Board and is responsible for developing and implementing rules and regulations regarding air toxics on a local level. The SCAQMD establishes permitting requirements, inspects emission sources, and enforces measures through educational programs and/or fines. SCAQMD Rule 1403 governs the demolition of buildings containing asbestos materials. Rule 1403 specifies work practices with the goal of minimizing asbestos emissions during building demolition and renovation activities, including the removal and associated disturbance of ACM. The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and cleanup procedures, and storage and disposal requirements for asbestos-containing waste materials. Rule 1166 governs the emission of volatile organic compounds (VOCs) from excavating, grading, handling, and treating VOC-contaminated soil (defined as soil which registers a concentration of 50 ppm or greater VOCs, as measured in accordance with Rule 1403) as a result of leakage from storage or transfer operations, accidental spillage, or other deposition. The requirements for excavating an UST, transfer pipe, or VOC-contaminated soils include operating



pursuant to an approved mitigation plan, notification, VOC monitoring, and procedure for handling and transporting contaminated soils. Rule 1401 governs any new, modified, or relocation of permit units (article, machine, equipment, or facility) that emit toxic air contaminants. The rule establishes allowable risks (maximum individual cancer risk, cancer burden, and noncancer acute and chronic hazard index) from operating permit units. Regulation 13 (Rules 1300 – 1325) establishes pre-construction review requirements for the installation or modification of a source facility (i.e., power plant, engine, equipment) of nonattainment air contaminant, ozone-depleting compounds (ODCs), or ammonia.

Long Beach Certified Unified Program Agency

The Long Beach Certified Unified Program Agency (CUPA), in effect since July 1, 1997, is the local agency certified by CalEPA to implement and enforce six State hazardous waste and hazardous materials regulatory management programs. The Unified Program consolidates the administration, permitting, inspection, and emergency management of the following programs:

- Hazardous Waste Generator
- Hazardous Waste Treatment (Tiered Permitting)
- California Accidental Release Prevention (CALARP)
- Hazardous Material Business Plan (HMBP)
- Aboveground Petroleum Storage Act (APSA)
- Underground Storage Tank (UST)

Long Beach CUPA has been in effect since July 1, 1997, and is comprised of two bureaus, including the Health Department, Environmental Health Bureau, and the Fire Department, Fire Prevention Bureau.

LOCAL LEVEL

City of Long Beach General Plan

The General Plan Public Safety Element, adopted in May 1975, contain goals, strategies, and policies related to hazards and hazardous waste. The following Public Safety Element goals and associated strategies are applicable to the proposed project:

Management Goals

- Goal 1: Develop mechanisms for implementing improved safety considerations.
- Goal 2: Coordinate and cooperate with other political jurisdictions in implementing safety and disaster programs.
- Goal 3: Continue to coordinate safety matters throughout the City and introduce methods of insuring improved safety.
- Goal 4: Promote cooperation of the private sector in upgrading safety precautions.



Goal 5: Establish safety guidelines to evaluate all potential safety hazards and mitigate existing problems.

Development Goals

Goal 1: Promote the redevelopment of areas, which may present safety problems.

Goal 2: Utilize safety considerations, as a means of encouraging and enhancing desired land use patterns.

Goal 3: Provide an urban environment, which is as safe from all types of hazards as possible.

Goal 4: Continue to identify existing or proposed uses or activities that may pose safety hazards.

Goal 5: Use physical planning as a means of achieving greater degrees of protection from safety hazards.

Goal 6: Encourage transportation systems, utilities, industries, and similar uses to locate and operate in a manner consistent with public safety goals.

Goal 7: Assure continued safe accessibility to all urban land uses throughout the City.

Goal 8: Encourage development that would be most in harmony with nature and thus less vulnerable to natural disasters.

Goal 9: Encourage development that would augment efforts of other safety-related Departments of the City (i.e. design for adequate access for firefighting equipment and police surveillance).

Goal 10: Strive to encourage urbanizations patterns, which preserve and/or create greater safety for residents and visitors.

Goal 11: Critically evaluate proposed public or private actions, which may pose safety hazards to residents or visitors.

Protection Goals

Goal 1: Use safety precautions as one means of preventing blight and deterioration.

Goal 2: Protect existing land uses from the intrusion of safety hazards.

Goal 3: Reduce public exposure to safety hazards.

Goal 4: Effectively utilize natural or man-made landscape features to increase public protection from potential hazards.

Goal 5: Reduce the potential adverse economic, environmental, and social conditions, which could result from a major disaster.

Goal 6: Assure continued economic stability and growth minimizing potential safety hazards.

Goal 7: Protect the citizens against possible personal loss resulting from disaster events.



- Goal 8: Assure continued safety measures for the preservation of property values.
- Goal 9: Continue to inform the public of potential safety hazards and what to do in times of emergencies.
- Goal 10: Provide the maximum feasible level of public safety protection services.

Remedial Action Goals

- Goal 1: Isolate areas of hazardous concern from other portions of the City.
- Goal 2: Eliminate uses which present safety hazards.

City of Long Beach Municipal Code

LBMC consists of all the regulatory and penal ordinances and certain of the administrative ordinances of the City. The following sections of the LBMC address hazards and hazardous materials:

CHAPTER 8.27, COMMUNITY LEAD HAZARD CONTROL/ABATEMENT

Chapter 8.27 deals with the removal of lead hazards from any dwelling, dwelling unit, hotel, motel, guest room, childcare facility, institution, yard, soil, or any premises or areas inhabited or frequented by children. In accordance with this chapter, the property owner or responsible party shall be responsible for the removal or the control of any lead hazard. The extent of the removal or the control of the lead hazard shall be determined by the City Health Officer or his/her representative and completed in accordance with approved State or federal methods.

CHAPTER 8.86, HAZARDOUS MATERIALS RELEASE RESPONSE PLANS AND INVENTORY

Chapter 8.86 details the administration of Hazardous Materials Release Response Plans and Inventory, and delegates the Long Beach CUPA as the administering agency for enforcement and regulation. This Chapter also grants authority to the Long Beach CUPA to collect fees for violations related to Hazardous Materials Release Response Plans and Inventory.

CHAPTER 8.87, HAZARDOUS WASTE CONTROL

Chapter 8.87 designates the Long Beach CUPA as the administering agency for enforcement and regulation of hazardous waste. This chapter also grants authority to the Long Beach CUPA to collect fees for violations related to Hazardous Waste Control.

CHAPTER 8.88, HAZARDOUS MATERIALS – CLEANUP

Chapter 8.88 requires compliance with the hazardous waste control laws and implementation of proper cleanup methods and procedures for spills of hazardous materials. When a hazardous material spill has occurred, the spill is characterized and the property owner, applicant or other responsible party shall clean up the spill by complying with the remediation requirements of this chapter.

CHAPTER 18.78, CONSTRUCTION IN THE VICINITY OF ABANDONED OIL WELLS

Chapter 18.78 requires that all construction activities on a privately-owned parcel containing an abandoned oil/gas well or wells meet requirements set forth in the chapter, including but not limited



to well safety evaluation, well abandonment, long-term safety evaluation, above-well head mitigation, leak testing, installation of equipment, site cleanup, methane mitigation, exposure period, post construction protocols, and site restoration.

CHAPTER 18.79, METHANE GAS MITIGATION

Chapter 18.79 sets forth minimum requirements for the control of methane gas intrusion emanating from geologic formations. This chapter governs methane gas mitigation systems for all buildings and structures by requiring methane gas system submittal documents for any project with a methane gas mitigation system; requiring methane gas mitigation inspection and plans examination fees; and requiring methane gas mitigation inspections for any project with a methane gas mitigation system.

5.5.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form that was used during the preparation of the Initial Study, which is contained in [Appendix 11.1](#), of this EIR. The issues presented in the Environmental Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant adverse environmental impact if it would:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (refer to Impact Statement HAZ-1);
- 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 (refer to Impact Statement HAZ-1);
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (refer to Impact Statement HAZ-2);
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment (refer to [Appendix 11.1](#), *Notice of Preparation/Initial Study*);
- 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 (refer to [Appendix 11.1](#));
- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (refer to [Appendix 11.1](#)); and
- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires (refer to [Appendix 11.1](#)).

Based on these standards/criteria, the effects of the proposed project have been categorized as either a “less than significant impact” or “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced



to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.5.4 IMPACTS AND MITIGATION MEASURES

ACCIDENTAL RELEASE OF HAZARDOUS MATERIALS

HAZ-1 PROJECT IMPLEMENTATION COULD CREATE A SIGNIFICANT HAZARD RELATED TO THE PUBLIC OR ENVIRONMENT THROUGH ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS, OR REASONABLY FORESEEABLE UPSET AND ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT.

Impact Analysis: One of the means through which human exposure to hazardous substance could occur is through accidental release. Incidents that result in an accidental release of hazardous substances into the environment can cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. Human exposure to impacted soil or water can have potential health effects based on a variety of factors, such as the nature of the contaminant and the degree of exposure.

CONSTRUCTION

Construction activities could expose construction workers to accidental conditions as a result of existing potential soil/soil vapor contamination at the project site.

Construction Equipment

During project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and federal law. As such, impacts in this regard would be less than significant.

Construction Activities

Proposed demolition and grading activities could also result in accidental conditions involving existing on-site contamination. The following analysis considers current and past uses of the project site and its vicinity, which may have resulted in existing on-site hazardous conditions, of which could cause accidental conditions during site disturbance activities.

Historic Oil Production Activities

As discussed in [Section 5.5.1, *Existing Setting*](#), analytical results from soil samples collected indicated elevated concentrations of TPH-DRO above the commercial ESL; analytical results from soil vapor samples collected indicated elevated concentrations of VOCs (i.e., vinyl chloride, benzene, PCE, and



TCE) above their respective commercial ESLs; and recorded methane gas concentrations and pressure indicated the presence of methane gas at the site. As such, construction workers of the proposed bank may be exposed to impacted soils and soil vapors with elevated concentrations of TPH-DRO, VOCs, and methane.

One of the project objectives is to implement best management practices related to hazards and hazardous materials to treat contamination on-site from historic oil drilling. As detailed in [Section 3.3, *Project Characteristics*](#), the Applicant is developing a site-specific Soil Management Plan (SMP) to excavate and export impacted soils during construction. The SMP would provide guidelines for safety measures, soil management, and handling of disturbed soils during construction in a manner protective of human health and consistent with applicable regulatory requirements. Although the SMP is already proposed as part of the project, the SMP would also be required to incorporate specific requirements outlined in Mitigation Measure HAZ-1 to ensure potential soil and soil vapor impacts to construction workers are minimized. Additionally, in accordance with Mitigation Measure HAZ-1, the Applicant would be required to hire a qualified Phase II/Site Characterization Specialist to be on-site during all ground-disturbing work to monitor proper implementation of the SMP (Mitigation Measure HAZ-1). All excavation and exports of impacted soils shall be conducted in consultation with the Phase II/Site Characterization Specialist and in compliance with existing federal, State, and local laws and regulations pertaining to treatment, transport, and disposal.

Following compliance with existing federal, State, and local laws and regulations as well as implementation of Mitigation Measures HAZ-1, impacts relating to impacted soil and soil vapor during project construction would be reduced to less than significant levels.

Unknown Oil Well Location(s)

As discussed in [Section 5.5.1](#), the location and abandonment status of two oil/gas wells known as Bunny #1 and Featherstone #15 remain inconclusive. As such, construction workers may encounter the underground oil/gas wells and associated underground infrastructure during earth moving activities.

The Applicant is currently seeking City concurrence that all reasonable efforts were undertaken to locate Bunny #1 and Featherstone #15 and has requested the project be waived from the City's equivalency abandonment standards pursuant to LBMC Section 18.78.070, *Equivalency Abandonment Standard*.

Further, to minimize potential impacts associated with encountering the underground oil/gas well and any associated underground infrastructure during earth moving activities, the project would be required to implement Mitigation Measure HAZ-2. Mitigation Measure HAZ-2 would require specific observations be made by the contractor during grading and excavation activities for the presence of any oil/gas well heads, associated underground infrastructure, and/or soils potentially impacted by chemicals compounds or fuel and oil hydrocarbons. If any of the above are encountered, the qualified environmental professional with Phase II/Site Characterization experience (retained in accordance with Mitigation Measure HAZ-1) would assist with segregation of excavated material or impacted soils for proper disposal at a licensed waste-handling facility. In accordance with Mitigation Measure HAZ-2, if Bunny #1 and/or Featherstone #15 are uncovered during project construction, the wells would be required to be abandoned in accordance with CALGEM standards or to the City's equivalency abandonment standards as outlined in LBMC Section 18.78.070, *Equivalency Abandonment Standard*.



Following compliance with existing federal, State, and local laws and regulations as well as implementation of Mitigation Measures HAZ-2, impacts pertaining to the accidental discovery of former oil/gas well during project construction would be reduced to less than significant levels.

OPERATIONS

Impacted Soil/Soil Vapor

As discussed in [Section 5.5.1](#), analytical results from soil samples collected indicated elevated concentrations of TPH-DRO above the commercial ESL; analytical results from soil vapor samples collected indicated elevated concentrations of VOCs (i.e., vinyl chloride, benzene, PCE, and TCE) above their respective commercial ESLs; and recorded methane gas concentrations and pressure indicated the presence of methane gas at the site. As such, future workers and visitors of the proposed bank may be exposed to existing on-site soils with elevated concentrations of TPH-DRO, as well as vapor intrusion from VOCs and methane.

With implementation of Mitigation Measure HAZ-1, all impacted soils would be excavated and exported during project construction as part of the proposed SMP and conducted in accordance with applicable regulations.

Further, it should be acknowledged that the project site is located within City designated Long Beach Methane Gas Mitigation Zone. With the recorded on-site methane gas concentrations, methane mitigation design requirements pursuant to the City of Long Beach Development Services Building & Safety Bureau Methane Gas Mitigation Information Bulletin (IB-055 Bulletin) and LBMC Chapter 18.79, *Methane Gas Mitigation* would be required. Per IB-055 Bulletin and LBMC Chapter 18.79, a methane soil gas investigation would be required during the project entitlement/pre-plan check submittal phase in order to determine the appropriate design for a vapor intrusion mitigation system (VIMS). Accordingly, the Applicant is required to submit a methane mitigation plan in accordance with the City prescriptive standards in conjunction with the project grading or building plans. The submittal shall include any and all components of the proposed active or passive methane mitigation system (membrane barrier, piping, probes, vents, gas detection system, pumps, and signage). A membrane installation contractor manufacturer's approval letter shall also be submitted with the methane mitigation plans. At a minimum, a passive VIMS would be required to be installed and operating prior to occupancy of the proposed bank. Additionally, a methane gas monitoring program (established in an operation, monitoring, and maintenance plan [OMM Plan] as part of the methane mitigation plan) would be required pursuant to IB-055 Bulletin and LBMC Chapter 18.79.

Furthermore, the project would also be required to implement Mitigation Measure HAZ-3, which requires the proposed VIMS to be designed for mitigation of VOCs as well. In accordance with Mitigation Measure HAZ-3, a VOC monitoring program would be established along with the methane gas monitoring program in the OMM Plan to evaluate system performance of VOC mitigation. Further, the passive VIMS should be designed such that in the event indoor air concentrations indicate ineffective mitigation of vapor intrusion during project operation, the passive VIMS could be converted to an active system. Such design may require additional permitting with the local air district (i.e., SCAQMD).

Following compliance with existing federal, State, and local laws and regulations (such as soil gas investigation and a proposed methane mitigation plan in accordance with IB-055 Bulletin and LBMC



Chapter 18.79) as well as implementation of Mitigation Measure HAZ-3, potential risks from contaminated soil and soil vapor during project operations would be reduced to less than significant levels.

Mitigation Measures:

HAZ-1 A site-specific Soil Management Plan (SMP) is proposed as part of the proposed project. Prior to issuance of any grading permits, the City of Long Beach shall ensure the following details are incorporated into the SMP:

- Provide guidelines for safety measures, soil management, and handling of disturbed soils during construction in a manner protective of human health and consistent with applicable regulatory requirements;
- Require a qualified Phase II/Site Characterization Specialist be on-site during all ground-disturbing work to monitor proper implementation of the SMP;
- Provide an outline of existing federal, State, and local laws and regulations pertaining to transport, treatment, and disposal of excavation and exports of impacted soils, which shall be conducted in consultation with the Phase II/Site Characterization Specialist; and
- Require a copy of the SMP to be made available to the contractor and the City of Long Beach for use during grading and excavation activities.

HAZ-2 During ground disturbing activities, observations shall be made by the contractor for the potential presence of oil/gas well heads (including Bunny #1 and Featherstone #15), associated underground infrastructure, and soil potentially impacted by chemicals compounds or fuel and oil hydrocarbons. Indications of impacted soil may include chemical or fuel odors, unusual coloration, apparent moisture, and staining. If any of the above are encountered, the qualified environmental professional with Phase II/Site Characterization experience (retained in accordance with Mitigation Measure HAZ-1) shall assist with segregation of excavated material for proper disposal at a licensed waste-handling facility. If Bunny #1 and/or Featherstone #15 are uncovered during project construction, the wells shall be abandoned in accordance with California Department of Conservation Geologic Energy Management Division (CalGEM) standards or the City of Long Beach's equivalency abandonment standards pursuant to *Long Beach Municipal Code* Section 18.78.070, *Equivalency Abandonment Standard*.

HAZ-3 The Applicant shall ensure the design of the proposed active or passive vapor intrusion mitigation system (VIMS) required as part of the methane mitigation plan to be submitted in conjunction with the project grading and/or building plans include design measures to address potential vapor intrusion from volatile organic compounds (VOCs). The methane mitigation plan shall be verified by the City of Long Beach Building Official during plan check review. If a passive VIMS is designed for the project as part of the methane mitigation plan, it shall be designed such that in the event indoor air concentrations indicate ineffective mitigation of vapor intrusion during project operation, the passive VIMS can be converted to an active system. Such



design may require additional permitting with the local air district (i.e., South Coast Air Quality Management District). Additionally, the Applicant shall ensure the operation, monitoring, and maintenance plan (OMM Plan), established as part of the methane mitigation plan, include a VOC monitoring program to evaluate system performance of VOC mitigation.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

SCHOOL SITES

HAZ-2 PROJECT IMPLEMENTATION COULD EMIT HAZARDOUS EMISSIONS OR HANDLE HAZARDOUS OR ACUTELY HAZARDOUS MATERIALS, SUBSTANCES, OR WASTE WITHIN ONE-QUARTER MILE OF AN EXISTING SCHOOL.

Impact Analysis: As discussed in [Section 5.5.1](#), one existing school (Intellectual Virtues Academy of Long Beach) is located within a 0.25-mile radius of the project site (approximately 0.15-mile to the northeast). Additionally, an NOP comment letter received from LBUSD identified three LBUSD schools within one-mile of the project site (Birney Elementary School, Los Cerritos Elementary School, and Charles Evans Hughes Middle School). The LBUSD comment letter raised concerns regarding potential release of hazardous emissions (e.g., methane) during construction activities on-site as well as potentially hazardous conditions associated with the transport of hazardous materials off-site by construction trucks using haul routes that could pass by LBUSD schools.

Project construction would involve the handling and transporting of potentially hazardous materials on- and off-site. However, with implementation of the proposed SMP, the excavation and construction contractors would be provided with guidelines for safety measures, soil management, and handling of disturbed soils during construction in a manner protective of human health and consistent with applicable regulatory requirements. Further, in accordance with Mitigation Measure HAZ-1, a qualified Phase II/Site Characterization Specialist would be on-site during all ground-disturbing work to monitor proper implementation of the SMP, and all excavation and exports of impacted soils would be conducted in consultation with the Phase II/Site Characterization Specialist and in compliance with existing federal, State, and local laws and regulations pertaining to transport and disposal (Mitigation Measure HAZ-1). Additionally, implementation of Mitigation Measures HAZ-2 would ensure impacts pertaining to the accidental discovery of former oil/gas wells (i.e., Bunny #1 and/or Featherstone #15) during project construction would be reduced to less than significant levels. Upon implementation of the proposed SMP and Mitigation Measures HAZ-1 and HAZ-2, the project is not anticipated to result in substantially adverse impacts involving the handling of hazardous materials, substances, or waste within the vicinity of these schools during project construction. Impacts in this regard would be reduced to less than significant level.

With regards to project operations, project operations would involve typical office (banking) activities and would not involve activities that could potentially emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste (e.g., impacted soils) near existing school. However, future workers and visitors of the proposed bank may still be exposed to existing on-site soils with elevated concentrations of TPH-DRO, as well as vapor intrusion from VOCs and methane. The project would be subject to methane mitigation design requirements pursuant to the City's IB-055 Bulletin and LBMC Chapter 18.79. A methane mitigation plan is required for the project in



accordance with the City's prescriptive standards in conjunction with the project grading or building plans. At a minimum, a passive VIMS would be required to be installed and in operation prior to occupancy of the proposed bank building. The project would also be required to implement Mitigation Measure HAZ-3, which requires the proposed VIMS to be designed for VOC mitigation as well. In accordance with Mitigation Measure HAZ-3, a VOC monitoring program would be established along with the methane gas monitoring program in the OMM Plan to evaluate system performance of VOC mitigation. Following compliance with existing federal, State, and local laws and regulations (such as soil gas investigation and a proposed methane mitigation plan in accordance with IB-055 Bulletin and LBMC Chapter 18.79) as well as implementation of Mitigation Measure HAZ-3, potential risks from impacted soil and soil vapor during project operations would be reduced to less than significant levels. Subsequently, the project is not anticipated to result in substantially adverse impacts involving the handling of hazardous materials, substances, or waste within the vicinity of nearby schools during project operations. Impacts in this regard would be reduced to less than significant level.

Furthermore, it should be acknowledged that regional access to the project site is provided via I-405 (located approximately 0.1-mile west and south of the project site) and local access is provided via Long Beach Boulevard and Wardlow Road. Given that the three identified LBUSD schools are located more than 0.5-mile away, construction traffic, including haul truck trips, is not anticipated to utilize roadways within the vicinity of these LBUSD schools. Furthermore, methane or other types of vapor contamination is typically a localized issue and does not have the potential to impact sensitive receptors more than 0.5-mile away.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 through HAZ-3.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.5.5 CUMULATIVE IMPACTS

Table 4-1, *Cumulative Projects List*, identifies the related projects and other possible development in the area determined as having the potential to interact with the project to the extent that a significant cumulative effect may occur. The following discussions are included to determine whether a significant cumulative effect would occur.

- **THE PROPOSED PROJECT, COMBINED WITH OTHER RELATED PROJECTS, COULD CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR ENVIRONMENT THROUGH ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS, OR REASONABLY FORESEEABLE UPSET AND ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT.**

Impact Analysis: Cumulative projects could result in creating a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials, or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. However, with implementation of existing laws and regulations established by the DTSC, Los Angeles RWQCB, Caltrans, Cal/OSHA, SCAQMD, and Long Beach CUPA, among others, these cumulative impacts would be minimized. As discussed in Impact Statement HAZ-1, with implementation of Mitigation Measures HAZ-1 through HAZ-3, implementation of the proposed project would not result in significant impacts involving hazards and hazardous materials during



construction and operations. As such, the project would not result in a cumulatively considerable impact in this regard and impacts would be less than significant.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 through HAZ-3.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

- **THE PROPOSED PROJECT, COMBINED WITH OTHER RELATED PROJECTS, COULD EMIT HAZARDOUS EMISSIONS OR HANDLE HAZARDOUS OR ACUTELY HAZARDOUS MATERIALS, SUBSTANCES, OR WASTE WITHIN ONE-QUARTER MILE OF AN EXISTING SCHOOL.**

Impact Analysis: Cumulative projects that result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing school would be required to undergo environmental review under CEQA to evaluate potentially significant impacts. Further, upon compliance with the laws and regulations established by the DTSC, Los Angeles RWQCB, Caltrans, Cal/OSHA, SCAQMD, and Long Beach CUPA, among others, these cumulative impacts would be minimized. As the proposed project would not result in significant impacts involving hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing school with preparation and implementation of Mitigation Measures HAZ-1 through HAZ-3, the project would not significantly contribute to a cumulatively considerable impact in this regard. Impacts in this regard would be less than significant.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 through HAZ-3.

Level of Significance: Less Than Significant Impact With Mitigation Incorporated.

5.5.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to hazards and hazardous materials would occur.



5.6 Noise



5.6 NOISE

The purpose of this section is to evaluate potential noise related impacts to surrounding land uses as a result of implementation of the project. Both short-term construction-related impacts and long-term operational-related impacts are evaluated. This section is primarily based upon the *Noise and Vibration Assessment First Citizens Bank – Long Beach Project, City of Long Beach, California* (Noise and Vibration Assessment), prepared by Kimley-Horn and Associates, Inc. and dated July 31, 2024, provided as Appendix 11.8, *Noise and Vibration Assessment*, of this EIR.

5.6.1 EXISTING SETTING

ACOUSTIC FUNDAMENTALS

Sound and Environmental Noise

Acoustics is the science of sound. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a medium (e.g., air) to human (or animal) ear. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or hertz (Hz).

Noise is defined as loud, unexpected, or annoying sound. The fundamental model consists of a noise source, a receptor, and the propagation path between the two. The loudness of the noise source, obstructions, or atmospheric factors affecting the propagation path, determine the perceived sound level and noise characteristics at the receptor. Acoustics deal primarily with the propagation and control of sound. A typical noise environment consists of ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this ambient noise is the sound from individual local sources. These sources can vary from an occasional aircraft or train passing by to continuous noise from traffic on a major highway. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a large range of numbers. To avoid this, the decibel (dB) scale was devised. The dB scale uses the hearing threshold of 20 micro-pascals (μPa) as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels correspond closely to human perception of relative loudness. Table 5.6-1, *Typical Noise Levels*, provides typical noise levels.



Table 5.6-1
Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	- 110 -	Rock Band
Jet fly-over at 1,000 feet		
	- 100 -	Garbage Truck
Gas lawnmower at 3 feet		
	- 90 -	Lawn Mower
Diesel truck at 50 feet at 50 miles per hour		Food blender at 3 feet
	- 80 -	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	- 70 -	Vacuum cleaner at 10 feet
Commercial area		Normal Speech at 3 feet
Heavy traffic at 300 feet	- 60 -	
		Large business office
Quiet urban daytime	- 50 -	Dishwasher in next room
Quiet urban nighttime	- 40 -	Theater, large conference room (background)
Quiet suburban nighttime		
	- 30 -	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	- 20 -	
		Broadcast/recording studio
	- 10 -	Rustling leaves
Lowest threshold of human hearing	- 0 -	Lowest threshold of human hearing
Source: California Department of Transportation, <i>Technical Noise Supplement to the Traffic Noise Analysis Protocol</i> , September 2013; Melville C. Branch, <i>Outdoor Noise in the Metropolitan Environment</i> , 1970.		

NOISE DESCRIPTORS

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The equivalent noise level (L_{eq}) represents the equivalent continuous sound pressure level over the measurement period, while the day-night noise level (L_{dn}) and Community Equivalent Noise Level (CNEL) are measures of sound energy during a 24-hour period, with dB weighted sound levels from 7:00 p.m. to 7:00 a.m. Most commonly, environmental sounds are described in terms of L_{eq} that has the same acoustical energy as the summation of all the time-varying events. Each is applicable to this analysis and defined in [Table 5.6-2, *Definitions of Acoustical Terms*](#).



Table 5.6-2
Definitions of Acoustical Terms

Term	Definitions
Decibel (dB)	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in μPa (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in dB as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 μPa). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level (dBA)	The sound pressure level in dB as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level (L_{eq})	The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
Maximum Noise Level (L_{max}) Minimum Noise Level (L_{min})	The maximum and minimum dBA during the measurement period.
Exceeded Noise Levels (L_{01} , L_{10} , L_{50} , L_{90})	The dBA values that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day-Night Noise Level (L_{dn})	A 24-hour average L_{eq} with a 10-dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity at nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .
Community Noise Equivalent Level (CNEL)	A 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 a.m. to 10:00 a.m. and a 10-dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.
Source: Appendix 11.8, <i>Noise and Vibration Assessment</i> .	

The A-weighted decibel (dBA) sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports.



The accuracy of the predicted models depends on the distance between the receptor and the noise source.

A-WEIGHTED DECIBELS

The perceived loudness of sounds is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by dBA values. There is a strong correlation between dBA and the way the human ear perceives sound. For this reason, the dBA has become the standard tool of environmental noise assessment. All noise levels reported in this document are in terms of dBA, but are expressed as dB, unless otherwise noted.

ADDITION OF DECIBELS

The dB scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic dB is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than one source under the same conditions. Under the dB scale, three sources of equal loudness together would produce an increase of approximately 5 dBA.

SOUND PROPAGATION AND ATTENUATION

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics. No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The way older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

HUMAN RESPONSE TO NOISE

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally



considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semicommercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted.

- Except in carefully controlled laboratory experiments, a 1-dBA change cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A minimum 5-dBA change is required before any noticeable change in community response would be expected. A 5-dBA increase is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

EFFECTS OF NOISE ON PEOPLE

Hearing Loss. While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise. The Occupational Safety and Health Administration has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over 8 hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

Annoyance. Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. A noise level of about 55 dBA L_{dn} is the threshold at which a substantial percentage of people begin to report annoyance.

Ground-Borne Vibration

Sources of ground-borne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions or heavy equipment use during construction). Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is vibration decibels (VdB) (the vibration velocity level in



decibel scale). Other methods are the peak particle velocity (PPV) and the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

Table 5.6-3, *Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibrations*, displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual.

Table 5.6-3
Human Reaction and Damage to Buildings for Continuous or
Frequent Intermittent Vibrations

Maximum PPV (in/sec)	Vibration Annoyance Potential Criteria	Vibration Damage Potential Threshold Criteria	FTA Vibration Damage Criteria
0.008	--	Extremely fragile historic buildings, ruins, ancient monuments	--
0.01	Barely Perceptible	--	--
0.04	Distinctly Perceptible	--	--
0.1	Strongly Perceptible	Fragile buildings	--
0.12	--	--	Buildings extremely susceptible to vibration damage
0.2	--	--	Non-engineered timber and masonry buildings
0.25	--	Historic and some old buildings	--
0.3	--	Older residential structures	Engineered concrete and masonry (no plaster)
0.4	--	--	--
0.5	--	New residential structures, Modern industrial/commercial buildings	Reinforced-concrete, steel or timber (no plaster)
Notes: PPV = peak particle velocity; in/sec = inches per second; FTA = Federal Transit Administration			
Source: Appendix 11.8, <i>Noise and Vibration Assessment</i> .			

To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where ground-borne vibration approaches perceptible levels, this rattling phenomenon may



also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. Common sources for ground-borne vibration are planes, trains, and construction activities such as earthmoving which requires the use of heavy-duty earth moving equipment. For the purposes of this analysis, a PPV descriptor with units of inches per second (in/sec) is used to evaluate construction-generated vibration for building damage and human complaints.

EXISTING CONDITIONS

Existing Noise Sources

The project site is impacted by various noise sources. Existing noise sources are primarily from traffic along Long Beach Boulevard to the west, Wardlow Drive to the south, the San Diego Freeway to the south, the Long Beach Freeway to the west, and the operational noise from commercial uses along Long Beach Boulevard. The primary sources of stationary noise near the project site include parking lot noise at the nearby office and commercial buildings, mechanical equipment (e.g., HVAC units) and other urban-related activities (e.g., idling cars/trucks, pedestrians, car radios and music playing, dogs barking, etc.). The noise associated with these sources may represent a single-event noise occurrence or short-term noise.

Noise Measurements

Transportation systems are a primary source of urban noise. Management of noise from the most significant of these sources (aircraft, trains, and freeways) is generally preempted by federal and State authority. The primary local authority is municipal regulation of land use (i.e., land use planning) and establishment and enforcement of noise ordinances. Management of noise emanating from freeways is generally within the authority of federal and State jurisdictions, namely, the Federal Highway Administration (FHWA) and California Department of Transportation (Caltrans).

Ambient noise levels were measured in 15-minute intervals at four locations (short term, or ST), one location near the proposed project's southwestern boundary along Long Beach Boulevard, one near the proposed projects northeastern boundary, one in the residential neighborhood southwest of the project site, and one near the proposed project's southeastern boundary. The average noise levels and sources of noise measured at each location are listed in [Table 5.6-4, *Existing Noise Measurements*](#), and shown on Noise and Vibration Assessment Exhibit 4, *Noise Measurement Locations*; refer to [Appendix 11.8](#).



Table 5.6-4
Existing Noise Measurements

Site	Location	Duration	Time	L _{eq} (dBA) ¹	CNEL (dBA)	Primary Noise Sources
ST-1	Project site – Southwestern Boundary along Long Beach Boulevard	15 minutes	9:20 a.m.	71.8	--	Traffic on the Long Beach Boulevard, Freeway noise, pedestrian activities.
ST-2	Project site – Projects northeastern boundary	15 minutes	9:44 a.m.	58.8	--	Traffic on Long Beach Boulevard, parking lot noise, pedestrian activities.
ST-3	Project Site – Projects southeastern boundary, multifamily residential area	15 minutes	11:08 a.m.	62.6	--	Traffic on Long Beach and Wardlow Boulevard, parking lot noise, pedestrian activities.
ST-4	Southwest of Project site – Near single-family residences to the southwest	15 minutes	10:10 a.m.	64.9	--	Traffic on surrounding freeways.
Notes: 1. L _{eq} is the average noise level equivalent to the energy content of the time period. Measured using a Larson Davis LxT Sound Level Meter meeting the American National Standards Institute (ANSI) Type 1 Standard. Source: Appendix 11.8, <i>Noise and Vibration Assessment</i> .						

Sensitive Receptors

Noise exposure standards and guidelines for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Residences, hospitals, schools, guest lodging, libraries, and churches are treated as the most sensitive to noise intrusion and therefore have more stringent noise exposure targets than do other uses, such as manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance. The nearest sensitive receptors to the project site are shown in Table 5.6-5, *Sensitive Receptors*, and in Noise and Vibration Assessment Exhibit 4.

Table 5.6-5
Sensitive Receptors

Sensitive Receptor (SR - #)	Receptor Description	Distance and Direction from the Closest Project Boundary
SR-1	Multi-Family Residential Dwellings	40 feet to the east
SR-2	Single-Family Residential Dwellings	300 feet to the southwest
SR-3	Single-Family Residential Dwellings	350 feet to the southeast
Source: Appendix 11.8, <i>Noise and Vibration Assessment</i> .		

5.6.2 REGULATORY SETTING

FEDERAL LEVEL

Federal Transit Administration Noise and Vibration Guidance

The Federal Transit Administration (FTA) has published the *Transit Noise and Vibration Impact Assessment Manual* (FTA Transit Noise and Vibration Manual) to provide guidance on procedures for assessing impacts at different stages of transit project development. The report covers both



construction and operational noise impacts and describes a range of measures for controlling excessive noise and vibration. In general, the primary concern regarding vibration relates to potential damage from construction. The guidance document establishes criteria for evaluating the potential for damage for various structural categories from vibration.

STATE LEVEL

California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of “normally acceptable”, “conditionally acceptable”, “normally unacceptable”, and “clearly unacceptable” noise levels for various land use types. Single-family homes are “normally acceptable” in exterior noise environments up to 60 CNEL and “conditionally acceptable” up to 70 CNEL. Multiple-family residential uses are “normally acceptable” up to 65 CNEL and “conditionally acceptable” up to 70 CNEL. Schools, libraries, and churches are “normally acceptable” up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

Title 24 – California Building Code

The State’s noise insulation standards are codified in the California Code of Regulations, Title 24: Part 1, Building Standards Administrative Code, and Part 2, California Building Code. These noise standards are applied to new construction in California for interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new multi-family residential buildings, the acceptable interior noise limit for new construction is 45 dBA CNEL.

LOCAL LEVEL

City of Long Beach Municipal Code

The City of Long Beach Municipal Code (LBMC) has several policies directed at controlling or mitigating environmental noise effects. LBMC Chapter 8.80 provides all noise regulations to control and limit unnecessary and excessive noise and vibration in the City. LBMC Section 8.80.150, *Exterior Noise Limits – Sound levels by receiving land use district*, provides exterior noise standards dependent on noise-specific land use districts identified by the City’s noise control program. There are five receiving land use districts based on the predominant land use in the area. Each district has specific exterior noise level limits. The project site is within Receiving Land Use District One. Receiving Land Use District One is characterized as predominantly residential with other land uses present.

Table 5.6-6, *City of Long Beach Exterior Noise Limits for District One*, identifies the exterior noise level standards listed in LBMC for Land Use District One. These standards and criteria are incorporated into the City’s land use planning process to reduce future noise and land use incompatibilities. Table



5.6-6 is the primary tool that allows the City to ensure integrated planning for compatibility between land uses and exterior noise levels.

Table 5.6-6
City of Long Beach Exterior Noise Limits for District One

Receiving Land Use District**	Time Period	Noise Level
District One*	Night: 10:00 p.m.—7:00 a.m.	45
	Day: 7:00 a.m.—10:00 p.m.	50
Notes: * District One: Predominantly residential with other land use types also present		
Source: Appendix 11.8, <i>Noise and Vibration Assessment</i> .		

LBMC Section 8.80.150 (C) states that if measured ambient sound levels near a project site are higher than the City’s daytime exterior noise standards, allowable noise exposure standard shall be increased by 5 dBA increments to encompass the project’s current existing ambient noise levels.

The ambient noise measurements taken near the project site as shown in [Table 5.6-4, *Existing Noise Measurements*](#), are higher than the City’s daytime exterior standards for Land Use District One listed in [Table 5.6-6](#). In accordance with LBMC Section 8.80.150(C), if the measured ambient noise levels exceed the exterior noise standards for the project site’s land use district, the allowable noise exposure standard for the project site shall increase by 5 dBA. [Table 5.6-7, *City of Long Beach Adjusted Exterior Noise Standards for District One*](#), lists adjusted exterior ambient noise levels around the project site.

Table 5.6-7
City of Long Beach Adjusted Exterior Noise Standards for District One

Noise Measurement	Noise Measurement Locations	Original Noise Threshold for District One (dBA, L_{eq})	Monitored Noise Levels (dBA, L_{eq}) ¹	Adjusted Standard (dBA, L_{50}) ²
ST-1	Project site – Southwestern boundary along Long Beach Boulevard	50	71.8	75
ST-2	Project site – Northeastern boundary	50	58.8	60
ST-3	Project Site – Southeastern boundary, multi-family residential area	50	62.6	65
ST-4	Southwest of Project site – Near single-family residences to the southwest	50	64.9	65
Notes: 1. L_{eq} is the average noise level equivalent to the energy content of the time period. Measured using a Larson Davis LxT Sound Level Meter meeting the American National Standards Institute (ANSI) Type 1 Standard. 2. In accordance with LBMC Section 8.80.150(C), if the measured ambient noise levels exceed the exterior noise standards for the project sites land use district, the allowable noise exposure standard for the project site shall increase by 5 dBA.				
Source: Appendix 11.8, <i>Noise and Vibration Assessment</i> .				

LBMC Section 8.80.202, *Construction Activity – Noise Regulation*, states allowable hours for construction. LBMC has not established quantitative standards for construction noise but is regulated through allowable hours of construction. All construction must occur outside of the hours of 7:00 p.m. to 7:00 a.m., Monday through Friday, and federal holidays occurring on weekdays. Construction equipment operation shall only be permitted outside of the hours of 7:00 p.m. on Friday and 9:00 a.m. on Saturday and after 6:00 pm on Saturday. Construction work shall not be conducted on Sunday. To perform



construction on Sundays, only between the hours of 9:00 a.m. and 6:00 p.m., a Sunday work Permit must be issued by the Noise Control Officer.

LBMC Section 8.20.200(N), *Noise Disturbance – Act Specific*, requires that air-conditioning and/or refrigeration equipment noise shall not exceed 55 dBA at the closest property line, 50 dB at a neighboring patio, or 50 dBA outside a neighboring living area window closest to the equipment's location.

LBMC Section 8.80.340(A), *Variance – Exemption from regulations*, states that variance may be obtained from a noise control officer to grant exemptions from any provision in the Noise Regulations in Chapter 8.80 of the LBMC.

City of Long Beach General Plan

The General Plan Noise Element has several policies directed at controlling or mitigating environmental noise effects. The City recently updated the Noise Element and was adopted by the Long Beach City Council on June 6, 2023.

Table 5.6-8, *Recommended Criteria for Maximum Acceptable Noise Levels In A-Weighted Decibels (dBA)*, identifies U.S. EPA's 1974 established guidelines for maximum noise levels for each land use occurring in the City. These standards and criteria are incorporated into the City's land use planning process to reduce future noise and land use incompatibilities. Table 5.6-8 lists the recommended criteria for maximum acceptable noise levels for the City's land uses to ensure integrated planning for compatibility between land uses and outdoor noise.

Table 5.6-8
Recommended Criteria for Maximum Acceptable Noise Levels
In A-Weighted Decibels (dBA)

Land Use Category	Outdoor			Indoor
	Maximum Single Hourly Peak ¹	L ₁₀ ²	L ₅₀ ³	Indoor (L _{dn}) ⁴
Residential ⁵ 7:00 a.m. – 10:00 p.m.	70	55	45	45
Residential ⁵ 10:00 p.m. – 7 a.m.	60	45	35	35
Commercial (anytime)	75	65	55	- ⁶
Industrial (anytime)	85	70	60	- ⁶

Notes:

1. Based on existing ambient level ranges in Long Beach and recommended U.S. Environmental Protection Agency ratios and standards for interference and annoyance.
2. Noise levels exceeded ten percent of the time.
3. Noise levels exceeded fifty- percent of the time.
4. Day-night average sound level. The 24-hour A-weighted equivalent sound level with a 10 decibel penalty applied to nighttime levels.
5. Includes all residential categories and all noise sensitive land uses such as hospitals, schools, etc.
6. Since different types of commercial and industrial activities appear to be associated with different noise levels, identification of a maximum indoor level for activity interference is unfeasible.

Source: Appendix 11.8, *Noise and Vibration Assessment*.



5.6.3 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

CEQA THRESHOLDS

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form that was used during the preparation of the Initial Study, which is contained in [Appendix 11.1](#), of this EIR. The issues presented in the Environmental Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant adverse environmental impact if it would:

- a) Generate 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 (refer to Impact Statement NOI-1);
- b) Generate excessive groundborne vibration or groundborne noise levels (refer to Impact Statement NOI-2); and/or
- 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, expose people residing or working in the project area to excessive noise levels (refer to [Appendix 11.1](#), *Notice of Preparation / Initial Study*)

Based on these standards/criteria, the effects of the proposed project have been categorized as either a “less than significant impact” or “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

METHODOLOGY

Construction

Construction noise levels were based on typical noise levels generated by construction equipment published by the FTA and FHWA. Construction noise is assessed in dBA L_{eq} . This unit is appropriate because L_{eq} can be used to describe noise level from operation of each piece of equipment separately, and levels can be combined to represent the noise level from all equipment operating during a given period.

Reference noise levels are used to estimate operational noise levels at nearby sensitive receptors based on a standard noise attenuation rate of 6 dB per doubling of distance (line-of-sight method of sound attenuation for point sources of noise). Noise level estimates do not account for the presence of intervening structures or topography, which may reduce noise levels at receptor locations. Therefore, the noise levels presented herein represent a conservative, reasonable worst-case estimate of actual temporary construction noise.

The City of Long Beach has not adopted a numerical threshold that identifies what a substantial increase would be, but noise is regulated through allowable hours of construction. For purposes of this analysis, the criteria from the FTA Transit Noise and Vibration Manual are used to establish significance thresholds. The FTA provides reasonable criteria for assessing construction noise impacts



based on the potential for adverse community reaction. The FTA Transit Noise and Vibration Manual identifies a maximum 8-hour noise level standard of 80 dBA L_{eq} at residential uses and 90 dBA L_{eq} at commercial and industrial uses for short-term construction activities. In compliance with LBMC, it is assumed that construction would not occur during the noise-sensitive nighttime hours.

Operations

The analysis of the project's noise environment is based on noise prediction modeling and empirical observations. Reference noise level data are used to estimate the project's operational noise impacts from stationary sources. Noise levels were collected from published sources from similar types of activities and used to estimate noise levels expected with the project's stationary sources. The reference noise levels are used to represent a worst-case noise environment as noise level from stationary sources can vary throughout the day. Operational noise is evaluated based on the standards within the City's noise standards and General Plan; refer to [Table 5.6-6](#) and [Table 5.6-7](#).

Further, the Federal Interagency Committee on Noise (FICON) guidance provides an established source of criteria to assess the impacts of substantial permanent increase in ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without project noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or readily perceptible, 3 dBA or barely perceptible, and 1.5 dBA depending on the underlying without project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance are consistent with guidance provided by both the Federal Highway Administration and Caltrans. As stated in the FICON guidance, a significant impact would occur if project noise levels would result in an incremental increase of more than 3 dBA over existing ambient noise levels.

Vibration

Ground-borne vibration levels associated with construction activities for the project were evaluated utilizing typical ground-borne vibration levels associated with construction equipment, obtained from FTA published data for construction equipment. Potential ground-borne vibration impacts related to building/structure damage and interference with sensitive existing operations were evaluated, considering the distance from construction activities to nearby land uses and typically applied criteria for structural damage and human annoyance. Per FTA guidance, a vibration limit of 12.7 millimeters per second (mm/sec; 0.5 inch/sec) PPV is used for buildings that are structurally sound and designed to modern engineering standards. A conservative vibration limit of five mm/sec (0.2 in/sec) PPV has been used for buildings that are found to be structurally sound but where structural damage is a major concern. For historic buildings or buildings that are documented to be structurally weakened, a conservative limit of two mm/sec (0.08 in/sec) PPV is used to provide the highest level of protection.



5.6.4 IMPACTS AND MITIGATION MEASURES

TEMPORARY AND PERMANENT NOISE IMPACTS

NOI-1 A SUBSTANTIAL TEMPORARY OR PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN THE AREA COULD RESULT FROM THE PROJECT IN EXCESS OF STANDARDS ESTABLISHED IN THE LOCAL GENERAL PLAN OR NOISE ORDINANCE, OR APPLICABLE STANDARDS OF OTHER AGENCIES.

Impact Analysis:

CONSTRUCTION

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. During construction, exterior noise levels could affect the buildings near the construction site.

Construction activities would include site preparation, grading, building construction, paving, and architectural coating. Such activities may require graders, tractors/loaders/backhoes and dozers during site preparation; graders, dozers, and tractors/loaders/backhoes during grading; forklifts, generator sets, tractors/loaders/backhoes, and welders during building construction; pavers, rollers, mixers, tractors/loaders/backhoes, and paving equipment during paving; and air compressors during architectural coating. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. The site preparation and grading phases of proposed project construction tend to be the shortest in duration and create the highest construction noise levels due to the operation of heavy equipment required to complete these activities. It should be noted that only a limited amount of equipment can operate near a given location at a particular time. Typical noise levels associated with individual construction equipment are listed in [Table 5.6-9, *Typical Construction Noise Levels*](#).

Following the methodology for quantitative construction noise assessments in the FTA Transit Noise and Vibration Manual, the FHWA Roadway Construction Noise Model (RCNM) was used to predict construction noise at the nearest receptors. The FTA Noise and Vibration Manual identifies a maximum 8-hour noise level standard of 80 dBA L_{eq} at residential uses and 90 dBA L_{eq} at commercial and industrial uses for short-term construction activities. Reference noise levels are used to estimate noise levels at nearby sensitive receptors based on a standard noise attenuation rate of 6 dB per doubling of distance (line-of-sight method of sound attenuation for point sources of noise).



Table 5.6-9
Typical Construction Noise Levels

Equipment	Typical Noise Level (dBA) at 50 feet from Source
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Paver	80
Pneumatic Tool	85
Pump	77
Roller	85
Saw	76
Scraper	85
Shovel	82
Truck	84

Source: Appendix 11.8, *Noise and Vibration Assessment*.

Construction noise level estimates do not account for the presence of intervening structures or topography, which may reduce noise levels at receptor locations. Therefore, the noise levels presented herein represent a conservative, reasonable worst-case estimate of actual temporary construction noise. Following FTA methodology, construction equipment is assumed to operate at the center of a project site because equipment operates throughout the site rather than a fixed location for extended periods of time. The nearest noise sensitive receptors (SR-1) are multi-family residences located directly east of the property line and 90 feet from the center of construction activity. Assumptions represent a worst-case scenario as construction activities would routinely be spread throughout the construction site further away from noise sensitive receptors. Table 5.6-10, *Project Construction Equipment Noise Levels*, shows the estimated exterior construction noise levels at the nearest sensitive receptors.



Table 5.6-10
Project Construction Equipment Noise Levels

Construction Phase	Receptor Location			Worst Case Modeled Exterior Noise Level (dBA L _{eq})	Noise Threshold (dBA L _{eq}) ²	Exceeded?
	Land Use	Direction	Distance (feet) ¹			
Site Preparation	Residential	East	90	78.5	80	No
	Residential	Southwest	380	68.8	80	No
	Commercial	Southwest	100	77.5	90	No
	Commercial	Northeast	130	75.3	90	No
Grading	Residential	East	90	79.5	80	No
	Residential	Southwest	380	69.9	80	No
	Commercial	Southwest	100	79.5	90	No
	Commercial	Northeast	130	76.3	90	No
Construction	Residential	East	90	78.3	80	No
	Residential	Southwest	380	69.3	80	No
	Commercial	Southwest	100	77.4	90	No
	Commercial	Northeast	130	75.1	90	No
Paving	Residential	East	90	79.2	80	No
	Residential	Southwest	380	69.2	80	No
	Commercial	Southwest	100	78.3	90	No
	Commercial	Northeast	130	76.0	90	No
Architectural Coating	Residential	East	90	68.6	80	No
	Residential	Southwest	380	65.0	80	No
	Commercial	Southwest	100	67.7	90	No
	Commercial	Northeast	130	65.4	90	No
Notes:						
1. In accordance with methodology from the FTA Noise and Vibration Manual, the equipment distance is assumed at the center of the project site.						
2. Thresholds from the Federal Transit Administration, <i>Transit Noise and Vibration Impact Assessment Manual</i> , September 2018.						
Source: Appendix 11.8, <i>Noise and Vibration Assessment</i> .						

As shown in Table 5.6-10, the proposed project's anticipated construction noise levels at the nearest sensitive receptors would not exceed the FTA noise thresholds of 80 dBA L_{eq} for residential uses and 90 dBA L_{eq} for commercial uses during all phases of construction. Additionally, project construction would not result in a violation of the construction noise regulation hours established by LMBC Section 8.80.202 because project construction activities would occur within the allowable hours of construction in the LBMC, which are 7:00 a.m. to 7:00 p.m. Monday through Friday, 9:00 a.m. to 6:00 p.m. on Saturday, and no construction activity on Sundays.

Construction noise may be higher than the existing ambient levels in the area; however, construction noise would be intermittent and temporary, dependent on the proposed project's construction phase, equipment type, and duration of use and would not result in a permanent increase in ambient noise levels in the area. As noted above, construction noise levels would not exceed identified FTA noise thresholds. All construction activity would comply with allowable hours of construction defined in



LBMC Section 8.80.202, and construction noise would be temporary and intermittent. The proposed project's construction noise would result in a less than significant impact.

OPERATIONS

The primary noise sources associated with the project include parking lot noise, mechanical equipment, and mobile traffic noise. A discussion of each noise source is provided below.

Parking Lot Noise

Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the one-hour L_{eq} and CNEL scales. The instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-by range from 53 to 61 dBA and may be an annoyance to adjacent sensitive receptors. Conversations in parking areas may also be an annoyance to adjacent sensitive receptors. Sound levels of speech typically range from 33 dBA at 50 feet for normal speech to 50 dBA at 50 feet for very loud speech.

The proposed building would be situated in the northeast corner of the project site with parking areas provided to the west and south of the building. Parking lot noise would occur at the proposed surface parking lot directly adjacent to the residences to the east of the project site. Ambient noise measurements were taken southeast of the project site near the multi-family residences. As shown in [Table 5.6-4](#), the dBA L_{eq} from a 15-minute measurement ranged from 58.8 (ST-2) to 71.8 (ST-1). These noise levels are used as the existing daytime ambient noise levels in this analysis. Noise associated with parking would be a maximum of 58.9 dBA at 80 feet. Parking lot noise would also be partially masked by the background noise from traffic along Long Beach Boulevard and would not exceed the City's adjusted 65 dBA standard for District One residential uses. Further, as shown in [Table 5.6-11](#), *Project Operational Noise Level Increases*, parking lot noise would not result in an incremental increase of 3 dBA over existing ambient noise levels and impacts would be less than significant.

Table 5.6-11
Project Operational Noise Level Increases

Noise Source	Reference Level (dBA)	Reference Distance (feet)	Distance To Receptor (feet)	Ambient Level (dBA) ³	Combined Noise at Receptor (dBA)	Incremental Increase (dBA)	Exceed Threshold? ⁴
Mechanical Equipment ¹	52	50	80	58.8	59.1	0.3	No
Emergency Generator ¹	63.5	50	90	58.8	61.6	2.8	No
Parking ²	61	50	80	58.8	61	2.2	No
Notes: 1. Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, <i>Noise Navigator Sound Level Database with Over 1700 Measurement Values</i>, July 6, 2010. 2. Kariel, H. G., <i>Noise in Rural Recreational Environments</i>, Canadian Acoustics 19(5), 3-10, 1991. 3. Measured ambient noise levels ranged from 58.8 dBA and 71.8 dBA. The lowest measured level at the closest residential receptor is conservatively used for this evaluation. 4. As stated in the FICON guidance, a significant impact would occur if project noise levels would result in an incremental increase of more than 3 dBA over existing ambient noise levels. Source: Appendix 11.8, Noise and Vibration Assessment.							



Mechanical Equipment

During operations, the proposed project's rooftop HVAC units could be a source of noise affecting existing ambient noise levels in the immediate vicinity. The proposed project's rooftop HVAC would be most active during the daytime as the proposed project would develop a bank and office building. This analysis assumes that the proposed project would include one commercial packaged rooftop HVAC unit for the proposed building. HVAC units typically generate noise levels of approximately 52 dBA at 50 feet. The nearest mechanical equipment would be at the closest approximately 80 feet from the nearest sensitive receptor (SR-1). At this distance, HVAC equipment noise would be approximately 47.9 dBA based on distance attenuation alone (using the inverse square law of sound propagation) and would not exceed the LBMC Section 8.20.200(N)'s Noise Disturbance standards for air-conditioning and refrigeration equipment of 55 dBA at the closest property line.

During operations, the proposed project would also utilize one portable emergency generator if needed. One generator would generate a noise level of 70.2 dB at 23 feet. The nearest sensitive receptor (SR-1) would be located 90 feet from the potential portable emergency generator location. At the nearest sensitive receptor location (SR-1), the estimated operative noise level from the proposed emergency generator would be a maximum of 58.3 dBA L_{eq} . These noise levels would not exceed adjusted 65 dBA standards for District One Residential Uses. Additionally, as shown in [Table 5.6-11](#), noise associated with the proposed mechanical equipment would not result in an incremental increase of 3 dBA over existing ambient noise levels and impacts would be less than significant.

Traffic Noise

In general, a 3 dBA increase in traffic noise is barely perceptible to people, while a 5 dBA increase is readily noticeable. Traffic volumes (measured by ADT) on proposed project area roadways would have to approximately double (i.e., result in a 100 percent increase) for the resulting traffic noise levels to generate a 3 dBA increase. Project implementation would generate increased traffic volumes along surrounding roadway segments. Project-related trips would occur along Long Beach Boulevard and Wardlow Boulevard. Long Beach Boulevard is categorized as a boulevard according to the General Plan Mobility Element. Boulevards are characterized by a long-distance, medium-speed corridors that traverse urbanized areas, consisting of four or fewer vehicle travel lanes, with ADT volumes between 20,000 and 30,000 trips. Wardlow Boulevard is categorized as a minor avenue, which is characterized as traffic routes leading to neighborhood activity centers, routes between neighborhoods, primary bicycle routes, and local transit routes. According to the City's Traffic Map, Long Beach Boulevard and Wardlow Avenue have ADT volumes of 27,200 and 17,300 daily vehicles nearest to the project site, respectively; refer to the Noise and Vibration Assessment. The proposed project would generate approximately 293 daily vehicle trips, which would not double the existing traffic volumes and would not result in a perceivable noise increase.

Therefore, proposed project operations would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the proposed project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.



VIBRATION IMPACTS

NOI-2 PROJECT IMPLEMENTATION COULD RESULT IN ADVERSE VIBRATION IMPACTS TO NEARBY SENSITIVE RECEPTORS AND STRUCTURES.

Impact Analysis:

CONSTRUCTION

Increases in groundborne vibration levels attributable to the proposed project would be primarily associated with short-term construction-related activities. Project construction would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved.

The FTA has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 in/sec) appears to be conservative. The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.50 in/sec is considered safe and would not result in any construction vibration damage. This evaluation uses the FTA architectural damage criterion for continuous vibrations at non-engineered timber and masonry buildings of 0.2 in/sec PPV and human annoyance criterion of 0.4 in/sec PPV in accordance with Caltrans guidance.

Table 5.6-12, *Typical Construction Equipment Vibration Levels*, lists vibration levels at 25 feet for typical construction equipment. Groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. As indicated in the table, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.003 to 0.089 in/sec PPV at 25 feet from the source of activity.

Table 5.6-12
Typical Construction Equipment Vibration Levels

Equipment	PPV at 25 feet (in/sec)
Large Bulldozers	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer/Tractors	0.003

Notes: PPV = peak particle velocity; in/sec = inches per second

Source: Appendix 11.8, *Noise and Vibration Assessment*.



The concentration of construction activities would occur at least 25 feet from the nearest off-site structures/receptors. As shown in Table 5.6-12, at 25 feet, construction equipment vibration velocities could reach approximately 0.089 in/sec PPV, which is below the FTA's 0.20 in/sec PPV threshold and Caltrans' 0.4 in/sec PPV threshold for human annoyance. It is also acknowledged that construction activities would occur throughout the project site and would not be concentrated at the point closest to the nearest offsite structure. Impacts from construction vibration would be less than significant.

OPERATIONS

The project proposes an office building that would not involve railroads or substantial heavy truck operations. Therefore, proposed project operations would not generate excessive groundborne vibration; impacts from operational vibration would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.6.5 CUMULATIVE IMPACTS

Table 4-1, *Cumulative Projects List*, identifies the related projects and other possible development in the area determined as having the potential to interact with the proposed project to the extent that a significant cumulative effect may occur. The following discussions are included to determine whether a significant cumulative effect would occur.

SHORT-TERM CONSTRUCTION NOISE IMPACTS

● CONSTRUCTION-RELATED ACTIVITIES WITHIN THE PROJECT AREA COULD RESULT IN SIGNIFICANT TEMPORARY NOISE IMPACTS TO NEARBY NOISE SENSITIVE RECEIVERS.

Impact Analysis: The project's construction activities would not result in a substantial temporary increase in ambient noise levels. Construction noise would be periodic and temporary noise impacts that would cease upon completion of construction activities. The project would cumulatively contribute to other proximate construction project noise impacts if construction activities were conducted concurrently. However, based on the noise analysis above, the project's construction-related noise impacts would be less than significant following the City and FTA construction noise standards.

Construction activities at other planned and approved projects near the project site would be required to undergo site-specific environmental review and comply with applicable rules related to noise and would take place during daytime hours on the days permitted by the applicable municipal code, and projects requiring discretionary approvals would be required to evaluate construction noise impacts, comply with the applicable standard conditions of approval, and implement mitigation, if necessary, to minimize noise impacts. Construction noise impacts are by nature localized. Because noise dissipates as it travels away from its source, noise impacts would be limited to the project site and vicinity. Therefore, project construction would not result in a cumulatively considerable contribution to significant cumulative impacts, assuming such a cumulative impact existed, and impacts in this regard are not cumulatively considerable.



Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

LONG-TERM NOISE IMPACTS

- **THE PROPOSED PROJECT COULD RESULT IN A SIGNIFICANT INCREASE IN TRAFFIC AND LONG-TERM STATIONARY AMBIENT NOISE LEVELS.**

Impact Analysis:

CUMULATIVE OFF-SITE TRAFFIC NOISE

Cumulative noise impacts describe how much noise levels are projected to increase over existing conditions with the development of the proposed project and other foreseeable projects. Cumulative noise impacts generally occur as a result of increased traffic on local roadways due to buildout of the proposed project and other projects in the vicinity. However, the project is projected to result in 293 daily vehicle trips and would result in a minimal traffic noise increase (less than 3.0 dBA) along local roadways. Therefore, the proposed project's contribution would not be cumulatively considerable.

CUMULATIVE STATIONARY NOISE

Stationary noise sources of the proposed project would result in an incremental increase in non-transportation noise sources in the vicinity of the site. However, as discussed above, operational noise caused by the proposed project would be less than significant. Like the proposed project, other planned and approved projects would be required to mitigate for stationary noise impacts at nearby sensitive receptors, if necessary. As stationary noise sources are generally localized, there is a limited potential for other projects to contribute to cumulative noise impacts.

No known present or reasonably foreseeable projects would combine with the operational noise levels generated by the project to increase noise levels above acceptable standards because each project must comply with applicable city regulations that limit operational noise. Therefore, the project, together with other projects, would not create a significant cumulative impact, and even if there was such a significant cumulative impact, the project would not make a cumulatively considerable contribution to significant cumulative operational noises.

Given that noise dissipates as it travels away from its source, operational noise impacts from on-site activities and other stationary sources would be limited to the project site and immediate vicinity. Thus, cumulative operational noise impacts from related projects, in conjunction with project-specific noise impacts, would not be cumulatively significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.



VIBRATION IMPACTS

● PROJECT IMPLEMENTATION COULD RESULT IN SIGNIFICANT VIBRATION IMPACTS TO NEARBY SENSITIVE RECEPTORS AND STRUCTURES.

Impact Analysis: The project's construction activities would not result in substantial groundborne vibration. Project construction activities would not generate groundborne vibration on-site above the significance criteria (i.e., FTA's 0.20 in/sec PPV threshold and Caltrans' 0.40 in/sec PPV threshold for human annoyance).

Construction activities at other planned and approved projects near the project site would be required to comply with applicable city rules related to vibration and would take place during daytime hours on the days permitted by the applicable municipal code, and projects requiring discretionary approvals would be required to evaluate construction noise impacts, comply with applicable standard conditions of approval, and implement mitigation, if necessary, to minimize vibration impacts. Construction vibration impacts are by nature localized. Therefore, project construction would not result in a cumulatively considerable contribution to vibration impacts and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance: Less Than Significant Impact.

5.6.5 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts related to noise would occur.



6.0 Other CEQA Considerations



6.0 OTHER CEQA CONSIDERATIONS

6.1 SHORT- AND LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

Pursuant to CEQA Guidelines Section 15126.2, the following is a discussion of both short-term construction-related impacts and long-term impacts of the project. If the proposed project is approved and implemented, a variety of short- and long-term impacts would occur on a local level. During project grading and construction, portions of surrounding uses may be temporarily impacted by dust and noise. There may also be an increase in vehicle pollutant emissions caused by grading and construction activities. However, these disruptions would be temporary and may be avoided or lessened to a large degree through mitigation cited in this EIR and through compliance with the established regulatory framework; refer to Section 5.0, *Environmental Analysis*, Section 8.0, *Effects Found Not To Be Significant*, and Appendix 11.1, *Notice of Preparation/Initial Study*.

The proposed project, which would involve the construction of a two-story office/bank building on a site previously used for oil/gas production, would create long-term environmental consequences. Project development and subsequent long-term effects may impact the physical, aesthetic, and human environments. Long-term physical consequences of development include disturbance of impacted soils, potential disturbance of cultural and tribal cultural resources, increased air pollutant and greenhouse gas emissions from increased traffic, and increased noise from project-related mobile (traffic) and stationary (mechanical, landscaping, etc.) sources. However, as concluded in Section 5.0, *Section 8.0*, and Appendix 11.1 the project's impacts would be less than significant following compliance with the established regulatory framework and recommended mitigation measures. Therefore, the proposed project would not have significant long-term implications in this regard.

6.2 IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

According to CEQA Guidelines Sections 15126(c) and 15126.2(c), an EIR is required to address any significant irreversible environmental changes that would occur should the proposed project be implemented. As stated in CEQA Guidelines Section 15126.2(d):

“Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter likely, Primary impacts and, particularly, secondary impacts [such as highway improvement which provides access to a previously inaccessible area] generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.”

The environmental impacts associated with the proposed project are analyzed in Section 5.0, *Section 8.0*, and Appendix 11.1. The project site is currently vacant. Construction of the proposed office/bank building would consume limited, slowly renewable, and non-renewable resources. This consumption would occur during the construction phase and would continue throughout its operational lifetime. The proposed development would require a commitment of resources including building materials;



fuel and operational materials/resources; and transportation of goods and people to and from individual development sites. Construction would require the consumption of resources that are not renewable or which may renew so slowly as to be considered non-renewable. These resources include, but are not limited to, lumber and other forest products; aggregate materials used in concrete and asphalt; metals; and water. Fossil fuels such as gasoline and oil would also be consumed in the use of construction vehicles and equipment.

The proposed project would consume resources similar to those currently consumed within the City (e.g., energy resources such as electricity and natural gas as well as petroleum-based fuels required for vehicle trips, fossil fuels, and water). Fossil fuels would represent the primary energy source associated with both construction and ongoing operation, and the existing, finite supplies of these natural resources would be incrementally reduced. Future operations of the proposed residential development would occur in accordance with California Code of Regulations Title 24 Part 6, which sets forth conservation practices that would limit energy consumption. Nonetheless, the project's energy requirements represent a long-term commitment of essentially non-renewable resources.

Future construction activities associated with implementation of the proposed project could release hazardous materials into the environment through reasonably foreseeable upset and accidental conditions; refer to [Section 5.5, *Hazards and Hazardous Materials*](#). However, grading and excavation activities would be subject to established regulatory standards to ensure that hazardous materials releases are minimized. Further, as detailed in [Section 5.5](#), the project would be required to comply with Mitigation Measures HAZ-1 and HAZ-2 that would reduce potential impacts associated with historic oil/gas production activities to less than significant levels. Compliance with the established regulatory framework and implementation of Mitigation Measures HAZ-1 and HAZ-2 would protect against a significant and irreversible environmental change resulting from the accidental release of hazardous materials.

In conclusion, development of the proposed project would result in the irretrievable commitment of limited, slowly renewable, and nonrenewable resources, which would limit the availability of these resource quantities for future generations or for other uses during the life of individual developments. It is noted that the continued use of such resources would be on a relatively small scale in a regional context. Although irreversible environmental changes would result from project implementation, such changes would not be considered significant.

6.3 GROWTH-INDUCING IMPACTS

CEQA Guidelines Section 15126(d) requires that an EIR analyze a project's growth-inducing impacts. Specifically, CEQA Guidelines Section 15126.2(e) requires that an EIR:

"Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth [a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas]. Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."



It is noted that while CEQA does require an EIR to “discuss the ways” a project could be growth-inducing and “discuss the characteristics of some projects that may encourage...activities that could significantly affect the environment,” CEQA does not require an EIR to predict (or speculate) specifically where such growth would occur, in what form it would occur, or when it would occur. Answering such questions would require speculation, which CEQA discourages; see CEQA Guidelines Section 15145, *Speculation*.

Pursuant to Sections 15126(d) and 15126.2(e) of the CEQA Guidelines, this section of the Draft EIR is provided to examine how the proposed project could foster economic or population growth through the construction of additional housing, either directly or indirectly. The analysis considers whether the proposed project would remove obstacles to population growth (such as infrastructure expansions) or encourage/facilitate other activities that could significantly affect the environment. Not all aspects of growth inducement are negative; instead, negative impacts associated with growth inducement occur only where the growth related to the project would cause adverse environmental impacts.

Growth-inducing impacts fall into two categories: direct or indirect. Direct growth-inducing impacts are generally associated with providing urban services to an undeveloped area. Indirect, or secondary, growth-inducing impacts consist of growth-induced in the region by additional demand for housing, goods, and services associated with a population increase caused by or attracted to a new project. This analysis provides an overall discussion of project impacts and considers utility infrastructure and circulation to determine whether the project would result in direct or indirect growth inducement.

ECONOMIC GROWTH

The project proposes to develop a commercial use on the project site, consistent with current land use and zoning. The proposed bank would employ up to 24 people; new jobs generated by the proposed bank would likely be filled by local residents who already reside in the City or in surrounding areas. Compared to existing conditions (i.e., a vacant, disturbed lot), the proposed bank and generated employment would foster economic expansion and increase the City’s revenue base the City’s business license tax, utility user taxes, property taxes, and sales taxes.

As a bank within the centralized, urban area of the City with an established transit system, the project would provide jobs and services for existing residents in the area. Given the use and size of the proposed project in addition to the built-out nature of the vicinity, the project is not anticipated to increase demand for economic goods and services in the City nor encourage the creation of other new businesses and/or the expansion of existing businesses. As such, nominal economic growth is anticipated, and future economic effects associated with the proposed project are not expected to significantly affect the environment.

POPULATION GROWTH

A project can induce population growth in an area either directly (i.e., by proposing new homes or businesses) or indirectly (i.e., through the extension of roads or other infrastructure). The project proposes to develop a commercial use consistent with the site’s current land use and zoning and does not include development of residential uses. The proposed bank would employ up to 24 people; however, new jobs generated by the proposed bank would likely be filled by local residents who already reside in the City or in surrounding areas. Further, given that the proposed project is consistent with



the site's existing land use and zoning, population growth associated with the project was already contemplated in the General Plan. Overall, the project would not result in growth-inducing impacts associated with population growth.

REMOVAL OF AN IMPEDIMENT TO GROWTH

Although the proposed project would require installation of utility improvements to serve the proposed bank, the project is located in an urbanized area in the City surrounded by existing development that is already served by existing utility infrastructure and services. Therefore, the project would not extend infrastructure (e.g., wastewater treatment, roads, water storage) to new areas lacking such services, potentially removing an impediment to growth. The proposed project-specific infrastructure improvements would rely upon the existing network of utilities and service systems in the project area and would only accommodate the proposed bank. As such, project implementation would not result in a removal of an impediment to growth through the establishment of an essential public service to an area.

The project site is located in a developed area of the City and roadway network in the project area is fully built out with both regional and local access already provided by an existing roadway network. Therefore, implementation of the proposed project would not remove an existing impediment to growth through the provision of new access to an area.

PRECEDENT-SETTING ACTION

The project would require the following City approvals: CEQA Clearance, Site Plan/Architectural Review; Lot Merger, LBMC Section 18.78.070, *Equivalency Abandonment Standard*, Waiver, and Public Works Permits.

The approval of these discretionary and ministerial actions would not set a precedent that would make it more likely for other projects in the City to gain approval of similar applications. For example, a future project in the City requesting similar discretionary and ministerial approvals would still need to undergo the same environmental review as the proposed project and mitigate potentially significant environmental impacts on a project-level. Overall, the proposed discretionary and ministerial approvals would only apply to the project. Future projects with similar required discretionary and ministerial actions would also be subject to applicable environmental review on a project-by-project basis. Implementation of the proposed project would not establish a procedure that would make future site plan reviews, lot mergers, waivers, or Public Works permits any easier and would be speculative to determine any such effect. As such, the proposed project would not involve a precedent-setting action that could significantly affect the environment.

DEVELOPMENT OR ENCROACHMENT OF OPEN SPACE

The project site is vacant and highly disturbed, largely devoid of vegetation excluding a narrow band of vegetation featuring patches of grass and four palm trees bordering Long Beach Boulevard, a cluster of two palm trees located in the northeast corner of the project site, and a single palm tree located on the eastern side of the project site, towards the southeast corner. The project site is designated Community Commercial PlaceType and zoned Community Commercial Automobile-Oriented (CCA) with High-Rise Overlay, Four Story Limit (HR-4) overlay. Surrounding land uses include transportation, restaurant, commercial retail, office, high density residential, church, gas station, and



high-density commercial uses. Overall, there are no existing isolated areas of existing open space within or in proximity to the project site. As such, the proposed infill development would not develop or encroach on an isolated or adjacent area of open space, resulting in a growth-inducing impact.

SUMMARY

In summary, project implementation is not considered growth-inducing with respect to removing an impediment to growth, fostering economic expansion or population growth, establishing a precedent-setting action, or encroaching into an isolated area of open space. Not all aspects of growth inducement are negative; instead, negative impacts associated with growth inducement occur only where the growth related to the project would cause adverse environmental impacts. As analyzed throughout [Section 5.0](#) and [Appendix 11.1](#), implementation of the proposed project would not result in any significant and unavoidable environmental impacts with implementation of recommended mitigation.

The City has only limited, isolated opportunities for growth and redevelopment. The proposed project would be consistent with the City's long-term growth projections by developing a commercial use consistent with current land use and zoning on a vacant lot. It would not lead to other, off-site induced growth. The proposed project does not involve uses that could directly or indirectly result in growth-inducing impacts or other environmental effects not otherwise disclosed in this EIR. The proposed project and project entitlements are site-specific and do not affect the development standards of any other property. The development of the proposed project would not indirectly cause significant growth, nor is it anticipated that the addition of these new residents and employees would indirectly trigger additional population growth in the area. Overall, the proposed project's growth-inducing impacts would not be considered substantial.



This page intentionally left blank.



7.0 Alternatives to the Proposed Project



7.0 ALTERNATIVES TO THE PROPOSED PROJECT

Under CEQA, the identification and analysis of alternatives to a project is a fundamental part of the environmental review process. CEQA Public Resources Code Section 21002.1(a) establishes the need to address alternatives in an Environmental Impact Report (EIR) by stating that in addition to determining a project's significant environmental impacts and indicating potential means of mitigating or avoiding those impacts, "the purpose of an environmental impact report is ... to identify alternatives to the project."

Direction regarding the definition of project alternatives is provided in the CEQA Guidelines as follows:

An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.¹

The CEQA Guidelines emphasize that the selection of project alternatives be based primarily on the ability to reduce significant effects relative to the proposed project, "even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."² The CEQA Guidelines further direct that the range of alternatives be guided by a "rule of reason," such that only those alternatives necessary to permit a reasoned choice are addressed.³

In selecting project alternatives for analysis, potential alternatives must pass a test of feasibility. CEQA Guidelines Section 15126.6(f)(1) states that:

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site ...

Beyond these factors, CEQA Guidelines require the analysis of a "no project" alternative and an evaluation of alternative location(s) for the project, if feasible. Based on the alternatives analysis, an environmentally superior alternative is to be designated. If the environmentally superior alternative is the No Project Alternative, then the EIR shall identify an environmentally superior alternative among the other alternatives.⁴ In addition, CEQA Guidelines Section 15126.6(c) requires that an EIR identify any alternatives that were considered for analysis but rejected as infeasible and discuss the reasons for their rejection.

The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making. The range of potential alternatives to a project shall also include those that could feasibly accomplish most of the basic objectives of the project and

¹ CEQA Guidelines Section 15126.6(a).

² CEQA Guidelines Section 15126.6(b).

³ CEQA Guidelines Section 15126.6(f).

⁴ CEQA Guidelines Section 15126.6(e)(2).



could avoid or substantially lessen one or more of the significant effects. Among the factors that may be considered when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, General Plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). Only locations that would avoid or substantially lessen any of a project's significant effects need be considered for inclusion. An alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative need not be considered.

Potential environmental impacts associated with the following alternatives are compared to the proposed project's impacts:

- Alternative 1 – “No Project/Existing Conditions” Alternative;
- Alternative 2 – “Building Relocation” Alternative; and
- Alternative 3 – “Reduced Density” Alternative.

These alternatives were selected based on their potential to implement certain components of the project to accomplish some or most of the basic objectives of the project and avoid or substantially lessen one or more of the proposed project's environmental impacts with the understanding that the project would not result in any significant unavoidable effects. Specifically, the “No Project/Existing Conditions” Alternative is considered to enable the decision-makers to compare the impacts of approving the project with the impacts of not approving the project. The “Building Relocation” Alternative was selected for analysis to evaluate an alternative that relocates the proposed building closer to the western property boundary (along Long Beach Boulevard) with the intent of reducing hazardous impacts related to the unknown location of the wellhead identified as Featherstone #15. The “Reduced Density” Alternative was selected for analysis to evaluate an alternative that reduces the project's development potential with the intent to also proportionally reduce project-related environmental impacts.

Throughout the following analysis, the alternatives' impacts are analyzed for each environmental issue area, as examined in [Section 5.0, *Environmental Analysis*](#) of this EIR. In this manner, each alternative can be compared to the project on an issue-by-issue basis. A table is included at the end of this section that provides an overview of the alternatives analyzed and a comparison of each alternative's impact in relation to the project. This section also identifies alternatives that were considered by the Lead Agency but were rejected as infeasible during the scoping process. Among the factors used to eliminate alternatives from detailed consideration include failure to meet most of the basic project objectives, infeasibility, or inability to avoid or substantially lessen one or more of the project's environmental impacts. [Section 7.5, “*Environmentally Superior*” Alternative](#), identifies the “environmentally superior” alternative, as required by the CEQA Guidelines.

7.1 SUMMARY OF PROJECT OBJECTIVES

Pursuant to CEQA Guidelines Section 15126.6(a), an EIR must only discuss in detail an alternative that is capable of feasibly attaining most of the basic objectives associated with the action, while at the same time avoiding or substantially lessening any of the significant effects associated with a proposed project. Below is a summary of the project objectives, as provided in [Section 3.5, *Goals and Objectives*](#).



1. Redevelop the vacant project site with a commercial use that is compatible with nearby uses and fiscally positive for the City.
2. Establish a new commercial use that promotes environmentally sustainable design.
3. Reduce vehicle miles traveled (VMT) by providing a neighborhood-serving commercial use.
4. Implement best management practices related to hazards and hazardous materials to treat contamination on-site from historic oil drilling.

7.2 SUMMARY OF SIGNIFICANT IMPACTS

Only those impacts found significant and unavoidable are relevant in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. As detailed in Section 5.0 of this EIR, upon compliance with existing regulations and mitigation measures, project implementation would not result in any significant and unavoidable impacts.

7.3 ALTERNATIVES CONSIDERED BUT REJECTED

In accordance with CEQA Guidelines Section 15126.6(c), an EIR should identify any alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for their rejection. According to the CEQA Guidelines, among the factors that may be used to eliminate alternatives from detailed consideration are the alternative's failures to meet most of the basic project objectives, the alternative's infeasibility, or the alternative's inability to avoid significant environmental impacts. The following possible alternatives were considered but not carried forward for additional analysis, since they would not accomplish most of the project objectives of the project and/or are considered infeasible.

“ALTERNATIVE SITE” ALTERNATIVE

CEQA requires a discussion of alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the analysis is evaluating whether any of the significant effects of the project would be avoided or substantially lessened by developing the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (CEQA Guidelines Section 15126.6(f)(2)(A)). In general, any development or redevelopment of the size and type proposed by the project would have similar impacts related to construction and operational air quality and greenhouse gas (GHG) emissions impacts. Without a site-specific analysis, impacts on cultural and tribal cultural resources, geology and soils, hazards and hazardous materials, and noise cannot be evaluated. It is acknowledged that impacts related to hazards and hazardous materials may be reduced if the alternative location is located outside of the City's methane mitigation zone and was not historically utilized for oil drilling activities. However, the project site is currently owned by the Applicant and the Applicant does not own other comparably sized properties within the City that can accommodate the proposed project. Additionally, acquisition by the Applicant of other comparably sized properties within the City is not economically viable at this time.

Although an alternative location could meet the majority of the project objectives (i.e., redeveloping a vacant site with a commercial use that is compatible with nearby uses and helping reduce VMT by providing a neighborhood-serving commercial use), this alternative would not implement best



management practices related to hazards and hazardous materials to treat contamination on-site from historic oil drilling. More specifically, implementation of Mitigation Measures HAZ-1 through HAZ-3 requiring development of a site-specific Soil Management Plan (SMP) and installation of a vapor intrusion mitigation system (VIMS) on-site would not be required. Further, development of project on the proposed project site would not result in any significant unavoidable adverse environmental effects. Thus, an alternative location would not avoid or substantially lessen any of the project's significant environmental impacts.

Overall, due to the lack of economically viable and comparable sites in the City that would allow for development of the project in a manner that would avoid or substantially lessen the project's significant impacts while achieving the majority of the project objectives, development of the project on an alternative site has been eliminated from consideration.

“NO PROJECT/EXISTING LAND USE AND ZONING” ALTERNATIVE

The “No Project/Existing Land Use and Zoning” Alternative assumes the proposed project is not developed and instead is developed with another use that is consistent with the site's existing Community Commercial PlaceType land use designation and Community Commercial Automobile-Oriented (CCA) zoning. However, the proposed office/bank use is already consistent with the site's land use designation and zoning. Developing another use consistent with the site's land use designation and zoning would not avoid or substantially lessen any of the project's potentially significant impacts. Rather, development under this alternative would still be subject to the same site-specific mitigation measures as the proposed project, including Mitigation Measures CUL-1 through CUL-4, GEO-1, GEO-2, and HAZ-1 through HAZ-3. Thus, the “No Project/Existing Land Use and Zoning” Alternative was considered but rejected from further analysis.

7.4 ALTERNATIVES TO BE ANALYZED

7.4.1 “NO PROJECT/EXISTING CONDITIONS” ALTERNATIVE

In accordance with the CEQA Guidelines, “the no project analysis shall discuss the existing conditions at the time the notice of preparation is published...as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”⁵ The CEQA Guidelines continue to state that “[I]n certain instances, the no project alternative means ‘no build’ wherein the existing environmental setting is maintained.”⁶

According to CEQA Guidelines Section 15126.6(e), the specific alternative of “no project” shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The “no project” analysis is required to discuss the existing conditions at the time the Notice of Preparation (NOP) was published (July 16, 2024) as well as what

⁵ *CEQA Guidelines Section 15126.6(e)(2).*

⁶ *CEQA Guidelines Section 15126.6(e)(3)(B).*



would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

DESCRIPTION

The “No Project/Existing Conditions” Alternative assumes the site remains as is and the proposed project is not developed. The project site would remain a vacant and disturbed lot and no construction activities would occur on-site. The project’s proposed site remediation efforts related to potentially hazardous conditions from historic oil drilling activities on-site would not be implemented.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Air Quality

The “No Project/Existing Conditions” Alternative would not result in any new development compared to the proposed project. Thus, no short-term construction or long-term operational air quality emissions would be generated. This alternative would be environmentally superior to the proposed project in this regard.

Cultural and Tribal Cultural Resources

No development would occur under the “No Project/Existing Conditions” Alternative. Thus, the potential to impact previously undiscovered cultural or tribal cultural resources during construction activities would not occur. As such, implementation of Mitigation Measures CUL-1 through CUL-4 to minimize impacts related to the inadvertent discovery of archaeological resources or tribal cultural resources would not be required. This alternative would be environmentally superior to the proposed project.

Geology and Soils

The “No Project/Existing Conditions” Alternative would not result in any new development compared to the proposed project. Thus, no new building or structures would be located on unstable or expansive soils that could result in seismic and geological hazards associated with landslide, lateral spreading, subsidence, liquefaction, or collapse and would not create substantial direct or indirect risks to life or property. Additionally, the “No Project/Existing Conditions” Alternative would not result in any ground-disturbing activities that could impact previously undiscovered paleontological resources. As such, implementation of Mitigation Measures GEO-1 and GEO-2 to minimize impacts related to geologic hazards and unknown paleontological resources would not be required. This alternative would be environmentally superior to the proposed project.

Greenhouse Gas Emissions

The “No Project/Existing Conditions” Alternative would not result in any new development compared to the proposed project. Thus, no short-term construction or long-term operational GHG emissions would be generated. This alternative would be environmentally superior to the proposed project in this regard.



Hazards and Hazardous Materials

No new development would occur under the “No Project/Existing Conditions” Alternative compared to the proposed project. Thus, the potential to result in an accidental release of hazardous materials, such as soil/soil vapor contamination and/or inadvertent discovery of historic oil/gas wells and associated well infrastructure during ground-disturbing activities would not occur. As such, implementation of Mitigation Measures HAZ-1 through HAZ-3 to minimize potential risks associated with contaminated soil/soil vapor and accidental discovery of a former oil/gas well during construction and operational activities would not be required. While existing impacted soils on-site would not be treated and no best management practices related to hazards and hazardous materials would be applied on this site, with no remedial activities, minimal hazardous materials-related hazards to the public or the environment would be created under this alternative. In addition, given that no development would occur, the “No Project” Alternative would not result in substantially adverse impacts involving the handling of hazardous materials, substances, or waste within the vicinity of nearby schools during construction and operational activities. Overall, this alternative would be environmentally superior to the proposed project in this regard.

Noise

The “No Project/Existing Conditions” Alternative would not result in any new development compared to the proposed project. Thus, no short-term construction or long-term operational noise or vibration impacts would be generated. This alternative would be environmentally superior to the proposed project in this regard.

ABILITY TO MEET PROJECT OBJECTIVES

The “No Project/Existing Conditions” Alternative would not achieve any of the project’s basic objectives. No new development would occur; therefore, this alternative would not redevelop the vacant project site with a commercial use that is compatible with nearby uses and fiscally positive for the City. This alternative would not establish a new commercial use that promotes environmentally sustainable design, nor would it reduce VMT with the development of a neighborhood-serving commercial use. Last, this alternative would not implement best management practices related to hazards and hazardous materials to treat contamination on-site from historic oil drilling activities.

7.4.2 “BUILDING RELOCATION” ALTERNATIVE

DESCRIPTION

The “Building Relocation” Alternative would relocate the proposed building footprint closer to the western property boundary (along Long Beach Boulevard) with the intent to reduce hazardous impacts related to the unknown location of the wellhead identified as Featherstone #15. As concluded in Section 5.5, *Hazards and Hazardous Materials*, and shown on Exhibit 5.5-1, *Oil Well Locations*, Featherstone #15 is located somewhere along the eastern portion of the site. Thus, the “Building Relocation” Alternative attempts to reduce potential hazardous impacts related to grading and excavation activities along the eastern portion of the site that could inadvertently uncover the wellhead or other well infrastructure.



Similar to the proposed project, the relocated building would be 12,469 square feet and up to 34 feet in height. This alternative would shift the proposed driveway southerly towards the southwestern corner of the project site. Additionally, as the building would be relocated to the northwestern corner of the site, on-site parking areas would be provided to the south and east (rear) of the relocated building. All other architectural features and elements, including the 51-foot bell tower, would remain the same. This alternative would also comply with applicable CCA zone development standards related to setbacks. Specifically, the relocated building would be setback at least 15 feet from Long Beach Boulevard (to accommodate the required 10-foot front yard setback as well as a 15-foot sewer easement), at least 5 feet from side yards, and at least 20 feet from rear yards. Similar to the proposed project, the “Building Relocation” Alternative would require the same City approvals: CEQA Clearance, Site Plan/Architectural Review, Lot Merger, LBMC Section 18.78.070 Waiver, and Public Works Permits.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Air Quality

While the “Building Relocation” Alternative would relocate the proposed building footprint closer to the western property boundary (along Long Beach Boulevard), the relocated building would similarly be 12,469 square feet and up to 34 feet in height. Construction and operational activities associated with this alternative would be similar. Thus, this alternative would result in similar quantities of short-term construction and long-term operational air quality emissions. As such, this alternative would be neither environmentally superior nor inferior to the proposed project.

Cultural and Tribal Cultural Resources

This alternative would have the same potential to encounter unknown archaeological resources and tribal cultural resources during ground-disturbing activities as the proposed project. Similar to the proposed project, implementation of Mitigation Measures CUL-1 through CUL-4 would ensure appropriate procedures are followed if ground disturbing activities result in inadvertent discoveries of cultural or tribal cultural resources. Implementation of Mitigation Measures CUL-1 through CUL-4 would ensure impacts in this regard are reduced to less than significant levels. Thus, this alternative would be neither environmentally superior nor inferior to the proposed project.

Geology and Soils

The “Building Relocation” Alternative would relocate the building closer to the western property boundary (along Long Beach Boulevard) on the same project site. As such, this alternative would have the same potential geologic hazards (e.g., unstable or expansive soils that could result in geologic hazards associated with landslide, lateral spreading, subsidence, liquefaction, or collapse) as the proposed project. The “Building Relocation” Alternative would also result in construction activities that could impact previously undiscovered paleontological resources, similar to the proposed project. As with the proposed project, this alternative would be subject to compliance with all applicable federal and State laws and regulations related to seismic and geological hazards and be required to implement Mitigation Measure GEO-1 related to implementing recommended construction designs per the project’s Geotechnical Report and Mitigation Measure GEO-2 related to inadvertent discoveries of paleontological resources. As such, this alternative would be neither environmentally superior nor inferior to the proposed project.



Greenhouse Gas Emissions

The “Building Relocation” Alternative would relocate the proposed building footprint closer to the western property boundary (along Long Beach Boulevard). Similar to the proposed project, the relocated building would be 12,469 square feet and up to 34 feet in height. Thus, this alternative would result in similar quantities of short-term construction and long-term operational GHG emissions. As such, this alternative would be neither environmentally superior nor inferior to the proposed project.

Hazards and Hazardous Materials

The intent of the “Building Relocation” Alternative is to potentially reduce hazardous impacts related to the unknown location of the wellhead identified as Featherstone #15. Based on database searches, technical analyses, and on-site excavations, Featherstone #15 is located somewhere along the eastern portion of the site. Thus, the “Building Relocation” Alternative attempts to reduce potential hazardous impacts related to grading and excavation activities along the eastern portion of the site that could inadvertently uncover and/or damage the wellhead or other well infrastructure.

Similar to the proposed project, the “Building Relocation” Alternative would still construct the proposed building on-site but relocate the building closer to the western property boundary (along Long Beach Boulevard). As such, even with the relocated building, this alternative could still result in an accidental release of hazardous materials, such as soil/soil vapor contamination and accidental discovery of former oil/gas well and/or well infrastructure during ground-disturbing activities. In addition, the “Building Relocation” Alternative would result in construction activities that could disturb existing elevated concentrations of hazardous materials in on-site soils (including TPH-DRO, VOCs, and methane). Similarly, the “Building Relocation” Alternative could also result in potential impacts involving the handling or accidental release of hazardous materials, substances, or waste within the vicinity of nearby schools during construction activities, similar to the proposed project. Nonetheless, as with the proposed project, this alternative would be subject to compliance with all applicable federal and State laws and regulations related to the accidental release of hazardous materials and Mitigation Measures HAZ-1 through HAZ-3. Specifically, Mitigation Measure HAZ-1 would require a qualified Phase II/Site Characterization Specialist be on-site during all ground-disturbing work to monitor proper implementation of a SMP; Mitigation Measure HAZ-2 establishes appropriate procedures if any hazardous materials or conditions are unearthed during ground disturbing activities; and Mitigation Measure HAZ-3 would require the proposed VIMS be designed to minimize methane and VOC emissions. Following implementation of Mitigation Measures HAZ-1 through HAZ-3, impacts related to hazards and hazardous materials would be reduced to less than significant levels. While the potential for accidental release of hazardous materials or discovery of former oil/gas well and/or well infrastructure can still occur, this alternative reduces the likelihood of encountering Featherstone #15 and thus, would be environmentally superior to the proposed project in this regard.

Noise

The “Building Relocation” Alternative would relocate the proposed building footprint closer to the western property boundary (along Long Beach Boulevard). Similar to the proposed project, the relocated building would be 12,469 square feet and up to 34 feet in height. Thus, this alternative would generate similar levels of short-term construction and long-term operational noise and vibration. Specifically, this alternative would involve short-term construction (i.e., land clearing, grading, excavation, and paving associated with the on-site parking area) and long-term operational activities



(i.e., parking lot and mobile traffic noise) along the eastern property boundary, in the vicinity of the nearest noise sensitive receptors (i.e., multi-family residences) located to the east of the project site. As such, this alternative would be neither environmentally superior nor inferior to the proposed project in this regard.

ABILITY TO MEET PROJECT OBJECTIVES

The “Building Relocation” Alternative would achieve all of the project objectives. This alternative would redevelop the vacant project site with a commercial use that is compatible with nearby uses and fiscally positive for the City. This alternative would also be designed the same as the proposed project and thus, would establish a new commercial use that promotes environmentally sustainable design. This alternative would provide a neighborhood-serving commercial use that would help reduce VMT in the project area, and this alternative would implement best management practices related to hazards and hazardous materials to treat contamination on-site from historic oil drilling.

7.4.3 “REDUCED DENSITY” ALTERNATIVE

DESCRIPTION

The “Reduced Density” Alternative would reduce the proposed project’s density by eliminating the second story of the proposed building. By reducing the development to a one-story building (approximately 24 feet in height), this alternative would reduce the building’s occupiable building space from 7,821 square feet to 3,351 square feet (a reduction of 4,470 square feet). The 51-foot tall bell tower would also be proportionally reduced to 41-feet in height. Given the reduced square footage, the “Reduced Density” Alternative would also proportionally reduce provided parking spaces and landscaping while complying with applicable CCA zone development standards. All other architectural designs and features proposed by the project would remain the same. Similar to the proposed project, the “Reduced Density” Alternative would require the same City approvals: CEQA Clearance, Site Plan/Architectural Review, Lot Merger, LBMC Section 18.78.070 Waiver, and Public Works Permits.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Air Quality

The “Reduced Density” Alternative would reduce the proposed project’s density by eliminating the second story of the proposed building, which would reduce the building’s occupiable building space by 4,470 square feet. Given the reduced scale of the development, this alternative would proportionally reduce the project’s short-term construction and long-term operational air quality emissions. This alternative would be environmentally superior to the proposed project in this regard.

Cultural and Tribal Cultural Resources

Given that this alternative would require similar ground-disturbing activities as the proposed project on the same site, this alternative would have similar potential to encounter unknown archaeological resources and tribal cultural resources during ground-disturbing activities as the proposed project. Similar to the proposed project, implementation of Mitigation Measures CUL-1 through CUL-4 would ensure appropriate procedures are followed if cultural or tribal cultural resources are inadvertently discovered during ground disturbing activities. Implementation of Mitigation Measures CUL-1



through CUL-4 would ensure impacts in this regard are reduced to less than significant levels. Thus, this alternative would be neither environmentally superior nor inferior to the proposed project.

Geology and Soils

Given that this alternative would be located on the same project site as the proposed project, this alternative would have the same site-specific potential for geologic hazards related to unstable or expansive soils, landslide, lateral spreading, subsidence, liquefaction, or collapse. Similarly, construction activities could impact previously undiscovered paleontological resources. Similar to the proposed project, this alternative would be subject to compliance with all applicable federal and State laws and regulations related to seismic and geological hazards and be required to implement Mitigation Measure GEO-1 related to implementing recommended construction designs per the project's geotechnical report and Mitigation Measure GEO-2 related to inadvertent discoveries of paleontological resources. As such, this alternative would be neither environmentally superior nor inferior to the proposed project.

Greenhouse Gas Emissions

The "Reduced Density" Alternative would reduce the proposed project's density by eliminating the second story of the proposed building. By reducing the development to a one-story building, this alternative would reduce the building's occupiable building space from 7,821 square feet to 3,351 square feet (a reduction of 4,470 square feet). Thus, this alternative would proportionally reduce the project's short-term construction and long-term operational GHG emissions. This alternative would be environmentally superior to the proposed project in this regard.

Hazards and Hazardous Materials

The "Reduced Density" Alternative would have the same potential of accidental release of hazardous materials, such as soil/soil vapor contamination and accidental discovery of former oil/gas well and/or well infrastructure during ground-disturbing activities. This alternative would also have the potential of handling or transporting hazardous materials, substances, or waste within the vicinity of nearby schools during construction activities similar to the proposed project. However, similar to the proposed project, this alternative would be subject to compliance with all applicable federal and State laws and regulations related to the handling, transport, and accidental release of hazardous materials and implement Mitigation Measures HAZ-1 through HAZ-3. Specifically, Mitigation Measure HAZ-1 would require a qualified Phase II/Site Characterization Specialist be on-site during all ground-disturbing work to monitor proper implementation of a SMP; Mitigation Measure HAZ-2 establishes appropriate procedures if any hazardous materials or conditions are unearthed during ground disturbing activities; and Mitigation Measure HAZ-3 would require the proposed VIMS be designed to minimize methane and VOC emissions. As such, this alternative would be neither environmentally superior nor inferior to the proposed project.

Noise

Due to the reduced development intensity of the "Reduced Density" Alternative, short-term construction and long-term operational noise and vibration impacts would proportionally decrease compared to the proposed project. As such, this alternative would be environmentally superior to the proposed project.



ABILITY TO MEET PROJECT OBJECTIVES

The “Reduced Density” Alternative would achieve the project objectives, some to a lesser extent than others. This alternative would redevelop the vacant project site with a commercial use that is compatible with nearby uses and fiscally positive for the City. However, it can be inferred that an office/bank building reduced by more than half in size (an approximately 57 percent reduction in square footage from 7,821 to 3,351 square feet), would not be as fiscally positive (i.e., profitable) as the proposed project. This lack of profitability could result in the Applicant not being able to maintain viable operations over the long term. Nevertheless, this alternative would establish a new commercial use that promotes environmentally sustainable design and help reduce VMT by providing a neighborhood-serving commercial use in the project area. This alternative would also implement best management practices related to hazards and hazardous materials to treat contamination on-site from historic oil drilling activities.

7.5 “ENVIRONMENTALLY SUPERIOR” ALTERNATIVE

Table 7-1, *Comparison of Alternatives*, summarizes the comparative analysis presented above (i.e., the alternatives compared to the proposed project). Review of Table 7-1 indicates the “No Project” Alternative is the environmentally superior alternative, as it would avoid or lessen most of the project’s environmental impacts. According to CEQA Guidelines Section 15126.6(e), “if the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” Accordingly, the “Reduced Density Alternative” is considered the environmentally superior alternative to the proposed project, since this alternative reduces the project’s impacts to air quality, GHG emissions, and noise.

Table 7-1
Comparison of Alternatives

Environmental Topic Area	“No Project/Existing Conditions” Alternative	“Building Relocation” Alternative	“Reduced Density” Alternative
Air Quality	✓	=	✓
Cultural and Tribal Cultural Resources	✓	=	=
Geology and Soils	✓	=	=
Greenhouse Gas Emissions	✓	=	✓
Hazards and Hazardous Materials	✓	✓	=
Noise	✓	=	✓
▲ Indicates an impact that is greater than the proposed project (environmentally inferior). ✓ Indicates an impact that is less than the proposed project (environmentally superior). = Indicates an impact that is equal to the proposed project (neither environmentally superior nor inferior).			

The “Reduced Density” Alternative would achieve the project objectives, some to a lesser extent than others. This alternative would redevelop the vacant project site with a commercial use that is compatible with nearby uses and fiscally positive for the City. However, it can be inferred that an office/bank building reduced by more than half in size (approximately 57 percent reduction in square footage from 7,821 to 3,351 square feet) would not be as fiscally positive (i.e., profitable) as the proposed project. This lack of profitability could result in the Applicant not being able to maintain viable operations over the long term. Nevertheless, this alternative would establish a new commercial use that promotes environmentally sustainable design and help reduce VMT by providing a



neighborhood-serving commercial use in the project area. This alternative would also implement best management practices related to hazards and hazardous materials to treat contamination on-site from historic oil drilling activities.



8.0 Effects Found Not To Be Significant



8.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA provides that an EIR shall focus on the significant effects on the environment and discuss potential environmental effects with emphasis in proportion to their severity and probability of occurrence. The City prepared the *First-Citizens Bank – Long Beach Project Initial Study* (Initial Study) in July 2024 to determine significant effects of the proposed project; refer to Appendix 11.1, *Notice of Preparation/Initial Study*. In the course of this evaluation, certain impacts were identified as “less than significant” or “no impact” due to the inability of a project of this scope to yield such impacts or the absence of project characteristics producing effects of this type. These effects are not required to be included in the EIR. Refer to Appendix 11.1 for a full discussion of project effects found not to be significant.



This page intentionally left blank.



9.0 Organizations and Persons Consulted



9.0 ORGANIZATIONS AND PERSONS CONSULTED

LEAD AGENCY

CITY OF LONG BEACH

411 West Ocean Boulevard, 3rd Floor
Long Beach, CA 90802

Amy L. Harbin, AICP, Planner V

Manraj G. Bhatia, PhD, AICP, Planner V

Elijio Sandoval, Planner IV

APPLICANT TEAM

FIRST CITIZENS BANK

100 East Tryon Road, DAC-41
Raleigh, NC 27603

Starla Duffy, Vice President of Construction Project Management

KIMLEY-HORN AND ASSOCIATES, INC.

660 South Figueroa Street, Suite 2050
Los Angeles, CA 90017

Heidi Rous, Project Manager

PREPARERS OF THE ENVIRONMENTAL IMPACT REPORT

MICHAEL BAKER INTERNATIONAL

5 Hutton Centre Drive, Suite 500
Santa Ana, California 92707

Alan Ashimine, Project Director

Frances Yan, AICP, Project Manager

Winnie Woo, Environmental Analyst

Oscar Escobar, Environmental Analyst

Zhe Chen, Air Quality/Energy/Greenhouse Gas/Noise Specialist

Darshan Shivaiah, Air Quality/Energy/Greenhouse Gas/Noise Specialist

Jeanette Cappiello, Graphic Artist



This page intentionally left blank.



10.0 Bibliography



10.0 BIBLIOGRAPHY

1. California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality, Appendix D: Local Actions*, Page 21, November 2022.
2. California Air Resources Board, *RE: CARB Review of Southern California Association of Governments' 2024 SCS Senate Bill 375 Greenhouse Gas Emissions Draft Technical Methodology*, March 29, 2024, <https://ww2.arb.ca.gov/sites/default/files/2024-04/SCAG%20memo%20final.pdf>, accessed July 31, 2024.
3. California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.
4. California Regional Water Quality Control Board, *California Regional Water Quality Control Board Los Angeles Region, Order No. R4-2012-0175 as amended by State Water Board Order WQ 2015-0075 and Los Angeles Water Board Order R4-2012-0175-A01 NPDES Permit No. CAS004001, Waste Discharge Requirements For Municipal Separate Storm Sewer System (MS4) Discharges Within The Coastal Watersheds Of Los Angeles County, Except Those Discharges Originating From The City Of Long Beach MS4*, adopted September 8, 2016.
5. City of Long Beach, *City of Long Beach General Plan*, December 2019.
6. City of Long Beach, *City of Long Beach Use District Map: Page 15*, https://www.longbeach.gov/globalassets/lbcd/media-library/documents/planning/maps/zoning-maps/zoning_map_book_color_page_15, accessed August 20, 2024.
7. City of Long Beach, *Cumulative Project List Within 2-Mile Radius*, September 9, 2024.
8. City of Long Beach, *Long Beach Municipal Code*, codified through Ordinance No. ORD-25-0002, enacted March 4, 2025.
9. City of Signal Hill, *Current Development Status Report*, <https://www.cityofsignalhill.org/DocumentCenter/View/6537/CURRENT-DEVELOPMENT-STATUS-REPORT?bidId=>, accessed August 12, 2024.
10. City of Signal Hill, *Current Projects*, <https://www.cityofsignalhill.org/612/Current-Projects>, accessed August 14, 2024.
11. Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, July 6, 2010.
12. Federal Highway Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.
13. Geo Forward, Inc., *Limited Geophysical Survey Report, Commercial Property 3450 Long Beach Boulevard, Long Beach, California, 90807*, November 26, 2024.
14. Google Earth, 2024.



15. Kariel, H. G., *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10, 1991.
16. Kimley-Horn and Associates, Inc., *Air Quality Assessment First Citizens Bank – Long Beach Project, City of Long Beach, California*, July 31, 2024.
17. Kimley Horn and Associates, Inc., *First Citizens Bank and Trust - Long Beach Project – Transportation Assessment Technical Memorandum*, April 24, 2024.
18. Kimley-Horn and Associates, Inc., *Greenhouse Gas Emission Assessment First Citizens Bank – Long Beach Project, City of Long Beach, California*, May 31, 2024.
19. Kimley-Horn and Associates, Inc., *Noise and Vibration Assessment First Citizens Bank – Long Beach Project, City of Long Beach, California*, July 31, 2024.
20. Melville C. Branch, *Outdoor Noise in the Metropolitan Environment*, 1970.
21. Office of Administrative Law, *Assembly Bill No. 2097*, https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB2097, September 22, 2022, accessed August 13, 2024.
22. Office of Planning and Research, California, *General Plan Guidelines*, July 2017.
23. Southern California Association of Governments, *2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy – Connect SoCal*, September 3, 2020.
24. Southern California Association of Governments, *Connect SoCal: A Plan for Navigating to a Brighter Future (2024-2050 Regional Transportation Plan/ Sustainable Communities Strategy)*, April 4, 2024.
25. Terracon Consultants, Inc., *Geotechnical Engineering Report, First Citizen's Bank – Long Beach, Long Beach, Los Angeles County, CA*, November 2, 2022.
26. Terracon Consultants, Inc., *Geotechnical Report Addendum No. 1 2022 CBC Seismic Design Parameters First Citizen's Bank – Long Beach 3450-3470 Long Beach Boulevard Long Beach, Los Angeles County, CA Terracon Project No. 60225117*, June 7, 2024.
27. Terracon Consultants, Inc., *Limited Site Investigation, Proposed First Citizen's Bank, 3450 and 3470 Long Beach Boulevard, Long Beach, Los Angeles County, California*, September 27, 2022 and revised June 6, 2024.
28. Terracon Consultants, Inc., *Phase I Environmental Site Assessment, Commercial Property - Long Beach, CA, 3450 and 3470 Long Beach Boulevard, Long Beach, Los Angeles County, CA*, August 23, 2022 and revised February 21, 2025.
29. United States Department of Agriculture, *Web Soil Survey*, <https://websoilsurvey.nrcs.usda.gov/app/>, accessed August 6, 2024.
30. United States Environmental Protection Agency, *Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2021* 2023, <https://www.epa.gov/system/files/documents/2023-04/US-GHG-Inventory-2023-Main-Text.pdf>, accessed July 18, 2024.



31. U.S. Geological Survey, *Areas of Land Subsidence in California*,
https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html,
accessed August 6, 2024.



This page intentionally left blank.