FIRSTCARBONSOLUTIONS™

DRAFT
731 West Cutting Boulevard Warehouse Project
Initial Study/Mitigated Negative Declaration
City of Richmond, Contra Costa County, California

Prepared for:
City of Richmond
450 Civic Center Plaza
Richmond, CA 94804
510.620.6706

Contact: Hector Lopez, Senior Planner

Prepared by:
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597
925.357.2562

Contact: Mary Bean, Project Director
Elizabeth Johnson, Project Manager

Report Date: December 13, 2021

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

Acronyms and Abbreviations ..... **v**

Section 1: Introduction **1**
1.1 - Purpose 1
1.2 - Project Location 1
1.3 - Environmental Setting 1
1.4 - Project Description 2
1.5 - Required Discretionary Approvals 3
1.6 - Intended Uses of this Document 3

Section 2: Environmental Checklist and Environmental Evaluation **19**
2.1 Aesthetics 20
2.2 Agriculture and Forestry Resources 23
2.3 Air Quality 26
2.4 Biological Resources 50
2.5 Cultural Resources and Tribal Cultural Resources 56
2.6 Energy 62
2.7 Geology and Soils 67
2.8 Greenhouse Gas Emissions 72
2.9 Hazards and Hazardous Materials 82
2.10 Hydrology and Water Quality 87
2.11 Land Use and Planning 92
2.12 Mineral Resources 94
2.13 Noise 96
2.14 Population and Housing 104
2.15 Public Services 106
2.16 Recreation 108
2.17 Transportation 110
2.18 Utilities and Service Systems 123
2.19 Wildfire 128
2.20 Mandatory Findings of Significance 131

Section 3: List of Preparers **133**

Appendix A: Air Quality and GHG Supporting Information

Appendix B: Biological Resources Supporting Information
B.1 - Database Searches
B.2 - Species Tables
B.3 - Arborist Report

Appendix C: Cultural Resources Supporting Information

Appendix D: Geotechnical Supporting Information

Appendix E: Hazards and Hazardous Materials Supporting Information

Appendix F: Traffic Impact Analysis

List of Tables

Table 1: Proposed Project Components 2
Table 2: Project Consistency with Applicable Clean Air Plan Control Measures 28
Table 3: Preliminary Construction Schedule 35
Table 4: Construction Emissions (Unmitigated Average Daily Rate) 35
Table 5: Net Operational Emissions (Unmitigated) 37
Table 6: Project DPM Construction Emissions 40
Table 7: Estimated Health Risks and Hazards During Project Construction—Unmitigated 43
Table 8: Summary of the Cumulative Health Impacts at the MIR during Construction 45
Table 9: Odor Screening Distances 47
Table 10: Annual Project Energy Consumption 63
Table 11: Construction GHG Emissions 73
Table 12: Operational GHG Emissions 74
Table 13: Consistency with the Richmond Climate Action Plan 78
Table 14: Consistency with SB 32 2017 Scoping Plan Update 80
Table 15: Project Trip Generation Estimates 111
Table 16: Background and Project Conditions Intersection Levels of Service 112
Table 17: Cumulative and Project Conditions Intersection Levels of Service 114
Table 18: Queueing Analysis Results Summary 119

List of Exhibits

Exhibit 1: Regional Location Map 5
Exhibit 2: Local Vicinity Map 7
Exhibit 3: Site Plan 9
Exhibit 4: Proposed Project Elevations 11
Exhibit 5: Rendering from Intersection of West Cutting Boulevard and Canal Boulevard 13
Exhibit 6: Rendering Canal Boulevard View 15
Exhibit 7: Proposed Landscape Plan 17

ACRONYMS AND ABBREVIATIONS

µg/m^3	micrograms per cubic meter
°F	degrees Fahrenheit
°C	degrees Celsius (Centigrade)
ABAG	Association of Bay Area Governments
ACT	Advanced Clean Truck
ACTM	Airborne Toxics Control Measure
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
AEMOD	American Meteorological Society/EPA Regulatory Model
APN	Assessor's Parcel Number
AQP	Air Quality Plan
ARB	California Air Resources Board
AST	above ground storage tank
AQP	Air Quality Plan
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BERD	California Built Environment Resource Directory
BIOS 5	Biogeographic Information and Observation System
BMP	Best Management Practice
CalEEMod	California Emissions Estimator Model
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARE	Community Air Risk Evaluation
CASQA	California Stormwater Quality Association
CCTA	Contra Costa Transportation Authority
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CIWMB	California Integrated Waste Management Board
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society Electronic Inventory

CO	carbon monoxide
CPT	Cone Penetration Test
CRHR	California Register of Historical Resources
CWS	Community Warning System
dB	decibel
DPM	diesel particulate matter
EBMUD	East Bay Municipal Utility District
EMFAC	Emissions Factors mobile source emissions model
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
ESL	Environmental Screening Level
FAR	floor area ratio
FCS	FirstCarbon Solutions
FHSZ	Fire Hazard Severity Zone
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GHG	greenhouse gas
GIS	Geographic Information System
HCP	Habitat Conservation Plan
HVAC	heating, ventilation, and air conditioning
IL	Light Industrial
in/sec	inches per second
IW	Water-Related Industrial
IPaC	Planning and Consultation
IS/MND	Initial Study/Mitigated Negative Declaration
ITE	Institute of Transportation Engineers
LCFS	Low Carbon Fuel Standard
L_{dn}	day-night average sound level
L_{eq}	equivalent sound level
LID	Low Impact Development
L_{max}	maximum sound level
LOS	Level of Service
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
mgd	million gallons per day
MIR	Maximally Impacted Sensitive Receptor
mph	miles per hour

MRP	Municipal Regional Permit
MTC	Metropolitan Transportation Commission
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NFHL	National Flood Hazard Layer
NO_x	nitrous oxides
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NTWS	United States National Tsunami Warning Center
NWIC	Northwest Information Center
OEHHA	California Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OHP	California Office of Historic Preservation
OPR	Governor's Office of Planning and Research
PG&E	Pacific Gas and Electric Company
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PPV	peak particle velocity
PV	photovoltaic
REC	recognized environmental concern
RecycleMore	West Contra Costa Integrated Waste Management Authority
REL	Reference Exposure Level
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SLF	Sacred Lands File
SMP	Site Management Plan
SRA	State Responsibility Area
SSMM	start-up, shutdown, maintenance, and malfunction
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminant
TCR	Tribal Cultural Resources
TDM	Transportation Demand Management
TPH	Total Petroleum Hydrocarbons
Ub	urban land
USFWS	United States Fish and Wildlife Service
UST	underground storage tank
UWMP	Urban Water Management Plan

VHFSZ	Very High Fire Severity Zone
VMT	Vehicle Miles Traveled
VOC	volatile organic compound
WCCUSD	West Contra Costa Unified School District
WTP	Water Treatment Plant
ZEV	Zero-Emission Vehicle

SECTION 1: INTRODUCTION

1.1 - Purpose

The purpose of this Draft Initial Study/Mitigated Negative Declaration (Draft IS/MND) is to identify any potential environmental impacts that would result from implementation of the 731 West Cutting Boulevard Warehouse Project (proposed project) in the City of Richmond (City), California. Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15367, the City has discretionary authority over the proposed project and is the Lead Agency in the preparation of this Draft IS/MND and any additional environmental documentation required for the proposed project. The intended use of this document is to determine the level of environmental analysis required to adequately analyze the project pursuant to the requirements of CEQA and to provide the basis for input from public agencies, organizations, and interested members of the public.

The remainder of this section provides a brief description of the project location and the primary project characteristics. Section 2 includes an environmental checklist that provides an overview of the potential impacts that may result from project implementation, elaborates on the information contained in the environmental checklist, and provides justification for each checklist response, and Section 3 contains the List of Preparers.

1.2 - Project Location

The project site is located at 731 West Cutting Boulevard in the City of Richmond, in Contra Costa County, California (Exhibit 1). The 7.94-acre project site consists of a developed industrial site with access from two driveways along West Cutting Boulevard and one driveway along Canal Boulevard. The site is bounded to the north by Interstate 580 (I-580), with Canal Boulevard on the west and West Cutting Boulevard on the south. (Exhibit 2) The eastern portion of the site is bounded by industrial development. The project site is located on Assessor's Parcel Number (APN) 550-030-007.

1.3 - Environmental Setting

The project site is located in an industrial area of the City, with marina uses to the south of West Cutting Boulevard and a variety of warehouse and light industrial uses in the immediate area. There is a gas station and hotel to the west, a yacht club to the south, a distribution center to the east, and commercial research and development facilities directly north of I-580, which is the northern boundary of the project site. The site is developed with four warehouse buildings totaling 41,651 square feet with a number of smaller outbuildings, trailers, and tanks, which have been vacant since 2016. Grasses and trees grow along the northern, western, and southern boundary fence lines, and a landscaped area is provided along the Canal Boulevard entrance. There are eight trees on the project site, and 22 street trees along the site frontages.

Land Use and Zoning Designations

The proposed project site is designated "Business/Light Industrial" by the City's General Plan and zoned IL- Light Industrial District.

The former use of the site was a medical gas production facility, which began operation in the 1970s and which cease operation in February 2019. Truck washing operations ceased in 2016, and the garage and service department shop ceased operations at the end of June 2020.

1.4 - Project Description

The proposed project is a warehouse that would include associated office uses. All existing structures on the site would be demolished, although two of the three existing driveways would be preserved. The proposed warehouse use totals 144,808 square feet with first-floor office space of 4,750 square feet and an Office Mezzanine of 4,245 square feet, for a total building area of 153,803square feet. The warehouse would have 24 loading docks, located at the eastern end of the building. The floor area ratio (FAR) would be 0.44, and the building height would be 43 feet.

A total of 140 auto parking stalls would be provided in a lot on the northeastern frontage of the site, with 36 trailer parking stalls for truck trailers located at the eastern portion of the site, accessible from West Cutting Boulevard. Although a tenant for the warehouse has not been determined, the facility will not accommodate refrigerated, or "cold" storage and is considered "dry" storage. The proposed site plan is shown in Exhibit 3.

Table 1: Proposed Project Components

Use	Area	Number
Industrial/warehouse	144,808 square feet	–
Ground Floor Office	4,750 square feet	–
Mezzanine Office	4,245 square feet	–
Total square footage	153,803 square feet	–
Building footprint	149,558 square feet	–
Landscaped open space	45,815 square feet	–
Total site area	7.94 acres/346,033 square feet	–
Automobile parking spaces	–	140 stalls
Trailer parking spaces	–	36 stalls
Source: HPA Architecture, November 2021.		

Design and Appearance

The building would be constructed of concrete tilt-up panels, painted in a variety of colors to provide visual interest. The proposed colors include white and different shades of gray. Decorative brick would be used as accent panels on the façade of the office entrance. Large windows would have blue glazing with black mullions. Elevations of the proposed project are shown in Exhibit 4. Exhibits 5 and 6 provide renderings showing the appearance of the proposed project. The proposed project has been reviewed by the City's design review board for initial feedback and comment.

Landscaping

Project landscaping would comply with the provisions of the City's Water Efficient Landscape ordinance. To meet these requirements, the proposed project would include bioretention areas in the landscaped open space at the frontage along West Cutting Boulevard, and shade trees would be planted in the open space frontages along West Cutting Boulevard and Canal Boulevard. Design, construction, operation and maintenance of the on-site bioretention areas would be in compliance with the 2015 Municipal Regional Permit (MRP) of the San Francisco Bay Regional Water Quality Control Board (San Francisco Bay RWQCB). The proposed project would include the removal of 11 existing trees from the site and the street right-of-way, which would be replaced with the following species: seven fruitless olive (*Olea europaea "Swan Hill*"), 20 western redbud (*Cercis occidentalis*), four Tupelo (*Nyssa Sylvatica),* eight date palm *(Phoenix Dactylifera 'Medjool'), 11 London plane (Patanus x. Acerifolia 'Columbia'),* four Raywood ash (*Fraxinus oxycarpa '*Raywood'), seven Japanese zelkova (*Zelkova Serrata*), and six Monterrey cypress (*Hesperocyparis Macroarpa).*Various drought-tolerant and native shrubs and grasses, with flowering perennials for accents, would also be planted around the building, the bioretention area, and the perimeter of the site. The proposed landscaping plan is shown in Exhibit 7.

Circulation

Regional access to the project site is provided by Interstate 80 (I-80) and I-580. The project site is located on West Cutting Boulevard, a regional connector street, at the northeast corner of its intersection with Canal Boulevard. As described above, the site is currently served with two driveways from West Cutting Boulevard and one driveway from Canal Boulevard. The project as proposed would maintain the access point along Canal Boulevard and would maintain the eastern-most driveway along West Cutting Boulevard, as shown in Exhibit 3.

1.5 - Required Discretionary Approvals

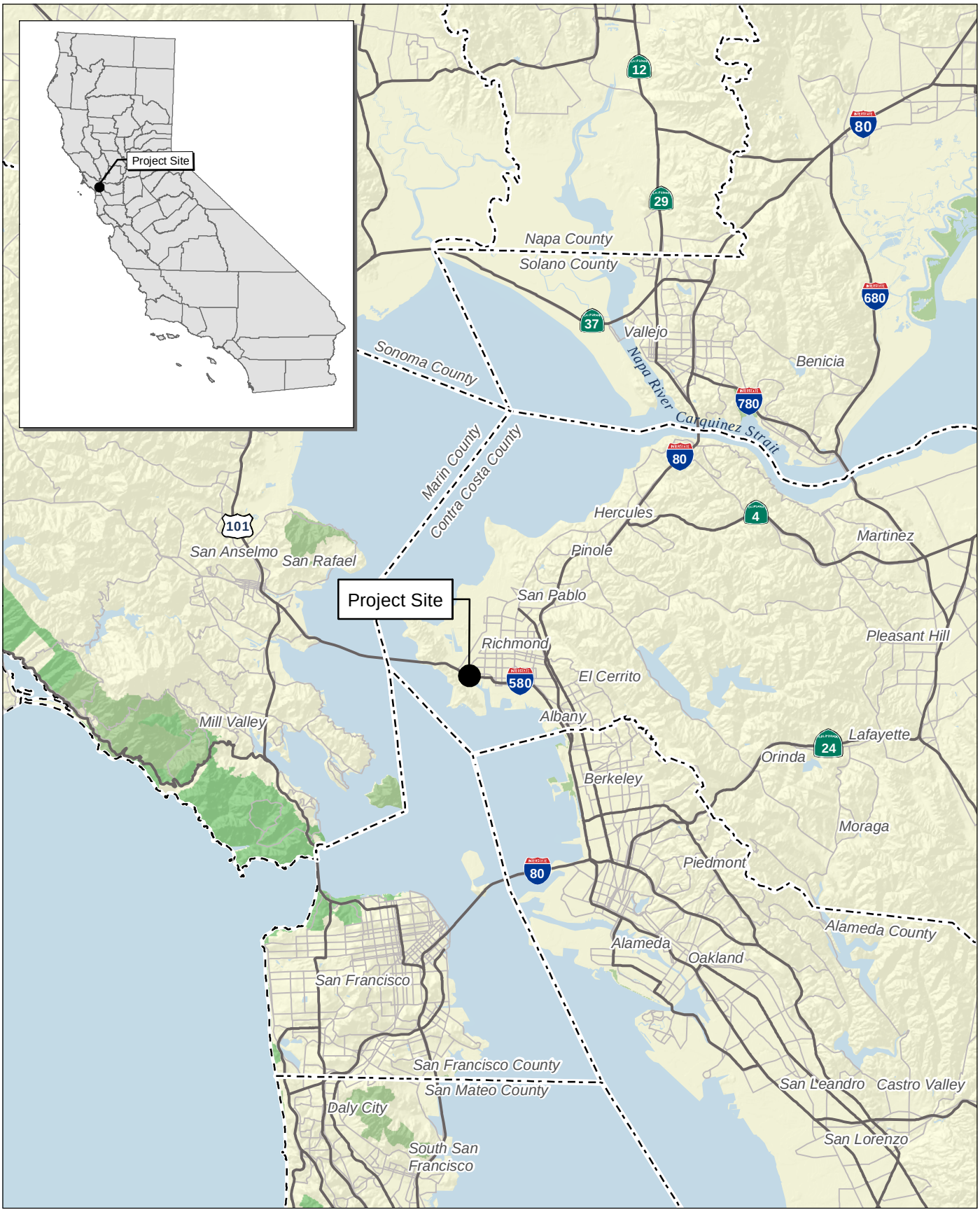
As mentioned previously, the City has discretionary authority over the proposed project and is the CEQA Lead Agency for the preparation of this Draft IS/MND. In order to implement the proposed project, the project applicant would need to secure the following permits/approvals:

- Design Review Permit

1.6 - Intended Uses of this Document

This Draft IS/MND has been prepared to determine the appropriate scope and level of detail required in completing the environmental analysis for the proposed project. This document will also serve as a basis for soliciting comments and input from members of the public and public agencies regarding the proposed project. The Draft IS/MND will be circulated for a minimum of 30 days, during which comments concerning the analysis contained in the Draft IS/MND should be sent to:

Hector Lopez, Senior Planner
Planning Division
450 Civic Center Plaza
Richmond, CA 94804
Phone: 510.620.6702
Fax: 510.620.6858
Email: hector_lopez@ci.richmond.ca.us



Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

FIRSTCARBON SOLUTIONS™

5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

21210022 • 07/2021 | 1_regional.mxd

CITY OF RICHMOND
731 WEST CUTTING BOULEVARD WAREHOUSE PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

THIS PAGE INTENTIONALLY LEFT BLANK



Source: Bing Aerial Imagery.

FIRSTCARBON SOLUTIONS™

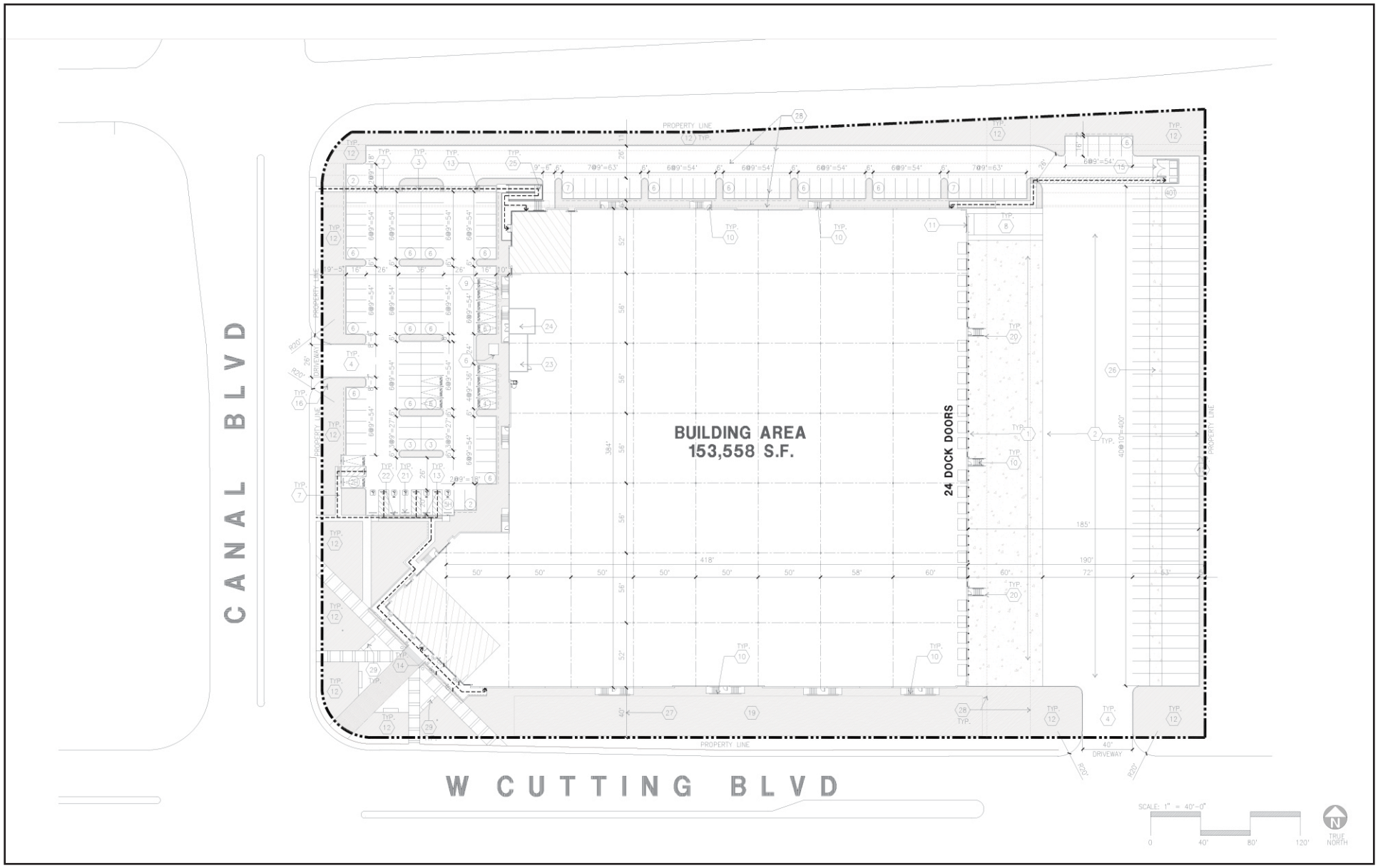
1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map

21210022 • 10/2021 | 2_local_vicinity.mxd

CITY OF RICHMOND
731 WEST CUTTING BOULEVARD WAREHOUSE PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

THIS PAGE INTENTIONALLY LEFT BLANK

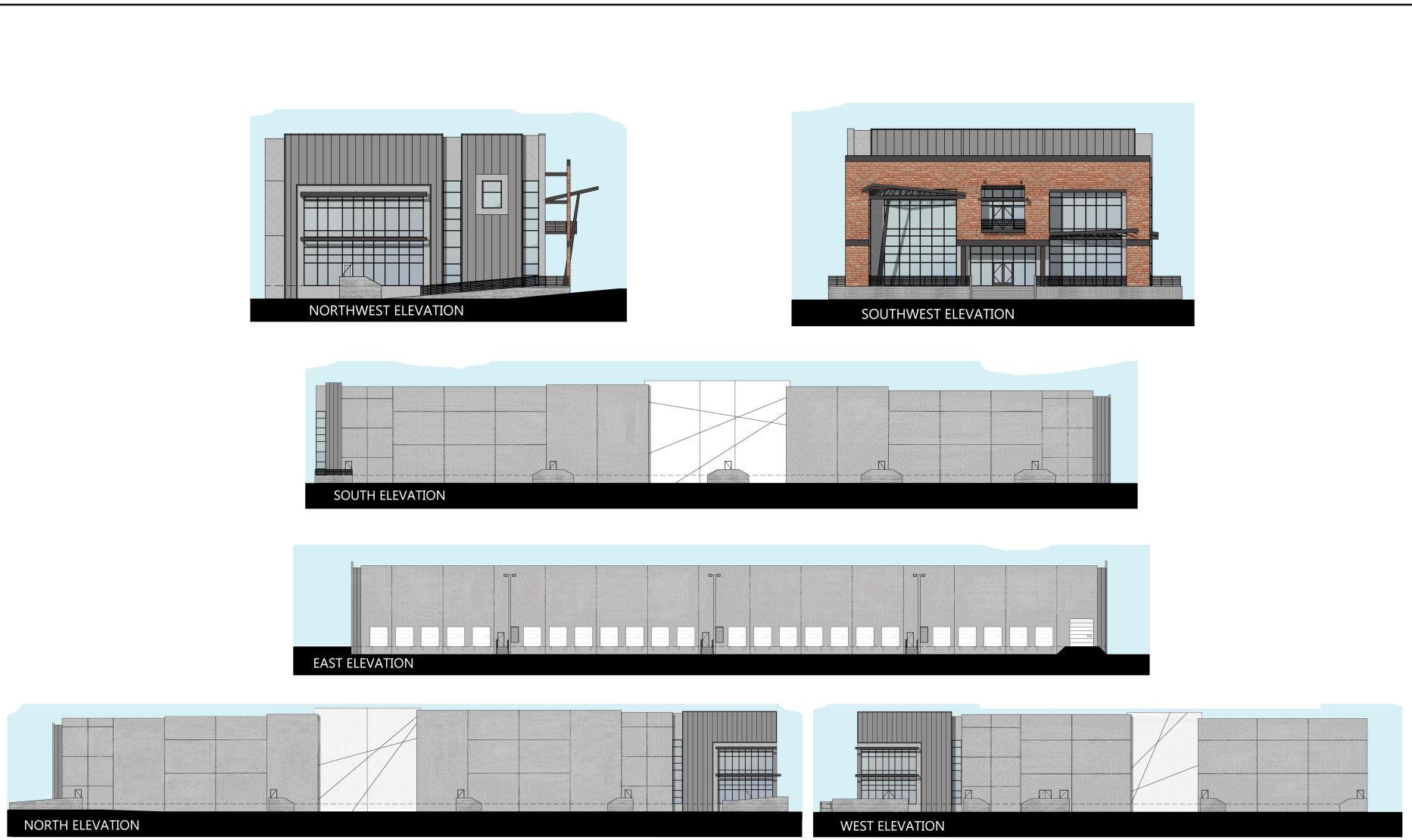


Source: HPA Architecture, 04/30/2021.

FIRSTCARBON SOLUTIONS™

Exhibit 3
Site Plan

THIS PAGE INTENTIONALLY LEFT BLANK



Source: HPA Architecture, 05/17/2021.

FIRSTCARBON SOLUTIONS™

Exhibit 4
Proposed Project Elevations

THIS PAGE INTENTIONALLY LEFT BLANK



Source: HPA Architecture, 05/17/2021.

FIRSTCARBON SOLUTIONS™

Exhibit 5
Rendering from Intersection of
West Cutting Blvd. and Canal Blvd.

THIS PAGE INTENTIONALLY LEFT BLANK

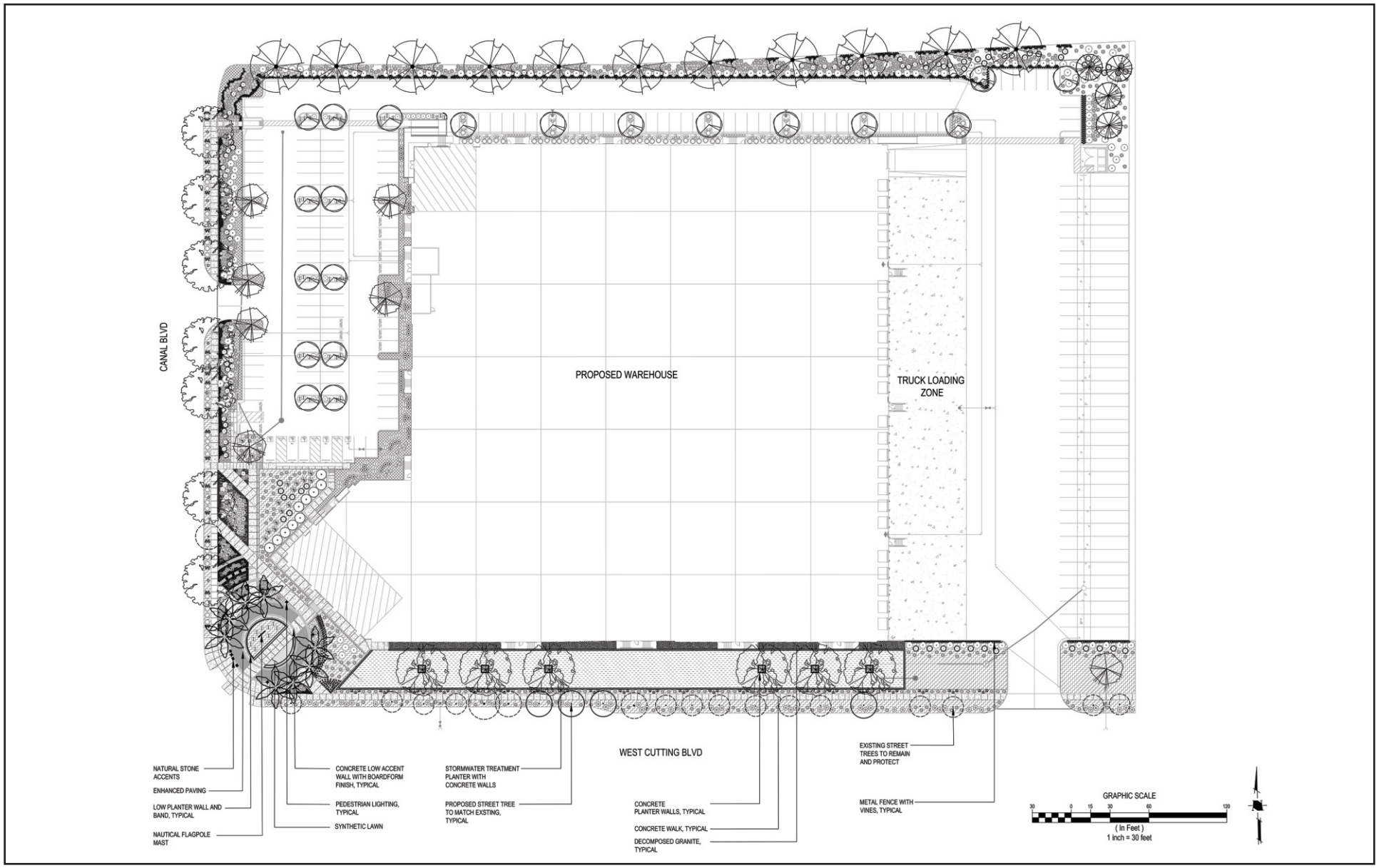


Source: HPA Architecture, 05/17/2021.

FIRSTCARBON SOLUTIONS™

Exhibit 6
Rendering Canal Blvd. View

THIS PAGE INTENTIONALLY LEFT BLANK



Source: HMH, 11/5/2021.

FIRSTCARBON SOLUTIONS™

Exhibit 7
Proposed Landscape Plan

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 2: ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

Environmental Factors Potentially Affected					
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.					
☐	Aesthetics	☐	Agriculture and Forestry Resources	☒	Air Quality
☐	Biological Resources	☒	Cultural Resources	☐	Energy
☒	Geology/Soils	☐	Greenhouse Gas Emissions	☒	Hazards/Hazardous Materials
☒	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☒	Transportation	☐	Tribal Cultural Resources
☐	Utilities/Services Systems	☐	Wildfire	☐	Mandatory Findings of Significance

Environmental Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

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

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

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

Date: 12/7/2021 Signed: _____

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.1 Aesthetics *Except as provided in Public Resources Code Section 21099, would the project:*				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a State Scenic Highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Environmental Evaluation

Setting

Surrounding hills and the San Francisco and San Pablo bays are prominent scenic areas in the City. The City's General Plan identifies scenic views from higher elevations in the hills and portions of the shoreline which provide scenic vistas of the San Francisco Bay. The City actively protects its hills, ridgelines, and associated natural features through a Hillside Ordinance[1]. The hills and bays are integral to the community's image and identity, providing beautiful scenic backdrops, environmental sanctuaries, and recreational resources. The City is bounded by the Berkeley Hills, San Pablo Ridge, Sobrante Ridge and Point Richmond. These hills sustain a rich environment for native plant and wildlife species and create continuous wildlife corridors.[2]

The hill areas provide for water infiltration and vegetation which helps moderate the urban heat island effect. In addition, local foothills provide publicly accessible trails and vistas for enjoying nature and viewing the bays, nearby bridges, and surrounding cities.

The proposed project is located within a Business and Industry Land Use Area of the City and is surrounded on all sides by industrial operations of various sizes. The project site is not located within an area designated in the City's General Plan as scenic, nor is the site located in an area governed by the Hillside Ordinance. The site is located approximately 400 feet north of the Santa Fe Channel

[1] City of Richmond General Plan. 2030. Conservation and Natural Resources: Richmond Today, page 7.4.
[2] Ibid

harbor; however, the harbor is not visible from the project site due to intervening development such as the harbor parking lot and associated buildings.

Would the project:

a) Have a substantial adverse effect on a scenic vista?

No impact. The project is not located in or near a scenic vista, as defined in the General Plan. The City actively protects its hills and ridgelines and associated natural features through a Hillside Ordinance; however, the site is not located in an area governed by the Hillside Ordinance. As noted above, the site is located approximately 400 feet north of the Santa Fe Channel harbor; however, the harbor is not visible from the project site due to intervening development such as the harbor parking lot and associated buildings. Therefore, the proposed project would not have an adverse effect on a scenic vista and no impact would occur.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a State Scenic Highway?

No impact. I-580 is located approximately 50 feet north of the project site; however, it is not considered a scenic highway. The closest scenic highway is a portion of Route 580/Route 80 in the City of Albany, located approximately 4.5 miles southeast of the project site and not visible due to distance and intervening development.[3] The proposed project is located within a completely urban, developed area that is not within a State Scenic Highway.[4] Therefore, the proposed project would not damage scenic resources including trees, rock outcroppings, and historic buildings within a State Scenic Highway and no impact would occur.

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

No impact. The proposed project is located within an urban area located near Santa Fe Channel and Point Richmond. The project site is surrounded by industrial land use properties consisting primarily of large distribution centers and industrial buildings; therefore, the project would be compatible with surrounding uses and would not degrade the existing visual character or quality of public views of the site and its surroundings. Furthermore, the proposed project is a warehouse which would not conflict with the General Plan designation of Business/Light Industrial (IL).[5] Furthermore, because the site is not located in an area designated by the General Plan as having a hillside or shoreline view, or a scenic route, the proposed project would not conflict with General Plan policies that aim to protect hillside and shoreline views and scenic routes.[6] Therefore, no impact would occur.

[3] California Department of Transportation (Caltrans). California State Scenic Highway System Map. Website: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed July 2, 2021.
[4] Ibid.
[5] City of Richmond. 2016. Zoning Ordinance. Website: http://www.ci.richmond.ca.us/3379/Zoning-Ordinance. Accessed July 2, 2021.
[6] City of Richmond General Plan. 2030. Conservation Natural Resources and Open Spaces Goal CN2. Website:

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

Less than significant impact. The proposed project is a warehouse that would replace existing industrial structures. Although the proposed project would result in new sources of light and glare, the site is located in an urbanized area that already contains existing sources of light and glare. Project lighting would comply with the City's Municipal Code 15.04.604.050 and all Best Management Practices (BMPs), guidelines or requirements that have been adopted by any federal, State, or regional agency.[7] The Design Review Board is currently reviewing project plans and will recommend refinements where needed to ensure that all lighting conforms to the required specifications that would reduce light and glare impacts to the maximum extent practicable. As a result, the proposed project would not create a significant new source of lighting and glare. Therefore, impacts would be less than significant.

Mitigation Measures

None.

http://www.ci.richmond.ca.us/DocumentCenter/View/8812/70-Conservation-Natural-Resources-and-Open-Space?bidId=. Accessed July 2, 2021.

[7] City of Richmond. 2021. Richmond Municipal Code. Website: https://library.municode.com/ca/richmond/codes/code_of_ordinances?nodeId=ARTXVZOSU_CH15.04ZOSURE_SERIES_600GEST_ART15.04.604LIIL_15.04.604.050GERE. Accessed July 2, 2021.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.2 Agriculture and Forestry Resources *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Evaluation

Setting

The proposed project is located within an urban, industrial area and is designated by the General Plan as Business/Light Industrial (IL).[8] The project site is completely developed and, pursuant to the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP)[9],

[8] City of Richmond. 2016. Zoning Ordinance. Website: http://www.ci.richmond.ca.us/3379/Zoning-Ordinance. Accessed July 7, 2021.
[9] California Department of Conservation. Farmland Mapping & Monitoring Program. Website: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed July 7, 2021.

there are no Farmlands of any kind, nor is there agriculture, forestlands, timber lands, or Timber Production land designations or uses on-site.

Would the project:

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

No impact. The California Department of Conservation's FMMP designates the project site as Urban and Built-Up Land.[10] Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use and no impact would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No impact. The project site does not support agricultural land use activities, and is not under a Williamson Act contract. The project site is zoned "Light Industrial" by the City's Zoning Code, which is a non-agricultural zoning.[11] Therefore, the proposed project is not in conflict with existing zoning for agricultural use or with a Williamson Act contract. No impacts would occur.

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

No impact. The land designation for the project site is Light Industrial,[12] and no change to the zoning is proposed. Therefore, the proposed project would not conflict with zoning of forest land, timberland, or Timberland Production. No impacts would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. As discussed in Section 2.2, Agriculture and Forestry Resources, question (a), the project site is urban and completely built up. No forest land is present on-site. Therefore, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest land and no impacts would occur.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No impact. The proposed project would develop a 144,808-square-foot warehouse with associated office and mezzanine uses that would replace the existing industrial buildings at the project site. The project site is surrounded by urban land uses and is mapped as "Urban and Built-Up Land" by the

[10] Ibid.
[11] City of Richmond Zoning. Zoning Lookup. Website: http://geoweb02.ci.richmond.ca.us/Html5Viewer/Index.html?configBase=http://geoweb02.ci.richmond.ca.us/Geocortex/Essentials/REST/sites/ZoningInfoINTERNET/viewers/html5/virtualdirectory/Resources/Config/Default. Accessed July 7, 2021.
[12] Ibid.

California Department of Conservation FMMP. The condition precludes the possibility of creating changes in the existing environment that would result in the conversion of Important Farmland or forest land to non-agricultural or non-forest use. No impact would occur.

Mitigation Measures

None required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.3 Air Quality *Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:*				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
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?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors or) adversely affecting a substantial number of people?	☐	☐	☒	☐

Environmental Evaluation

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

Would the project:

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

Less than significant impact with mitigation incorporated. The project site is located in the San Francisco Bay Area Air Basin (Air Basin), where the Bay Area Air Quality Management District (BAAQMD) regulates air quality. The United States Environmental Protection Agency (EPA) is responsible for identifying non-attainment and attainment areas for each criteria pollutant within the Air Basin. The Air Basin is designated non-attainment for State standards for 1-hour and 8-hour ozone, 24-hour respirable particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}), annual PM_{10}, and annual fine particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$).[13]

The BAAQMD has adopted several air quality policies and plans to address regional air quality standards, the most recent of which is the 2017 Clean Air Plan. The 2017 Clean Air Plan was adopted in April of 2017 and serves as the regional Air Quality Plan (AQP) for the Air Basin for attaining National Ambient Air Quality Standards (NAAQS). The primary goals of the 2017 Clean Air Plan are to

[13] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act. Air Quality Guidelines. May. Website: https://www.baaqmd.gov/~/media/files/planning-and research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed June 2, 2021.

protect public health and protect the climate. The 2017 Clean Air Plan acknowledges that the BAAQMD's two stated goals of protection are closely related. As such, the 2017 Clean Air Plan identifies a wide range of control measures intended to decrease both criteria pollutants and greenhouse gas (GHG) emissions. The EPA has established NAAQS for six of some of the most common air pollutants—carbon monoxide, lead, ground-level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide—known as "criteria" air pollutants. GHGs are gaseous compounds in the atmosphere that are capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere. By increasing the heat in the atmosphere, GHGs are responsible for the greenhouse effect, which ultimately leads to global warming. The 2017 Clean Air Plan also accounts for projections of population growth provided by the Association of Bay Area Governments and Vehicle Miles Traveled (VMT) provided by the Metropolitan Transportation Commission (MTC) and identifies strategies to bring regional emissions into compliance with federal and State air quality standards. A project would be judged to conflict with or obstruct implementation of the 2017 Clean Air Plan if it would result in substantial new regional emissions not foreseen in the air quality planning process.

The BAAQMD does not provide a numerical threshold of significance for project-level consistency analysis with AQPs. Therefore, the following criteria will be used for determining a project's consistency with the AQP.

- Criterion 1: Does the project support the primary goals of the AQP?
- Criterion 2: Does the project include applicable control measures from the AQP?
- Criterion 3: Does the project disrupt or hinder the implementation of any AQP control measures?

Criterion 1

The primary goals of the 2017 Clean Air Plan, the current AQP to date, are to:

- Attain air quality standards.
- Reduce population exposure to unhealthy air and protect public health in the Bay Area.
- Reduce GHG emissions and protect the climate.

A measure for determining whether the project supports the primary goals of the AQP is if the project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. This measure is determined by evaluating whether the proposed project was reasonably accounted for the in the AQP.

The City's General Plan was adopted in 2012, which was prior to the BAAQMD's adoption of the latest 2017 AQP. The project site is designated "Business/Light Industrial" by the General Plan and is zoned "Light Industrial (IL)" by the Richmond Zoning Ordinance.

The General Plan lists allowable uses under the Business/Light Industrial designation, which is intended for commercial and institutional uses such as a large-scale research and development campus, light industrial, industrially related storage and distribution, and office uses. The proposed project would

demolish the four existing industrial-zone buildings on the site and build a 43-foot-tall warehouse/distribution center with associated office space. The proposed project would involve dry storage uses and activities and would be within the development density permitted by the General Plan. Therefore, the proposed project would be consistent with the land use assumptions used in the AQP. Furthermore, as discussed in Impact 3(b) and Impact 3(c), implementation of the proposed project would not exceed the BAAQMD operational or construction thresholds for criteria pollutants. As such, development of the project site has been reasonably accounted for in the AQP and, because the proposed project would not exceed BAAQMD regional thresholds of significance on an average daily or annual basis, the proposed project would be consistent with the first criterion.

Criterion 2

The 2017 Clean Air Plan contains control measures to reduce air pollutants and GHGs at the local, regional, and global levels. Along with the traditional stationary, area, mobile source, and transportation control measures, the 2017 Clean Air Plan contains many control measures designed to protect the climate and promote mixed use, compact development to reduce vehicle emissions and exposure to pollutants from stationary mobile sources. The 2017 Clean Air Plan also includes an account of the implementation status of control measures identified in the prior 2010 Clean Air Plan.

Table 2 lists the Clean Air Plan policies relevant to the project and evaluates the proposed project's consistency with the policies. As shown below, the proposed project would be consistent with applicable measures.

Table 2: Project Consistency with Applicable Clean Air Plan Control Measures

Type	Measure Number/Title	Consistency Analysis
Stationary Source Control Measure	SS 1–Fluid Catalytic Cracking in Refineries SS 2–Equipment Leaks SS 3–Cooling Towers SS 4–Refinery Flares SS 5–Sulfur Recovery Units SS 6–Refinery Fuel Gas SS 7–Sulfuric Acid Plants SS 8–Sulfur Dioxide from Coke Calcining SS 9–Enhanced NSR Enforcement for Changes in Crude Slate SS 10–Petroleum Refining Emissions Tracking SS 11–Petroleum Refining Facility-Wide Emission Limits SS 12–Petroleum Refining Climate Impacts Limit SS 13–Oil and Gas Production, Processing and Storage SS 14–Methane from Capped Wells SS 15–Natural Gas Processing and Distribution SS 16–Basin-Wide Methane Strategy SS 17–GHG BACT Threshold SS 18–Basin-Wide Combustion Strategy SS 19–Portland Cement SS 20–Air Toxics Risk Cap and Reduction from	**Consistent**. Stationary sources are regulated directly by the BAAQMD, which routinely adopts/revises rules or regulations to implement the Stationary Source (SS) control measures to reduce stationary source emissions. Therefore, any new stationary sources associated with the proposed project would be required to comply with BAAQMD's regulations. As the proposed project would involve the operation of dry warehouse storage, it is not anticipated that the proposed project would result in any new major stationary source emissions. Additionally, in the event stationary equipment is installed on-site, it is anticipated that the equipment would be small-quantity emitters and would require review by the BAAQMD for permitted sources of air pollution, which would ensure

Type	Measure Number/Title	Consistency Analysis
	Existing Facilities SS 21–New Source Review for Toxics SS 22–Stationary Gas Turbines SS 23–Biogas Flares SS 24–Sulfur Content Limits of Liquid Fuels SS 25–Coatings, Solvents, Lubricants, Sealants and Adhesives SS 26–Surface Prep and Cleaning Solvent SS 27–Digital Printing SS 28–LPG, Propane, Butane SS 29–Asphaltic Concrete SS 30–Residential Fan Type Furnaces SS 31–General Particulate Matter Emission Limitation SS 32–Emergency Backup Generators SS 33–Commercial Cooking Equipment SS 34–Wood Smoke SS 35–PM from Bulk Material Storage, Handling and Transport, Including Coke and Coal SS 36–PM from Trackout SS 37–PM from Asphalt Operations SS 38–Fugitive Dust SS 39–Enhanced Air Quality Monitoring SS 40–Odors	consistency with the 2017 Clean Air Plan.
Transportation Control Measures	TR 1–Clean Air Teleworking Initiative TR 2–Trip Reduction Programs TR 3–Local and Regional Bus Service TR 4–Local and Regional Rail Service TR 5–Transit Efficiency and Use TR 6–Freeway and Arterial Operations TR 7–Safe Routes to Schools and Safe Routes to Transit TR 8–Ridesharing, Last-Mile Connection TR 9–Bicycle and Pedestrian Access and Facilities TR 10–Land Use Strategies TR 11–Value Pricing TR 12–Smart Driving TR 13–Parking Policies TR 14–Cars and Light Trucks TR 15–Public Outreach and Education TR 16–Indirect Source Review TR 17–Planes TR 18–Goods Movement TR 19–Medium and Heavy-Duty Trucks TR 20–Ocean Going Vessels TR 21–Commercial Harbor Craft TR 22–Construction, Freight and Farming Equipment TR 23–Lawn and Garden Equipment	**Consistent**. Transportation (TR) control measures are strategies to reduce vehicle trips, vehicle use, VMT, vehicle idling, and traffic congestion for the purpose of reducing motor vehicle emissions. Although most of the TR control measures are implemented at the regional level—that is, by MTC or Caltrans—the 2017 Clean Air Plan relies on local communities to assist with implementation of some measures. Electrical conduits would be provided in the project parking lot to accommodate future electric vehicle parking spaces. The proposed project would also be subject to the Bay Area's Commuter Benefits Program, which requires all employers in BAAQMD's jurisdiction that have 50 or more full-time employees to offer commuter benefits to their employees.

Type	Measure Number/Title	Consistency Analysis
Energy and Climate Control Measures	EN 1–Decarbonize Electricity Production EN 2–Renewable Energy Decrease Electricity Demand	**Consistent**. The Energy and Climate (EN) control measures are intended to reduce energy use as a means of reducing adverse air quality emissions. Additionally, the proposed buildings would comply with the 2019 Building Energy Efficiency Standards' solar requirements and would be constructed to support future roof-mounted solar systems. Moreover, compliance with the 2019 Building Energy Efficiency Standards would improve energy efficiency by an overall 30 percent compared to the 2016 Building Energy Efficiency Standards.[14]
Buildings Control Measures	BL 1–Green Buildings BL 2–Decarbonize Buildings BL 3–Market-Based Solutions BL 4–Urban Heat Island Mitigation	**Consistent**. The Buildings (BL) control measures focus on working with local governments to facilitate adoption of best GHG emission control practices and policies. As discussed above for the EN control measures, the proposed project would comply with 2019 Building Energy Efficiency Standards—i.e., constructed to support a future roof-mounted solar system and achieving greater energy efficiency compared to the 2016 Building Energy Efficiency Standards.
Agriculture ControlMeasures	AG 1–Agricultural Guidance and Leadership AG 2–Dairy Digesters AG 3–Enteric Fermentation AG 4–Livestock Waste	**Not Applicable**. Agricultural (AG) practices in the Bay Area account for a small portion, roughly 1.5 percent, of the Bay Area GHG emissions inventory. The GHGs from agriculture include methane, nitrous oxide, and carbon dioxide. The proposed project would not involve any agricultural activities or operations.
Natural and WorkingLands Control Measures	NW 1–Carbon Sequestration in Rangelands NW 2–Urban Tree Planting NW 3–Carbon Sequestration in Wetlands	The control measures for the Natural and Working Lands (NW) sector focuses on increasing carbon sequestration on rangelands and wetlands, as well as urban tree planting. The proposed project

[14] California Energy Commission (CEC). 2018. 2019 Building Energy Efficiency Standards Frequently Asked Questions. Website: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf. Accessed July 29, 2021.

Type	Measure Number/Title	Consistency Analysis
		would include the planting of various ornamental and shade trees throughout the project site.
Waste Management Control Measures	WA 1–Landfills WA 2–Composting and Anaerobic Digesters WA 3–Green Waste Diversion WA 4–Recycling and Waste Reduction	**Consistent**. The Waste Management (WA) control measures include strategies to increase waste diversion rates through efforts to reduce, reuse, and recycle. The proposed project would comply with Assembly Bill (AB) 341, which requires mandatory commercial recycling for businesses that generate 4 cubic yards or more of commercial solid waste per week. Additionally, the proposed project would be required to reduce construction waste by 75 percent and use 30 percent recycled content during construction of the proposed facility. Therefore, the proposed project would not conflict with these WA control measures.
Water Control Measures	WR 1–Limit GHGs from publicly owned treatment works (POTWs) WR 2–Support Water Conservation	**Consistent**. The 2017 Clean Air Plan includes measures to reduce water use. The proposed project would include water efficiency measures required under the California Green Building Standards Code (CALGreen). In addition, the proposed project would include water-efficient indoor fixtures consistent with the requirements of CALGreen as well as water-efficient landscaping outdoors.
Super-GHG ControlMeasures	SL 1–Short-Lived Climate Pollutants SL 2–Guidance for Local Planners SL 3–GHG Monitoring and Emissions Measurements Network	**Consistent**. Super-GHGs include methane, black carbon, and fluorinated gases. These compounds are sometimes referred to as short-lived climate pollutants because their lifetime in the atmosphere is generally fairly short. Measures to reduce super-GHGs are addressed on a sector-by-sector basis in the 2017 Clean Air Plan. Furthermore, the proposed project would comply with AB 341, which mandates commercial recycling for businesses that generate 4 cubic yards or more of commercial solid waste per week, which could contribute to reducing

Type	Measure Number/Title	Consistency Analysis
		methane by diverting waste from landfills.
Further Study ControlMeasures	FSM SS 1–Internal Combustion Engines FSM SS 2–Boilers, Steam Generator and Process Heaters FSM SS 3–GHG Reductions from Non-Cap- and Trade Sources FSM SS 4–Methane Exemptions from Wastewater Regulation FSM SS 5–Controlling start-up, shutdown, maintenance, and malfunction (SSMM) Emissions FSM SS 6–Carbon Pollution Fee FSM SS 7–Vanishing Oils and Rust Inhibitors FSM SS 8–Dryers, Ovens and Kilns FSM SS 9–Omnibus Rulemaking to Achieve Continuous Improvement FSM BL 1–Space Heating FSM AG 1–Wineries	**Consistent**. The majority of the Further Study Control Measures (FSM) apply to sources regulated directly by the BAAQMD. Because the BAAQMD is the implementing agency, any new sources of stationary and area source emissions on the project site would be required to comply with these additional study control measures in the 2017 Clean Air Plan.

Notes:
AG = Agricultural
BL = Buildings
EN = Energy and Climate
FSM = Further Study Measures
NW = Natural and Working Lands
SL = Super GHG (Short-Lived)
SS = Stationary Sources
TR = Transportation
WA = Waste Management
WR = Water Control Measures
Source: Bay Area Air Quality Management District (BAAQMD). 2017, April 19. Final 2017 Clean Air Plan, Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed July 27, 2021.

In summary, the proposed project would not conflict with any applicable measures under the 2017 Clean Air Plan after the implementation of Mitigation Measure (MM) AIR-1; therefore, the proposed project would be consistent with Criterion 2 after incorporation of mitigation.

Criterion 3

The proposed project would constitute the development and operation of dry warehouse storage and associated office space and would not include any feature or design which could create conditions which prevent the extension of adjacent transit, pedestrian, or bicycle facilities. In addition, the proposed project would provide parking spaces sufficient for those required for future employees and would not provide an excessive amount of parking spaces beyond that required for employees. Nor would the proposed project provide parking space for employees or visitors not associated with the proposed uses. Therefore, the proposed project would not preclude the extension of a transit line or bike path, propose excessive parking beyond parking requirements, or

otherwise create an impediment or disruption to implementation of any AQP control measures. As shown in Table 2 above, the proposed project would incorporate several AQP control measures as project design features such as complying with energy efficiency standards contained in the 2019 California Building Code and installing landscaping across the project site. Considering this information, the project would not disrupt or hinder implementation of any AQP control measures. The project is therefore consistent with Criterion 3.

Summary

As addressed above, the proposed project would be consistent with all three criteria after the incorporation of MM AIR-1. Thus, the proposed project would not conflict with the 2017 Clean Air Plan. Therefore, impacts associated with conflicting with or obstructing implementation of the 2017 Clean Air Plan would be less than significant with mitigation.

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?

Less than significant impact with mitigation. This impact is related to the cumulative effect of a project's regional criteria pollutant emissions. By its nature, air pollution is largely a cumulative impact resulting from emissions generated over a large geographic region. The non-attainment status of regional pollutants is a result of past and present development within the Air Basin, and this regional impact is a cumulative impact. Therefore, new development projects (such as the proposed project) within the Air Basin would contribute to this impact only on a cumulative basis. No single project would be sufficient in size, by itself, to result in non-attainment of regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when evaluated in combination with past, present, and future development projects.

Potential localized and regional impacts would result in exceedances of State or federal standards for nitrous oxide (NO_X), particulate matter (PM_{10} and $PM_{2.5}$), or carbon monoxide (CO). NO_X emissions are of concern because of potential health impacts from exposure to NO_X emissions during both construction and operation and as a precursor in the formation of airborne ozone. PM_{10} and $PM_{2.5}$ are of particular concern during construction because of the potential to emit exhaust emissions from the operation of off-road construction equipment and fugitive dust during earth-disturbing activities (construction fugitive dust). CO emissions are of particular concern during project operation because operational CO hotspots are related to increases in on-road vehicle congestion.

Reactive organic gases (ROG) emissions are also important because of their participation in the formation of ground-level ozone. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, elderly, and young children.

The cumulative analysis focuses on whether a specific project would result in cumulatively considerable emissions. According to Section 15064(h)(4) of the CEQA Guidelines, the existence of significant cumulative impacts caused by other projects alone does not constitute substantial

evidence that the project's incremental effects would be cumulatively considerable. Rather, the determination of cumulative air quality impacts for construction and operational emissions is based on whether the project would result in regional emissions that exceed the BAAQMD regional thresholds of significance for construction and operations on a project level. The thresholds of significance represent the allowable amount of emissions each project can generate without generating a cumulatively considerable contribution to regional air quality impacts. Therefore, a project that would not exceed the BAAQMD thresholds of significance on the project level also would not be considered to result in a cumulatively considerable contribution to these regional air quality impacts. Construction and operational emissions are discussed separately below.

Construction Fugitive Dust

As previously mentioned, fugitive dust (PM_{10} and $PM_{2.5}$) would be generated during earthmoving activities but would largely remain localized near the project site.

The BAAQMD does not recommend a numerical threshold for fugitive dust particulate matter emissions. Instead, the BAAQMD bases the determination of significance for fugitive dust on considering the control measures to be implemented. If all appropriate emissions control measures are implemented for a project as recommended by the BAAQMD, then fugitive dust emissions during construction are not considered significant. As the proposed project would involve the disturbance of greater than 1 acre, it is expected to be required to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) during construction activities, which would ensure the implementation of various dust control measures which are most appropriate for the project site. These measures may include, but would not be limited to, watering or seeding disturbed areas, covering stockpiles of dirt or aggregate, or other soil stabilization practices.

In addition, the BAAQMD recommends that a series of mitigation measures be implemented for all construction projects, which also includes various dust control measures, such as watering disturbed areas daily and reducing vehicle speeds on unpaved roads. As such, the construction mitigation measures recommended by the BAAQMD are included herein as MM AIR-1 to ensure that adequate dust control measures are implemented at the project site, in combination with any additional dust control measures identified and implemented by the SWPPP for the proposed project. With the incorporation of MM AIR-1, short-term construction impacts associated with violating an air quality standard or contributing substantially to an existing or projected air quality violation would be less than significant for fugitive dust.

Construction Air Pollutant Emissions: ROG, NO_X, PM_{10}, $PM_{2.5}$

CalEEMod, Version 2020.4.0, was used to estimate the proposed project's construction emissions. CalEEMod provides a consistent platform for estimating construction and operational emissions from a wide variety of land use projects and is the model recommended by the BAAQMD for estimating project emissions. Estimated construction emissions are compared with the applicable thresholds of significance established by the BAAQMD to assess ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$ construction emissions to determine significance for this criterion.

Construction of the proposed project is expected to start in January 2022 and to conclude in January 2023. For purposes of this analysis, construction of the proposed project was assumed to correspond

to these dates. If the construction schedule moves to later years, construction emissions would likely decrease because of improvements in technology and more stringent regulatory requirements that would affect future construction equipment. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required by CEQA Guidelines.

As shown in Table 3, the proposed project would be constructed in a total of 370 workdays. For a more detailed description of the construction parameters used in estimating air pollutant emissions modeling, please refer to Appendix A.

Table 3: Preliminary Construction Schedule

Construction Activity	Start Date	End Date	Total Number of Working Days per Week	Total Number of Working Days
Demolition	1/3/2022	1/28/2022	5	20
Rough Grading	1/31/2022	2/18/2022	5	15
Underground Utilities	2/21/2022	5/13/2022	5	60
Building Construction	2/21/2022	11/15/2022	5	192
Finish Grading	9/15/2022	10/3/2022	5	13
Paving	10/3/2022	10/24/2022	5	16
Architectural Coating	11/16/2022	1/30/2023	5	54
Source: CalEEMod Output Files, Appendix A.				

The calculations of pollutant emissions from the construction equipment account for the type of equipment, horsepower, and load factors of the equipment, along with the duration of use. Average daily construction emissions are compared with the significance thresholds in Table 4.

Table 4: Construction Emissions (Unmitigated Average Daily Rate)

	Air Pollutants[1] (tons)			
Construction Activity	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Demolition	0.03	0.43	0.01	0.01
Rough Grading	0.02	0.35	0.01	0.01
Underground Utilities	0.01	0.10	0.01	<0.01
Building Construction	0.21	1.83	0.08	0.08
Finish Grading	0.01	0.14	0.01	0.01
Paving	0.01	0.09	<0.01	<0.01

Construction Activity	Air Pollutants[1] (tons)			
	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Architectural Coating	0.84	0.04	<0.01	<0.01
Total Emissions (tons)	**1.14**	**2.90**	**0.12**	**0.11**
Daily Average				
Total Emissions (lbs)	2,280	5,950	245	230
Average Daily Emissions (lbs/day)[2]	8	21	1	1
Significance Threshold (lbs/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
[1] Totals may not add up due to rounding. Calculations use unrounded totals.
[2] Calculated by dividing the total lb. of emissions by the total number of nonoverlapping working days of construction (281 workdays).
lbs = pounds ROG = reactive organic gases NO_X = oxides of nitrogen
PM_{10} = particulate matter 10 microns in diameter
$PM_{2.5}$ = particulate matter 2.5 microns in diameter
Source: CalEEMod Output (see Appendix A).

As shown in Table 4, the construction emissions from all construction activities are below the recommended thresholds of significance; therefore, project construction would have less than significant impact related to emissions of ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$. As previously discussed, the proposed project would implement MM AIR-1 for dust control BMPs recommended by the BAAQMD to reduce potential impacts related to fugitive dust emissions during project construction. Therefore, project construction would have a less than significant impact with mitigation.

Operational Emissions

Operational Air Pollutant Emissions: ROG, NO_X, PM_{10}, and $PM_{2.5}$

Operational emissions would include area, energy, and mobile sources. Area sources include emissions from architectural coatings, consumer products, and landscape equipment, while energy sources include emissions from the combustion of natural gas for water and space heating. Mobile sources include exhaust and road dust emissions from the vehicles that would travel to and from the project site. Pollutants of concern include ROG, NO_X, PM_{10}, and $PM_{2.5}$.

Project operations were analyzed starting in 2023, the first calendar year following construction operations. The major sources for proposed operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ include motor vehicle traffic, use of natural gas, and the occasional repainting of buildings.

As discussed in Section 2.3, Project Description, the proposed project would include the demolition of four existing industrial-zoned buildings and the construction of a new 43-foot-tall dry storage warehouse building with 24 loading docks. Therefore, the emissions generated from the operation of

the existing buildings and structures were included in the analysis baseline to estimate the net change in emissions. Operational emissions of the respective pollutants were calculated using CalEEMod, Version 2020.4.0. For detailed assumptions used to estimate emissions, see Appendix A. The estimated net annual and daily emissions are presented in Table 5.

Table 5: Net Operational Emissions (Unmitigated)

Emissions Source	Criteria Pollutants			
	ROG	NO_X	PM_{10} (Total)	$PM_{2.5}$ (Total)
Annual Emissions Summary (Tons per Year)				
Area	0.69	<0.01	<0.01	<0.01
Energy	<0.01	0.01	<0.01	<0.01
Mobile (Motor Vehicles)	0.26	0.77	1.13	0.31
Total Project Emissions	**0.95**	**0.78**	**1.14**	**0.31**
Existing Land Use Emissions	0.22	0.04	0.07	0.02
Net Project Emissions	**0.73**	**0.74**	**1.06**	**0.29**
Thresholds of Significance	**10**	**10**	**15**	**10**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**
Average Daily Emissions Summary				
Net Project Emissions (Tons)	0.73	0.74	1.06	0.29
Net Project Emissions (Pounds)	1,460	1,480	2,120	580
Average Daily Net Project Emissions (Pounds/Day)[1]	**4**	**4**	**6**	**2**
Thresholds of Significance	54	54	82	54
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
ROG = reactive organic gases NO_X = nitrous oxides.
PM_{10} = particulate matter 10 microns or less in diameter
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
[1] For average daily emissions, the proposed project is assumed to operate 365 days per year. Therefore, the annual tonnage of emissions is multiplied by 2,000 pounds per ton to identify total pounds of emissions and divided by 365 days per year to identify average daily emissions.
Source: CalEEMod Output (see Appendix A).

As shown in Table 5, the proposed project would not exceed the BAAQMD's thresholds of significance during operation, indicating that ongoing project operations would not be considered to have the potential to generate a significant quantity of air pollutants. Therefore, long-term operational impacts associated with criteria pollutant emissions generated by the proposed project would be less than significant.

Operational Carbon Monoxide Hotspot

The CO emissions from traffic generated by the project are a concern at the local level. Congested intersections can result in the potential for high, localized concentrations of CO, known as a CO hotspot.

The BAAQMD recommends a screening analysis to determine whether a project has the potential to contribute to a CO hotspot. The screening criteria identify when site-specific CO dispersion modeling is necessary. The proposed project would result in a less than significant impact to air quality for local CO if all the following screening criteria are met:

1. The project is consistent with an applicable Congestion Management Program established by the County Congestion Management Agency for designated roads or highways, regional transportation plan, and local congestion management agency plans; and
2. The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

As indicated in the Transportation Analysis prepared for the proposed project,[15] no intersections impacted by the proposed project would experience traffic volumes of 44,000 or more vehicles per hour. According to the analysis, the study intersections which would experience the most traffic would be the intersection of West Cutting Boulevard and Harbour Way during the AM peak-hour and the intersection of Canal Boulevard and the I-580 on- and off-ramps during the PM peak-hour. As discussed in the Transportation Analysis, those intersections would experience an estimated 2,979 AM peak-hours vehicle trips and 3,517 PM peak-hour vehicle trips, respectively, with the implementation of the proposed project under 2040 cumulative conditions. Therefore, the proposed project would not result in any nearby intersection having peak-hour traffic volumes exceeding 44,000 vehicles per hour.

Nonetheless, CO hotspots can occur when a transportation facility's design or orientation prevents the adequate dispersion of CO emissions from vehicles, resulting in the accumulation of local CO concentrations. The design or orientation of a transportation facility that may prevent the dispersion of CO emissions include tunnels, parking garages, bridge underpasses, natural or urban canyons, below-grade roadways, or other features where vertical or horizontal atmospheric mixing is substantially limited. The I-580 overpass over Canal Boulevard could present such a dispersion limitation; however, as previously discussed, that transportation facility would not experience traffic volumes beyond 24,000 vehicles per hour and would not result in the formation of CO hotspots. Other adjacent roadways that would receive new vehicle trips generated by the proposed project do not include transportation facilities where vertical or horizontal atmospheric mixing is substantially limited.

[15] Hexagon Transportation Consultants, Inc. 2021. 731 W. Cutting Boulevard. September 28.

Finally, the proposed project would not result in any significant impacts related to transportation, as discussed in further detail in Section 2.17, Transportation. As discussed in Section 2.17, all studied roadway segments and intersections would operate at acceptable levels with traffic generated by the proposed project in combination with existing traffic levels. Therefore, the proposed project is considered consistent with the local Congestion Management Program. Therefore, based on the above criteria, the proposed project would not exceed the CO screening criteria and would have a less than significant impact related to CO.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact. The BAAQMD defines a sensitive receptor as the following: "Facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, and residential areas." As specified by the BAAQMD, health risk and hazard impacts should be analyzed for sensitive receptors within a 1,000-foot radius of the project site.[16] The closest existing sensitive receptors in each direction include the following:

- Washington Elementary School as close as 800 feet west of the project site.
- Single-family residences as close as 2,150 feet west of the project site.
- Single-family residences as close as 950 feet southwest of the project site.
- Single-family residences as close as 1,900 feet east of the project site.
- Single-family residences as close as 1,760 feet north of the project site.

The following four criteria were applied to determine the significance of project emissions to sensitive receptors. The proposed project is considered to have a potentially significant impact if:

- **Criterion 1:** Construction of the project would result in an exceedance of the health risk significance thresholds.
- **Criterion 2:** The cumulative health impact would result in an exceedance of the cumulative health risk significance thresholds.
- **Criterion 3:** Operation of the project would result in an exceedance of the health risk significance thresholds.
- **Criterion 4:** A CO hotspot assessment demonstrates that the project would result in the development of a CO hotspot that could cause an exceedance of the CO ambient air quality standards.

Criterion 1: Project Construction Toxic Air Pollutants

An assessment was made of the potential health impacts to surrounding sensitive receptors resulting from toxic air contaminants (TAC) emissions during construction. A summary of the assessment is provided below, while the detailed assessment is provided Attachment A.

[16] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed October 19, 2021.

Diesel particulate matter (DPM) has been identified by the ARB as a carcinogenic substance. Major sources of DPM include off-road construction equipment and heavy-duty delivery truck and worker activities. For purposes of this analysis, DPM is represented as exhaust emissions of $PM_{2.5}$.

Estimation of Construction DPM Emissions

Construction DPM emissions were estimated using CalEEMod, Version 2020.4.0, as described under the discussion for Impact 3(b). As presented in Table 3, the proposed project's construction is anticipated to occur from January 2022 through January 2023. Construction emissions were calculated for each construction activity, as displayed in Table 4. On-site and off-site emissions generated during project construction were modeled with a working schedule of 8 hours per day, 5 days per week.

Based on the analysis presented in this section, emissions were estimated for unmitigated project construction. Table 6 summarizes the emission rates of unmitigated DPM during construction of the proposed project, as analyzed for construction of the entire project.

Table 6: Project DPM Construction Emissions

Scenario	On-site DPM—Area (tons/year)	Off-site DPM—Road Segments (tons/year)[1]	Total Local DPM Emissions (tons/year)
Project Construction DPM	1.15E-01	6.63E-03	1.22E-01

Notes:
DPM = diesel particulate matter
[1] The off-site emissions are adjusted to represent construction vehicle travel routes from within approximately 1,000 feet of the project site. Off-site emissions shown here do not reflect the 1,000-foot adjustment.
[2] Emissions herein do not reflect the application of any construction or operational mitigation measures.
Source: CalEEMod Output and Construction Health Risk Assessment Calculations; see Appendix A.

Estimation of Cancer Risks and Hazards

The BAAQMD has developed a set of guidelines for estimating cancer risks resulting from exposure to TACs.[17,18] These guidelines recommend the use of Hotspots Analysis and Reporting Program (HARP2) software to identify the cancer risk associated with DPM exposure. Therefore, the HARP2 was applied to calculate the cancer risks resulted from the DPM generated from the construction and operations of the proposed project. The input options used are as follows:

Residential Receptors

- Analysis Type: Cancer Risk
- Receptor Type: Individual Resident
- Exposure Duration: User Defined (Tier 2) – 3 Years, 3rd Trimester Start Age

[17] Bay Area Air Quality Management District (BAAQMD). 2016. BAAQMD Air Toxics NSR Program Health Risk Assessment Guidelines. December. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en. Accessed October 15, 2021.
[18] Bay Area Air Quality Management District (BAAQMD). 2020. BAAQMD Health Risk Assessment Modeling Protocol. December. Website: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol-pdf.pdf?la=en. Accessed October 15, 2021.

- Intake Rate Percentile: Risk Management Policy (RMP) – *Inhalation Only*
- Selected: "Apply Molecular Weight Adjustment Factor" factor
- Pathways to Evaluate: Inhalation Only
- Selected: "Apply fraction of time at residence to age bins less than 16 years"
- Selected: "Apply fraction of time at residence to age bins greater than or equal to 16 years"
- Selected: "Use Tier 2 breathing rates (L/kg-day)" factor
- Selected: "Use Tier 2 fraction of time at residence" factor

Elementary School Receptors

- Analysis Type: Cancer Risk
- Receptor Type: Individual Resident
- Exposure Duration: User Defined (Tier 2) – 3 Years, 5 years old Start Age
- Intake Rate Percentile: Risk Management Policy (RMP) – *Inhalation Only*
- Selected: "Apply Molecular Weight Adjustment Factor" factor
- Pathways to Evaluate: Inhalation Only
- Selected: "Apply fraction of time at residence to age bins less than 16 years"
- Selected: "Apply fraction of time at residence to age bins greater than or equal to 16 years"
- Selected: "Use Tier 2 breathing rates (L/kg-day)" factor
- Selected: "Use Tier 2 fraction of time at residence" factor
- Selected: "Adjustment for workers or 8-hour chronic risk" with "Worker Adjustment Factor" as 1 and Exposure Frequency (days/year)" as 180.

Estimation of Non-Cancer Chronic Hazards

TACs can also cause chronic (long-term) effects related to non-cancer illnesses such as reproductive effects or birth defects, or adverse environmental effects. Non-cancer health risks are conveyed in terms of the hazard index (HI), a ratio of the predicted concentration of the facility's reported TAC emissions to a concentration considered acceptable to public health professionals. A significant risk is defined as an HI of 1 or greater. An HI of less than 1 indicates that no significant health risks are expected from the facility's TAC emissions. The relationship for the non-cancer hazards of TACs is given by the following equation:

$$HI = C_{ann}/REL$$

Where:

HI = Hazard Index: an expression of the potential for chronic non-cancer health risks
C_{ann} = Annual average TAC concentration ($\mu g/m^3$)
REL = Reference Exposure Level: the DPM concentration at which no adverse health effects are anticipated

Annual concentrations of DPM as predicted by the air dispersion model are used to estimate chronic non-cancer hazards. The California Office of Environmental Health Hazard Assessment (OEHHA) has defined a REL for DPM of 5 $\mu g/m^3$.

Estimation of Health Risks and Hazards from Project Construction

To assess impacts to off-site sensitive receptors, receptor locations within the American Meteorological Society/EPA Regulatory Model (AERMOD) were placed at locations of existing residences and schools located in the vicinity of the project boundary. As previously discussed, project construction is anticipated to start in January 2022 and conclude by January 2023. The following AERMOD modeling parameters were utilized to identify the DPM concentration at identified receptors.

1. Sensitive receptors (e.g., schools, daycare facilities, hospitals, care facilities, residences) in the immediate project vicinity are represented in the model with discrete Cartesian receptors at a flagpole height of 1.5 meters. To account for potential two-story receptors, an additional discrete Cartesian receptor was placed at a height of 4.5 meters for residential receptors. For residential neighborhoods and schools, a boundary of discrete receptors was placed around the perimeter of that land use to identify potential impacts at the closest point to the project site. The closest sensitive receptors to the project site, in all directions, include the following:
   - Washington Elementary School as close as 800 feet west of the project site.
   - Single-family residences as close as 2,150 feet west of the project site.
   - Single-family residences as close as 950 feet southwest of the project site.
   - Single-family residences as close as 1,900 feet east of the project site.
   - Single-family residences as close as 1,760 feet north of the project site.

2. A nested Cartesian grid was placed in AERMOD with the following spacing parameters:
   - 20 meters spacing within the project site and up to 200 meters from the project site.
   - 50 meters spacing between 200 meters and 500 meters from the project site.
   - 100 meters spacing between 500 meters and 1,000 meters from the project site.
   - 200 meters spacing between 1,000 and 2,000 meters from the project site.

3. AERMOD's non-default regulatory dispersion option was selected. Among the dispersion control options available, the Fast All Sources option was selected.

4. The Urban dispersion coefficient was used as greater than 50 percent of the surrounding three kilometers is developed.

5. Emissions were characterized in the model using various area and volume sources to represent different activities. The following describes the emission sources utilized in the model for each model scenario.
   - On-site construction activities are represented with one polygon area source across the entire project site.
   - Off-site construction hauling and vendor truck operation for project construction is represented with line volume sources along Cutting Boulevard, Canal Boulevard, and I-580.

   Off-site emissions were adjusted to account for off-site emissions that would occur within 1,000 feet of the project site (see Off-Site $PM_{2.5}$ Exhaust Adjustment Sheet in Appendix A). As shown therein, each line volume source was assigned an emission rate equal to its proportion

of the off-site emissions based on the length of the respective line volume source divided by the combined length of all line volume source(s).

6. Meteorological data from the Oakland Airport Air Monitoring Station, Station ID 23230. This station was selected as it is the closest monitoring station to the project site, and it resembles physical site characteristics and elevation generally representative of the project site. The Oakland Airport Air Monitoring Station provides preprocessed meteorological data covering the years 2009-2014. The model used all years of available meteorological data.

The Maximally Impacted Sensitive Receptors (MIRs) during project construction were found at Washington Elementary School and a residence located approximately 950 feet southwest of the project site. Table 7 presents a summary of the proposed project's construction cancer risk, chronic non-cancer hazard, and annual $PM_{2.5}$ concentration impacts at each MIR. As discussed in Impact 3(b), MM AIR-1 would be required to reduce fugitive dust emissions during construction. It should be noted that inclusion of MM AIR-1 only reduces $PM_{2.5}$ fugitive dust and not $PM_{2.5}$ exhaust.

Table 7: Estimated Health Risks and Hazards During Project Construction—Unmitigated

Impact Scenario	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index[2]	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Risks and Hazards at the MIR: School[1]	0.04	<0.01	<0.01
Risks and Hazards at the MIR: Residential[1]	0.29	<0.01	<0.01
BAAQMD Thresholds of Significance	**10**	**1**	**0.3**
Exceeds Individual Source Threshold?	**No**	**No**	**No**

Notes:
[1] The MIRs are a residence located approximately 950 feet southwest of the project site and Washington Elementary School, approximately 800 feet west of the project site.
[2] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the REL of 5 $\mu g/m^3$.
MIR = Maximally Impacted Sensitive Receptor
Source: Appendix A.

As shown in Table 7, the residential MIR represents the MIR across all potentially impacted receptors, including receptors at Washington Elementary School, during project construction. As illustrated therein, the proposed project's construction DPM emissions would not exceed the BAAQMD's cancer risk, chronic non-cancer hazard index, and annual $PM_{2.5}$ thresholds of significance at either MIR. Therefore, the proposed project's construction emissions would not result in significant health impacts to nearby sensitive receptors.

Criterion 2: Cumulative Health Risk Assessment

The BAAQMD recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of a project. For a project-level analysis, BAAQMD provides several tools for use in

screening potential sources of TACs. The BAAQMD-provided tools used to assess the potential cumulative impacts from TACs are described below:

- **Health Risks for Local Roadways.** The BAAQMD pre-calculated concentrations and the associated potential cancer risks and $PM_{2.5}$ concentration increases for each county within their jurisdiction for roadways that carry at least 30,000 average daily trips. For certain areas, the BAAQMD also included local roadways that meet BAAQMD's "major roadway" criteria of 10,000 vehicles or 1,000 trucks per day. The latest available screening tool is in the form of a Geographic Information System (GIS) raster file. As the project is located in a Community Air Risk Evaluation (CARE) Program area,[19] the BAAQMD-screening tool includes local roadways that meet BAAQMD's "major roadway" criteria for the project area.
- **Freeway Screening Analysis Tool**. The BAAQMD prepared a GIS tool that contains pre-estimated cancer risk and $PM_{2.5}$ concentration increases for highways within the Bay Area. The nearest freeways to the project include I-580, approximately 100 feet north of the project site.
- **Stationary Source Risk and Hazard Screening Tools**. The BAAQMD prepared a GIS tool[20] with the location of permitted sources and provides a health risk calculator that estimates and refines screen-level cancer risk, a non-cancer health hazard index, and $PM_{2.5}$ concentrations using emissions data from BAAQMD's permitting database.[21] For each emissions source, the BAAQMD provides conservative estimates of cancer risk and $PM_{2.5}$ concentrations. Based on information from the GIS tool, eight BAAQMD-permitted stationary sources exist within 1,000 feet of the project site.
- **Rail Screening Tools.** The BAAQMD prepared GIS tools that contain estimated cancer risks and $PM_{2.5}$ concentrations from railroad operations at any point within the Air Basin. One existing railway borders the project site's western boundary while one existing railway is located approximately 400 feet of southeast of the project site. No other railways are within 1,000 feet of the project site.

Cumulative Health Risk Assessment at the Maximum Impacted Sensitive Receptor

A cumulative Health Risk Assessment was performed that examined the cumulative impacts of the proposed project's construction emissions and sources of TAC emissions within 1,000 feet of the project site.

The cumulative health risk results, including health risks from the existing stationary source, are summarized during project construction in Table 8. Cumulative health risk results shown therein are representative of the health risks to the MIR that would experience the highest concentration of

[19] Bay Area Air Quality Management District (BAAQMD). 2014. "Community Air Risk Evaluation Program." August 20. Website: https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program. Accessed October 20, 2021.

[20] Bay Area Air Quality Management District (BAAQMD). 2019. Permitted Stationary Sources Risk and Hazards. Permitted Stationary Sources Risk and Hazards. Website: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65. Accessed October 20, 2021.

[21] Bay Area Air Quality Management District (BAAQMD). 2020. Tools and Methodologies: BAAQMD Health Risk Calculator Beta 4.0. Website https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. Accessed October 20, 2021.

pollutants, which represents the residential MIR as it would experience a greater potential impact on human health than the Washington Elementary School MIR.

Table 8: Summary of the Cumulative Health Impacts at the MIR during Construction

Source/Impact Scenario	Source Type	Distance from MIR[1] (feet)	Cancer Risk (per million)	Chronic HI	$PM_{2.5}$ Concentration ($\mu g/m^3$)
Project MIR					
Project Construction	Diesel Construction Equipment	–	0.29	<0.01	<0.01
Existing Stationary Sources (BAAQMD Facility Number)[2]					
Parker Hannifin Corp, Veriflo Div (ID 1836)	Unknown	2,000	ND	ND	ND
Keefe Kaplan Maritime Inc (ID 10889)	Unknown	1,510	ND	ND	0.02
Sangamo BioSciences (ID 15153)	Generators	180	1.99	ND	0.01
Point Richmond R & D Associates (ID 15507)	Generators	1,030	0.42	<0.01	<0.01
Corodata (ID 18190)	Generators	2,410	0.19	ND	ND
Brilliant Group, Inc (ID 21927)	Unknown	1,990	ND	ND	<0.01
Chevron SS# 9-0103 (ID 105566)	Gasoline Station	835	1.28	0.06	ND
Reyes Body & Frame (ID 200789)	Unknown	960	ND	ND	ND
Roadways					
Existing Local Roadway Network		–	0.75	ND	0.02
Rail					
Existing Rail Lines (Burlington Northern Santa)		400	1.52	ND	<0.01
Freeways					
Existing Freeways (I-580)		100	3.84	ND	0.07
Cumulative Health Risks					
Cumulative Maximum with Project DPM Emissions			**10.28**	**0.06**	**0.12**
BAAQMD's Cumulative Thresholds of Significance			**100**	**10**	**0.8**
Threshold Exceedance?			**No**	**No**	**No**

Notes:
MIR = Maximally Impacted Sensitive Receptor HI = Hazard Index $\mu g/m^3$ = micrograms per cubic meter
ND = no data available
[1] The MIR above represents the greatest impacted MIR, which is the residence located approximately 950 feet southwest of the project site.
[2] Assumes emissions remain constant with time.
Source: Appendix A.

As noted in Table 8, the cumulative impacts from the project construction and existing sources of TACs would be less than the BAAQMD's cumulative thresholds of significance. Thus, the cumulative health risk impacts from project construction would be less than significant.

Criterion 3: Operational Emissions

The proposed project would result in the development and operation of a dry storage warehouse establishment with associated office space and would not generate substantial on-site sources of TACs during operation. As described in the Transportation Analysis prepared for the proposed project, an estimated 1,020 daily vehicle trips would be generated by the proposed project.[22] As a warehouse storage development, the proposed project would generate truck trips during operation. According to the Transportation Analysis prepared by Hexagon Transportation Consultants for the proposed project, approximately 3 percent of all vehicle trips generated by the warehouse space would constitute heavy-duty trucks, and none of the vehicle trips generated by the office space are anticipated to constitute heavy-duty trucks. Therefore, out of the 1,020 estimated net daily vehicle trips generated by the proposed project, approximately 28 trips would be from heavy-duty trucks.

The proposed project would primarily generate trips from a mix of residents and employees traveling to and from the project site, which would primarily be generated by passenger vehicles. Because the proposed project would generate nearly 1,000 daily passenger vehicle trips and only 28 daily trucks trips and nearly all passenger vehicles are gasoline-fueled, the proposed project would not generate a significant amount of DPM emissions during operation; however, gasoline-fueled vehicles would still emit relatively small amounts of gasoline TACs such as benzene, isopentane, and toluene during project operation. Nonetheless, the potential cancer risks associated with non-diesel TACs emitted from gasoline vehicles in the San Francisco Bay Air Basin are substantially less than the potential cancer risks associated with DPM emissions,[23] and are therefore not included in this analysis. Furthermore, these emissions would be dispersed throughout the local roadway network and would not solely be generated at the project site. Therefore, the proposed project would not result in significant health impacts to nearby sensitive receptors during operation. Furthermore, the proposed project would not introduce new sensitive receptors to the area that could be subject to existing sources of TACs at the project site.

Criterion 4: Carbon Monoxide Hotspot Assessment

As discussed in Impact(b), the proposed project would not generate sufficient vehicle traffic volumes during project operation to substantiate creating a CO hotspot. Therefore, this impact would be less than significant with regard to exposing sensitive receptors to substantial concentrations of CO emissions. As such, the proposed project would result in less than significant impacts related to exposing sensitive receptors to substantial pollutant concentrations.

[22] Hexagon Transportation Consultants, Inc. 2021. 731 W. Cutting Boulevard. September 28.

[23] California Air Resources Board (ARB). 2008. Health Risk Assessment for the Union Pacific Railroad Oakland Railyard. April 22. Website:https://ww2.arb.ca.gov/sites/default/files/classic//railyard/hra/up_oak_hra.pdf?_ga=2.229617876.913681903.1594937953-503090677.1594937953. Accessed October 19, 2021.

Summary

As described above, the proposed project would not expose sensitive receptors at nearby residences or Washington Elementary School to substantial pollutant concentrations during either construction or operations. Therefore, this impact would be less than significant.

d) Result in other emission (such as those leading to odors) adversely affecting a substantial number of people?

Less than significant impact. As stated in the BAAQMD 2017 Air Quality Guidelines, odors are generally regarded as an annoyance rather than a health hazard. The ability to detect odors varies considerably among the populations and is subjective. The BAAQMD does not have a recommended odor threshold for construction activities. However, the BAAQMD recommends operational screening criteria that are based on the distance between receptors and types of sources known to generate odors. For projects within the screening distances, the BAAQMD has the following threshold for project operations:

> An odor source with five or more confirmed complaints per year averaged over 3 years is considered to have a significant impact on receptors within the screening distance shown in Table 3-3 [of the BAAQMD's guidance].

Two circumstances have the potential to cause odor impacts:

1. A source of odors is proposed to be located near existing or planned sensitive receptors, or
2. A sensitive receptor land use is proposed near an existing or planned source of odor.

Projects that would site an odor source or a receptor farther than the applicable screening distance, shown in Table 9 below, would not likely result in a significant odor impact.

Table 9: Odor Screening Distances

Land Use/Type of Operation	Project Screening Distance
Wastewater Treatment Plant	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	2 miles
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile

Land Use/Type of Operation	Project Screening Distance
Rendering Plant	2 miles
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Confined Animal Facility/Feed Lot/Dairy	1 mile
Green Waste and Recycling Operations	1 mile
Source: Bay Area Air Quality Management District (BAAQMD). 2017. Final 2017 Clean Air Plan. April 19. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed April 11, 2021.	

Project Construction

Diesel exhaust and ROGs would be emitted during construction of the proposed project, which are objectionable to some; however, emissions would disperse rapidly from the project site and would be short-term and intermittent in duration and frequency. Therefore, project construction would not create objectionable odors affecting a substantial number of people. As such, construction odor impacts would be less than significant.

Project Operation

Land uses typically associated with odors include wastewater treatment facilities, waste disposal facilities, agricultural operations, or other operations listed in Table 9. The proposed project would introduce a new dry storage warehouse facility and is not expected to produce any offensive odors that would result in odor complaints. During project operations, odors would primarily consist of exhaust from vehicles traveling to and from the site. These occurrences would not produce objectionable odors affecting a substantial number of people. Furthermore, as a warehouse facility, the proposed project would not place sensitive receptors near existing odor sources. Therefore, operational impacts associated with the proposed project's potential to create odors would be less than significant.

Mitigation Measures

MM AIR-1 Implement BAAQMD Best Management Practices During Construction

The following Best Management Practices (BMPs), as recommended by the Bay Area Air Quality Management District (BAAQMD), shall be included in the design of the proposed project and implemented during construction:

- All exposed non-paved surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and access roads) shall be watered at least two times per day and/or non-toxic soil stabilizers shall be applied to exposed non-paved surfaces.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered and/or shall maintain at least 2 feet of freeboard.

- All visible mud or dirt tracked out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes, as required by the California Airborne Toxics Control Measure (ACTM) Title 13, Section 2485 of California Code of Regulations. Clear signage regarding idling restrictions shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- The prime construction contractor shall post a publicly visible sign with the telephone number and person to contact regarding dust complaints. The City and the construction contractor shall take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

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

Environmental Evaluation

Setting

The project site is located in the City of Richmond which borders San Francisco Bay and San Pablo Bay. The project site and much of the area in its local vicinity are developed and highly urbanized.

Field Survey

A FirstCarbon Solutions (FCS) Biologist conducted a general biological survey of the proposed project site on July 9, 2021. Weather conditions were sunny with an average temperature of 76°F (degrees Fahrenheit).

The project site contains several vacant existing warehouse buildings, parking lots, and ornamental landscaping, including trees. The habitat present within the project site can be classified as Urban/Developed. This land cover type is classified as areas that have been constructed upon or otherwise physically altered to an extent that they retain little to no soil substrate and do not support naturally occurring vegetation. Developed land is characterized by permanent or semi-permanent structures, pavement, or hardscape, and landscaped areas that often require irrigation.

Plant species observed consisted ornamental trees and ruderal plants (weeds) such as bristly ox-tounge (*Helminthotheca echioides*), wild oat (*Avena* sp.), spotted spurge (*Euphorbia maculate*), cheeseweed (*malva parviflora*), stinkwort (*Dittrichia graveolens*) and fennel (*Foeniculum vulgare*) were observed growing in cracks within site and around periphery of the project site.

Wildlife species observed on-site consisted exclusively of avian species and included American crow (*Corvus brachyrhynchos*), California gull (*Larus californicus*) and rock pigeon (*Columba livia*).

Arborist Report

An Arborist Report was prepared for the project site by HortScience in December 2020 and is included as Appendix B of this document. The report evaluated a total of 31 trees including nine on-site and 22 street trees along West Cutting Boulevard. Tree species evaluated included silver dollar gum (*Eucalyptus polyanthemos*) Raywood ash, Monterey pine (*Pinus radiata*), Chinese pistache (*Pstacia chinensis*) and Chinese elm (*Ulmus parvifolia*).[24]

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

Less than significant with mitigation incorporated. An FCS Biologist compiled a list of threatened, endangered, and otherwise special-status species previously recorded within the project vicinity based on a search of the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) database,[25] the California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California for the *San Quentin, California,* USGS 7.5-minute Topographic Quadrangle Maps

[24] HortScience. 2020. DRAFT Arborist Report 731 W. Cutting Blvd. Richmond, CA. Prepared for Duke Realty; Irvine, CA. Pleasanton, CA. December 2020.

[25] United States Fish and Wildlife Service (USFWS). 2021. Information for Planning and Consultation (IPaC). Website: https://ecos.fws.gov/ipac/. Accessed January 19, 2021.

and the eight surrounding quadrangles.[26,27] The CNDDB Biogeographic Information and Observation System (BIOS 5) was used to determine the distance between the known occurrences of special-status species and the project site.[28]

Fifteen special-status plant species and 22 special-status wildlife species have been recorded within 5 miles of the project site (Exhibit 7). Tables 1 and 2 in Appendix B includes each species' status, required habitat, and a summary analysis of the potential for each of these species to occur within the project site. Due to the developed state of the project site and the lack of suitable habitat, the majority of species evaluated in Tables 1 and 2 do not have potential to occur, aside from birds and bats. No special-status plants are expected to occur due to the lack of natural vegetation communities and exposed soils.

Nesting Birds

The vacant buildings and ornamental trees present on-site may provide suitable nesting habitat for bird species protected under the Migratory Bird Treaty Act (MBTA) and other nesting special-status birds covered by Fish and Game Code Section 3503, including Cooper's hawk (*Accipiter cooperii)*, and white-tailed kite (*Elanus leucurus*). Although no active nests were observed during the field survey, the large amounts of bird droppings observed show evidence of avian activity on-site.

Construction activities could disturb nesting and breeding birds in trees and shrubs within and around the construction site. Potential impacts on special-status and migratory birds that could result from construction and operation of the proposed project include destruction of eggs or occupied nests, mortality of young, and abandonment of nests with eggs or young birds prior to fledging. Therefore, the proposed project shall implement MM BIO-1, which requires the project applicant to conduct a pre-construction survey and implement further avoidance and minimization measures, if construction activities occur during the nesting season (February 1 to August 31). No action is necessary if no active nests are found during pre-construction surveys or if construction occurs during the nonbreeding season (September 1 through January 31). The implementation of MM BIO-1 would reduce potential impacts to nesting birds to a less than significant level.

Roosting Bats

Although of no sign of bat activity was observed during the field survey, the existing vacant buildings may provide suitable roosting habitat for special-status bat species, including pallid bat (*Antrozous pallidus*) and Townsend's big-eared bat, (*Corynorhinus townsendii*). The existing buildings are expected to be demolished as part of the proposed project. Potential direct and indirect impacts could occur to any roosting bats inhabiting the project site due to removal of potential roosting habitat during project demolition. These activities could potentially subject bats to risk of death or injury, and they are likely to avoid using the area until such construction activities have dissipated or ceased. Relocation, in turn, could cause hunger or stress among individual bats by displacing them

[26] California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed July 19, 2021.

[27] California Native Plant Society (CNPS). 2021. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed July 19, 2021.

[28] California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed July 19, 2021.

into adjacent territories belonging to other individuals. Section 2000 and 4150 of the Fish and Game Code states that it unlawful to take or possess a number of species, including bats, without a license or permit as required by Section 3007. Therefore, the project applicant shall conduct a pre-construction survey and further avoidance and minimization measures (if necessary) as described in MM BIO-2. The implementation of this measure would reduce potential impacts to roosting bats to a less than significant levels.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?

No impact. The project site is entirely developed and does not contain any riparian habitat or other sensitive natural communities. The nearest sensitive habitat, coastal salt marsh, can be found approximately 2 miles to the north of the project site.[29] Therefore, development of the proposed project would have no impact.

c) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No impact. The project site is entirely developed and does not contain on any State or federally protected wetlands. The project site lies approximately 400 feet from the shores of San Francisco Bay; however, the development of project site is not expected to impact this waterbody in any way. Therefore, the development of the proposed project would have no impact.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?

Less than significant impact. The project site is entirely developed and surrounded by urban development in all directions. The site does not contain any natural or man-made features that could serve as a suitable corridor for wildlife movement. As discussed in Impact 4(a) of this section, the implementation of MM BIO-1 and BIO-2 would reduce any potential impacts to nesting birds and roosting bats by the proposed project to less than significant levels. Therefore, impacts would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than significant impact. According to the Arborist Report, all eight trees present on the project site will need to be removed in order to accommodate the proposed project. Of the 22 street trees along Canal Boulevard and West Cutting Boulevard, three Chinese elms on Canal Boulevard were in fair to good condition. The Arborist Report recommends that the 19 Raywood ash trees on Cutting Boulevard be removed and replaced because they are in poor condition due to the extensive

[29] California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed July 19, 2021.

sunscald and trunk damage so have a low suitability for preservation. However, the landscape plans show that only two of these would be removed and the other would be protected and supplemented with new plantings of Raywood ash (four) and London plane.[30] Any on-site or street trees removed to accommodate the project shall be replaced as described in Section 15.04.613.050 of the City's Municipal Code.[31] If the project applicant plans to preserve any of the existing street trees along West Cutting Boulevard, then they shall follow the recommended Tree Preservation Guidelines described in the Arborist Report. In accordance with these guidelines, the proposed project would not conflict with any local policies or ordinances protecting biological resources and impacts would be less than significant.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

No Impact. The project site does not lie within the boundaries of any an adopted Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP) or any other approved local, regional, or State habitat conservation plan. Despite being located in Contra Costa County; the project site is located approximately 21 miles west of the of the boundaries of the East Contra Costa County HCP/NCCP. Therefore, development of the proposed project would have no conflict and therefore no impact.

Mitigation Measures

MM BIO-1 Nesting Birds

If any tree removal is necessary, then it shall occur outside the nesting season between September 1 through January 31, if feasible. If trees cannot be removed outside the nesting season, then pre-construction surveys shall be conducted no more than 7 days prior to tree removal to verify the absence of active nests if the removal of any trees is scheduled between February 1 and August 31.

If an active nest is located during pre-construction surveys, construction activities shall be restricted as necessary to avoid disturbance and nest abandonment. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment) or alteration of the construction schedule.

If the active nest belongs to State or federally listed species, then United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW) (as appropriate) shall be notified regarding the status of the nest.

A qualified Biologist shall determine an appropriately sized buffer around the active nest depending on the species. The project applicant shall implement the buffer

[30] HortScience. 2020. DRAFT Arborist Report 731 W. Cutting Blvd. Richmond, CA. Prepared for Duke Realty; Irvine, CA. Pleasanton, CA. December 2020.

[31] City of Richmond. Richmond, California Municipal Code. 1988. Section 15.04.613.050 - Required Trees. Accessed July 20, 2021. Website:https://library.municode.com/ca/richmond/codes/code_of_ordinances?nodeId=ARTXVZOSU_CH15.04ZOSURE_SERIES_600GEST_ART15.04.613WAFILA_15.04.613.050RETR

using environmentally sensitive area fencing, pin flags, and/or yellow caution tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently.

MM BIO-2 Roosting Bats

A qualified Biologist shall conduct surveys for special-status bats during the appropriate time of day to maximize detectability to determine whether bat species are roosting near the work area no less than 7 days and no more than 14 days prior to beginning ground disturbance and/or construction. Survey methodology may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or use of ultrasonic detectors (Anabat, etc.).

Visual surveys will include trees within 500 feet of project construction activities, where accessible. Not more than two weeks prior to building demolition, the project applicant shall ensure that a qualified Biologist (i.e., one familiar with the identification of bats and signs of bats) survey building proposed for demolition for the presence of roosting bats or evidence of bats. If no roosting bats or evidence of bats are found in the structure, demolition may proceed. If the Biologist determines or presumes bats are present, the Biologist shall exclude the bats from suitable spaces by installing one-way exclusion devices. After the bats vacate the space, the Biologist shall close off the space to prevent recolonization. Building demolition shall only commence after the Biologist verifies seven to 10 days later that the exclusion methods have successfully prevented bats from returning. To avoid impacts on non-volant (i.e., nonflying) bats, the Biologist shall only conduct bat exclusion and eviction from May 1 through October 1. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young).

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.5 Cultural Resources and Tribal Cultural Resources *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐
Would the project 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:				
d) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☒	☐
e) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

Environmental Evaluation

Setting

This section describes the existing cultural resources setting and potential effects from project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based on information provided by the Native American Heritage Commission (NAHC), Northwest Information Center (NWIC), National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Historic Landmarks list, California Points of Historical Interest list, California Built Environment Resource Directory (BERD) for the City of Richmond, the California Historical Resources Inventory, and a Historic Resource Evaluation (HRE) prepared by South Environmental. Non-confidential records search results, pedestrian survey photos, correspondence with the NAHC and Tribal representatives, and the HRE Report are included in Appendix C.

Northwest Information Center

A record search and literature review for the project site and its 0.5-mile radius was conducted on July 13, 2021, at the NWIC, located at Sonoma State University in Rohnert Park, California. The purpose of this review was to access existing cultural resource survey reports, archaeological site records, historic aerial photographs, and historic maps and evaluate whether any previously documented prehistoric or historic archaeological sites, architectural resources, cultural landscapes, or other resources exist within or near the project area.

The results of the records search indicate that there are 16 recorded historic-era cultural resources within the 0.5-mile search radius, none of which are located within in the project site. In addition, 16 area-specific survey reports are on file with the NWIC for the 0.5-mile search radius, but none within the project site itself, suggesting that the project site has not been previously surveyed for cultural resources. A records search map identifying the project boundaries and a 0.5-mile search radius along with relevant non-confidential records search results can be found in Appendix C.

Pedestrian Survey and Site Visit

On July 20, 2020, FCS Senior Archaeologist Dr. Dana DePietro conducted a pedestrian survey for unrecorded cultural resources at the project site. The survey covered the project site in its entirety, beginning in the southeast corner of the project site and moving west, using north–south transects spaced at standard 15-meter intervals whenever possible. The project site is entirely developed and hardscaped, consisting of three main industrial buildings and associated infrastructure related to the storage and processing of chemicals and the production of dry ice. Visibility of native soils was therefore almost non-existent, ranging from 1–3 percent, and only in highly disturbed landscaping elements running along the southern site boundary. Observed soils were largely composed of medium brown (Munsel 10YR 3/2) sandy soil with medium clay content, interspersed with small (2 to 3-centimeter) stones primarily composed of quartz and schist.

Survey conditions were documented using digital photographs and field notes. During the survey, Dr. DePietro examined all areas of the exposed ground surface for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, tool-making debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, and features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior walls, foundations) or historic debris (e.g., glass, metal, ceramics). Particular attention was paid to the built environment and recording buildings and structures that appeared to be over 45 years in age.

All areas of the project site were closely inspected for culturally modified soils or other indicators of potential historic or prehistoric resources. No prehistoric cultural resources or raw materials commonly used in the manufacture of tools (e.g., obsidian, Franciscan chert) were observed. Several buildings and structures over 45 years in age that had not been previously recorded were identified. These buildings were subsequently evaluated by architectural historian Samantha South of South Environmental in an HRE. The South HRE concluded that none of the buildings meet the significance criteria to qualify on the CRHR or NRHP. Pedestrian Survey photographs and the South HRE can be found in Appendix C.

Native American Heritage Commission

On July 2, 2021, FCS contacted the NAHC to determine whether any sacred sites were located within the project site or its vicinity. A response was received on July 27, 2021, indicating that the Sacred Lands File (SLF) search produced a positive result for Native American cultural resources in the project area. The NAHC included a list of nine tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential Tribal Cultural Resources (TCRs) that may be affected by the proposed project are addressed, a letter containing project information was sent to each tribal representative on July 28, 2021. No responses have been received to date. NAHC correspondence and copies of the NAHC letters can be found in Appendix C.

Cultural Resources

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?

Less than significant impact with mitigation incorporated. CEQA Guidelines Section 15064.5 defines "historical resources" as resources that are listed in the CRHR, a local register, determined significant by the Lead Agency, or determined to be eligible by the California Historical Resources Commission for listing in the CRHR. The criteria for eligibility are generally set by the National Historic Preservation Act of 1966, which established the NRHP, and which recognizes properties that are significant at the federal, State, and local levels. To be eligible for listing in the NRHP and CRHR, a district, site, building, structure, or object must possess integrity of location, design, setting, materials, workmanship, feeling, and association relative to American history, architecture, archaeology, engineering, or culture. In addition, unless the property possesses exceptional significance, it must be at least 50 years old to be eligible.

The results of the NWIC record search indicated that there are no previously known or recorded historical resources in the project site. There are 16 recorded historical resources within a 0.5-mile radius of the project area. The pedestrian survey identified buildings on the project site that may qualify as a historical resource. A historical assessment of the existing structures on the project site concluded that none of the buildings meet the significance criteria to qualify on the CRHR or NRHP, and thus, should not be considered historic resources under CEQA.

While unlikely, subsurface construction activities always have the potential to damage or destroy previously undiscovered historic resources. Historic resources can include wood, stone, foundations, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, and other refuse. Accordingly, implementation of MM CUL-1 will be required to reduce potential impacts to historic resources that may be discovered during project construction. With the incorporation of mitigation, impacts associated with historic resources would be less than significant.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than significant impact with mitigation incorporated. Section 15064.5 of the CEQA Guidelines defines significant archaeological resources as resources that meet the criteria for historical resources, as discussed above, or resources that constitute unique archaeological resources. A project-related significant adverse effect could occur if a project were to affect archaeological resources that fall under either of these categories.

The NWIC record search indicated that there are no previously recorded prehistoric resources within the project site or a 0.5-mile radius of the project area. There are, however, several known and significant prehistoric archaeological sites within the City of Richmond. The pedestrian survey of the project site did not uncover any evidence of prehistoric or archaeological resources; however, this was largely because the site was entirely hardscaped, making an examination of subsurface soils impossible. While FCS considers the potential for encountering archaeological resources during subsurface construction to be low, implementation of MM CUL-1 would ensure that the potential impact to these resources is reduced to a less than significant level.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less than significant impact with mitigation incorporated. As noted in the pedestrian survey, the project site has been significantly disturbed and developed. Therefore, the potential for the disturbance of any human remains is considered low. While it is highly unlikely that human remains exist within or near the project site, there is always a possibility that subsurface construction activities associated with the proposed project, such as grading or trenching, could potentially damage or destroy previously undiscovered human remains. In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and 5097.98 must be followed. MM CUL-2 further specifies the procedures to follow in the event human remains are uncovered. Along with compliance with required guidelines and statutes, implementation of MM CUL-2 would reduce potential impacts on human remains to a less than significant level.

Tribal Cultural Resources

Would the project 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 or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

d) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

Less than significant. A review of the CRHR, local registers of historic resources, and NWIC record search results failed to identify any previously listed TCRs that may be adversely affected by the proposed project. The NAHC SLF did produce a positive result for TCRs within the project area. To ensure that all Native American knowledge and concerns over potential TCRs that may be affected

by the proposed project are addressed, a letter containing project information was sent to each tribal representative on July 28, 2021. No responses have been received to date. Tribal consultation efforts conducted by the City of Richmond pursuant to Assembly Bill (AB) 52 to identify additional significant TCRs meeting the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 have been conducted. The impact to tribal resources is less than significant.

e) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than significant. Tribal consultation efforts conducted by the City of Richmond pursuant to AB 52 to identify additional significant TCRs meeting the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 have not yielded any requests for further consultation.

Mitigation Measures

MM CUL-1 An Archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology should conduct a pedestrian survey following removal of asphalt and building demolition at the site, and prior to trenching and grading. This may be followed by regular, periodic or "spot-check" archaeological monitoring as determined by the Archaeologist. In the event a potentially significant cultural resource is encountered during subsurface earthwork activities, all construction activities within a 100-foot radius of the find shall cease and workers should avoid altering the materials until an Archaeologist who meets the Secretary of Interior's Professional Qualification Standards for archaeology has evaluated the find. The project applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The qualified Archaeologist shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Potentially significant cultural resources include, but are not limited to, stone, bone, glass, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project site shall be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and will be submitted to the City of Richmond, the Northwest Information Center (NWIC), and the California Office of Historic Preservation (OHP), as required.

MM CUL-2 In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 must be followed. In this instance, once project-related earthmoving begins and if there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Contra Costa County Coroner is contacted to determine whether the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resource Code Section 5097.98, or
2. Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project area in a location not subject to further subsurface disturbance:
   - The NAHC is unable to identify a most likely descendant or the most likely descendant failed to make a recommendation within 48 hours after being notified by the commission.
   - The descendant identified fails to make a recommendation; or
   - The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.6 Energy *Would the project:*				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Environmental Evaluation

Setting

The analysis in this section is based on information included in Appendix A.

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than significant impact.

Construction

The anticipated construction schedule for the proposed project was assumed to occur from January 2022 through January 2023, lasting approximately 13 months. Since the construction schedule would move to later years because time has elapsed since preparation of this document, construction energy demand would likely decrease because of improvements in technology and more stringent regulatory requirements as older, less efficient equipment is replaced by newer and cleaner equipment. The proposed project would require site preparation, grading, building construction, architectural coating, and paving activities. Project construction would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., site clearing, and grading), and the actual construction of the building. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks.

The types of on-site equipment used during construction of the proposed project could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, frontend loaders, forklifts, and cranes. Construction equipment is estimated to consume a total of 34,145 gallons of diesel fuel over the entire construction duration (Appendix A).

Fuel use associated with construction vehicle trips generated by the proposed project was also estimated; trips include construction worker trips, haul truck trips for material transport, and vendor

trips for construction material deliveries. Fuel use from these vehicles traveling to the project site was based on (1) the projected number of trips the proposed project would generate during construction, (2) average trip distances by trip type, and (3) fuel efficiencies estimated in the ARB Emissions Factors (EMFAC) mobile source emission model. The specific parameters used to estimate fuel usage are included in Appendix A. In total, the proposed project is estimated to generate 486,997 VMT and a combined 2,365 gallons of gasoline and diesel for vehicle travel during construction.

Other equipment could include construction lighting, field services (office trailers), and electrically driven equipment such as pumps and other tools. Singlewide mobile office trailers, which are commonly used in construction staging areas, generally range in size from 160 square feet to 720 square feet. A typical 720-square-foot office trailer would consume approximately 9,310 kilowatt-hours (kWh) during the 13-month construction period (Appendix A).

The proposed project's construction is not anticipated to result in unusually high energy use. Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. Similarly, compliance with State regulations would limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. Additionally, the overall construction schedule and process is already designed to be efficient to avoid excess monetary costs. For example, equipment and fuel are not typically used wastefully due to the added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, the opportunities for future efficiency gains during construction are limited. Therefore, it is anticipated that construction of the proposed project would not result in wasteful, inefficient, and unnecessary energy consumption. Energy impacts during construction would be less than significant.

Operation

The proposed project would consume energy as part of building operations and transportation activities. Project energy consumption is summarized in Table 10.

Table 10: Annual Project Energy Consumption

Energy Consumption Activity	Annual Consumption
Electricity Consumption	645,919 kWh/year
Natural Gas Consumption	282,993 kBTU/year
Total Fuel Consumption	116,690 gallons/year
Notes: kWh = kilowatt-hour kBTU = kilo-British Thermal Unit Source: Appendix A	

Unmitigated operation of the proposed project would consume an estimated 648,919 kWh of electricity and an estimated 282,993 kilo-British Thermal Unit (kBTU) of natural gas on an annual basis. The proposed project would be designed and constructed in accordance with the City of

Richmond Climate Action Plan (Richmond CAP) and the State's Title 24 energy efficiency standards. Energy and water-efficient design measures for the proposed project will include low-flow plumbing fixtures and irrigation heads thus reducing energy consumption when buildings are not in use. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. Compliance with Title 24 standards would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation. Compliance with Title 24 standards would ensure that operational energy consumption would not result in the use of energy in a wasteful or inefficient manner.

Project-related vehicle trips would consume fuel throughout the life of the proposed project due to project employee vehicles, delivery vehicles, and heavy-duty trucks. This analysis evaluated operational fuel consumption based on the proposed project's operational assumptions, which include heavy-duty truck and locomotive operation.

Regional access to the project site is provided by I-580, which is 0.02 mile from the project site. As a result, the proposed project is located near regional and local roadways that would provide convenient access for future employees. Thus, transportation fuel consumption would not be wasteful, inefficient, or unnecessary. Impacts would be less than significant.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Less than significant impact.

Construction

The proposed project would result in energy consumption through the combustion of fossil fuels. Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California Code of Regulations Title 13 Sections 2449(d)(3) and 2485 limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. The proposed project would be required to comply with these regulations. There are no renewable energy standards that would apply to construction of the proposed project. As a result, construction would not conflict with or obstruct any regulations adopted for the purposes of increasing the use of renewable energy. Furthermore, it is anticipated that construction of the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, the proposed project would result in less than significant impacts related to construction energy efficiency and use of fossil fuels or decreased use of renewable resources.

Operation

The proposed project would be served with electricity provided by Pacific Gas and Electric Company (PG&E). In 2017, PG&E obtained 33 percent of its electricity from renewable energy sources (13 percent solar, 8 percent wind, 5 percent geothermal, 4 percent biomass and biowaste, and 3 percent eligible hydroelectric), while the remaining electricity was sourced from nuclear (27 percent), natural gas (20 percent), large hydroelectric (18 percent), and unspecified sources of power (2 percent). Therefore, the project's electricity provider meets the State's current objective of 33 percent. The

project's electricity demands would also be required to meet the State's future objective of 60 percent electricity from renewable energy sources by 2030. The buildings would be designed in accordance with California Code of Regulations Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings as applicable. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), and indoor and outdoor lighting. The incorporation of the Title 24 standards into the design of the proposed project would ensure that the project would not result in the use of energy in a wasteful manner.

The Richmond CAP includes goals and implementing actions aimed at energy conservation.[32] The Richmond CAP measures that are applicable to the proposed project include:

EE3.2 Work with the building department to increase compliance of all building construction, additions, and renovations with the State's Green Building Standards (CALGreen Code), including Title 24, Part 6 energy standards.

SW4.3 Require new development projects to provide a construction plan prior to permit approval that demonstrates how activities will reduce waste to achieve the required diversion rate. Require disposal receipts during the building permit process to confirm proper recycling and disposal and prevent illegal dumping.

WA3.1 Ensure all new buildings and renovations comply with CALGreen Green Building Standards Code water efficiency and conservation measures.

WA3.2 Update the City's Landscape Design and Development Guidelines to require water-efficient landscaping in all development projects.

Many of the measures in the Richmond CAP apply to government agencies and not to individual development projects. Nevertheless, the proposed project would not conflict with any of the applicable implementing actions in the Richmond CAP. Furthermore, the proposed project would include design features that would support of the energy conservation goals of the Richmond CAP. In addition, the proposed project would be subject to the City's Energy Reach Code,[33] which requires new developments to be designed and built without natural gas features and new nonresidential developments greater than 10,000 square feet to include a minimum 5-kilowatt photovoltaic (PV) system (e.g., rooftop solar).

The proposed project would comply with existing State energy standards and with energy conservation policies contained in the City of Richmond's CAP. As such, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Therefore, the proposed project would result in less than significant impacts related to energy efficiency and renewable energy standards consistency.

[32] City of Richmond. 2016. Climate Action Plan. October. Website: https://www.ci.richmond.ca.us/3313/Climate-Action-Plan. Accessed October 19, 2021.

[33] City of Richmond. 2020. Energy Reach Code. Website: https://www.ci.richmond.ca.us/3951/Energy-Reach-Code. Accessed October 19, 2021.

Mitigation Measures

None required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.7 Geology and Soils *Would the project:*				
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.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Environmental Evaluation

Setting

The analysis in this section is based on the Geotechnical Report prepared by Gularte & Associates, Inc. on November 20, 2021 (Geotechnical Report), included in Appendix D, as well as the Phase I Environmental Site Assessment prepared by Apex Companies, LLC (Apex) in December 2020 (Phase I

ESA) and the Paleontological Records Search (Paleontological Records Search) prepared by Kenneth L. Finger, Ph.D., in July 2021, included in Appendix E.

The project site is overlain by unconsolidated sediments consisting of clays, silts, and sands, with a thickness ranging up to 1,000 feet or more. These sediments are semi-continuous throughout the Bay and are usually referred to as "Old Bay Mud." Younger, fine-grained alluvial and estuarine deposits (Young Bay Mud) overlay the Old Bay Mud. The younger, fine-grained alluvium is typically a mixture of interbedded stiff clays, silts, gravel, and sands derived from the hills or deposited during the formation of the Bay. Differential settlement (settlement that occurs to a greater extent in one area than settling that would be observed in another area) results from variations in thickness of the unconsolidated materials. Relatively speaking, the Bay Muds and fill materials are geologically young and relatively noncompacted, which may lead to consolidation and differential settlement. The shoreline areas at the project site are susceptible to this differential settlement because of variations in thickness of Bay Mud and historical tidal flat deposits.[34]

According to the United States Department of Agriculture Natural Resources Conservation Service's Web Soil Survey, the soil type on the project site is classified as urban land (Ub) and a clay loam called CONEJO. This classification consists of areas that are filled with crushed rock or other material resistant to weathering. Such areas are usually adjacent to the Bay and are used for railroad yards and docks. Also included in the Urban classification are areas covered by blacktop material to reduce the hazard of fire after grading and shaping for industrial structures. Thickness of this fill material varies from 18 to 57 feet. The fill materials are highly variable, consisting of poorly sorted gravel, silt, sandy silt, sandy clay, and bedrock fragments. These fill materials have been placed over Bay Mud and marsh deposits in areas adjacent to the shoreline, which is the case for the project site. The clay loam hydrologic group is Class C with slow infiltration rates, and more than 35 percent of the soil passes number 200 sieve for a clayey soil.[35]

Would the project:

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.

No impact. The site is not located in an Alquist-Priolo special studies zone. The nearest active fault with surface rupture is the Hayward Fault, which is located about 3.1 miles northeast of the site, which precludes the potential for fault rupture at the site. No impact would occur.

[34] Apex Companies, LLC. 2020. Phase I Environmental Site Assessment. 4.1.2 Geology and Soils.
[35] Ibid.

ii) Strong seismic ground shaking?

Less than significant impact with mitigation. A major earthquake on any of the active faults in the region could result in very strong to violent ground shaking. The Hayward Fault is 3.1 miles northeast of the site, the Rodgers Creek Fault Zone is 12.2 miles north-northeast, and the San Andreas Fault lies 15 miles southwest of the site. The intensity of earthquake ground motion would depend upon the characteristics of the generating fault, distance of the site to the earthquake epicenter and rupture zone, magnitude and duration of the earthquake, and site-specific geologic conditions. Compliance with project design and construction requirements reflected in the most recent California Building Standards Code and any recommendations contained in the Geotechnical Report as required by MM GEO-1 would reduce impacts to less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less than significant impact with mitigation incorporated. The project site is mapped in an area with potential for liquefaction.[36] Liquefaction and seismic settlement are conditions that can occur under seismic shaking from earthquake events. Liquefaction describes a phenomenon in which a saturated, cohesionless soil loses strength during an earthquake as a result of induced shearing strains. Lateral and vertical movements of the soil mass, combined with loss of bearing can result in the event of liquefaction.

According to the Geotechnical Report, the risk of lateral spreading is not considered likely, as site topography is relatively flat and the subsurface is composed of predominately fine grain soil. To help evaluate the liquefaction potential at the site, three Cone Penetration Tests (CPTs) were observed to a depth of 50 feet. Both the auger sampling and CPT generally classified the native soil as silty clays with only very thin seems of sand or silty sand layers. Based on the geotechnical analysis of the soils, liquefaction is not a concern at the project site. However, MM GEO-1 requires adherence to a range of ground improvements as proposed in the Geotechnical Report, which would appropriately address site-specific conditions. Therefore, with implementation of MM GEO-1, impacts would be less than significant.

iv) Landslides?

Less than significant impact with mitigation incorporated. The project site is mapped in an area classified as Category 1A – Unstable. Unstable areas consist of 0–5 percent slope that include tidelands, marshlands, and swamplands that are underlain by moist, unconsolidated muds. According to the Geotechnical Report, the risk of landsliding is not considered likely, as site topography is relatively flat and the subsurface is composed of predominately fine grain soil. However, MM GEO-1 requires adherence to a range of ground improvements as proposed in the Geotechnical Report, which would appropriately address site-specific conditions. Therefore, with implementation of MM GEO-1, impacts would be less than significant.

[36] City of Richmond. General Plan 2030. Public Safety and Noise. Map 12.2 Liquefaction Potential.

b) Result in substantial soil erosion or the loss of topsoil?

Less than significant impact. The project site is currently developed with four large warehouses. The proposed project would involve ground-disturbing activities such as grading and excavation that have the potential to cause erosion and loss of topsoil. Accordingly, the proposed project would be required to prepare and implement a SWPPP during construction in accordance with State requirements. The SWPPP would identify structural and nonstructural BMPs intended to prevent erosion during construction. These requirements are reflected in MM HYD-1a. Impacts would be less than significant.

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?

Less than significant with mitigation incorporated. The project site is located in a liquefaction hazard zone established by the City's General Plan. The site is overlain by unconsolidated sediments consisting of clays, silts, and sands, with a thickness ranging up to 1,000 feet or more. The sediments and fill materials are geologically young and relatively noncompacted, which may lead to consolidation and differential settlement.[37] Differential settlement (settlement that occurs to a greater extent in one area than would be observed in another area) results from variations in thickness of unconsolidated materials.

As stated in the Geotechnical Report, the risk of landsliding is not considered likely, as site topography is relatively flat and the subsurface is composed of predominately fine grain soil. To help evaluate the liquefaction potential at the site, three CPTs were observed to a depth of 50 feet. Both the auger sampling and CPT tests generally classified the native soil as silty clays with only very thin seams of sand or silty sand layers. According to the Geotechnical Report's analysis of these soils, settlement is possible at the project site. Implementation of MM GEO-1 would require adherence to a range of ground improvements proposed in the Geotechnical Report that would appropriately address site conditions and would reduce impacts to less than significant.

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?

Less than significant impact with mitigation incorporated. The Geotechnical Report indicated that moderately expansive soils are present at the site and provided design recommendations. These include slab thickness and reinforcing steel requirements provided for purposes of resisting soil expansion potential. Adherence to MM GEO-1 would require incorporating the identified design recommendations to appropriately address site conditions and reduce impacts to a less than significant level.

[37] Apex Companies, LLC. 2020. Phase I Environmental Site Assessment. 4.1.2 Geology and Soils.

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?

No impact. There is an existing wastewater sewer line on-site that allows discharging wastewater into the City's municipal sanitary sewer system. The proposed project would be served by sanitary sewer service by the City. Septic tanks or alternative wastewater disposal systems would not be used. No impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No impact. The Paleontological Records Search concluded that significant paleontological resources are unlikely to be encountered during earth-disturbing construction activities on the project site. Therefore, no impact would occur.

Mitigation Measures

MM GEO-1 Prior to issuance of building permits for any structure on the project site, the applicant shall prepare and submit building plans to the City of Richmond for review and approval that demonstrate compliance with the latest adopted edition of the California Building Standards Code and with all recommendations included in the design-level Geotechnical Report. These standards include seismic design requirements and soil engineering requirements to address ground shaking, landsliding, expansive soils, settlement, and liquefaction potential.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.8 Greenhouse Gas Emissions *Would the project:*				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Evaluation

Would the project:

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

Less than significant impact.

Both construction and operational activities have the potential to generate GHG emissions. The proposed project would generate GHG emissions during temporary (short-term) construction activities such as demolition and grading, running of construction equipment engines, movement of on-site heavy-duty construction vehicles, hauling materials to and from the project site, asphalt paving, and construction worker, vendor, and haul truck motor vehicle trips.

Long-term, operational GHG emissions would result from project-generated vehicular traffic, on-site combustion of natural gas, operation of any landscaping equipment, off-site generation of electrical power over the life of the proposed project, the energy required to convey water to and wastewater from the project site, and the emissions associated with the hauling and disposal of solid waste from the project site.

The 2017 BAAQMD Thresholds contain the following for thresholds GHGs:

> For land use development projects (including residential, commercial, industrial, and public land uses and facilities), the threshold is compliance with a qualified GHG Reduction Strategy; or annual emissions less than 1,100 metric tons per year of carbon dioxide equivalent (CO_2e); or 4.6 metric tons CO_2e/service population/year (residents + employees).

It should be noted that the BAAQMD's thresholds of significance were established based on meeting the 2020 GHG targets set forth in the AB 32 Scoping Plan. For developments that would occur beyond 2020, the service population threshold of significance was adjusted to a "substantial

progress" threshold that was calculated based on the Senate Bill (SB) 32 target of 40 percent below 1990 levels and the forecasted 2030 service population.

To determine significance, the proposed project's GHG emissions are assessed against the 2020 BAAQMD bright line threshold of 1,100 metric tons (MT) CO_2e/year and the projected 2030 bright line threshold of 660 MT CO_2e/year.

Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact. Therefore, this section measures the proposed project's contribution to the cumulative environmental impact. The following is a discussion of the proposed project's contribution to GHG emissions during both the construction and operation phases.

Short-term Construction Impacts

The proposed project would emit GHG emissions during construction from the off-road equipment, worker vehicles, and any hauling that may occur. The BAAQMD does not presently provide a construction GHG emission threshold but recommends that construction GHG emissions be quantified and disclosed. The BAAQMD also recommends that lead agencies (in this case, the City of Richmond) determine the level of significance of construction GHG emissions. Total GHG emissions generated throughout construction were combined and are presented in Table 11. In the absence of a construction emission threshold, construction GHG emissions are amortized over the expected lifetime of the project (30 years). The proposed project's amortized construction GHG emissions are then added to the proposed project's operational GHG emissions in Table 12. These total project emissions were analyzed against the 2020 BAAQMD bright line threshold of 1,100 MT CO_2e/year and the projected 2030 bright line threshold of 660 MT CO_2e/year.

Table 11: Construction GHG Emissions

Construction Phase	MT CO_2e per year
Demolition 2022	75
Rough Grading 2022	94
Underground Utilities 2022	23
Building Construction 2022	426
Finish Grading 2022	18
Paving 2022	18
Architectural Coating 2022	7
Architectural Coating 2023	5
Total Construction Emissions	665
Emissions Amortized Over 30 Years[1]	22

Construction Phase	MT CO_2e per year

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
Totals may not add up due to rounding.
[1] Construction GHG emissions are amortized over the 30-year lifetime of the project.
Source: CalEEMod Output (Appendix A).

Long-term Operational Impacts

The proposed project would contribute to global climate change through direct and indirect emissions of GHG from mobile sources (e.g., passenger vehicles, trucks, locomotives), energy (e.g., on-site natural gas consumption and purchased electricity), water use and wastewater generation, and solid waste generation. All modeling parameters utilized in the Air Quality analysis are also utilized for this GHG analysis, including but not limited to trip generation rates, trip distances, building sizes and operations, energy consumption, water consumption, and waste generation. Please refer to Appendix A for modeling results and detailed calculations

Operational GHG emissions by source are shown in Table 12. The project was analyzed assuming full buildout in the year 2023. The estimated total annual project-generation emissions, including operational emissions and amortized construction emissions, were compared with the bright line threshold of 1,100 MT CO_2e/year to determine significance at project buildout in the year 2023. The estimated total annual GHG emissions generated by the project in the year 2030 were compared with the applicable threshold of 660 MT CO_2e/year.

Table 12: Operational GHG Emissions

Emission Source	Year 2023 Total Emissions (MT CO_2e per year)	Year 2030 Total Emissions (MT CO_2e per year)
Area	0	0
Energy	85	79
Mobile (Vehicles)	842	683
Waste	73	73
Water	66	64
Total Operational Emissions	1066	898
Amortized Construction Emissions	22	22
Total Project Emissions	1088	920
Total Existing Emissions	737	643
Net Emissions	351	277
Applicable BAAQMD Threshold (MT CO_2e/year)	**1,100**	**660**
Does project exceed threshold?	**No**	**No**

Emission Source	Year 2023 Total Emissions (MT CO_2e per year)	Year 2030 Total Emissions (MT CO_2e per year)
Notes: BAAQMD = Bay Area Air Quality Management District MT CO_2e = metric tons of carbon dioxide equivalent Totals may not add up due to rounding. [1] Construction GHG emissions are amortized over the 30-year lifetime of the project. Source: CalEEMod Output (Appendix A).		

As shown in Table 12, the proposed project would generate approximately 351 net MT CO_2e/year in the year 2022 and 277 net MT CO_2e/year in the year 2030 in terms of total (amortized construction plus operational, minus existing) project GHG emissions. In addition, the proposed project would be subject to the City's Energy Reach Code,[38] which requires new developments to be designed and built without natural gas features and new nonresidential developments greater than 10,000 square feet to include a minimum 5-kilowatt PV system (e.g., rooftop solar). As the added electricity demand resulting from an all-electric building design with no natural gas features is currently unknown, the energy source emission estimates presented in Table 12 represent a conservative estimate by including emissions generated by natural gas combustion for space and water heating. Moreover, as the overall generation potential for the required PV system is currently unknown, the energy source emission estimates above conservatively assume that no PV system would be installed to offset energy related GHG emissions. As such, the proposed project's generation of approximately 351 net MT CO_2e/year in the year 2022 and 277 net MT CO_2e/year in the year 2030, which are below the applicable significance thresholds, represents a conservative GHG emissions assessment.

Given the above information, the proposed project would not result in a net increase in GHG emissions which would exceed significance thresholds. Therefore, this impact would be less than significant.

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

The following discusses project consistency with applicable plans adopted for the purpose of reducing GHG emissions, which include ARB's Scoping Plan, Metropolitan Transportation Commission/Association of Bay Area Governments (MTC/ABAG) Plan Bay Area 2040, and the Richmond CAP.

ARB Scoping Plan

The principal State plan and policy for GHG emission reduction targets are set forth in Executive Order S-03-05, AB 32, and the subsequent SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020. AB 32 required the ARB to develop a Scoping Plan that describes California's approach to reduce GHGs to achieve the 2020 emission target. SB 32 then accelerated the GHG emission reduction goals of AB 32. The 2017 Scoping Plan Update, the most recent update to the ARB Scoping Plan, reflects the 2030 target of a 40 percent reduction below 1990 levels as set

[38] City of Richmond. 2020. Energy Reach Code. Website: https://www.ci.richmond.ca.us/3951/Energy-Reach-Code. Accessed October 19, 2021.

by Executive Order B-30-15 and codified by SB 32. It is applicable to State agencies but is not directly applicable to cities and counties or individual projects (i.e., the Scoping Plan does not require the City to adopt policies, programs, or regulations to reduce GHG emissions). However, new regulations adopted by the State agencies outlined in the Scoping Plan result in GHG emissions reductions at the local level. As a result, local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other Statewide actions that affect a local jurisdiction's emissions inventory from the top down.

Transportation Sector

Trucks

In general, the State strategy for the transportation sector for medium and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover rather than reducing VMT from trucks. This is in contrast to the passenger vehicle component of the transportation sector, where both per capita VMT reductions and an increase in vehicle efficiency are forecast to be needed to achieve the overall State emissions reductions goals.

Emissions associated with heavy-duty trucks involved in goods movement are generally controlled on the technology side and through fleet turnover of older trucks and engines to newer and cleaner trucks and engines. The following State strategies reduce GHG emissions from medium and heavy-duty trucks:

- ARB's Mobile Source Strategy focuses on reducing GHGs through the transition to zero and low emission vehicles and from medium-duty and heavy-duty trucks.[39]
- ARB's Sustainable Freight Action Plan establishes a goal to improve freight efficiency by 25 percent by 2030, deploy over 100,000 freight vehicles and equipment capable of zero-emission operation and maximize both zero and near zero-emission freight vehicles and equipment powered by renewable energy by 2030.[40]
- ARB's Emissions Reduction Plan for Ports and Goods Movement (Goods Movement Plan) in California focuses on reducing heavy-duty truck-related emissions, establishment of emissions standards for trucks, fleet turnover, truck retrofits, and restriction on truck idling.[41] While the focus of the Goods Movement Plan is to reduce criteria air pollutant and air toxic emissions, the strategies to reduce these pollutants would also generally have a beneficial effect in reducing GHG emissions.

Thus, these strategies would contribute to controlling heavy-duty truck GHG emissions associated with the proposed project. The proposed project would not conflict with or inhibit these Statewide strategies. Any on-site trucks would be required to comply with ARB's Heavy-Duty (Tractor-Trailer) GHG Regulation, which requires SmartWay tractor trailers that include idle-reduction technologies,

[39] California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target. November. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. Accessed May 17, 2021.

[40] Ibid.

[41] California Air Resources Board (ARB). 2006. Emission Reduction Plan for Ports and Goods Movement in California. April 20. Website: https://bayplanningcoalition.org/downloads/library/Emission_Reduction_Plan_for_Ports_and_Intl_Goods_Movement_in_CA.pdf. Accessed May 17, 2021.

aerodynamic technologies, and low-rolling resistant tires that would reduce fuel consumption and associated GHG emissions. Furthermore, truck manufacturers would be required to comply with the ARB Advanced Clean Truck (ACT) rule, which requires manufacturers of medium- and heavy-duty trucks and vans to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. Under the ACT rule, by 2035, zero-emission truck/chassis sales would need to be 55 percent of class 2b to 3 truck sales, 75 percent of class 4 to 8 straight truck sales, and 40 percent of truck tractor sales.[42]

Passenger Vehicles

Statewide strategies to reduce GHG emissions from passenger vehicles and the transportation sector in general include the Low Carbon Fuel Standard (LCFS) and changes in the corporate average fuel economy standards (e.g., Pavley I and Pavley California Advanced Clean Cars program).

Energy/Commercial-Residential Sectors

Energy use generated by the project represents the second largest source of emissions after the transportation sector. New buildings under the proposed project would meet the current CALGreen and Building Energy Efficiency standards. The proposed project would include roof structures designed to accommodate additional weight for rooftop photovoltaic electricity generation panel arrays.

Other Sources

Other sources of GHG emissions include solid waste disposal, which is associated with landfilling municipal solid waste. The amount of methane emitted to the atmosphere as a fraction of the total amount of methane generated from the decomposition of accumulated waste has gradually declined over time as more landfills install landfill gas collection and control systems and existing systems are operated more efficiently as a result of ARB's Landfill Methane Control Measure.[43] Therefore, the proposed project would be consistent with the State's goals for the recycling and waste sector.

Metropolitan Transportation Commission Plan Bay Area

As part of the implementing framework for Plan Bay Area 2040, local governments have identified planned development areas to focus growth. The proposed project site is within the planning area of the Richmond General Plan and consistent with applicable land use designations. Thus, the proposed project would be consistent with the overall goals of Plan Bay Area, which include concentrating new investment in areas that would encourage job growth. In addition, the proposed project would be developed in an area with existing infrastructure. Therefore, the proposed project would not conflict with the land use concept plan in Plan Bay Area 2040.

The project site is located approximately 100 feet south of I-580. The closest public transit option would be the AC Transit system, operated by the Alameda-Contra Costa Transit. The closest stop is the South Garrard Boulevard and West Cutting Boulevard bus stop on AC Transit Route 72M and 607.

[42] California Air Resources Board (ARB). 2020. Advanced Clean Trucks: Accelerating Zero-Emission Truck Markets. June 25. Website: https://ww2.arb.ca.gov/sites/default/files/2020-06/200625factsheet_ADA.pdf. Accessed May 17, 2021.

[43] California Air Resources Board (ARB). 2020. Advanced Clean Trucks: Accelerating Zero-Emission Truck Markets. June 25. Website: https://ww2.arb.ca.gov/sites/default/files/2020-06/200625factsheet_ADA.pdf. Accessed May 17, 2021.

The stop is 2,000 feet from the project site, which can be reached in approximately 9 minutes by walking. As such, it is likely that some employees would travel to the project site using public transit.

City of Richmond Climate Action Plan

The City of Richmond adopted its CAP in October 2016.[44] The Richmond CAP serves as a roadmap for how the City will reduce greenhouse gas emissions and prepare for the impacts of climate change on public health, infrastructure, ecosystems, and public spaces in the community. The Richmond CAP supports the community's goals and policies identified in the City's General Plan 2030[45] and enables the City to implement strategies to fulfill the requirements of AB 32 and SB 375. The Richmond CAP provides goals, objectives, strategies, and associated implementing actions. The implementing actions demonstrate how the City plans to implement its 40 strategies, and in turn, meet its objectives and goals. The majority of the 449 implementing actions apply to government agencies and not to individual development; therefore, project compliance is assessed by evaluating the project's consistency with the applicable goals and implementing actions of the Richmond CAP.

Table 13: Consistency with the Richmond Climate Action Plan

CAP Component	Consistency
Goal	
1. **GHG Emissions Reduction:** This goal is aimed at reducing GHG emissions originating from the community and from government operations in order to achieve Statewide targets and reduce the societal and environmental risks associated with climate change.	**Consistent.** The proposed project would include several project design features that reduce the generation of GHG emissions, such as bicycle parking, a PV system in accordance with the City's Energy Reach Code, and drought-tolerant plantings and shade trees. Furthermore, as discussed under Greenhouse Gas Emissions Impact 8(b), the proposed project's generation of GHG emissions would be less than significant. Therefore, the project would be consistent with the first goal of the Richmond CAP.
2. **Health and Resilient Community:** This goal is aimed at ensuring sustainable growth that provides a healthy, resilient and equitable environment for all. This goal includes preparing for the impacts of climate change, providing residents with access to walkable neighborhoods and good jobs, providing safe, affordable, and efficient homes, and integrating green spaces in neighborhoods.	**Consistent.** The proposed project would include sidewalks along the project frontage with West Cutting Boulevard. As a warehouse development, the other parts of this goal would not be applicable to this project.

[44] City of Richmond. 2016. Climate Action Plan. October. Website: https://www.ci.richmond.ca.us/3313/Climate-Action-Plan. Accessed August 13, 2021.

[45] City of Richmond. 2012b. Richmond General Plan 2030, Introduction. 2018. Website: http://www.ci.richmond.ca.us/2608/General-Plan-2030. Accessed August 13, 2021.

CAP Component	Consistency
Implementing Action	
EE3.2. Work with the building department to increase compliance of all building construction, additions, and renovations with the State's Green Building Standards (CALGreen Code), including Title 24, Part 6 energy standards.	**Consistent.** Although this is a measure related to the City's process, the proposed project will comply with Title 24 and CALGreen codes.
TL3.3. Require owners of property along the shoreline to ensure maximum feasible public access and to complete the Bay Trail as part of any project approval process.	**Not applicable.** While the proposed project is within the vicinity of the Bay Trail, it is not located adjacent to the Bay Trail and its implementation would not preclude access to the Bay Trail.
TL5.7. BAAQMD, Metropolitan Transportation Commission, other regional partners and large employers: improve Richmond Circular Shuttle services linking BART and Amtrak stations to commuter destinations, and extend service to the planned ferry terminal and other nearby transit hubs. Seek funding through BAAQMD Shuttle and Rideshare program.	**Not applicable.** This is a regional coordination measure that cannot be implemented by a project applicant.
SW4.3. Require new development projects to provide a construction plan prior to permit approval that demonstrates how activities will reduce waste to achieve the required diversion rate. Require disposal receipts during the building permit process to confirm proper recycling and disposal and prevent illegal dumping.	**Consistent.** Although this is a measure related to the City's approval process, the proposed project would not conflict with implementation of this measure. The proposed project would be consistent with this measure by complying with all requirements during the permitting process.
WA3.1. Ensure all new buildings and renovations comply with CALGreen Green Building Standards Code water efficiency and conservation measures.	**Consistent.** This is a measure related to local enforcement of State regulations; however, the proposed project would achieve consistency through compliance with existing regulations. The proposed project would implement required green building strategies through existing regulation that requires compliance with various CALGreen requirements.
WA3.2. Update the City's Landscape Design and Development Guidelines to require water-efficient landscaping in all development projects.	**Consistent.** The proposed project would be required to comply with the latest adopted version of the City's water-efficient landscape ordinance. Furthermore, the proposed project would include drought-tolerant plants and shade trees.
Source of Measures: City of Richmond. 2016. Climate Action Plan. October. Website: https://www.ci.richmond.ca.us/3313/Climate-Action-Plan. Accessed August 12, 2021.	

As shown in Table 13, the proposed project incorporates a number of GHG reduction features and would be consistent with the applicable goals and implementing actions identified by the Richmond CAP.

Senate Bill 32 2017 Scoping Plan Update

The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017.[46] Table 14 provides an analysis of the proposed project's consistency with the 2017 Scoping Plan Update measures. As shown in Table 14, many of the measures are not applicable to the proposed project, and the proposed project is consistent with strategies that are applicable.

Table 14: Consistency with SB 32 2017 Scoping Plan Update

2017 Scoping Plan Update Reduction Measure	Project Consistency
SB 350: 50 Percent Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33 percent in 2020 to 50 percent in 2030.	**Not applicable.** This measure would apply to utilities and not to individual development projects. The proposed project would purchase electricity from PG&E subject to the SB 350 Renewable Mandate.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not applicable**. This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time. The proposed project would comply with the applicable Title 24 Energy Efficiency Standards in effect at the time building permits are received.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles accessing the proposed warehouses at the project site would benefit from the standards.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million Zero-Emission Vehicles (ZEVs) on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Not applicable.** This measure is not applicable to the project; however, vehicles accessing the project site would benefit from the increased availability of cleaner technology and fuels.
Sustainable Freight Action Plan. The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero-emission operation and maximize near zero-emission freight vehicles and equipment powered by renewable energy by 2030.	**Consistent.** The fleet operators at the proposed project would take actions to comply with the Plan.
Short-lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** Consistent with BAAQMD Regulation 6, Rule 3, no wood-burning devices are proposed as part of the project. Therefore, the proposed project would not include major sources of black carbon.

[46] California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. November.

2017 Scoping Plan Update Reduction Measure	Project Consistency
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a Sustainable Communities Strategy for reduction of per capita VMT.	**Not applicable.** The proposed project does not include the development of a Regional Transportation Plan.
Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Not applicable.** The proposed project is not one targeted by the cap-and-trade system regulations; therefore, this measure does not apply to the project.
Natural and Working Lands Action Plan. The ARB is working in coordination with several other agencies at the federal, State, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not applicable**. The proposed project is in a built-up urban area and would not be considered natural or working lands.
Source of ARB 2017 Scoping Plan Update Reduction Measures: California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. November. Website: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed August 13, 2021.	

As shown in Table 14, implementation of the proposed project would not conflict with the reduction measures proposed in SB 32.

Summary

The proposed project is consistent with the Richmond CAP and would not conflict with the provisions of SB 32. Therefore, the proposed project does not conflict with any plans to reduce GHG emissions and the impact would be less than significant.

Mitigation Measures

None required.

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

Environmental Evaluation

Setting

This section is based on the Phase I Environmental Site Assessment (Phase I ESA) Report prepared by Apex Companies on December 1, 2020[47] and the Phase II ESA Report prepared concurrently by Apex Companies. The complete reports are provided in Appendix E.

[47] Apex Companies, LLC. 2021. Phase I Environmental Site Assessment Report, December 1, 2021.

The Phase I ESA found that the main buildings on the project site were developed as an air separation plant in the late 1950s, and the CO_2 plant was added in the late 1970s, which ceased operation in February 2019. Truck washing operations ceased in 2016, and the garage and service department shop ceased operations at the end of June 2020.

Upon review of these environmental records for the project site, Apex identified the following recognized environmental concerns (RECs):

- **REC:** In 1960, two 10,000-gallon underground storage tanks (USTs) were installed on the project site. In 1988, one 10,000-gallon diesel UST was removed, and one 10,000-gallon diesel UST was replaced directly south of the main helium building on the project site. A leak was reported in 1988 during the UST removal and the replaced UST was eventually removed in 1993. After the removal, the site was issued a No Further Action Letter in 1995. In 1999, a *Preliminary Subsurface Soil & Groundwater Assessment* was conducted by EnviroSurvey to determine the extent of groundwater impacts. All groundwater samples had detections of Total Petroleum Hydrocarbons (TPH) as diesel, which are now considered above the current San Francisco Bay RWQCB Environmental Screening Levels (ESLs) for maximum contaminant level (MCL) priority, Odor Nuisance Level, and the Aquatic Habitat Goal for Saltwater Ecotox. Due to the change in regulatory criteria since the initial investigation was conducted, Apex considers the results of this investigation as a REC in association with the project site since these results are above the current ESLs, which have changed since the project site received a No Further Action Letter in 1995.
- **REC:** The building permits review showed the replacement and installation of a 10,000-gallon diesel above ground storage tank (AST) as well as a new concrete foundation and anchoring system. Historical Aerials on Google Earth Pro showed the installation location to be in the northeast corner of the project site. A previous Phase I ESA interview conducted for the project site in 2017 revealed that during the foundation replacement, petroleum-contaminated soil was discovered.[48] The regulatory agency instructed them to excavate the soil and fill with clean material.[49] No documentation was found on the severity, area of impact, and depth of the petroleum-contaminated soil. Due to this lack of documentation, Apex considers this a REC in association with the project site.

Based on the identification of the RECs above, Apex recommended conducting a Phase II ESA investigation to assess the potential presence of impacted groundwater, soils, and soil vapor beath the project site where historical sampling indicated elevated concentrations of chemicals were present, and to determine whether impacted soils constitute a risk to future construction or trench workers handling soil in the upper 10 feet of soil on the project site.

Apex provided the following summary of the Phase I and Phase II ESA findings for the project site:[50]

[48] HPC Antea Group, 2017, Phase I Environmental Due Diligence Assessment and Limited Environmental Program Compliance Review. US-157 Richmond, CA. 731 W Cutting Boulevard, Richmond, CA. November 12, 2017.
[49] Ibid.
[50] Apex Companies, LLC. 2021. Phase I Environmental Site Assessment Report, December 1, 2021.

- Based upon the review of all information available for the project site, Apex would not expect a regulatory agency to open a cleanup case.
- While volatile organic compounds (VOC) concentrations in soil vapor are slightly elevated at many sampling locations across the project site, VOCs in soil vapor at concentrations greater than the recommended ESLs using a conservative attenuation factor of 0.005 were only detected at sample locations SV-4, SV-8 and SV-9. Subsequent sampling at locations SV-4A and SV-4B did not confirm the elevated vinyl chloride concentrations detected at SV-4.
- Sample locations SV-8 and SV-9 are located adjacent to numerous public utility easements. As the VOCs detected in soil vapor at sample locations SV-8 and SV-9 were not detected at elevated concentrations in soil in paired borings, it is presumed that the impacted vapors are migrating on the project site within the utility backfill.

Would the project:

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

Less than significant impact. The proposed project would develop an approximately 154,000-square-foot warehouse, including a 144,808 square foot logistics warehouse, as well as approximately 4,750 square feet of first-floor office space and approximately 4,245 square feet of mezzanine office space. Construction activity would involve the temporary use of small amounts of hazardous materials, such as diesel fuels and gasoline for construction equipment. The proposed project would be required to comply with federal, State, and local regulations pertaining to the handling of hazardous construction materials. Similarly, operation of the dry storage facility would not routinely transport, use, or dispose of hazardous materials. Therefore, impacts would be less than significant, and no mitigation is necessary.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than significant impact with mitigation incorporated. As previously discussed, construction activity as part of the project could routinely use hazardous materials, such as diesel fuels and gasoline; however, the use of these materials would be limited to construction activities and used in small amounts. The proposed project would be required to comply with federal, State, and local regulations pertaining to the handling of hazardous construction materials.

The chemicals in the untreated soil, soil vapor and groundwater found by the Phase I and II investigations could pose risks to construction workers during redevelopment and or intrusive activities at the site, such as grading, excavation, trenching and backfilling activities, and utility repair. Implementation of MM HAZ-1 would reduce risks of encountering or releasing contaminated groundwater by requiring a Site Management Plan (SMP) that would identify BMPs for the protection of construction workers. Therefore, with implementation of this mitigation measure, impacts would be less than significant.

Soil vapor containing hazardous chemicals could infiltrate the proposed building, presenting a health hazard to workers inside the building. Implementation of MM HAZ-2 requires the installation of a vapor intrusion mitigation system to prevent soil vapor from entering the building, reducing this potential impact to less than significant.

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

Less than significant impact. The project site is located approximately 0.17 miles from Washington Elementary School. As stated in Section 9(a) above, small amounts of potentially hazardous materials would be used on this project during construction, but proper use of materials in accordance with local, State, and federal requirements, and as required by the construction documents, would minimize the potential for accidental releases or emissions from hazardous materials. Therefore, impacts would be less than significant, and no mitigation is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No impact. The project site is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; it is not a hazardous waste facility, designated as hazardous waste property, or hazardous waste disposal site. Therefore, the proposed project would not create a significant hazard to the public or the environment. No impacts would occur.

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?

No impact. The proposed project is not located within an airport land use plan, and the closest airport to the project site is the Oakland International Airport located approximately 15 miles southeast. Therefore, the proposed project would not be located within 2 miles of an airport, and no impact would occur.

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

Less than significant impact. In the event of a large-scale disaster, emergency response to the site would be coordinated by City responders with other response within the City. The proposed project would be served by one driveway on Canal Boulevard and one driveway on Cutting Boulevard. These driveways would provide sufficient width for emergency access. Additionally, the proposed project does not propose any changes (lane reductions or narrowing, permanent road closures, etc.) to major roadways that would function as evacuation routes, such as Cutting Boulevard. Therefore, there is no potential for the project to impair implementation of emergency evacuation or emergency response plans.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than significant impact. The project site is surrounded on four sides by urban, industrial development and infrastructure. Furthermore, the proposed project is not located in a Very High Fire Severity Zone (VHFSZ)[51], so the proposed project site does not have high susceptibility to wildland fires. This condition reduces the possibility of exposure to wildland fire hazards. Therefore, impacts would be less than significant, and no mitigation is necessary.

Mitigation Measures

MM HAZ-1 A Site Management Plan (SMP) shall be prepared by a qualified environmental professional prior to any earthwork on the site. The SMP would outline precautionary steps to be taken during demolition, construction, grading or other intrusive activities at the site, including excavation, trenching and backfilling, and utility repair, to ensure worker safety and minimize potential exposure to contaminated soils. The SMP shall also include specific groundwater management actions for dewatering or excavations below the water table.

MM HAZ-2 A vapor intrusion mitigation system shall be installed beneath any future buildings constructed on the project site to prevent soil vapor from entering the proposed building and avoid exposure to the VOCs in the soil vapor beneath the project site.

[51] City of Richmond. Wildfire Preparedness & Evacuation Guide. Website: https://www.ci.richmond.ca.us/DocumentCenter/View/53610/City-of-Richmond-Wildfire-Preparedness-and-Evacuation-Guide. Accessed August 12, 2021.

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

Environmental Evaluation

Setting

As described in Section 2.9, Hazards and Hazardous Materials, the groundwater at the project site has been impacted by hazardous materials introduced to the site by manufacturing activities. The chemicals in the untreated soil, soil vapor and groundwater found by the Phase I and II ESA on the project site could pose risks to construction workers during redevelopment and/or intrusive activities at the site, such as grading, excavation, trenching and backfilling activities, and utility

repair. The Phase I and II ESA reports are included in Appendix E. Implementation of MM HAZ-1 would reduce risks of encountering or releasing contaminated groundwater by requiring an SMP.

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than significant impact with mitigation incorporated. The proposed project would include bioretention areas within the proposed landscaped open space along the West Cutting Boulevard frontage. These areas would allow for on-site retention and passive treatment of stormwaters prior to release into the City's storm drain system.

Design, construction, operation and maintenance of the on-site bioretention areas would be in compliance with the 2015 MRP of the San Francisco Bay RWQCB.

The project plans would also be required to incorporate BMPs appropriate to the uses conducted on-site to limit the entry of pollutants into stormwater runoff to the maximum extent practicable, such as bioretention areas that would be provided in the landscaped open space at the frontage along West Cutting Boulevard with sufficient capacity to accommodate runoff from storm events. Designs shall comply with the City's Flood Protection Management Strategy and the City's waste discharge requirements (WDRs), including compliance with the Contra Costa Clean Water Program Stormwater Guidebook and the City's minimum standards and National Pollutant Discharge Elimination System (NPDES) requirements. NPDES Permit compliance would include actions such as using pervious pavements, clustering structures, disconnecting downspouts, minimizing land disturbance, and utilizing micro-detention such as Low Impact Development (LID), when feasible. Compliance with the WDRs would ensure that substantial violation of water quality standards would not occur and would also prevent the degradation of surface and groundwater quality.

The chemicals in the untreated soil, soil vapor and groundwater on the site could degrade surface or groundwater quality during construction. Accordingly, the proposed project would be required to prepare and implement a SWPPP during construction in accordance with State requirements. The SWPPP would identify structural and nonstructural BMPs intended to prevent erosion during construction. Implementation of these measures would reduce potential impacts to less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than significant impact. According to the General Plan, potable water is supplied to the City via the San Pablo Dam from the Mokelumne River in the Sierra Nevada Mountains and from local rain-fed reservoirs. Groundwater is only utilized for some irrigation purposes. As such, the proposed project would not substantially decrease water supplies because it would not utilize groundwater. Therefore, impacts would be less than significant.

c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on- or off-site;

Less than significant impact with mitigation incorporated. The proposed project would involve ground-disturbing activities such as grading and excavation that have the potential to cause erosion. Accordingly, the proposed project would be required to prepare and implement a SWPPP during construction in accordance with State requirements. The SWPPP would identify structural and nonstructural BMPs intended to prevent erosion during construction. These requirements are reflected in MM HYD-1. With implementation of MM HYD-1, impacts would be less than significant.

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

Less than significant impact. The proposed project would install an on-site storm drainage system and would also construct in-ground bioretention areas in the landscaped open space along the West Cutting Boulevard frontage. As required by the MRP, the on-site bioretention areas would ensure that the rate or amount of post-construction surface runoff would not exceed pre-project conditions, and would not therefore result in flooding on- or off-site. Therefore, impacts would be less than significant.

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than significant impact with mitigation incorporated. The proposed project would install an on-site storm drainage system, including bioretention areas in the landscaped open space along the West Cutting Boulevard frontage, which are designed to ensure that the rate or amount of post-construction surface runoff would not exceed pre-project conditions, and would not therefore result in runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The proposed project would also be required to prepare and implement a SWPPP during construction in accordance with State requirements. The SWPPP would identify structural and nonstructural BMPs intended to prevent erosion during construction. These requirements are reflected in MM HYD-1. These measures would ensure that the proposed project would not create runoff that would exceed the capacity of stormwater drainage systems. Impacts would be less than significant.

(iv) impede or redirect flood flows?

Less than significant impact. According to the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) Viewer, the proposed project is located in an area designated 1 percent Annual Chance Flood Hazard.[52] As described above, the proposed project would install an on-site storm drainage system, including bioretention areas that would retain stormwater and

[52] Federal Emergency Management Agency (FEMA). 2021. FEMA's National Flood Hazard Layer (NFHL) Viewer. Website: https://www.fema.gov/flood-maps/national-flood-hazard-layer. Accessed August 13, 2021.

ensure that post-construction flows would not exceed existing conditions. As such, the proposed project would not impede or redirect flood flows and impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less than significant with mitigation incorporated. According to FEMA's NFHL Viewer, the proposed project is located in an area designated 1 percent Annual Chance Flood Hazard. According to the City's General Plan, the project site is located within a Tsunami Inundation area.[53] The site is also within one of the tsunami evacuation areas mapped by the Association of Bay Area Governments.[54] Therefore, the proposed project would be subject to inundation by tsunami.

Contra Costa County's Community Warning System (CWS) is an all-hazards integrated system designed to warn and inform County residents about an emergency or disaster and the protective action residents need to take to stay safe. The CWS is connected to the United States National Tsunami Warning Center (NTWC), which has a monitoring station in Palmer, Alaska that is staffed with two watchstanders 24 hours per day, year-round. The NTWC also collaborates with the Pacific Tsunami Warning Center operated by the National Oceanic and Atmospheric Administration (NOAA). In addition, MM HYD-2 would be implemented. Use of the CWS and compliance with MM HYD-2 would reduce potential impacts to a less than significant level.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than significant impact. As discussed above in question (b), groundwater is only used for certain irrigation purposes within the City. The proposed project would not involve the use of groundwater supply and therefore would not conflict with sustainable groundwater management. Therefore, impacts would be less than significant.

Mitigation Measures

MM HYD-1 Prior to issuance of demolition permits for the proposed project, the City of Richmond shall verify that the applicant has prepared a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements of the Statewide Construction General Permit. The SWPPP shall be designed to address the following objectives: (1) all pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity are controlled; (2) where not otherwise required to be under a Regional Water Quality Control Board (RWQCB) permit, all non-stormwater discharges (e.g., chemicals) are identified and either eliminated, controlled, or treated; (3) site Best Management Plans (BMPs) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity; and (4)

[53] City of Richmond. General Plan 2030. Public Safety and Noise. Map 12.5 Tsunami Inundation Areas.
[54] Association of Bay Area Governments (ABAG). 2021. Tsunami Inundation Areas (Potential) for Evacuation Planning. Website: Tsunami Inundation Areas (Potential) for Evacuation Planning - Overview (arcgis.com). Accessed September 17, 2021.

stabilization BMPs installed to reduce or eliminate pollutants after construction are completed. The SWPPP shall be prepared by a qualified SWPPP developer. The SWPPP shall include the minimum BMPs required for the identified Risk Level. BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association (CASQA) Stormwater Best Management Handbook–Construction or the California Department of Transportation (Caltrans) Stormwater Quality Handbook Construction Site BMP Manual.

HYD-2 The applicant shall post a prominently visible notice at primary entrances to the proposed warehouse and office stating that the site is within a potential Tsunami Inundation area and advising that if strong seismic shaking is experienced at the site for 20 seconds or more, everyone on the property should evacuate the site immediately and move inland, to higher ground, if feasible. Additionally, all employees of the proposed project shall register with the Contra Costa County Community Warning System (CWS) for emergency alerts via cell phone (voice and text) and/or email. Registration with may be accomplished online at: https://cwsalerts.com/registration/.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.11 Land Use and Planning *Would the project:*				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Environmental Evaluation

Setting

The project site designation is Light Industrial.[55] The site is surrounded by Light Industrial (IL) operations to the east and west, Water-Related Industrial (IW) operations to the south, and I-580 to the north.[56] The nearest residential area is located to the west, across Canal Boulevard and beyond an additional industrial area. The proposed project, an industrial warehouse, is consistent with the land use designation for the site and with City policies for its location and vicinity.

Would the project:

a) Physically divide an established community?

No impact. The proposed project is located within an industrial area and does not contain any residential uses on-site or in its immediate vicinity. The residential community nearest to the project site is located in Point Richmond, approximately 0.21 miles to the southwest, across Canal Boulevard and beyond an additional industrial area. Therefore, the proposed project would not divide an established community. No impact would occur.

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

Less than significant impact. The project site is designated as Light Industrial, and the proposed project is an industrial warehouse that will maintain the current designation and land use. Furthermore, it is located within a Business and Industry Land Use Area of Light Industrial classification. This designation includes commercial uses such as industrially related storage and distribution and offices.[57] Therefore, the proposed project would not conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

[55] City of Richmond. 2016. Zoning Ordinance. Website: http://www.ci.richmond.ca.us/3379/Zoning-Ordinance. Accessed July 8, 2021.
[56] Ibid.
[57] City of Richmond. General Plan 2030. Element 3 – Land Use and Urban Design, page 3.19.

Mitigation Measures

None required.

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

Environmental Evaluation

Setting

The site is not located in a mineral resource area. According to the Contra Costa County General Plan, there are no Mineral Resource Areas within the City.[58] Mining for sandstone and crushed rock was until recently limited to one quarry on Canal Boulevard near the Port of Richmond and another at Point Molate. The Canal Boulevard quarry, approximately 0.85 miles south of the project site, was closed and remediation was completed in 2012. The Point Molate quarry, approximately 2.51 miles northwest of the project site, is focused on recycling and handling operations rather than extraction. No quarry operations are anticipated in the future.[59]

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

No impact. There are no known mineral resources at the project site and its immediate vicinity.[60] Therefore, the proposed project would not result in the loss of availability of known mineral resources that would be valued by the region and the residents of the State. No impact would occur.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No impact. No known mineral resources recovery site is delineated in the General Plan at the project site or its immediate vicinity.[61] Therefore, the proposed project would not result in the loss of the availability of any locally important mineral resource recovery sites. No impact would occur.

[58] Contra Costa County General Plan. 2020. Chapter 8: Conservation Element, Figure 8-4 Mineral Resource Areas. Website: https://contracosta.ca.gov/DocumentCenter/View/30918/Ch8-Conservation-Element?bidId=. Accessed July 14, 2021.
[59] City of Richmond. General Plan 2030. Element 7 – Conservation Natural Resources and Open Space, page 7.10.
[60] Ibid.
[61] Ibid.

Mitigation Measures

None required.

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

Environmental Evaluation

Characteristics of Noise

Noise is generally defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, causes physiological harm or interferes with communication, work, rest, recreation, and sleep. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit, which expresses the ratio of the sound pressure level being measured to a standard reference level. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Only audible changes in existing ambient or background noise levels are considered potentially significant. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness.

Sound intensity is normally measured through the A-weighted (dBA) sound level, which approximates the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies that are audible to the human ear.

Noise Descriptors

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound, including during sensitive

times of the day and night. The predominant rating scales in the State of California include the equivalent sound level (L_{eq}), the CNEL, and the day-night average sound level (L_{dn}) all of which are based on dBA. The equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. The CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). These additions are made to the sound levels at these times because there is a decrease in the ambient noise levels during the evening and nighttime hours, which creates an increased sensitivity to sounds. For this reason, sound is perceived to be louder in the evening and nighttime hours as compared with daytime hours, and is weighted accordingly. Many cities rely on the CNEL noise standard to assess transportation-related impacts on noise-sensitive land uses. The L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} measurements are typically within 1 dBA of each other and are normally exchangeable.

Regulatory Framework

The project site is located within the City of Richmond, in Contra Costa County. The City addresses noise in the Public Safety and Noise Element of its General Plan and in its Code of Ordinances.[62,63]

Richmond General Plan 2030

The City adopted its General Plan in April of 2012. The General Plan's objective is to achieve noise levels consistent with acceptable standards and reduce or eliminate objectionable noise sources. To assist with meeting this objective, the City has established Noise Exposure Land Use Compatibility Standards for new land use development in the Public Safety and Noise Element of its General Plan. As part of these policies, the City requires that new noise-sensitive uses located in an area with day-night average sound level of 55 dBA CNEL or greater provide a noise study. The study should identify noise mitigation measures that limit noise to an acceptable level compared to existing conditions. The City also requires construction traffic plans for all developments of 10 or more homes or commercial projects larger than 5 acres in size to regulate vehicle speeds, dust and include noise mitigation, hours of operation, phased fencing plans and safety standards.

City of Richmond Code of Ordinances

The City establishes noise performance standards for community noise sources and construction activities in Chapters 9.52 and Article 15.04.605 of its Code of Ordinances.

Section 9.52.100 establishes the following maximum exterior noise levels as measured at the property line of the property from which the noise emanates:

- In single-family residential zoning districts: 55 dBA (for no more than 30 minutes in any hour) as measured at the property line.

[62] City of Richmond. 2012. Richmond General Plan 2030. April 25. Website: http://www.ci.richmond.ca.us/2608/General-Plan-2030. Accessed November 21, 2019.

[63] City of Richmond. 2019. Richmond Code of Ordinances. April 16. Website: https://library.municode.com/ca/richmond/codes/code_of_ordinances?nodeId=16579. Accessed November 21, 2019.

- In open space and recreational zoning districts: 65 dBA (for no more than 30 minutes in any hour) as measured at the property line, or 60 dBA (for no more than 30 minutes in any hour) as measured at any boundary of a residential zone; 50 dBA (for no more than 5 minutes in any hour) between 10:00 p.m. and 7:00 a.m. measured at any boundary of a residential zone.
- In commercial zoning districts: 70 dBA as measured at the property line (for no more than 30 minutes in any hour), or 60 dBA as measured at any boundary of a residential zone (for no more than 30 minutes in any hour); 50 dBA (for no more than 5 minutes in any hour) between 10:00 p.m. and 7:00 a.m. measured at any boundary of a residential zone.

The exterior noise limits for any source of noise within any residential zone shall be reduced by 10 dBA between 10:00 p.m. and 7:00 a.m. The exterior noise limits for any source of noise in any zone other than a residential zone shall be reduced between 10:00 p.m. and 7:00 a.m. so that the noise measured at the property line of a "noise-sensitive use" does not exceed 50 dBA.

Article 15.04.605.060 limits construction to weekdays from 7:00 a.m. to 6:00 p.m. Pile driving and similar loud activities shall be limited to weekdays from 8:00 a.m. to 5:00 p.m. No noise producing construction activities shall be permitted outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted. Pre-construction activities, including loading and unloading, cleaning of mechanical toilets, deliveries, truck idling, backup beeps, yelling, and radios are also limited to these hours.

Section 9.52.110 establishes the following maximum noise levels for mobile construction equipment (nonscheduled, intermittent, and short-term operation of less than 15 days) in single-family residential zoning districts:

- 75 dBA on weekdays, between the hours of 7:00 a.m. and 7:00 p.m.
- 60 dBA on weekends, including legal holidays, between the hours of 9:00 a.m. and 8:00 p.m.

Section 9.52.110 also establishes the following maximum noise levels for stationary construction equipment in single-family residential zoning districts:

- 60 dBA on weekdays, between the hours of 7:00 a.m. and 7:00 p.m.
- 55 dBA on weekends, including legal holidays, between the hours of 9:00 a.m. and 8:00 p.m.

Additionally, Section 9.52.060 includes the following requirements for construction equipment:

- All construction equipment powered by internal combustion engines shall be properly muffled and maintained.
- Unnecessary idling of internal combustion engines is prohibited.
- All stationery noise-generating construction equipment such as tree grinders and air compressors are to be located as far as is practical from existing residences.
- Quiet construction equipment, particularly air compressors, are to be selected whenever possible.

- Use of pile drivers, sources of impulsive sound and jack hammers shall be prohibited on Sundays and holidays, except for emergencies or as approved in advance by the Building Official.

Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Short-term Construction Impacts

Less than significant impact. A significant impact would occur if noise generated by construction activities exceeds the maximum sound levels established by the City's Code of Ordinances in Section 9.52.110, as measured at any affected property. Additionally, a significant impact would occur if construction activities do not comply with Article 15.04.605.060 limiting general construction activities to weekdays from 7:00 a.m. to 6:00 p.m., and limiting pile driving and similar loud equipment activity to weekdays from 8:00 a.m. to 5:00 p.m.

Construction-related Traffic Noise

Noise impacts from construction activities associated with the project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. One type of short-term noise impacts that could occur during project construction would result from the increase in traffic flow on local streets, associated with the transport of workers, equipment, and materials to and from the project site.

The transport of workers and construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the site. Because workers and construction equipment would use existing routes, noise from passing trucks would be similar to existing vehicle-generated noise on these local roadways. Typically, a doubling of the Average Daily Traffic (ADT) hourly volumes on a roadway segment is required in order to result in an increase of 3 dBA in traffic noise levels, which, as discussed in the characteristics of nose discussion above, is the lowest change that can be perceptible to the human ear in outdoor environments. Project-related construction trips would not double the hourly or daily traffic volumes along any roadway segment in the project vicinity. Additionally, General Plan Action SN4.E requires projects of 10 or more housing units or larger than 5 acres to prepare and submit construction traffic plans that mitigate noise, traffic, and dust during construction. In particular, the construction traffic plan would regulate construction vehicle speed, hours of operation, and safety standards to ensure construction activity noise is reduced. For these reasons, short-term intermittent noise from trucks would be minor when averaged over a longer time-period. Therefore, short-term construction-related noise impacts associated with worker commute and equipment transport to the project site would not exceed applicable significance thresholds and would be less than significant.

Construction Equipment Operational Noise

The second type of short-term noise impact is related to noise generated during construction on the project site. Construction noise levels are rarely steady in nature and often fluctuate depending on the type and number of equipment being used at any given time. In addition, there could be times where large equipment is not operating and noise would be at or near normal ambient levels. Construction is completed in discrete steps, each of which has its own mix of equipment and its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

The site preparation phase, which includes excavation and grading activities, tend to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery and compacting equipment, such as bulldozers, draglines, backhoes, front loaders, roller compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings.

Construction of the proposed project is expected to require the use of frontend loaders, excavators, haul trucks, water trucks, concrete mixer trucks, and pickup trucks. The maximum noise level generated by each concrete mixing truck is assumed to be 85 dBA maximum noise/sound level (L_{max}) at 50 feet from this equipment.[64] Each frontend loader would also generate 85 dBA L_{max} at 50 feet. The maximum noise level generated by excavators is approximately 85 dBA L_{max} at 50 feet. Each doubling of sound sources with equal strength increases the noise level by 3 dBA.

A conservative but reasonable assumption is that this equipment would operate simultaneously and continuously over at least a 1-hour period in the vicinity of the closest existing residential receptors, but would move linearly over the project site as they perform their earth moving operations, spending a relatively short amount of time adjacent to any one receptor. Assuming that each piece of construction equipment operates at some distance from the other equipment, a reasonable worst-case combined noise level during this phase of construction would be 90 dBA L_{max} at a distance of 50 feet from the acoustic center of a construction area. The acoustical center reference is used because construction equipment must operate at some distance from one another on a project site, and the combined noise level as measured at a point equidistant from the sources (acoustic center) would be the worst-case maximum noise level. These operations would be expected to result in a reasonable worst-case hourly average of 86 dBA L_{eq} at a distance of 50 feet from the acoustic center of a construction area.

The closest sensitive receptor to proposed areas of construction is the Surestay Plus Hotel located on Canal Boulevard, west of the project site boundary. The façade of this closest noise-sensitive receptor would be located approximately 225 feet from the acoustic center of construction activity where multiple pieces of heavy construction equipment would potentially operate at the project

[64] Federal Highway Administration (FHWA). 2006. Highway Construction Noise Handbook. August.

site. At this distance, worst-case construction noise levels could range up to approximately 77 dBA L_{max}, intermittently, and could have an hourly average of up to 73 dBA L_{eq}, at the façade of the nearest single-family residential home when multiple pieces of equipment operate simultaneously at the nearest center of construction activity. These noise levels would occur for only a short period, as noise levels would drop off at a rate of 6 decibels per doubling of distance as construction equipment moves across the site further away from off-site receptors.

There are no residential zoned land uses within 1,000 feet of the proposed construction footprint. Therefore, the City's applicable construction noise standard for this project would comply with Noise Ordinance Section 9.52.060 and Section 15.04.605.060. These sections include standard best practice noise reduction measures for construction activity and a limitation of construction activity to weekdays from 7:00 a.m. to 6:00 p.m. No noise producing construction activities shall be permitted outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted. Pre-construction activities, including loading and unloading, cleaning of mechanical toilets, deliveries, truck idling, backup beeps, yelling, and radios are also limited to these hours.

Therefore, compliance with the City's permissible hours of construction that limit noise producing construction activity to weekdays (prohibited on weekends) would also ensure that the project would not exceed the City's weekend maximum sound level threshold for mobile construction equipment operation as measured at the nearest receiving single-family residential land uses, and the impact would be less than significant.

Operational/Mobile Source Noise Impacts

Less than significant impact. A significant impact would occur if operational noise levels associated with the proposed project's stationary noise sources would exceed the City's maximum noise limits at any of the designated surrounding land uses.

According to the City's maximum noise limit standard, it is unlawful to generate noise levels within the City of Richmond that:

- Exceed 55 dBA L_{eq} for 30 minutes of any hour at the property line of a receiving single-family residential land use; or
- Exceed 65 dBA L_{eq} for 30 minutes of any hour at the property line of a receiving public facilities and community land use; or
- Exceed 65 dBA L_{eq} for 30 minutes of any hour at the property line of a receiving open space and recreational land use.

The proposed project would include new stationary noise sources such as mechanical ventilation equipment. Potential noise impacts from these sources are analyzed below.

Mechanical Equipment Operations

At the time of this analysis, details were not available pertaining to proposed rooftop mechanical ventilation systems for the project; therefore, a reference noise level for typical mechanical

ventilation systems was used. Noise levels from typical commercial grade mechanical ventilation equipment range from 40 dBA to 60 dBA L_{eq} at a distance of approximately 25 feet.

Proposed mechanical ventilation systems could be located as close as 200 feet from the property line of the nearest off-site sensitive receptor, the Surestay Plus Hotel located on Canal Boulevard, west of the project site boundary. At this distance, noise generated by proposed mechanical ventilation equipment would attenuate to less than 42 dBA L_{eq} at this nearest sensitive receptor. These noise levels would not exceed the City's noise performance threshold of 70 dBA L_{eq} for 30 minutes of any hour as measured at the property line of this commercial hotel land use. Therefore, project mechanical equipment operations would not result in a substantial increase in ambient noise levels above established standards and the impact would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant impact. A significant impact would occur if the proposed project would generate groundborne vibration or groundborne noise levels in excess of established standards. The City does not have an established groundborne vibration threshold, so Federal Transit Administration (FTA) standards are used for purposes of this analysis. For determining construction-related vibration impacts, the FTA's Construction Vibration Impact Criteria are utilized. The FTA has established industry-accepted standards for vibration impact assessment in its Transit Noise and Vibration Impact Assessment Manual, dated September 2018.

Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room, and may also consist of the rattling of windows or dishes on shelves. In general, if groundborne vibration levels do not exceed levels considered to be perceptible, then groundborne noise levels would not be perceptible in most interior environments. Therefore, this analysis focuses on determining exceedances of groundborne vibration levels.

In extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Common sources of groundborne vibration include construction activities such as blasting, pile driving and operating heavy earthmoving equipment. However, construction vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). For purposes of this analysis, project-related impacts are expressed in terms of PPV.

Short-term Construction Vibration Impacts

A significant impact would occur if existing structures at the project site or in the project vicinity would be exposed to groundborne vibration levels in excess of levels established by the FTA's Construction Vibration Impact Criteria for the type of structure.

Of the variety of equipment used during construction, the large vibratory rollers that could be used in the site preparation phase of construction would produce the greatest groundborne vibration levels. Large vibratory rollers produce groundborne vibration levels ranging up to 0.201 inch per second (in/sec) PPV at 25 feet from the operating equipment.

The nearest off-site receptor to the project site is the Surestay Plus Hotel located on Canal Boulevard, west of the boundary of the project site. The façade of this building would be located approximately 180 feet from the nearest construction footprint where the heaviest construction equipment would potentially operate. At this distance, groundborne vibration levels would range up to 0.01 PPV from operation of the types of equipment that would produce the highest vibration levels. This is below the FTA's Construction Vibration Impact Criteria of 0.2 PPV for buildings of non-engineered timber and masonry. Therefore, the impact of short-term groundborne vibration associated with construction to off-site receptors would be less than significant.

Operational Vibration Impacts

A significant impact would occur if the project would generate excessive groundborne vibration levels at sensitive receptors in the project vicinity.

Implementation of the proposed project would not include any permanent sources of vibration that would expose persons in the project vicinity to groundborne vibration levels that could be perceptible without instruments at any existing sensitive land use in the vicinity of the project site. Therefore, operational groundborne vibration impacts would be less than significant.

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

No impact. The project site is not located within the vicinity of a private airstrip. The nearest public airport to the project site is the Oakland International Airport in Alameda County, located approximately 17 miles southeast of the project site. The next closest airport to the project site is the Buchanan Field Airport, located approximately 18 miles east of the project site. Because of the distance from these airports and the orientation of the airport runways, the project site is located outside of the 65 dBA CNEL airport noise contours. No impact would occur.

Mitigation Measures

None.

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

Environmental Evaluation

Setting

The project site is located within an industrial area and is designated as such by the City's General Plan. It is surrounded on all sides by industrial operations of various sizes, with the nearest residential area located across Canal Boulevard and beyond an additional industrial area, approximately 0.21 mile to the southwest. The proposed project, an industrial warehouse, would replace four existing industrial buildings, and would therefore replace employees with a similar or smaller number of employees. The proposed project would not involve or require construction of new homes or offices, or significant road and infrastructure improvements. Would the project:

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

No impact. The project site is located within a Business and Industry Land Use Area and is designated as Light Industrial, an area that is designated for lower intensity industrial land use with no housing or residential designations.[65] No new homes and businesses are proposed as part of the proposed project. No extension of roads or other infrastructure is proposed as part of the proposed project. No impact would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No impact. The proposed project is an industrial building that would replace four existing industrial buildings. Therefore, the proposed project would not displace substantial numbers of existing people

[65] City of Richmond. 2030. General Plan. Element 3 – Land Use and Urban Design, Table 3.4: Business and Industry Land Use Classifications.

or housing and would not necessitate the construction of replacement housing elsewhere. No impact would occur.

Mitigation Measures

None required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.15 Public Services *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Environmental Evaluation

Setting

The project site is served by the Richmond Fire Department, Richmond Police Department, West Contra Costa Unified School District (WCCUSD), East Bay Regional Parks District, and Richmond Library and Cultural Services Department.

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

a) Fire protection?

Less than significant impact. The Richmond Fire Department provides fire protection to the project site.[66] The project site is served by Fire Station 67, located at 1131 Cutting Boulevard.[67] This Fire Station is located 0.94 mile east of the project site. Using an average speed of 35 miles per hour, a fire engine would be able to reach the project site in 1 minute and 37 seconds, which would be considered an acceptable response time. The proposed project would be accessed via one driveway along West Cutting Boulevard and one driveway along Canal Boulevard, which would provide sufficient width and turning radii for a ladder fire truck. Additionally, all new construction would be required to meet Fire Code requirements for fire detection and suppression. For these reasons, the

[66] City of Richmond. Fire Department. Website: http://www.ci.richmond.ca.us/79/Fire-Department. Accessed July 15, 2021.
[67] County Office. Fire Departments in Richmond, California. Website: https://www.countyoffice.org/richmond-ca-fire-departments/. Accessed July 15, 2021.

proposed project would not create a need for new or expanded fire facilities. Impacts would be less than significant.

b) Police protection?

Less than significant impact. The Richmond Police Department provides police protection to the project site. The project site is located within Beat 2 in the southern sector of the Richmond Police Department.[68] The nearest police station is located at 1701 Regatta Boulevard, approximately 1.51 miles southeast of the project site. The proposed project would have exterior lighting. The proposed project is a warehouse that would replace existing industrial structures; therefore, the proposed project would not cause a substantial increase in demand for police protection services. Assuming a similar level of calls for police protection services could be generated by the proposed project, the number of calls would not have the potential to exceed capacity of existing police resources and would not require the construction of new police protection facilities. Therefore, the proposed project would not increase demand for police services such that new or expanded police facilities are required. Impacts would be less than significant.

c) Schools?

No impact. The proposed project would not develop new housing and, thus, would not directly increase K-12 enrollment. As a result, the proposed project would not create a need for new or expanded school facilities. Therefore, no impacts would occur.

d) Parks?

No impact. The proposed project would not develop new housing and, thus, would not directly increase demand for parks. As a result, the proposed project would not create a need for new or expanded parks. Therefore, no impacts would occur.

e) Other public facilities?

No impact. There are several public facilities within the City including the Richmond Library and Cultural Services Department, and several community centers. The project site is currently occupied by four industrial buildings and the proposed project would not develop housing and, thus, would not directly increase use of these facilities. As a result, the proposed project would not create a need for new or expanded public facilities. Therefore, no impacts would occur.

Mitigation Measures

None required.

[68] City of Richmond. 2030. General Plan. Element 12 – Public Safety and Noise, Map 12.6 Police and Fire Services.

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

Environmental Evaluation

Setting

The City has a total of 4,312 acres of parklands and open space, which account for 22 percent of the land area in the City. Of these parklands, 4,029 acres are owned and operated by regional agencies, and 283 acres are City-owned facilities or jointly used by the City and other public or private entities. In addition, the City is home to the Rosie the Riveter National Historic Park.[69] The East Bay Regional Park District is a special district operating in Alameda County and Contra Costa County. It maintains and operates a system of regional parks, seven of are located in Richmond. The nearest park to the project site is Judge Carroll Park, approximately 0.25 mile west of the project site.

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No impact. The proposed project would not develop new housing and, thus, would not directly increase demand for parks. Employees of the proposed project would be able to utilize local parks but would not add a significant number of users to the parks. As a result, the proposed project would not create a need for new or expanded parks. Therefore, no impacts would occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No impact. The proposed project would not include recreational facilities and would not require the construction of recreational facilities. No impact would occur.

[69] City of Richmond. February 2011 Richmond General Plan Draft Environmental Impact Report.

Mitigation Measures

None required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.17 Transportation *Would the project:*				
a) Conflict with a program plan, ordinance or policy of the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☒	☐	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Environmental Evaluation

Setting

This section is based on the Transportation Analysis – Non-CEQA Analysis prepared by Hexagon Transportation Consultants, Inc., on September 28, 2021. The report is provided in Appendix F.

Would the project:

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than significant impact. This impact assesses intersection operations and public transit, bicycles, and pedestrians. Each of these components are assessed separately, as follows.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear were estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic traveling to and from the proposed project site was estimated for the AM and PM peak-hours. As part of the project trip distribution, the directions to and from which destination the project trips would travel were estimated. In the project trip assignment, the project trips were assigned to specific streets and intersections. These procedures are described as follows.

Estimated Trip Generation

Vehicle trips generated by the proposed project were estimated using the trip rates published in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition (2017) for "General

Office" (Land Use 710) and "High-Cube Fulfillment Center Warehouse (Sort)" (Land Use 155, in ITE Trip Generation Manual, 10th Edition Supplement (Feb 2020)). High-cube fulfillment center warehouses include warehouses characterized by a significant storage function and direct distribution of e-commerce product to end users. Each fulfillment center in the ITE database has been characterized as either sort or non-sort facility. A sort facility is a fulfillment center that ships out smaller items, requiring extensive sorting, typically by manual means and has higher trip generation rates.

Currently, the project site is occupied by an industrial use that is not in operation. Therefore, no existing trip credits were applied.

Truck trip generation was also estimated to determine the number of trucks utilizing the project site. The truck trip generation estimate was based on a percentage (3 percent) of total vehicle trips recommended in the ITE Trip Generation Manual. Truck deliveries typically avoid the AM and PM peak-hours and thus, these percentages are lower during peak-hours.

Net Project Trips

The proposed development is estimated to generate 1,020 daily vehicle trips, including 136 trips (110 inbound and 26 outbound) during the AM peak-hour and 184 trips (69 inbound and 115 outbound) during the PM peak-hours. Table 15 summarizes the trip generation estimates.

Table 15: Project Trip Generation Estimates

Proposed Use	Size	Daily	AM Peak-hour (Total)	PM Peak-hour (Total)
General Office Building1	8995 square feet	88	11	11
High-Cube Fulfillment Warehouse2	144,808 square feet	932	125	173
Net New Project Trips		**1,020**	**136**	**184**

Source: Hexagon Transportation Consultants 2021.
[1] Land Use Code 710: General Office Building (average rates expressed in trips per 1,000 square feet)
[2] Land Use Code 155: High-Cube Fulfillment Center Warehouse (average rates expressed in trips per 1,000 square feet)

Estimated Trip Distribution and Assignment

The trip distribution pattern for the proposed project was estimated based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses. The peak-hour vehicle trips associated with the project were added to the roadway network in accordance with the trip distribution pattern, the roadway network connections, and the locations of the project driveways. All project trips would enter and exit the project site via a driveway on Canal Boulevard and a driveway on West Cutting Boulevard. The driveway on Canal Boulevard would primarily be used by employees, and the driveway on West Cutting Boulevard would primarily be used by trucks. The driveway on Canal Boulevard would be restricted to right-in and right-out

movements due to the raised median on Canal Boulevard. The driveway on West Cutting Boulevard would be a full access driveway. Left turns into and out of the project site would be facilitated via the existing center turn lane on West Cutting Boulevard.

Background and Project Conditions Analysis

Traffic Volumes

Background peak-hour traffic volumes were estimated by adding the estimated traffic from approved but not yet constructed developments to existing volumes. The following approved but not yet constructed projects were considered under background conditions:

- Richmond Power Plant (207,700 square feet building space consisting of a greenhouse, café/restaurant, offices and conference room, nursery and processing center on the northwest corner of Goodrick Avenue and Richmond Parkway)
- One West Barrett Avenue (125,000 -square-foot warehouse with a 4,685-square-foot administration building on the northeast corner of A Street and West Barrett Avenue)
- Quarry Residential (200 condominiums at 1135 Canal Boulevard, south of Canal Boulevard and Seacliff Drive)
- Terminal One Residential (334 dwelling units including 26 townhomes and 308 multifamily condominium flats at 1500 Dornan Drive, southeast of Dornan Drive and Brickyard Cove)

The added traffic from approved but not yet constructed developments was obtained from the traffic impact analysis reports prepared for these projects. Project trips were added to background traffic volumes to obtain background plus project traffic volumes.

Intersection Traffic Operations

Intersection traffic operations at the study intersections were evaluated against the City's Level of Service standard (LOS D). The results of the intersection LOS analysis shows that most of the signalized intersections would operate at an acceptable LOS, LOS D or better, during the AM and PM peak-hours under background and background and project conditions in Table 16 below.

Table 16: Background and Project Conditions Intersection Levels of Service

Intersection	Control	Peak-hour	Background		Background and Project Conditions		Increase Average Delay
			Average Delay	LOS	Average Delay	LOS	
Canal Boulevard and I-580 Westbound Ramps	Signal	AM	21.2	C	20.8	C	-0.4
		PM	**61.8**	**E**	**63.3**	**E**	**1.5**
Canal Boulevard and I-580 Eastbound Ramps	Signal	AM	27.5	C	27.6	C	0.1
		PM	**65.4**	**E**	**64.2**	**E**	**-1.2**
	Signal	AM	28.8	C	30.7	C	1.9

Intersection	Control	Peak-hour	Background		Background and Project Conditions		Increase Average Delay
			Average Delay	LOS	Average Delay	LOS	
Canal Boulevard and Cutting Boulevard		PM	28.3	C	30.3	C	2.0
2nd Street and Cutting Boulevard	Side-Street Stop	AM	29.5	D	**36.8**	**E**	**7.3**
		PM	19.9	C	22.1	C	2.2
Hoffman Boulevard/I-580 Off Ramp and Cutting Boulevard	Signal	AM	15.7	B	15.4	B	-0.3
		PM	15.3	B	15.3	B	0.0
I-580 On-Ramp and Cutting Boulevard	Signal	AM	15.2	B	15.2	B	0.0
		PM	4.9	A	5.1	A	0.2
Harbour Way and Cutting Boulevard	Signal	AM	49.8	D	50.0	D	0.2
		PM	47.7	D	47.4	D	-0.3

Notes:
LOS = Level of Service
Source: Hexagon Transportation Consultants 2021.
Bold indicates LOS E or F.

The analysis shows that at some intersections where the project would add trips to non-critical movements, the average delay under project conditions would slightly improve compared to no project conditions. This occurs because the intersection delay is a weighted average of all intersection movements and the addition of project traffic to movements with delays lower than the average intersection delay (such as right turns) can decrease the average delay for the entire intersection. The following two intersections would not meet the LOS D standard under background conditions.

- Canal Boulevard/I-580 WB Ramps (LOS E during the PM peak-hour under Background and Background Plus Project conditions)
- Canal Boulevard/I-580 EB Ramps (LOS E during the PM peak-hour under Background and Background Plus Project conditions)

The I-580 ramp intersections along Canal Boulevard would operate at unacceptable LOS E during the PM peak-hour under background conditions. With the added traffic from the proposed project, both the ramp intersections would continue to operate at unacceptable LOS E during the PM peak-hour, but the proposed project would not increase the average delay by more than 5 seconds at either intersection. Thus, the proposed project would not have an adverse effect on the traffic operations at the Canal Boulevard and I-580 ramp intersections, as defined by the City. At the unsignalized intersection of West Cutting Boulevard/2nd Street, the proposed project would increase the delay for the worst movement (southbound approach) from 30 seconds without the project to 37 seconds with the project and from 20 seconds without the project to 22 seconds with the project during the AM and PM peak-hours, respectively. However, the intersection would not meet the peak-hour

signal warrant under background or background plus project conditions. Thus, the proposed project would not have an adverse effect at this intersection.

Cumulative and Project Conditions Intersection Traffic Operations Analysis

Traffic Volumes

Cumulative AM and PM peak-hour volumes were developed using the Contra Costa Transportation Authority (CCTA) Travel Demand Model based on the 2040 land use data. The Furness technique, which estimates future intersection turning movement volumes based on comparing existing traffic counts and the model results, was used to develop the 2040 AM and PM peak-hour intersection turning movement volumes.

Intersection Traffic Operations

Intersection traffic operations at the study intersections were evaluated against the City of Richmond LOS standard (LOS D). The results of the intersection LOS analysis show that some of the signalized intersections would operate at an acceptable LOS (LOS D or better), during the AM and PM peak-hours under cumulative and cumulative and project conditions in Table 17 below.

Table 17: Cumulative and Project Conditions Intersection Levels of Service

Intersection	Control	Peak-hour	Background		Background and Project Conditions	
			Average Delay	LOS	Average Delay	LOS
Canal Boulevard and I-580 Westbound Ramps	Signal	AM	22.4	C	22.4	C
		PM	**>120**	**F**	**>120**	**F**
Canal Boulevard and I-580 Eastbound Ramps	Signal	AM	28.0	C	28.3	C
		PM	**>120**	**F**	**>120**	**F**
Canal Boulevard & Cutting Boulevard	Signal	AM	26.1	C	27.6	C
		PM	31.5	C	27.6	C
2nd Street and Cutting Boulevard	Side-Street Stop	AM	**47.5**	**E**	**65.7**	**F**
		PM	28.0	D	32.3	D
Hoffman Boulevard/I-580 Off Ramp and Cutting Boulevard	Signal	AM	16.9	B	17.6	B
		PM	18.5	B	18.5	B
I-580 On-Ramp and Cutting Boulevard	Signal	AM	21.4	C	21.5	C
		PM	7.8	A	8.1	A
Harbour Way and Cutting Boulevard	Signal	AM	53.7	D	54.1	D
		PM	**61.4**	**E**	**62.0**	**E**

Notes:
LOS = Level of Service
Source: Hexagon Transportation Consultants 2021.
Bold indicates LOS E or F.

The following intersections would not meet the standard.

- Canal Boulevard/I-580 WB Ramps (LOS F during the PM peak-hour under cumulative and cumulative plus project conditions)
- Canal Boulevard/I-580 EB Ramps (LOS F during the PM peak-hour under cumulative and cumulative plus project conditions)
- Harbour Way/Cutting Boulevard (LOS E during the PM peak-hour under cumulative and cumulative plus project conditions)

The I-580 ramp intersections along Canal Boulevard would operate at an unacceptable LOS F during the PM peak-hour under cumulative conditions. With the added traffic from the proposed project, both the ramp intersections would continue to operate at an unacceptable LOS F during the PM peak-hour, but the proposed project would not increase the average delay by more than 5 seconds at either intersection. Thus, the proposed project would not have an adverse effect on the traffic operations at the Canal Boulevard and I-580 ramp intersections. The signalized intersection of Harbour Way/Cutting Boulevard would operate at LOS E during the PM peak-hour under cumulative no project conditions. With the addition of project trips, this intersection would continue to operate at an unacceptable LOS E, but the proposed project would not increase the average intersection delay by more than 5 seconds. Thus, the proposed project would not have an adverse effect on the traffic operations at the Harbour Way/Cutting Boulevard intersection.

At the unsignalized intersection of West Cutting Boulevard/2nd Street, the proposed project would increase the delay for the worst movement (southbound approach) from 48 seconds without the project to 66 seconds with the project during the AM peak-hour and from 28 seconds without the project to 32 seconds with the project during the PM peak-hours. It should be noted that vehicles making left turns could use the median to make a two-step turn movement, which should result in much less delay. The intersection would not meet the peak-hour signal warrant under cumulative or cumulative plus project conditions. Thus, the proposed project would not have an adverse effect at this intersection under cumulative conditions.

Transit, Pedestrian and Bicycle Analysis

A significant impact would occur if the proposed project conflicted with applicable or adopted policies, plans or programs related to pedestrian facilities or otherwise decreased the performance or safety of pedestrian facilities. Currently, there are existing sidewalks along the streets in the vicinity of the project site. The project would maintain the existing sidewalks on Canal Boulevard and West Cutting Boulevard along its frontages. Between South 1st Street and Hoffman Boulevard, sidewalk is present only along the north side of West Cutting Boulevard. Marked crosswalks with pedestrian signal heads and push buttons are located at all signalized intersections on at least three legs. Overall, the existing network of sidewalks and crosswalks has good connectivity and provides pedestrians with safe routes to the project site.

According to the site plan, the project proposes to retain the existing 40-foot eastern driveway on West Cutting Boulevard and remove the existing western driveway on West Cutting Boulevard. The

proposed project would also reduce the existing 90-foot driveway on Canal Boulevard to 26 feet. The elimination of the western driveway on West Cutting Boulevard and a reduction in driveway width on Canal Boulevard would reduce pedestrian exposure to traffic, which would be an improvement to pedestrian facilities over existing conditions. The site plan also shows good connectivity within the project site. There are pedestrian facilities that connect the sidewalks to the project building at the southeast corner and the parking areas at the west and north ends. There is also an adequate walking path from the building to the trash enclosure at the northeast corner of the project site. The curb ramps at the intersection of Canal Boulevard and Cutting Boulevard are not compliant with current Americans with Disability Act (ADA) design standards. Thus, it is recommended that the project upgrade the existing curb ramps on the northeast corner of the Canal/Cutting intersection to match current ADA standards.

There are existing bike lanes on West Cutting Boulevard and Canal Boulevard in the vicinity of the project site. There are bike lanes on West Cutting Boulevard between Canal Boulevard and Hoffman Boulevard and Canal Boulevard between West Cutting Boulevard and Seacliff Drive. There are plans to provide additional bike lanes via the "Cutting and Harbour Way South Bikeways Project." The goal of the plan is to connect the Richmond Ferry Terminal to Point Richmond and the Richmond/San Rafael Bridge bike/pedestrian path. The plan consists of installing a protected Class IV two-way cycle track on the south side of West Cutting Boulevard between South Garrard Boulevard and Hoffman Boulevard, continuing on Hoffman Boulevard to Harbour Way South, and on Harbour Way South to the south end of the road. This planned cycle track would improve bicycle access to the site. The two-way cycle track would be constructed by reducing the eastbound lanes on West Cutting Boulevard from two lanes to one lane. Since the cycle track would not affect the westbound travel lanes on West Cutting Boulevard, the project site plan would be compatible with the proposed cycle track on the south side of West Cutting Boulevard.

In terms of transit services, the AC Transit Route 72M serves the immediate vicinity of the project with approximately 30-minute headways during the AM and PM peak commute hours. The closest bus stop to the project site is located at the intersection of Garrard Boulevard and West Cutting Boulevard, approximately 2,000 feet west of the project site. There are sidewalks along West Cutting Boulevard that provide connectivity to the bus stop.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less than significant impact with mitigation incorporated. Pursuant to SB 743, CEQA Guidelines Section 15064.3, subdivision (b) now states that VMT shall be the metric in analyzing transportation impacts of land use projects for CEQA purposes. The City of Richmond adopted a resolution to adopt the 2020 CCTA VMT Methodology for application within the City. According to the definitions provided in the CCTA VMT Analysis Methodology guidelines, all office, industrial, logistics or other land uses where most of the activity at the site is related to employment functions are defined as Employment Generating Uses/Projects. Analysis of non-employee trips (such as those made by trucks) is not required for employment-based uses since it is assumed that these trips are either (1) incidental compared to employee trips and/or (2) constitute trips to and from way points along a trip from a product's ultimate origin to its ultimate destination. According to the Governor's Office of

Planning and Research (OPR) recommendations and their interpretation of CEQA Guidelines Section 15064.3, VMT analysis for transportation impact purposes can focus on automobile travel and can exclude truck trips. Truck trips are included in the analysis of other environmental topic areas, such as air quality, noise, and greenhouse gas emissions.

Thresholds of significance identify whether a project's effect on VMT rises to the level of requiring mitigation. According to the City of Richmond's VMT guidelines, a significant impact occurs for employment-generating projects if the baseline project-generated home-work VMT per employee is higher than 85 percent of the existing nine county Bay Area-wide average. According to the CCTA Travel Demand Model, the Bay Area-wide regional average daily VMT per employee is 15.6, so the threshold is 13.26 daily VMT per employee.

The City provides screening criteria for development projects. The criteria are based on the type of project, characteristics, and/or location. If a project meets the City's screening criteria, the project is expected to result in less than significant impacts, and a detailed CEQA VMT analysis is not required. The office component of the project would meet the screening criteria as a small infill project under 10,000 square feet.

For the warehouse component of the project, VMT was calculated and reported on a per employee basis. The proposed project is located in a zone where the VMT per employee is 20.4, resulting in a significant VMT impact. Therefore, the proposed project would need to provide mitigation measures to reduce the VMT by 35 percent, to a value of 13.26 daily VMT per employee. The Richmond guidelines present the following VMT mitigation strategies:

- Modify the project's characteristics to reduce VMT generated by the proposed project.
- Implement Transportation Demand Management (TDM).
- Participate in a CCTA-approved VMT impact fee program and/or VMT mitigation exchange/banking program.

The proposed industrial use is consistent with the existing and future land use zoning, and therefore modifying the project's characteristics is not a viable mitigation strategy. Therefore, employee trips must be reduced in order to reduce the VMT impacts by including the TDM measures included below:

Carpooling Incentives

Carpooling reduces the number of vehicles on the road. Employees traveling to the project site could carpool to reduce the VMT of the project. According to the City's Municipal Code, Article 15.04.612 Transportation Demand Management, the range of potential VMT reduction with carpooling is 2.5 percent to 8.3 percent. Therefore, the proposed project would implement MM TRANS-1, which would provide carpool incentives to employees.

Public Transit Incentives

Employees using public transit could result in a reduction in VMT. According to the City's Municipal Code, Article 15.04.612 Transportation Demand Management, the range of potential VMT reduction

with subsidized or discount transit passes is 0.1 percent to 16 percent. Public transportation in the study area is provided by AC Transit and Bay Area Rapid Transit (BART). The Richmond BART station is located approximately 2.5 miles to the northeast of the project site, and the El Cerrito del Norte BART station is located 3.6 miles to the east. Currently there is a local bus Route (Line 72M – Macdonald – San Pablo) that provides service between Point Richmond and downtown Oakland with stops at the Richmond BART station and the El Cerrito del Norte BART station. The closest bus stop is located at the South Garrard Boulevard and West Cutting Boulevard intersection, approximately 2,000 feet to the west of the project site. Therefore, the proposed project would implement MM TRANS-2, which would provide financial incentives to encourage transit usage by employees, including proving free transit passes to employees.

Bicycle Facilities

Encouraging employees to bike to the project site would enhance the bicycle-user experience and therefore encourage non-auto travel and reduce VMT. There are bike routes near the project site, including bike routes located along Cutting Boulevard between South Garrard Boulevard and South 2nd Street, along Canal Boulevard south of Cutting Boulevard, along South Gerrard Boulevard between Dorman Drive and Richmond Parkway, along Richmond Parkway between Hensley Street and West Ohio Avenue, along West Ohio Avenue between Richmond Parkway and 23rd Street, and along 16th Street between the Richmond BART station and Ohio Avenue. These bike routes would encourage employees to bike to the project site, reducing the VMT. Therefore, the proposed project would implement MM TRANS-3, which provides on-site bicycle facilities to employees.

However, even with the implementation of MM TRANS-1, MM TRANS-3, and MM TRANS-4, it is unlikely that the average VMT per employee would be reduced by 35 percent. These mitigation strategies alone would not be sufficient to reduce the project's VMT impact to a less than significant level. Thus, longer-term, regional mitigation strategies which include participation in a CCTA-approved VMT impact fee program and/or VMT mitigation exchange/banking program would be required in order to mitigate the project's impact on VMT. CCTA will be developing such a program in Contra Costa County in the near future. Therefore, the proposed project would implement MM TRANS-4, which would require the proposed project to submit an annual TDM Monitoring Report to the City each year to verify compliance, as well as contribute/commit to any future CCTA-approved VMT impact fee program deemed applicable to the proposed project. After implementation of the mitigation measures, impacts would be less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than significant impact. This impact assesses roadway safety issues including intersection vehicle queueing, site access and circulation, and sight distance analysis.

Intersection Vehicle Queueing Analysis

The Intersection Vehicle Queueing Analysis is based on vehicle queueing for left turning movements where the project would add at least 10 new peak-hour trips. For locations where the proposed project would add at least 10 new peak-hour trips, the 95th percentile queue from Synchro is

reported. The following turn movements were examined as part of the queueing analysis for the proposed project in Table 18 below.

Table 18: Queueing Analysis Results Summary

Intersection	Peak-hour	Storage Length (feet)	Existing	Background	Background Plus Project	Estimated Increase in 95th Percentile Queue
			95th Percentile Queue (feet)[1,2]	95th Percentile Queue (feet)[1,2]	95th Percentile Queue (feet)[1,2]	
Canal Boulevard and I-580 Westbound Ramps (NB LT)	AM	200	75	100	100	0
	PM	200	150	150	200	50
Canal Boulevard and Cutting Boulevard (SB LT/SB TH)	AM	450	125	175	225	50
	PM	450	100	175	175	0
Hoffman Boulevard/ I-580 Ramp and Cutting Boulevard (SB LT)	AM	330	75	75	75	0
	PM	330	125	125	150	25
I-580 On-Ramps and Cutting Boulevard (NB LT)	AM	440	50	50	75	25
	PM	440	25	50	50	0

Notes:
NB = northbound; SB = southbound
LT = Left turn; TH = through movement
[1] Based on 95th percentile queue reported by Synchro software.
[2] Queue lengths rounded to the nearest 25 feet.
Source: Hexagon Transportation Consultants 2021.

The analysis shows that the increase in vehicular queues attributed to the proposed project at these locations would be accommodated within the available turn pockets. The proposed project would not cause any significant queueing issues at any of the study intersections.

Site Access and Circulation

The site access and circulation evaluation is based on the April 30, 2021, site plan prepared by HPA Architecture. Site access and on-site vehicular circulation were reviewed in accordance with generally accepted traffic engineering standards.

Vehicle Site Access

Access to the project site would be provided via one driveway on Canal Boulevard and one driveway on West Cutting Boulevard. The driveway on Canal Boulevard would provide direct access to the employee parking lot and would primarily be used by employees. This driveway would be restricted to right turns entering and exiting the site due to the raised median on Canal Boulevard. The driveway on West Cutting Boulevard would be located on the far eastern portion of the site and would primarily be used by trucks entering and exiting the site. This driveway would provide full

access to vehicles entering and exiting the site. Left turns into and out of the site would be facilitated via the center turn lane on West Cutting Boulevard. The center turn lane on West Cutting Boulevard provides only 60 feet of storage and would not be adequate to accommodate large trucks turning into the site. In order to provide adequate storage, it is recommended that the center turn lane be extended by approximately 150 feet by cutting into the landscaped median on West Cutting Boulevard.

Currently, there are three driveways on-site: two located on West Cutting Boulevard and one located on Canal Boulevard. The project proposes to remove the western-most driveway on West Cutting Boulevard and retain the eastern-most driveway. The Canal Boulevard driveway will have its width reduced. According to the site plan, the West Cutting Boulevard driveway is shown to be 40 feet wide, which meets the 40-foot maximum width identified by City guidelines for two-way driveways. The Canal Boulevard driveway is shown to be 26 feet, which meets the 24-foot minimum width identified by City guidelines for two-way driveways. Therefore, the project driveway design is adequate.

The proposed driveways on Canal Boulevard and West Cutting Boulevard would be stop controlled. The total number of vehicles that would access the driveway on Canal Boulevard would be 107 (85 inbound and 22 outbound) during the AM peak-hour and 156 (55 inbound and 101 outbound) during the PM peak-hour. The total number of vehicles that would access the driveway on West Cutting Boulevard would be 26 (22 inbound and 4 outbound) during the AM peak-hour and 28 (14 inbound and 14 outbound) during the PM peak-hour.

A micro simulation analysis using SimTraffic software was conducted to analyze the driveway operations. The simulation analysis showed that at the Canal Boulevard driveway, the average delay for traffic exiting onto Canal Boulevard would be 3.1 seconds during the AM peak-hour and 5 seconds during the PM peak-hour under background plus project conditions. The maximum queue exiting the driveway would be two vehicles during the AM peak-hour and three vehicles during the PM peak-hour. At the West Cutting Boulevard driveway, the simulation analysis showed an average delay of 5.8 seconds and 6.8 seconds during the AM and PM peak-hour, respectively, for traffic exiting the project site. The maximum queue exiting the driveway would be one vehicle during the AM peak-hour and three vehicles during the PM peak-hour. No significant on-site queueing is anticipated at the project driveways under background plus project conditions.

Under cumulative plus project conditions, the simulation analysis showed that the northbound traffic queue on Canal Boulevard at the I-580 eastbound ramp intersection (from the northbound left turn movement at the downstream intersection of I-580 westbound ramps) would extend past the proposed project driveway on Canal Boulevard during the PM peak-hour, and traffic exiting the project site toward I-580 westbound would experience long delays. Therefore, it is recommended that the proposed driveway on Canal Boulevard be moved farther south and connect to the south end of the proposed parking lot. It is also noted that the driveway on Canal Boulevard and the driveway on West Cutting Boulevard would be connected via an internal drive aisle. In the event that project traffic experience long delays exiting onto Canal Boulevard under future conditions, vehicles would likely drive internally from the employee parking lot and use the driveway on West Cutting Boulevard to exit the project site. Therefore, impacts would be less than significant.

On-Site Circulation

On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards. Employee parking would be provided along the western and northern ends of the project site, and truck parking would be provided at the eastern end of the project site. Internal access between the driveway on Canal Boulevard and the driveway on Cutting Boulevard would be provided via the drive aisles in the employee and truck parking lots. The project would provide 90-degree parking within the proposed project site. The City's standard minimum width for two-way drive aisles is 24 feet where 90-degree parking is provided. According to the site plan, the drive aisles throughout the parking garage measure 26 feet wide at the western and northern ends of the project site and 72 feet wide at the eastern end of the project site. This would provide sufficient space for trucks and vehicles to enter and exit the site. Overall, the proposed site plan would provide adequate vehicular circulation and connectivity through the parking areas.

Sight Distance Analysis

The proposed driveway locations were evaluated to determine whether the sight distance at the driveways would be adequate. The project driveways should be free and clear of any obstructions to optimize sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and other vehicles traveling on adjacent roadways. Any landscaping and signage should be located in such a way as to ensure an unobstructed view for drivers entering and exiting the site. Adequate sight distance reduces the likelihood of a collision at driveways and provides drivers with the ability to locate sufficient gaps in traffic to exit a driveway. Sight distance of a driveway is evaluated based on the stopping sight distance recommended by Caltrans for a given design speed.

For the driveway on West Cutting Boulevard, which has a posted speed limit of 40 mph, the Caltrans stopping sight distance is 300 feet. Therefore, a driver must be able to see 300 feet to the east to locate a sufficient gap to turn out of the driveway. As shown on the site plan, the project proposes no tall vegetation or objects that could block a driver's ability to see 300 feet down the street on West Cutting Boulevard. In addition, on-street parking is prohibited along the project frontage on West Cutting Boulevard. Therefore, sight distance would be adequate. For the driveway on Canal Boulevard, which has a posted speed limit of 35 mph, the Caltrans stopping sight distance is 250 feet. Since drivers exiting on Canal Boulevard can only turn right due to the median, a driver must be able to see 250 feet to the south to locate a sufficient gap to turn out of the driveway. As shown on the site plan, the project proposes no tall vegetation or objects that could block a driver's ability to see 250 feet down the street on Canal Boulevard. On-street parking is also prohibited along the project frontage on Canal Boulevard. Therefore, sight distance would be adequate

Therefore, impacts related to the geometric design features and incompatible uses would be less than significant and no mitigation is required.

d) Result in inadequate emergency access?

Less than significant impact. The City of Richmond Fire Code requires driveways to provide at least 20 feet width for fire access. The proposed project driveways would measure between 26 feet and 40 feet in width, and the drive aisles would measure between 26 feet and 72 feet in width. The City

of Richmond Fire Department requires that all portions of the buildings be within 150 feet of a fire department access road and requires a minimum of 10 feet clearance from the property line along all sides of the buildings. Prior to final design, the proposed project would ensure that the project driveways and property line clearance comply with the City of Richmond Fire Code. Therefore, impacts would be less than significant.

Mitigation Measures

MM TRANS-1 At all times during project operation, the owner or operator of the proposed project shall provide a carpool matching service for its employees and provide dedicated carpool/vanpool spaces on-site in front of the building entrances to promote carpooling behavior.

MM TRANS-2 At all times during project operation, the owner or operator of the proposed project shall provide a financial incentive to encourage its employees to use transit, including providing employees with free or partially paid transit passes.

MM TRANS-3 At all times during project operation, the proposed project shall provide on-site bicycle facilities for employees, including secure bicycle storage as well as lockers and showers for employee use.

MM TRANS-4 After operation has begun, the proposed project shall submit an annual TDM Monitoring Report to the City to verify compliance with the above mitigation measures. The project applicant shall contribute to any Contra Costa Transportation Authority (CCTA)-approved Vehicle Miles Traveled (VMT) impact fee program deemed applicable to the project.

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

Environmental Evaluation

Setting

The East Bay Municipal Utility District (EBMUD) is the drinking water service provider within the City. Potable water is supplied via the San Pablo Dam from the Mokelumne River in the Sierra Nevada Mountains and from local rain-fed reservoirs. Groundwater is utilized for some irrigation purposes, and not for drinking water. The North Richmond Water Reclamation Plant is EBMUD's first major project to recycle water for industrial application. Completed in 1995, the facility receives water from nearby West County Wastewater District and provides tertiary treatment and sends the recycled water to three cooling towers located at Chevron's Richmond refinery.[70]

Would the project:

[70] City of Richmond. 2030. Element 6 – Community Facilities and Infrastructure, page 6.7.

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than significant impact. The EBMUD 2020 Urban Water Management Plan (UWMP) projected that the District would use, on average, 181 million gallons per day (mgd) in 2020, 186 mgd in 2025, and 190 mgd in 2030. Table W-3 of the UWMP describes the supply and demand assessment for EBMUD and concludes that need for additional water beyond its supply would be zero under the normal, high-demand, and extreme drought scenarios for 2020 and 2025. Additionally, there is sufficient supply for 2030 under normal conditions. An additional 21 mgd would be needed under a high-demand scenario for 2030; however, additional supply would be met with the mitigation provided in the UWMP.[71] As such, there is sufficiently available potable water to serve the proposed project. The proposed project would utilize the existing 4-inch water service line located in Canal Boulevard, west of the project site.

The EBMUD and several other agencies provide wastewater treatment service within EBMUD's potable water service area. The Richmond Municipal Sewer District would provide service to the proposed project. The Richmond Municipal Sewer District treats the wastewater collected by the EBMUD. The City has entered into a long-term contract with Veolia Water North America to operate and maintain Richmond Municipal Sewer District's sewer treatment and collection facilities. The EBMUD's wastewater treatment plant has a capacity of 16 mgd. The UWMP projects that the collected and treated wastewater flows would be 2.7 mgd in 2020, 4.8 mgd in 2025, and 5.0 mgd in 2030.[72] These projections demonstrate that there will be 11 mgd of capacity remaining by 2030; therefore, there is sufficient capacity for wastewater generated by the proposed project. The proposed project would utilize the existing sewer line on-site that allows discharging wastewater into the City's municipal sanitary sewer system.

As further discussed in Section 2.10, Hydrology and Water Quality, Impact 10(a), the proposed project would include bioretention areas in the landscaped open space at the frontage on West Cutting Boulevard, which would allow for on-site retention and passive treatment of stormwaters prior to release into the City's storm drain system. Design, construction, operation and maintenance of the on-site bioretention areas would be in compliance with the 2015 MRP of the San Francisco Bay RWQCB.

Electricity and natural gas is provided by PG&E. The City's General Plan anticipates that the service provision will continue to meet current and new demand in the City.[73] Additionally, the proposed project contains an existing electrical transformer on-site. Telecommunications are provided by AT&T. In the case of new development in the area, telephone wires are laid concurrently with Pacific

[71] East Bay Municipal Utility District. 2020. Urban Water Management Plan. Website: https://www.ebmud.com/water/about-your-water/water-supply/urban-water-management-plan/. Accessed September 20, 2021.
[72] Ibid.
[73] City of Richmond General Plan 2030. 2012. Community Facilities and Infrastructure Element. Website: http://www.ci.richmond.ca.us/DocumentCenter/View/8811/60-Community-Facilities-and-Infrastructure-Eleme?bidId=. Accessed September 20, 2021.

Gas & Electric line.[74] Therefore, there are sufficient water supply, wastewater treatment capacity, stormwater drainage, electrical, natural gas, and telecommunication facilities for the proposed project and impacts would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than significant impact. EBMUD's water supply system consists of a network of reservoirs, aqueducts (pipelines), Water Treatment Plants (WTPs), pumping plants, and other distribution facilities and pipelines that convey Mokelumne River water from Pardee Reservoir to EBMUD customers. The UWMP concludes that EBMUD can meet customer demand through 2050 during normal years and single dry years; however, during multi-year droughts, even with customer demand reduction measures in place, EBMUD will need to obtain supplemental supplies to meet customer demands. As previously discussed in Section 2.18, Utilities and Service Systems, Question (a), Table W-3 of the UWMP describes the supply and demand assessment for EBMUD and concludes that need for additional water beyond its supply would be zero under the normal, high-demand, and extreme drought scenarios for 2020 and 2025. Additionally, there is sufficient supply for 2030 under normal conditions. An additional 21 mgd would be needed under a high-demand scenario for 2030; however, additional supply would be met with the mitigation provided in the UWMP.[75] Temporary dry year supplemental water supply options include trucking recycled water for customers for approved uses; drawing from reserve supplies (terminal reservoir standby storage); pursuing emergency transfers or exchanges. Therefore, impacts to the water supply would be less than significant.

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

Less than significant impact. The Richmond Municipal Sewer District provides wastewater service to an area that encompasses 13.5 square miles, including the proposed project. As previously discussed in Section 2.18, Utilities and Service Systems, Question (a), the EBMUD's wastewater treatment plant is located in the City and has a capacity of 16 mgd. The UWMP estimates that the collected and treated wastewater flows would be 2.7 mgd in 2020, 4.8 mgd in 2025, and 5.0 mgd in 2030.[76] These projections demonstrate that there will be 11 mgd of capacity remaining by 2030; therefore, there is sufficient capacity for wastewater generated by the proposed project. Therefore, impacts would be less than significant.

[74] City of Richmond General Plan 2030. 2012. Community Facilities and Infrastructure Element. Website: http://www.ci.richmond.ca.us/DocumentCenter/View/8811/60-Community-Facilities-and-Infrastructure-Eleme?bidId=. Accessed September 20, 2021.
[75] East Bay Municipal Utility District (EBMUD). 2020. Urban Water Management Plan. Website: https://www.ebmud.com/water/about-your-water/water-supply/urban-water-management-plan/. Accessed September 20, 2021.
[76] Ibid.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than significant impact. The City's solid waste and recycling services are provided by two agreements with Republic Services: a collection franchise agreement with Richmond Sanitary Service, managed by the City, and a post-collection agreement managed by the West Contra Costa Integrated Waste Management Authority.[77] The Richmond Sanitary Service, an affiliate of Republic Services, Inc., provides residential and commercial municipal solid waste, recycling and green waste collection services in the City. Republic Services owns and operates through separate subsidiary corporations, a 21-acre site at the foot of Parr Boulevard in Richmond that includes the Golden Bear Transfer Facility and former West Contra Costa Sanitary Landfill, which was closed to waste disposal in 2006. The Golden Bear Transfer Facility is a transfer point for the City's garbage solid wastes before being disposed of at the Keller Canyon Landfill in the City of Pittsburg.[78] The Keller Canyon Landfill is expected to operate through 2050, with approximately 64 million cubic yards of capacity remaining of the approximately 75 million cubic yards of the capacity total.[79] Additionally, the Keller Canyon Landfill has a 3,500-ton maximum daily permitted throughput. Using the EPA's construction solid waste generation rate of 3.89 pounds/square foot, the proposed project would generate approximately 597,341 pounds of solid waste during construction, which is approximately 299 tons. Using a standard operational waste generation rate of 2.5 pounds per square foot/year, the proposed project would generate 383,895 pounds of solid waste annually, which is approximately 192 tons. Neither the construction generation nor the annual generation meets or exceeds the maximum daily permitted throughput. Therefore, there is adequate capacity available for the proposed project and impacts would be less than significant.

e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Less than significant impact. Solid waste diversion is the process of diverting waste from landfills through reuse, recycling and composting. The State requires that all jurisdictions meet a 50 percent waste reduction mandate as established by AB 939. The City is a member agency of the West Contra Costa Integrated Waste Management Authority (RecycleMore), a local Joint Powers Authority responsible for helping its member agencies meet the State waste diversion mandate. West County had a diversion rate of 51 percent in 2006. The California Integrated Waste Management Board (CIWMB) estimates an average per capita solid waste disposal rate for the City of Richmond to be 0.36 tons per resident per year. Business waste disposal rates estimated by the CIWMB range from 0.3 tons per year for general merchandise stores to 3.1 tons per year for restaurants. To meet and maintain the 50 percent diversion rate, Richmond Sanitary Service offers residential and commercial

[77] City of Richmond Website. 2021. Republic Services 2021 Rates and Contracts. Website: http://www.ci.richmond.ca.us/2533/Waste-and-Recycling-Rates-and-Contracts. Accessed September 20, 2021.

[78] City of Richmond General Plan 2030. 2012. Community Facilities and Infrastructure Element. Website: http://www.ci.richmond.ca.us/DocumentCenter/View/8811/60-Community-Facilities-and-Infrastructure-Eleme?bidId=. Accessed September 20, 2021.

[79] California Department of Resources Recycling and Recovery (CalRecycle) SWIS Facility/Site Activity Details. 2021. Keller Canyon Landfill. Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4407?siteID=228. Accessed September 20, 2021.

co-mingled recycling collection and green waste collection services throughout out its service area.[80] Additionally, the City also ensures compliance with State Law AB 827, passed in 2019, which amends AB 341 and AB 1826 and requires covered businesses to make recycling and organic recycling containers available to customers with clear labels to indicate what materials are appropriate for each bin. Therefore, the proposed project would comply with federal, State, and local management regulations and impacts would be less than significant.

Mitigation Measures

None required.

[80] City of Richmond General Plan 2030. 2012. Community Facilities and Infrastructure Element. Website: http://www.ci.richmond.ca.us/DocumentCenter/View/8811/60-Community-Facilities-and-Infrastructure-Eleme?bidId=. Accessed September 20, 2021.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2.19 Wildfire *If located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, would the project:*				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Environmental Evaluation

Setting

Fire severity zones and responsibility areas are determined by the Director of Forestry and Fire Protection. Local Responsibility Areas (LRAs) are incorporated cities, urban regions, agriculture lands, and portions of the desert where the local government is responsible for wildfire protection. State Responsibility Areas (SRAs) are areas of the State where the State of California is financially responsible for the prevention and suppression of wildfires. A "Very High Fire Hazard Severity Zone" in an LRA is an area zoned by the Director of Forestry and Fire Protection pursuant to Government Code Section 51178 that is not an SRA. The closest zoned "Very High Fire Hazard Severity Zone" is located approximately 3.51 miles to the east of the project site.[81] The project site is located in a LRA zoned "Non-Very High Fire Hazard Severity Zone."

Although the City is not within an SRA, the City does maintain an approved Emergency Operations Plan.

Would the project:

[81] California Department of Forestry and Fire Protection (CAL FIRE). 2021. Fire Hazard Severity Zone Viewer. Website: https://egis.fire.ca.gov/FHSZ/. Accessed July 12, 2021.

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than significant impact. The project is not located on or near an SRA or a Fire Hazard Severity Zone (FHSZ).[82]

The proposed project would be accessed by two driveways, one along West Cutting Boulevard and the other along Canal Boulevard. These driveways would provide sufficient width for emergency access in accordance with the most recent version of the California Fire Code and Building Code. Additionally, the proposed project does not propose any changes (land reductions or narrowing, permanent road closures, etc.) to major roadways that would function as evacuation routes. Impacts would be less than significant.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than significant impact. The project site is located within the City and the area surrounding the project site is urbanized without steep slopes. Moreover, the proposed project is a redevelopment of an existing site with a similar type of use. As such, the proposed project would not exacerbate wildfire risks. Impacts would be less than significant.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than significant impact. The project site is located in a developed area surrounded by existing roadways. While there are some grasses and trees along the outskirts of the project site, most of it is currently developed with four vacant warehouses and a number of smaller outbuildings, trailers, and tanks on-site. As such, the proposed project would not require fuel breaks as the project site is not located in an area with dense vegetation that would encroach upon the project development leading to an increased fire risk.

The proposed project would not involve the installation of new roads or above ground power lines. The proposed project would connect to existing electric, gas, water, and sewer lines. Therefore, impacts related to infrastructure that exacerbates fire risk would be less than significant.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than significant impact. The project site is flat, which precludes the possibility of landslides or post-fire slope instability. The proposed project would be subject to development regulations of the City and during site preparation and construction. Compliance with these regulations effectively reduces any flooding or runoff risks. Therefore, impacts would be less than significant.

[82] California Department of Forestry and Fire Protection (CAL FIRE). 2013. State Responsibility Area and Facilities. Website: https://frap.fire.ca.gov/media/10284/facilities_sra_map_ada.pdf. Accessed July 12, 2021.

Mitigation Measures

None required.

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

Environmental Evaluation

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

Less than significant impact with mitigation incorporated. The proposed project may result in several impacts associated with biological resources and cultural resources that would be significant if left unmitigated. MM BIO-1, MM BIO-2, MM CUL-1, MM CUL-2, and MM CUL-3, would fully mitigate all potential impacts to levels of less than significant. With the implementation of these mitigation measures, the proposed project would have less than significant impacts.

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

Less than significant impact. All cumulative impacts related to air quality, noise, and traffic are either less than significant after mitigation or less than significant and do not require mitigation.

Given the scope of the project and its impacts and mitigation measures, the incremental effects of this project are not considerable relative to the effects of past, current, and probable future projects. As discussed previously, the project does not have a significant cumulative traffic impact. Therefore, the proposed project would not result in cumulatively considerable impacts on these areas. Impacts would be less than significant.

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

Less than significant impact. All impacts identified in this Draft IS/MND are either less than significant after mitigation, or less than significant and do not require mitigation. Therefore, the proposed project would not result in environmental effects that cause substantial adverse effects on human beings either directly or indirectly. Impacts would be less than significant.

Mitigation Measures

Implement MM BIO-1, MM BIO-2, MM CUL-1, MM CUL-2, and MM CUL-3.

SECTION 3: LIST OF PREPARERS

FirstCarbon Solutions
1350 W. Treat Boulevard, Suite 380
Walnut Creek, CA 94597
Phone: 925.357.2562

Project Director ..... Mary Bean
Project Manager ..... Elizabeth Johnson
Assistant Project Manager ..... Rachel Krusenoski
Director of Noise and Air Quality ..... Phil Ault
Senior Air Quality Scientist ..... Lance Park
Director of Cultural Resources ..... Dana DePietro, PhD
Biologist ..... Robert Carroll
Analyst ..... Rachel Duffy
Senior Editor ..... Susie Harris
Word Processor ..... Melissa Ramirez
GIS/Graphics ..... Karlee McCracken

Technical Subconsultant

Hexagon Transportation Consultants, Inc.

4 North Second Street, Suite 400
San Jose, CA 95113
Phone: 408.971.6100
www.hextrans.com

South Environmental

1443 E. Washington Boulevard, Suite 288
Pasadena, CA 91104
Phone: 818-458-1162
www.southenvirionmental.com

THIS PAGE INTENTIONALLY LEFT BLANK